Montgomery County Council

Committee: Directly to Council
Staff: Livhu Ndou, Legislative Attorney
Purpose: Final action – vote expected
Keywords: #LMA H-143, #EYADevelopmentLLC #BLStrathmoreLLC #GarrettParkAcademy #HolyCross

AGENDA ITEM #14A
June 14, 2022
Worksession/Action

SUBJECT

Local Map Amendment (LMA) H-143, 4910/4920 Strathmore Avenue in North Bethesda[1] – In the Matter of EYA Development, LLC and BL Strathmore, LLC

EXPECTED ATTENDEES

Lynn Robeson Hannan, Director/Hearing Examiner, Office of Zoning and Administrative Hearings (OZAH)
Douglas S. Burdin, Party of Record
Erin E. Girard, Esq., Miles & Stockbridge PC (representing applicant)

COUNCIL DECISION POINTS & COMMITTEE RECOMMENDATION

- Approve, disapprove, or remand the Hearing Examiner's recommendation to approve Local Map Amendment H-143.
- Local map amendments require a roll call vote. This packet includes the resolution provided by the Hearing Examiner, and reviewed by Council Staff, that is consistent with the Hearing Examiner's Report and Recommendation. But any Councilmember may make a motion to disapprove or remand the LMA application. If that motion passes, Council will take a straw vote, and action on the LMA will be scheduled for June 21, 2022, to allow adequate time to prepare a new resolution.

DESCRIPTION/ISSUE

LMA H-143 is a request to rezone the property located at 4910/4920 Strathmore Avenue in Kensington, Maryland from its current R-60 Zone to CRNF 0.75, C 0.25, R 0.75, H 50. The property is currently improved by Garrett Park Academy of the Holy Cross and Garrett Park-Holy Cross Convent, or St. Angela's Hall, a vacant and unoccupied retirement home for nuns. If approved, the proposed development of the property will include 125 single-family dwelling units, including a minimum of 15% MPDUs, and a 145-bed residential care facility. The surrounding area is made up of single-family detached homes; public schools, private schools, and a church; three public parks or playgrounds; institutional uses; and the Grosvenor-Strathmore Metro Station. The Hearing Examiner recommended approval of the application.

A request for oral argument before the Council was filed by a community member who lives near the property. This Council granted that request on May 10th.

[1] Property records indicate this address is in Kensington, MD.

SUMMARY OF KEY DISCUSSION POINTS

- The District Council must find that the proposal will meet the standards required by the Zoning Ordinance and that the local rezoning will be consistent with the coordinated and systematic development of the regional district. Specifically, the Council must find that the application: 1) substantially conforms with the master plan, 2) is compatible with adjacent uses and the surrounding area, 3) will be served by adequate public facilities, and 4) satisfies the intent and standards of the proposed floating zone.

This report contains:	**Pages**
Staff Report	1-6
Request for Oral Argument	© 1
Opposition to Request for Oral Argument	© 4
Report Transmittal	© 7
Hearing Examiner Report and Recommendation	© 8
Hearing Examiner Proposed Resolution	© 53
Applicants' Financial Disclosure Statements	© 64
Planning Board Recommendation	© 68
Planning Staff Report	© 70
Hearing Examiner Exhibits	© 173
Burdin Exhibits	© 176

Alternative format requests for people with disabilities. If you need assistance accessing this report you may submit alternative format requests to the ADA Compliance Manager. The ADA Compliance Manager can also be reached at 240-777-6197 (TTY 240-777-6196) or at adacompliance@montgomerycountymd.gov

AGENDA Item #14A
June 14, 2022

Worksession/Action

M E M O R A N D U M

June 9, 2022

TO: County Council

FROM: Livhu Ndou, Legislative Attorney

SUBJECT: Local Map Amendment (LMA) H-143, In the Matter of EYA Development, LLC and BL Strathmore, LLC

PURPOSE: Approve, disapprove, or remand the Hearing Examiner's recommendation to approve Local Map Amendment H-143

Expected Participants

- Lynn Robeson Hannan, Director/Hearing Examiner, Office of Zoning and Administrative Hearings (OZAH)
- Douglas S. Burdin, Party of Record
- Erin E. Girard, Esq., Miles & Stockbridge PC (representing applicant)

Procedure

This Council granted oral arguments on May 10, 2022. The parties are limited to both the record before the Hearing Examiner, and to the issues raised in the Request for Oral Argument on April 12, 2022. The Request listed 3 matters to be presented:

1) the lack of support for the purported findings that the proposed development (125 homes; 145-bed senior residential facility) will not detrimentally impact the already congested traffic conditions on Strathmore Avenue (the only road servicing the proposed development);
2) the failure of the application and evidence to prove that this particular rezoning will serve the goal of enhancing transit use in the County; and
3) the recommendations to approve the rezoning rely on speculative future actions – such as the installation of a traffic light and left-turn lane, the continued provision of a police officer to manage traffic at the school entrance, and the acquisition of a right-of-way over private property for the purpose of linking the proposed on-property multi-use path with sidewalks in Garrett Park.

The Hearing Examiner will be available both for questions from Councilmembers, and to make sure that the parties restrict their testimony to evidence already in the record. Each party will have 10 minutes to present oral argument, with the option to reserve some of that time for rebuttal. The party that requested oral argument will go first. Councilmembers are asked to hold questions until the arguments are complete, to ensure equal time is given.

Local map amendments require a roll call vote. The Council may approve, disapprove, or remand the Hearing Examiner's recommendation to approve Local Map Amendment H-143. The application can be remanded for clarification or taking additional evidence. This packet includes the resolution provided by the Hearing Examiner, and reviewed by Council Staff, that is consistent with the Hearing Examiner's Report and Recommendation for approval. But any Councilmember may make a motion to disapprove or remand the LMA application. If that motion passes, Council will take a straw vote, and action on the LMA will be scheduled for June 21, 2022, to allow adequate time to prepare a new resolution. The revised resolution will reflect the Council's decision and its reasons for denial or remand. If remanded, the resolution would specify what additional information or clarification is sought.[1]

Necessary Findings

Under Section 7.2.1. of the Zoning Ordinance, for a Floating zone application, the District Council must find that the floating zone plan will:

a. substantially conform with the recommendations of the applicable master plan, general plan, and other applicable County plans;
b. further the public interest;
c. satisfy the intent and standards of the proposed zone and, to the extent the Hearing Examiner finds it necessary to ensure compatibility, meet other applicable requirements of this Chapter;
d. be compatible with existing and approved adjacent development;
e. generate traffic that does not exceed the critical lane volume or volume/capacity ratio standard as applicable under the Planning Board's LATR Guidelines, or, if traffic exceeds the applicable standard, that the applicant demonstrate an ability to mitigate such adverse impacts; and
f. when applying a non-Residential Floating zone to a property previously under a Residential Detached zone, not adversely affect the character of the surrounding neighborhood.

[1] The Court has found that remands may be limited. This includes whether a new hearing is required, or just a new decision. The Court looks to the resolution itself in making this determination. *See, People's Counsel for Balt. Cty. v. Country Ridge Shopping Ctr., Inc.*, 144 Md. App. 580, 590-91, 799 A.2d 425, 431 (2002) ("This Court concedes that a remand from the CSA does not automatically require the Board to hold a new hearing in every case. This Court will also concede that a remand to a Board with two new members does not always require a de novo hearing. However, due to the totality of circumstances in this case, it is this Court's opinion that a de novo hearing was required. Petitioner has persuaded this Court that Prosser is not applicable in this case. There, the remand was on a limited technical issue. In the case sub judice, the remand is for a 'new consideration' of an application for Special Exception, which unquestionably is not a limited technical issue. It is the opinion of this Court that Clark is applicable as witness credibility and demeanor is certainly an important factor in the Board's decision to grant or deny an application.").

Summary of OZAH's Report

LMA H-143 is a request to rezone the property located at 4910/4920 Strathmore Avenue in North Bethesda, Maryland from its current R-60 Zone to CRNF 0.75, C 0.25, R 0.75, H 50.[2] The property is currently improved by Garrett Park Academy of the Holy Cross and Garrett Park-Holy Cross Convent, or St. Angela's Hall, a vacant and unoccupied retirement home for nuns. If approved, the proposed development of the property will include 125 single-family dwelling units, including a minimum of 15% MPDUs, and a 145-bed residential care facility. The surrounding area is made up of single-family detached homes; public schools, private schools, and a church; three public parks or playgrounds; institutional uses; and the Grosvenor-Strathmore Metro Station.

Planning Board agreed with Planning Staff, recommending approval of the application with binding elements. Those binding elements, which the Hearing Examiner also recommended, are:

1. Permitted uses on the Site include up to 125 single-family detached and attached dwelling units (including a minimum of 15% MPDUs) and a residential care facility (with up to 145 beds).
2. Commercial uses are not permitted on the Property, except permitted accessory uses associated with the residential care facility.
3. A natural surface trail must be provided along the western side of the Site that is subject to a public access easement
4. The Property is limited to no more than three points of vehicular access from Strathmore Avenue.
5. The Property must be subdivided to formally delineate the boundary of the area subject to the rezoning at the time of Preliminary Plan.
6. A Phase I Noise Analysis must be submitted with the Preliminary Plan to identify noise levels that might impact interior and exterior spaces subject to the Planning Department's Noise Guidelines. The analysis must be performed by a qualified acoustical engineer. If a combined Preliminary/Site Plan is submitted, the Site Plan must include recommendations from a qualified acoustical engineer to mitigate excessive noise levels per the Noise Guidelines.

During the OZAH public hearing, six witnesses and two community members testified in support of the application; and seven community members testified in opposition to the application, including the Town of Garrett Park, and the Garrett Park Estates and White Flint Civic Association.[3] Much of the public testimony expressed concern with the traffic impacts. The Request for Oral Argument also focuses on traffic impacts. Initial traffic studies were rejected by the Maryland Department of Transportation (MDOT) and State Highway Administration (SHA), who raised issue with the low traffic numbers taken during the COVID-19 pandemic and an underestimated growth factor. The traffic study was supplemented, and a traffic engineer testified

[2] Property records indicate this address is in Kensington, MD.
[3] This application had a 2-day OZAH hearing. The transcript for January 31, 2022, can be found here: https://www.montgomerycountymd.gov/OZAH/Resources/Files/pdf/2021/hearing/H143/Hearing%20-%20Day%201%20013122%20Condensed%20corrected.pdf. The transcript for February 1, 2022, can be found here: https://www.montgomerycountymd.gov/OZAH/Resources/Files/pdf/2021/hearing/H143/Hearing%20-%20Day%202%20020122%20Corrected.pdf.

that mitigation was needed at Strathmore Avenue and the center site driveway intersection in the form of a traffic signal, as well as a westbound left turn lane into the new site, primarily to mitigate the traffic generated by the school. Because it is a state road, SHA approval would be needed for these proposed mitigation strategies. The Hearing Examiner concluded that the development complies with traffic and transit congestion standards set by the LATR and the Annual Growth Policy. The binding elements do not include any requirements related to the proposed mitigation strategies.

The Hearing Examiner made the following findings and conclusions:

1. *Substantial conformance with the master plan*, pg. 27 of Report and Recommendation

   "The Hearing Examiner agrees with Staff and the Applicant that the proposed rezoning supports the general objectives of the North Bethesda/Garrett Park Master Plan, and satisfies the intent and standards of the floating zone by furthering the goals of the Plan to provide housing near public transit and mixed-use nodes, and furthers the public interest by advancing the goals and objectives of the Master Plan. In closing argument, Mr. Shaffer makes the assertion, based on the testimony offered at the hearing, that the proposed development is not a transit-oriented development as envisioned by the Master Plan. The Hearing Examiner disagrees, and finds that the proposed residential development restricts commercial uses as a binding element and its location within 15 minutes of Metro, MARC, and public bus lines will service the single-family residential and residential care facility (residents and staff), in furtherance of the goals of the Plan. Therefore, the preponderance of the evidence supports a finding that this standard has been met."

2. *Compatibility*, pg. 29 of Report and Recommendation

   "The Hearing Examiner finds that the proposed development will be compatible with adjacent properties and the surrounding area. The proposed residential care facility will replace and provide necessary improvements to the previous retirement home with an updated residential care facility to serve seniors. The FZP utilizes the site's topography to mitigate the height, size, and impact of the proposed buildings, as the lot slopes east to west. T. 150; See Exhibit 40. The proposed residential housing serves the needs of increased residential housing demand as identified in the Master Plan, by providing single-family housing specifically located in close proximity to public transit at the Grosvenor-Strathmore Metro station, Garrett Park MARC station, and bus routes. For these reasons, the Hearing Examiner finds that these standards are satisfied."

3. *Adequate Public Facilities/Public Interest*, pg. 35 of Report and Recommendation

   "The Hearing Examiner finds that adequate public facilities are met under this application and that the FZP furthers the public interest by implementing the comprehensive planning objectives contained in the Master Plan to support diverse residential housing options in close proximity to public transit. The concerns expressed by community members during this two-day hearing were real, sincere, well-considered, and reasonable, but at the rezoning stage the Council must determine only that the development complies with traffic and transit congestion standards set by the LATR and the Annual Growth Policy, unless

there is some evidence that other public facilities cannot be provided. While the Hearing Examiner shares the reservations of community members with regard to traffic congestion on an instinctual level, as the development proposes dense residential uses on previously unimproved land and a vacant building, Ms. Wagner's methodology was sound and her testimony was credible with regard to the LATR study, the supplemental analysis, and the conclusions drawn from that study. Without evidence or compelling argument to the contrary, the Hearing Examiner accepts the LATR and supplemental analysis as satisfying this standard. The record reveals that the Applicant has demonstrated that the proposed development meets the LATR Guidelines and there is no credible evidence suggesting that other public facilities will be insufficient to meet demand."

4. *Intent of Floating Zones,* pg. 37 of Report and Recommendation

   "From this record, the Hearing Examiner finds that the FZP utilizes the design flexibility provided by the Floating Zones to integrate the development compatibly with surrounding uses, employing design strategies to mitigate the visual impact of the proposed single-family homes and the residential care facility, and expanding access points for vehicular and pedestrian safety and efficiency of access to eliminate queuing and traffic congestion, thereby satisfying the intent of a floating zone in furtherance of the public interest… The FZP will provide diverse housing options for families and seniors which supports Master Plan goals for single-family residential and senior housing, and self-limits with a restriction on commercial uses and a density below the maximum permitted under zone regulations."

5. *Purpose of Commercial/Residential Floating Zones,* pg. 39 of Report and Recommendation

   "The Hearing Examiner finds that the FZP furthers the purpose of commercial/residential floating zones. Binding elements limiting the use of the property to density, height, and restriction on commercial uses will further ensure compatibility with adjacent development and the surrounding area. The CRNF Zone allows the flexibility to incorporate a new building to replace an aging one, and to provide diverse infill housing to a previously unimproved site in a manner compatible with the surrounding area while minimizing environmental impacts through open space requirements, conservation easements, and protection of two stream valley buffers."

6. *The Applicability of the Zone*, pg. 41 of Report and Recommendation

   "Having no evidence to the contrary, the Hearing Examiner finds that the subject property meets the prerequisites to filing a Floating Zone application."

7. *Uses and Building Types Permitted*, pg. 42 of Report and Recommendation

   "The Hearing Examiner finds that the proposed use and building type satisfy the standards under this requirement."

8. *Development Standards of the CRNF Zone*, pg. 44 of Report and Recommendation

"Having no evidence to the contrary, the Hearing Examiner finds that all development standards of the CRTF zone have been satisfied under this application."

9. *General Development Requirements*, pg. 44 of Report and Recommendation

"[Planning] Staff found that the plans provided with the application show that the development "will comply with parking requirements (Division 59.6.2), recreation facility requirements (Division 59.6.3), general landscaping and outdoor lighting requirements (Division 59.6.4), and screening requirements (Division 59.6.5)." Exhibit 37, p. 17. Mr. Loe testified that "we will comply with the recreation facility requirement per division 59-6.3, the general landscaping and outdoor and lighting requirements per division 59-6.4, and then we will comply with the screening requirements per division 59-6.5." T. 96."

Council Action

As noted in the "Procedure" section of this memorandum, worksession/action will include the following steps:

1. Oral arguments, with 10 minutes for each party
2. Councilmember questions
3. Action
    a. Roll call vote to approve the application based on Hearing Examiner's Report and Recommendation, OR
    b. Motion to remand or deny the application.
        i. If motion to remand or deny passes, straw vote on the application with action scheduled for June 21, 2022, to roll call vote on revised resolution
        ii. If motion to remand or deny fails, roll call vote on approval of Hearing Examiner's Report and Recommendation

This report contains:	**Pages**
Request for Oral Argument	© 1
Opposition to Request for Oral Argument	© 4
Report Transmittal	© 7
Hearing Examiner Report and Recommendation	© 8
Hearing Examiner Proposed Resolution	© 53
Applicants' Financial Disclosure Statements	© 64
Planning Board Recommendation	© 68
Planning Staff Report	© 70
Hearing Examiner Exhibits	© 173
Burdin Exhibits	© 176

April 12, 2022

Via Email County.Council@MontgomeryCountyMD.gov and first-class mail

Montgomery County Council (sitting as the District Council)
Council Office Building
100 Maryland Avenue, 6th Floor
Rockville, MD 20850

Re: Request of Douglas S. Burdin for Oral Argument in the Matter of APPLICATION NO. H-143 (LMA), 4910-4920 Strathmore Ave., Application of EYA Development, LLC for Local Zoning Amendment

Dear County Council President and Members:

I am a party of record in this proceeding and an aggrieved party, as I reside in a townhouse directly adjacent to the property that is the subject of this rezoning request. I request that the County Council (sitting as the District Council) hold Oral Arguments on this matter and allow me to present oral argument. I have been deeply involved in this proceeding since the beginning. I participated in meetings with the developer and neighbors, filed comments with the Planning Board and hearing officer, and participated actively in the OZAH's hearing (I presented testimony, cross-examined witnesses, and gave closing argument). The Hearing Examiner issued his Report and Recommendation on April 6, 2022, so this request is timely. I understand that other members of the surrounding community will be requesting oral argument.

The matters I desire to address in oral argument center around three issues:

(1) the lack of support for the purported findings that the proposed development (125 homes; 145-bed senior residential facility) will not detrimentally impact the already congested traffic conditions on Strathmore Avenue (the only road servicing the proposed development);

(2) the failure of the application and evidence to prove that this particular rezoning will serve the goal of enhancing transit use in the County; and

(3) the recommendations to approve the rezoning rely on speculative future actions – such as the installation of a traffic light and left-turn lane, the continued provision of a police officer to manage traffic at the school entrance, and the acquisition of a right-of-way over private property for the purpose of linking the proposed on-property multi-use path with sidewalks in Garrett Park.

If you need any further information, please contact me as soon as possible.

Respectfully Submitted

Douglas S. Burdin

Douglas S. Burdin
5112 Strathmore Ave.
Rockville, Md 20852
dburdin@verizon.net
571-277-0266

cc: Hearing Examiner Derek J. Baumgardner
(Derek.Baumgardner@montgomerycountymd.gov)
Parties of Record (mayorkacky@garrettparkmd.gov,
councilgerilee@garrettparkmd.gov, egirard@MilesStockbridge.com,
david.shaffer@davidshafferlaw.com, V.Lide2345@gmail.com,
president@gpewfp.org, ardasilva@verizon.net, weitzcyn@msn.com)

MILES & STOCKBRIDGE P.C.

Erin E. Girard
301.517.4804
egirard@milesstockbridge.com

April 19, 2022

Mr. Gabe Albornoz, President,
And Montgomery County Councilmembers
100 Maryland Avenue, 4th Floor
Rockville, Maryland 20850

Re: Opposition to Request for Oral Argument in Local Map Amendment H-143

Dear Mr. Albornoz and District Councilmembers:

On behalf of our clients, EYA Development LLC and BL Strathmore LLC (the "Applicants"), and pursuant to Section 59.7.2.1.D.3.v of the Montgomery County Zoning Ordinance ("Zoning Ordinance"), the purpose of this letter is to oppose the April 12, 2022 Request of Douglas Burdin for oral argument in Local Map Amendment H-143 (the "LMA"). As explained more fully below, the issues identified by Mr. Burdin were critically reviewed as part of the LMA process, and the LMA has been recommended for approval by Planning Board Technical Staff, the Montgomery County Planning Board (unanimously), and the Montgomery County Hearing Examiner. As such, it would be a waste of the District Council's time and resources to hold oral argument on this matter.

Mr. Burdin acknowledges in his letter that he was "deeply involved" in the LMA proceedings, "participated in meetings with the developer and neighbors, filed comments with the Planning Board and hearing officer, and participated actively in the OZAH's hearing" by presenting "testimony, cross-examin[ing] witnesses, and g[iving] closing argument." Burdin April 12, 2022 Letter, p.1. By his own admission, therefore, his concerns have been raised to, and analyzed by, all reviewing agencies to date. In fact, both Technical Staff and the Hearing Examiner expressly addressed Mr. Burdin's traffic concerns in their respective reports. *See* December 12, 2021 Staff Report, p. 28, Attachment B; April 6, 2021 OZAH Report and Recommendation, pp. 30-35. Importantly, Mr. Burdin does not allege any technical defect or legal error in ether Staff's analysis or the Hearing Examiner's Report and Recommendation, but rather he expresses a simple disagreement with the basis for their findings, which is an insufficient basis for the granting of oral argument before the Council.

With regard to the specific concerns raised by Mr. Burdin, the Applicants briefly note the following:

(1) *Alleged Lack of Support for Finding of No Detrimental Traffic Impact*

As noted above, Mr. Burdin's assertions regarding perceived traffic impacts have been repeatedly addressed by relevant County and State agencies and experts. As noted by the Hearing Examiner:

> [t]he concerns expressed by community members during this two-day hearing were real, sincere, well-considered and reasonable, but at the rezoning stage the Council must determine only that the development complies with traffic and transit congestion standards set by the LATR and the Annual Growth Policy, unless there is some evidence that other public facilities cannot be provided….[the Applicants' traffic expert's] methodology was sound and her testimony was credible with regard to the LATR study, the supplemental analysis, and the conclusions drawn from the study. Without evidence or compelling argument to the contrary, the Hearing Examiner accepts the LATR and supplemental analysis as satisfying this standard. OZAH Report and Recommendation, p. 35.

No evidence of record could reasonably lead the Council to a different conclusion.

(2) *Alleged failure of evidence to "prove that this particular rezoning will serve the goal of enhancing transit use in the County."*

The Applicants note that no such finding need be made for approval of an LMA under Section 59.7.2.1.E of the Zoning Ordinance. However, it should be recognized that the property subject to the LMA is within 0.6 miles of the Grosvenor Metro Station and was therefore recently included in the red Grosvenor Metro Station Policy Area as part of the 2020-2024 Growth and Infrastructure Policy. Through the Growth and Infrastructure Policy and other recently adopted plans and policies, the County has expressed a desire to concentrate growth within its red policy areas, and approval of the LMA would achieve this objective.

(3) *Alleged Reliance of Recommendations to Approve on Speculative Future Actions*

Although Mr. Burdin represents that the LMA was recommended for approval in reliance on (1) "installation of a traffic light and left-turn lane," (2) "the continued provision of a police officer to manage traffic at the school entrance," and (3) "the acquisition of a right-of-way over private property for the purpose of linking the proposed on-property multi-use path with sidewalks in Garrett Park," there is absolutely no evidence to support this argument. On the contrary, the Hearing Examiner's recommendation of

MILES & STOCKBRIDGE P.C.

approval is based on the same binding elements recommended by the Planning Board, none of which require any of the cited actions.

Moreover, none of the identified actions could formally be committed to by the Applicants as part of the LMA process. Strathmore Avenue lies entirely within the jurisdiction of the Maryland State Highway Administration ("SHA"). Therefore, the Applicants' ability to install a traffic signal and left-turn lane on Strathmore Avenue is entirely dependent on SHA's approval. While SHA has indicated its support for such improvements, and the Applicants have committed to pursuing such approvals, formal approval will not happen until the time of preliminary plan and/or permitting. With regard to the police officer, that officer is employed by The Academy of the Holy Cross, who is not an applicant for the LMA, and the provision of such officer was not relied on in any of the traffic analysis supporting the application.[1] Finally, with regard to the potential extension of a sidepath off-site, the Applicants have indicated they would work with the adjacent owner to attempt to provide such an extension, with final determination to be made at the time of preliminary plan.

Based on the foregoing, we respectfully request that Mr. Burdin's oral argument request be denied. If such request is granted over the Applicants' objection, however, the Applicants request the opportunity to participate in such argument before the Council.

Thank you for your consideration. If you have any questions or concerns, or would like any additional information, please feel free to contact me.

Very truly yours,

MILES & STOCKBRIDGE P.C.

Erin E. Girard

Erin E. Girard

cc: Parties of Record

[1] While, in response to questioning by Mr. Burdin, a representative of the school did indicate that the officer would be provided for "the indefinite future", that commitment was not made by or relied on by the Applicants in their LMA application. *See* February 1, 2021 Transcript, p. 329, lines 21-25.

MONTGOMERY COUNTY, MARYLAND

M E M O R A N D U M

April 6, 2022

TO: **Livhu Ndou, Legislative Attorney for the Montgomery County Council**
County Council

FROM: **Lynn Robeson Hannan, Director**
Office of Zoning and Administrative Hearings

SUBJECT: Tentative Agenda for LMA Application

CASES TO BE SCHEDULED FOR COUNCIL ACTION:	10 DAY ORAL ARGUMENT DEADLINE:	COUNCIL ACTION REQUIRED BY:	SCHEDULED BEFORE COUNCIL ON:
LMA H-143	**April 18, 2022**	**June 6, 2022**	

****Substantial Opposition**

DISTRICT COUNCIL SESSION

Action - Hearing Examiner's report and recommendation on OZAH Case No. H-143 for amendment to the zoning ordinance map. Erin Girard, Esquire, Attorney for the Applicants, EYA Development LLC and BL Strathmore LLC., requests reclassification from the R-60 Zone to the CRNF 0.75, C 0.25, R 0.75, H 50 (Commercial Residential Neighborhood Floating) of 4920 Strathmore Avenue, more particularly known as Parcel No. 045, Parcel B, Garrett Park Academy of the Holy Cross, as shown on Plat No. 20824, and all of the property located at 4910 Strathmore Avenue, more particularly known as Parcel N875, Parcel A, Garrett Park- Holy Cross Convent, as shown on Plat No. 9347.

-- No Opposition
***Opposition**
****Substantial Opposition**
*****Recommendations and analyses are inconsistent and may involve some Council discussion**

cc: Selena Singleton, Clerk
Stephen Mathany

BEFORE THE COUNTY COUNCIL FOR MONTGOMERY COUNTY, MARYLAND
SITTING AS THE DISTRICT COUNCIL FOR THE MARYLAND-WASHINGTON REGIONAL DISTRICT IN MONTGOMERY COUNTY, MARYLAND

Office of Zoning and Administrative Hearings
Stella B. Werner Council Office Building
100 Maryland Avenue, Room 200
Rockville, Maryland 20850

(240) 777-6660

IN THE MATTER OF:	*	
EYA DEVELOPMENT, LLC	*	
BL STRATHMORE, LLC		
	*	
Applicants	*	
	*	
For the Application:	*	
	*	
Jack Lester	*	
Brenda Bacon	*	
Jeff Amateau	*	
Josh Sloan	*	
Katie Wagner	*	
Jack McLaurin	*	
Katy Prebble	*	
Sister Ruth Marie Nikerson	*	
	*	
Erin Girard, Esq.	*	Local Map Amendment
Attorney for the Applicant	*	Application No. H-143
	*	
	*	
Opposed to the Application:	*	
	*	
Kip Edwards	*	
Cynthia Wertz	*	
Douglas Burdin	*	
Vanessa Lide	*	
Gerilee Bennett	*	
	*	
David Shaffer, Esq.	*	
Attorney for Garrett Park Estates	*	
and White Flint Civic Association	*	
	*	
	*	

* *

Before: Derek J. Baumgardner, Hearing Examiner

HEARING EXAMINER'S REPORT AND RECOMMENDATION

Page No.

TABLE OF CONTENTS

I. CASE SUMMARY 3
III. FACTUAL BACKGROUND 6
A. SUBJECT PROPERTY 6
B. SURROUNDING AREA 8
C. PROPOSED DEVELOPMENT AND FLOATING ZONE PLAN ("FZP") 9
1. Proposed Development 9
2. Floating Zone Plan and Binding Elements 11
D. ENVIRONMENT 13
E. STORMWATER MANAGEMENT 15
F. PUBLIC FACILITIES 16
G. COMMUNITY CONCERNS 20
A. THE "NECESSARY FINDINGS" REQUIRED BY ZONING ORDINANCE §59.7.2.1.E.2. 22
1. Substantial Conformance with the Master Plan 22
2. Compatibility 27
3. Adequate Public Facilities/Public Interest 30
B. THE INTENT AND PURPOSES OF THE ZONE (SECTION 59.7.2.1.E.2.C) 35
1. Intent of Floating Zones (Section 59.5.1.2) 36
2. Purpose of Commercial/Residential Floating Zones (Section 59.5.3.2) 39
C. THE APPLICABILITY OF THE ZONE (SECTION 59.5.1.3) 40
D. DEVELOPMENT STANDARDS AND USES PERMITTED IN THE COMMERCIAL/RESIDENTIAL FLOATING ZONES (DIVISION 59.5.4) 41
1. Uses and Building Types Permitted (Sections 59.5.3.) 41
2. Development Standards of the CRNF Zone (Section 5.3.5.A-D) 42
V. RECOMMENDATION 45

I. CASE SUMMARY

Applicant:	EYA Development, LLC and BL Strathmore LLC ("Applicants" or "EYA")
Property:	4920 Strathmore Avenue, more particularly known as Parcel No. 045, Parcel B, Garrett Park Academy of the Holy Cross, as shown on Plat No. 20824, and all of the property located at 4910 Strathmore Avenue, more particularly known as Parcel N875, Parcel A, Garret Park- Holy Cross Convent, as shown on Plat No. 9347
Location:	The Site is located at 4910-4920 Strathmore Avenue (MD 547), which is approximately 1,500 feet east of Rockville Pike (MD 355) and is adjacent to both the Strathmore Music Hall and the Holy Cross School and Church, as shown in Figure 1, below. Directly to the west of the Site is a stream valley and the Symphony Park townhouse development, which includes open space that visually links the Property to Rockville Pike.



Figure 2: Overall Site

Acreage:	15.36 acres
Current Zoning:	R-60 Zone (residential detached)
Proposed Zoning:	CRNF 0.75, C 0.25, R 0.75, H 50 (Commercial Residential

	Neighborhood- Floating)
Current Use:	School buildings, athletic fields, and a former group home for retired nuns (St. Angela's Hall)
Proposed Use:	125 single-family dwelling units (including a minimum of 15% MPDUs) and a 145-bed residential care facility
Affordability:	Minimum of 15% MPDUs
Current Density Permitted:	R-60 zone permits up to 1.5 FAR
Density Proposed:	.75 FAR
Environmental Issues:	There are no other environmentally sensitive features such as wetlands, 100-year floodplain or stream valley buffers, and the Site is not located within a Special Protection Area. There are no cultural facilities or historic sites located within or adjacent to this Site or any known endangered species or critical habitats.
Master Plan:	1992 North Bethesda/Garrett Park Master Plan
Neighborhood Response:	Significant community input was received. Multiple community members testified at the public hearing in opposition to the proposed LMA.
Water/Sewer:	W-1/S-1 with no upgrades required
Planning Staff Recommends:	Approval
Planning Board Recommends:	Approval
Hearing Examiner Recommends:	Approval
District Council votes required for approval:	5

II. PROCEDURAL HISTORY

On August 4, 2021, EYA Development, LLC ("Applicant" or "EYA") filed Local Map Amendment (LMA) application (H-143) requesting the rezoning of the property located at 4910/4920 Strathmore Avenue (the "Property") in North Bethesda, Maryland from its current R-60 Zone (detached residential) to CRNF 0.75, C 0.25, R 0.75, H 50 (Commercial Residential Neighborhood- Floating). Exhibit 1. The property is currently improved by Garrett Park Academy of the Holy Cross (Parcel B), and Garret Park- Holy Cross Convent, or St. Angela's Hall (Parcel N875/Parcel A), a vacant and unoccupied retirement home for nuns.

On December 6, 2021, Staff of the Montgomery County Planning Department (Planning Staff or Staff) issued its revised report recommending approval of the application with binding elements. Exhibit 62. The Planning Board agreed with Staff and recommended approval on December 17, 2021. Exhibit 61.

On November 26, 2021, OZAH issued a hearing notice schedule this LMA for a public hearing on December 27, 2021.

On December 22, 2021, David Shaffer, on behalf of Garrett Park Estates & the White Flint Civic Association, filed a request to postpone the scheduled hearing.

On December 23, 2021, all parties were notified by email that the Motion to Postpone would be granted, but the case would be called on the scheduled hearing date of December 27, 2021, for the purposes of postponing the hearing. The hearing was formally postponed on December 27, 2021.

On January 3, 2022, OZAH issued a Hearing Notice rescheduling the public hearing for January 31, 2022, through February 2, 2022.

On January 31, 2022, the public hearing was conducted over two (2) days by OZAH Hearing Examiner Derek Baumgardner. Erin Girard, Esq., represented the Applicant. Six (6) witnesses

testified in support of the application either as the Applicant or as an expert witness of the Applicant: Jack Lester (Applicant), Brenda Bacon (Brandywine Living), Jeff Amateau (civil engineer), Joshua Sloan (land planner), Katie Wagner (traffic engineer), and Jack McLaurin (architect). Community members Katie Prebble and Sister Ruth Marie Nickerson also testified in support of the application.

Mr. David Shaffer, Esq. appeared on behalf of Garrett Park Estates and White Flint Civic Association. Community members testifying in opposition included: Douglas Burdin, Kip Edwards, Arthur Ribeiro, Vanessa Lide, Cynthia Weitz, and Gerilee Bennett, as town councilmember representing the Town of Garrett Park. The Hearing Examiner left the record open for 10 days following the conclusion of the two-day public hearing, or until February 11, 2022. Several additional exhibits were received during this period and marked and admitted without objection as evidentiary exhibits.

Following the conclusion of the hearing, counsel for the Applicant submitted a draft Declaration of Covenants to be fully executed and filed within the Land Records of Montgomery County pending Council's approval of this application and adoption of H-143. Exhibit 87. The record was re-opened on April 5, 2022, to receive a corrected Floating Zone Plan and closed immediately thereafter. Exhibit 88.

II. FACTUAL BACKGROUND

A. Subject Property

The subject property is located at 4910/4920 Strathmore Avenue, immediately south of the intersection of Strathmore Avenue and Stillwater Avenue. Exhibit 62, p. 4. The two areas proposed for rezoning under this LMA are Parcel A, which is currently improved with the former St. Angela's Hall (approximately 38,000 square feet) with two driveway entrances on Strathmore Avenue, surface parking, outdoor amenity spaces, pedestrian paths, and open lawn areas, and a portion of Parcel B, which is currently improved by a school site known as the Academy of the Holy Cross, a

Catholic high school for girls, consisting of various school buildings and athletic fields. *Id. See* Figure 2 below for an aerial image of the demarcated subject property.

The entire property including all of parcels A and B is approximately 38.22 acres in size. Exhibit 62, p. 4. The portion subject to this rezoning application (hereinafter the "site"), which is comprised of all of Parcel A and a portion of Parcel B, is approximately 15.36 acres (669,082 square feet) in land area, all areas under common ownership. *Id.* The building and driveways for the existing but closed and vacant St. Angela's Hall are located on the high point of the site and slope down to a nearby tributary of Rock Creek and associated wetlands along the western, southern, and eastern sides of the property. *Id.* The main existing school site, which will remain unchanged under this application and is not subject to rezoning, is further improved by buildings, lawn, athletic fields, driveways, and parking areas. The property is currently zoned R-60. *Id.* An aerial of the property, including the site (outlined in red) is shown below (Exhibit 62, p. 4):



The subject property and site are subject to the 1992 North Bethesda/Garrett Park Master Plan (the "Master Plan") and was not recommended for rezoning. Exhibit 62, p. 5. The Master Plan recommended that "the zoning for all parcels in North Bethesda, outside of [the above areas], remain unchanged with the single exception of White Flint Neighborhood Park" (page 35). *Id.* After

the adoption of the Master Plan, Montgomery County adopted a new Zoning Ordinance in 2014, which also retained the R-60 Residential Detached zoning district for the Subject Property which allows development under either the Standard or Optional Methods of Development. *Id.*

B. Surrounding Area

The "surrounding area" in a Floating Zone case includes the area that will be most directly impacted by the proposed development. It is identified and characterized to assess whether the new development will be compatible with that area.

The Staff-defined neighborhood is shown in Figure 1 from the Staff Report, below (Exhibit 62):



The area identifies the properties that contribute to the community character and may experience the most direct impacts of the proposed rezoning. The Staff-defined neighborhood is primarily defined by the community of single-family detached homes that front the property to the north across Strathmore Avenue (Garret Park Estates), the single-family attached neighborhood to the west (Symphony Park townhouse community), institutional uses abutting the property to the south and east (The Music Center at Strathmore and The Mansion at Strathmore), and a public transit station (Grosvenor-Strathmore Metro Station). Exhibit 62, p. 4; Exhibit 34, p. 5. Other surrounding uses include nearby public and private schools and a church. Exhibit 34, p. 5. Three public parks or

playgrounds are also nearby: Garrett Park Estates Local Park, Druid Drive Neighborhood Park, and Garrett Park – Waverly Park. Exhibit 62, p. 4.

The Hearing Examiner accepts the staff-defined neighborhood as defined by the boundaries shown in Figure 1, above. The Hearing Examiner characterizes the area as predominantly residential with single-family detached and single-family attached homes with institutional uses to serve the surrounding community.

C. Proposed Development and Floating Zone Plan ("FZP")

1. Proposed Development

The subject application seeks to rezone this R-60 property to CRNF 0.75 C-0.25 R-0.75 H-50, (Commercial Residential Neighborhood-Floating). Private roads, open spaces, environmental conservation areas, and infrastructure will also be implemented through the redevelopment process with access to the Academy of the Holy Cross maintained but redesigned through the redevelopment. Exhibit 34, p. 4. Following approval of the rezoning, future development on the site will relocate the entry drive, replace St. Angela's Hall on Parcel A with a 145- bed residential care facility owned and operated by Brandywine Living, and locate up to 10 detached single-family dwellings and 115 attached townhouse units on the area currently occupied by athletic fields and landscaped lawns, for a total of 125 single-family dwelling units (including a minimum of 15% MPDUs). Exhibit 34, p. 9. No commercial uses are proposed and a prohibition on commercial uses is listed as a binding element to this application. Exhibit 34, p. 19. The property's existing R-60 zone only allows townhouses by limited or conditional use and residential care facilities by conditional use only, therefore, the Applicant is seeking to rezone the property to the CRNF zone to permit both uses by right as a comprehensive project. Exhibit 53, p. 2.

The planned 145-bed residential care facility will be owned and operated by Brandywine Living, a senior housing and care provider. Exhibit 53, p. 2. Brandywine Living was founded in

1996 and is headquartered in Mt. Laurel, New Jersey. *Id.* The proposed residential care community would provide a wide array of services and amenities that are "unique to Brandywine." *Id.* Brandywine plans to also provide memory care services at this location and supervision for individuals with dementia that allows residents to age in place by broadening the continuum of care. *Id.* "Brandywine communities also provide highly trained licensed nurses on site all day and night every day of the year." *Id.* While the design of the proposed residential care facility is yet to be determined, the Applicant states that Brandywine designs each of its buildings to "fit the context of the neighborhood around it and uses architectural styles compatible with the surrounding area." *Id.* The Applicant asserts that the development as a whole proposes a "unique multi-generational community, where families, students of the adjacent schools, and seniors can interact and benefit from proximity to one another." *Id.* Ms. Brenda Bacon, President and CEO of Brandywine Living testified:

> The opportunity to develop an intergenerational place for people to be is very attractive to us, particularly for our seniors, for our parents. We've done two communities like that before where they were townhouses and then a senior living, assisted living community…it really fosters the opportunity for empty nesters, for example, to have their grandchildren come over and also to have their moms and dads next door. So is a great opportunity. Is almost a perfect situation for just the quality of life that it brings to all of the generations. T. 46-47.



Figure 6: Conceptual Architectural Precedents

2. Floating Zone Plan and Binding Elements

A Floating Zone Plan (FZP) shows the details of the proposed development, including building locations, height, preliminary stormwater management strategies, and on-site circulation. *Zoning Ordinance,* §59.7.2.1.B.2. A FZP may also include binding elements that permanently restrict future development of the property. *Zoning Ordinance,* §59.1.4.2. Binding elements may restrict building types, density, or height, among other aspects of the development. *Id.* The binding elements recommended by Staff and accepted by the Applicant include the following:

1. Permitted uses on the Site include up to 125 single-family detached and attached dwelling units (including a minimum of 15% MPDUs) and a residential care facility (with up to 145 beds).
2. Commercial uses are not permitted on the Property, except permitted accessory uses associated with the residential care facility.
3. A natural surface trail must be provided along the western side of the Site that is subject to a public access easement
4. The Property is limited to no more than three points of vehicular access from Strathmore Avenue.
5. The Property must be subdivided to formally delineate the boundary of the area subject to the rezoning at the time of Preliminary Plan.
6. A Phase I Noise Analysis must be submitted with the Preliminary Plan to identify noise levels that might impact interior and exterior spaces subject to the Planning Department's Noise Guidelines. The analysis must be performed by a qualified acoustical engineer. If a combined Preliminary/Site Plan is submitted, the Site Plan must include recommendations from a qualified acoustical engineer to mitigate excessive noise levels per the Noise Guidelines.

Staff advised that since the requested floating zone was not recommended in the Master Plan, requested density cannot exceed 1.25 FAR, as the tract is greater than 3 acres and the existing zoning is R-60. Exhibit 62, p. 18. The application requests 0.75 in overall FAR and all residential units and the residential care facility are within the 50-foot height limit established by the CRNF Zone. *Id.*

Staff noted that the Master Plan "urges special attention to the design of existing and proposed streetscapes to encourage pedestrian usage, particularly along corridors that are within walking distance to transit." Exhibit 62, p. 18. To improve the condition of existing

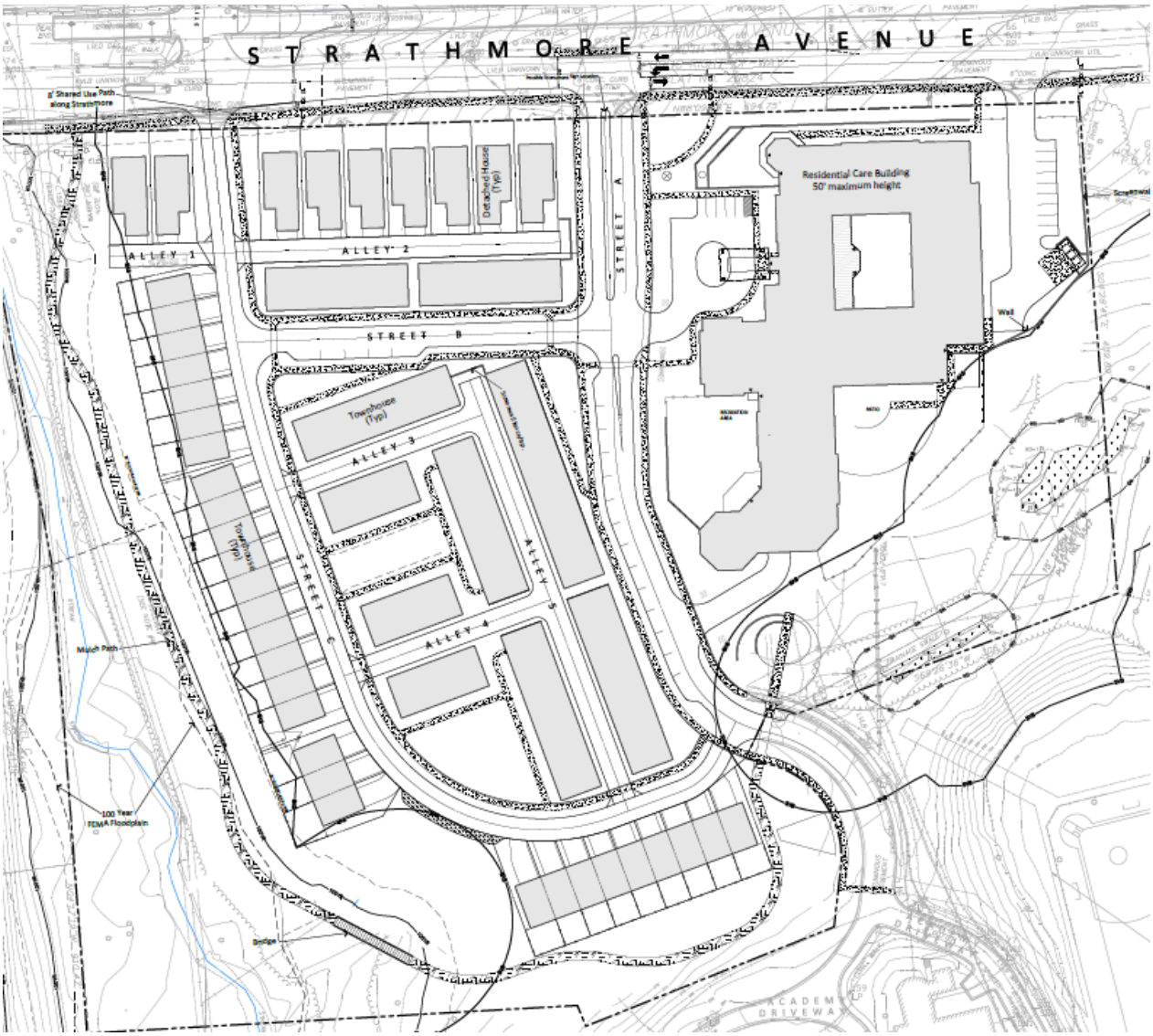
streets, the Master Plan recommends that addition of street trees to create an appropriate buffer and the widening of sidewalks, and where necessary, additional special design treatment. *Id.* The subject application proposes upgrades to the Strathmore Avenue frontage through the construction of the master-planned 10-foot-wide shared use path with 6-foot-wide green buffer which, according to Staff, will "improve the pedestrian experience along this stretch of road to reach various surrounding destinations, including Holy Cross School and the Garrett Park Middle School." *Id.* at 19. The application further provides for the construction of new internal streets to the site that "will contain street trees between the curb and sidewalk and, wherever possible, on-street parking." *Id.*

Figure 5 from the Staff Report (below) shows the proposed floating zone with proposed improvements and features of the lot and neighboring properties (Exhibit 62, p. 8):



Figure 5: Proposed Floating Zone Plan [rendering]

An excerpt from the Floating Zone Plan with binding elements is depicted below (Exhibit 88(a)):



D. Environment

Staff advised that Natural Resources Inventory/Forest Stand Delineation (NRI/FSD) No. 420211410 was approved on July 27, 2021 for the property. Exhibit 62, p.11; *See* Exhibits 19 & 20. The NRI/FSD illustrates that more than 10 acres of the 35+ acres that make up the subject property is encumbered by stream valley buffer, with approximately four acres of the property lying in stream valley buffers. *Id.* The 2021 Environmental Guidelines require that these stream valley

buffers are preserved and restored as part of the subject application and the Applicant proposes minor encroachments into the stream valley buffer for a natural surface trail. *Id.* Joshua Sloan stated in his report that the proposed new residential uses will be "enveloped with stream valley buffer plantings, including new conservation areas replacing the existing lawns." Exhibit 34, p. 11.

The property is within the Rock Creek watershed and streams run along the eastern, southern, and western edges where three (3) non-tidal wetlands are present. Exhibit 62, p.11. Staff notes that after being piped under the driveway, the tributary from Parcel A runs into the western stream, which continues to the south, and a portion of this stream is within a FEMA 100-year floodplain. *Id.*

According to Staff, the site contains 4.06 acres of forest with 152 significant and specimen trees on-site and/or within 100 feet. Exhibit 62, p. 11. There is 0.64 acres of forest and 46 significant and specimen trees, and one soil type (16D) classified as highly erodible, along with areas of steep slopes (15% to 25%) with erodible soil, and steep slopes greater than 25%. *Id.* The Applicant states that there are no observed or known rare, threatened, or endangered species, nor historic resources on the Property. Exhibit 34, p. 24.

Staff notes that due to the shape and topography of the site, protective buffers create challenges for the site's new layout. Exhibit 62, p. 11. The development proposes a nature trail that "will traverse the primary open space area behind residential units on the western side of the Property." *Id.* Along this trail, Category I and II Conservation Easements are proposed and a second area of Category I and II Conservation Easements is proposed along the southeastern tributary. *Id.* "Other encroachments into the stream valley buffer include some stormwater management features, a small portion of Street C for fire access that is permeable pavement, and rear yards and fencing, all as allowed by the Environmental Guidelines." *Id.* Staff advises that to meet reforestation and afforestation requirements a total of 2.84 acres is required for new plantings. Exhibit 62, p.11. To

meet this requirement, the Applicant proposes to plant 3.0 acres and an "extra area of plantings as enhanced forestation for mitigation for proposed stream buffer encroachments." *Id.* With respect to the Master Plan's stated objectives of preserving green and open space, the Applicant states that the development supports the objective of protecting green areas and open spaces "through the preservation of approximately 5.7 acres in stream valley, 2.7 acres of which is already forested and 3 acres of which will be reforested, and the provision of a minimum of 10% open space throughout the Project." Exhibit 53, p. 6.

E. Stormwater Management

The property does not currently utilize stormwater management best practices. Under this application, the Applicant proposes to implement micro-bioretention features "to the maximum extent practicable to meet the current stormwater requirements." Exhibit 62, p. 12. Staff advises that due to the topography and location of streams around the site, new stormwater management facilities will be placed at low points to capture and filter roadway runoff. *Id.*

The Applicant's Land Planner, Mr. Sloan, in his Land Planning Report, states that the proposed development is subject to the Maryland Stormwater Management Act of 2007 and the Montgomery County Bill No. 40-10 which requires managing stormwater runoff by using "Environmental Site Design" (ESD) to the "Maximum Extent Practicable" (MEP). Exhibit 34, p. 25. Mr. Sloan describes ESD as "utilizing small scale stormwater management practices, non-structural techniques, and better site planning to mimic natural hydrologic runoff characteristics and minimize the impact of development on water resources," like the planter box style Micro-Bioretention facilities proposed in this application. *Id.* Mr. Amateau testified that the volume of stormwater to be managed on site was 44,491 cubic feet. T. 85. The site will be developed with large areas of impervious surface and porous surfaces contain a mixture of soils in both hydrologic group "B" and "C", therefore, the site will be required to implement micro-bioretention structures

to the maximum extent practicable (MEP) to meet the stormwater requirements. Exhibit 34, p. 25. Mr. Amateau estimated the amount of impervious surface proposed to be 6.18 acres of the 15-acre site. T. 85. Mr. Sloan stated that "the project development team will work with the County at each Phase through the Stage 3 process, to ensure ESD to MEP implementation." Exhibit 34, p. 25.

F. Public Facilities

According to Staff, the 2020-2024 Growth and Infrastructure Policy went into effect on January 1, 2021. Since Staff approved scoping for the Applicant's traffic study in November 2020, Staff advised that the study was subject to the previous 2016-2020 Subdivision Staging Policy. Exhibit 62, p. 14. The property was previously located within the North Bethesda orange policy area, as determined under the 2016-2020 Subdivision Staging Policy, which required both Critical Lane Volume (CLV) and Highway Capacity Manual (HCM) delay analyses. *Id.* LATR compliance is required, therefore and the Applicant submitted a traffic impact study to determine multimodal adequacy. *Id.* Staff advised that future traffic analysis will be completed in accordance with the 2020-2024 Growth and Infrastructure Policy will review the project under the Grosvenor Policy Area if this LMA is approved and implemented. *Id.*

A traffic study was completed in accordance with LATR standards and admitted into the record as Exhibit 47 and a supplemental analysis admitted into the record as Exhibit 58(c). The analysis was conducted and the report was prepared by traffic engineer Katie Wagner, Director of Planning and Engineering with Gorove Slade. Ms. Wagner testified that the results of the original LATR analysis indicated "that the surrounding network can adequately support traffic generated by the proposed project without any roadway improvements or mitigation." T. 157. Ms. Wagner further commented that taking into account the impacts of the COVID-19 pandemic, her team "included a growth factor to assume that schools were not in session and people were telecommuting. In addition to that, "we had to balance traffic volumes along the roadway as well

as take into consideration the schools that were in the study area that were not operating at [regular] capacity." T. 158. While Planning staff accepted the conclusions of that original study, Maryland Department of Transportation (MDOT) and State Highway Administration (SHA) staff expressed concerns regarding the application of low traffic numbers, and so the traffic study was supplemented:

> "In response to this, the Applicant team prepared a supplemental analysis using historic traffic counts that were available at study area intersections from 2016 and 2013. This analysis provided a conservative analysis as the traffic counts higher than those used in the LATR analysis. In addition, the analysis not only incorporated counts and that were higher than what we collected in 2020, but we also applied background growth to bring the counts from 2013 and 2016 up to 2020 rates and these rates were based on historical counts collected by SHA to account for growth year over year in the area." T. 159.

As a result of the supplemental analysis, Ms. Wagner testified that "[mitigation] was needed at the Strathmore Avenue and the center site driveway intersection." This was needed in the form of "[a] traffic signal, as well as a westbound left turn lane into the new site, primarily to mitigate the traffic [and] generated by the school." T. 159-160. Community members questioned the validity of the traffic analysis based upon the counts, timing, volume, and the growth factor applied, coupled with their practical experience living in the community, including concerns regarding "significant traffic heading east from Rockville Pike traveling towards the Connecticut Avenue corridor." T. 170-205, 206, 215. Mr. Kip Edwards testified that community members were concerned that "planning board staff based their conclusions and recommendations on traffic reports which the community felt were inherently flawed." T. 246. Ms. Vanessa Lide, a community member, stated that, "I also find it very, very difficult to accept that if you are putting that many people, that many staff into an assisted living facility and that many new homes" that traffic counts would be that low. T. 299. Mr. Edwards also expressed concern regarding, "The notion that the Applicant will relieve the burdens of traffic that their development creates by encroaching upon that green buffer space

was very concerning for people" referring to the 1-3 ft. portion of Strathmore Avenue shoulder that would be encroached upon for the planned turn lane, a traffic mitigation component proposed to alleviate delays on Strathmore Avenue. T. 247-248. Ms. Lide echoed these sentiments, as her property fronts on the Strathmore Avenue access drive adjacent to the proposed lane widening. T. 380. Responding to those concerns expressed previously, Ms. Wagner testified, in part:

> In existing conditions, the delays at this specific intersection, Stillwater and Strathmore, drastically exceed the congestion standard due to a number of reasons. Primarily being the offset of the HCA driveway and the Stillwater Avenue intersection. This caused significant vehicular delays. The current driveway only has one outbound lane causing delays due to any vehicle wanting to turn left and needing gaps in traffic in both directions. And then, a significant delay is decreased because we have taken away that shift and aligned Stillwater and site driveway intersections as well as shifted all of the school driveway traffic volumes.

T. 160.

In further response to community comments and concerns, Ms. Wagner explained:

> We collected traffic counts in December of 2021 in response to community concerns that were raised at meetings as well as received in correspondence to really have a better understanding of making sure that we conducted a traffic study in the most appropriate manner given the ongoing pandemic. And when we collected traffic counts the pandemic was not where it is now and there was -- schools were really back in session and we found that traffic counts were -- traffic counts that we collected in 2021 were [s]till less than what were used in the supplemental analysis to address the SHA and MCDOT concerns."

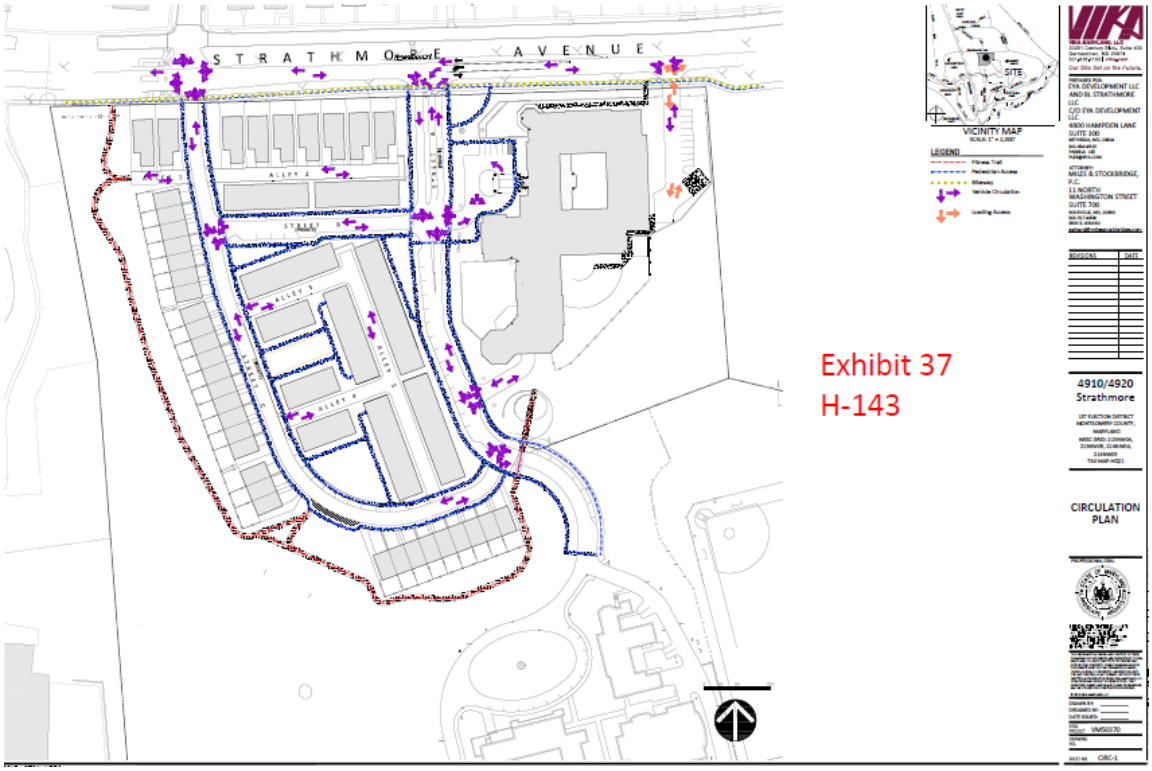
T. 160-161.

Based upon the Applicant's transportation study and supplemental study, Staff found that each of the studied intersections remain within acceptable levels of congestion and the LATR capacity analysis was consistent with the Department's LATR Guidelines. Exhibit 62, p.14. "While existing delay for the Stillwater Avenue and Strathmore Avenue intersection exceeds the 71 second delay per vehicle standard," traffic mitigation measures proposed by the Applicant including the realignment of the driveway for the Academy of the Holy Cross and construction of a new driveway at the Stillwater Avenue approach will better accommodate school traffic during the AM peak hour.

Exhibit 62, p. 15. Staff concluded that with these traffic mitigation measures "all intersections within the study area will operate within the policy area's congestion standards." *Id.*

Circulation

Three proposed driveways from Strathmore Avenue access the site: one across from Stillwater Avenue, one near the center of the property's frontage (close to the existing drive-aisle), and a third near the existing eastern drive aisle. Exhibit 34, p. 10; *See* Exhibit 37, shown below:



Primary vehicular access to the site including access to the Academy of the Holy Cross will be provided from the main central entrance on Strathmore Avenue. Staff found that access is adequate to accommodate vehicular traffic anticipated by the proposed redevelopment. Exhibit 62, p. 15. Further, the application proposes internal roadways and sidewalks to provide additional infrastructure for users and residents of the proposed residential dwellings and the residential care facility. *Id.*

With respect to public transit, Ride-On Routes 5 and 37 operate along the Strathmore

Avenue frontage and both the Grosvenor-Strathmore Metrorail and Garrett Park MARC stations are located within a 1/2 of mile from the Site. Exhibit 62, p. 15. Staff notes that a formal determination of adequacy is required at the time of Preliminary Plan. *Id.*

Water and Sewer

Staff advises that the property is "served by a 12" water line along Strathmore Avenue and a 15" sewer line running north-south through the Property." Exhibit 62, p. 15. Existing water and sewer infrastructure will not require upgrades to the service line or installation of a pump station due to the proposed development. Exhibit 53, p. 10. Electric, gas, and communications utilities will be provided via a public utility easement connected to Strathmore Avenue and running along the central drive, alleys, and behind the proposed front-load townhouses. *Id.*

Schools

Staff advises that the property is located within the Walter Johnson School cluster, which includes the nearby Garrett Park Elementary School, Tilden Middle School, and Walter Johnson High School. Exhibit 62, p. 15-16. While the proposed residential care facility will not generate any school-aged children to impact school capacity, the remaining residential portion of the proposed development "may require a Utilization Premium Payment at the time of building permit for one or all the schools." Exhibit 62, p. 16. Staff notes that further assessment of school capacity will be conducted at the time of Preliminary Plan.

Staff concluded that a preliminary analysis indicates that public facilities will be adequate for the proposed development while the Planning Board will make a final determination at the time of Preliminary Plan. Exhibit 62, p. 16.

G. Community Concerns

This application has generated significant community participation and comment. Staff advises that the Applicant has complied with the required notification signage and has informed all

the adjacent property owners, community organizations, and homeowners' associations within one-half mile of the Property about the Application and the proposed Project. Exhibit 62, p. 27. Staff summarized the Applicant's public outreach as follows:

• January 19, 2021 - Virtual meeting with Garrett Park Mayor and Staff

• February 12, 2021 - Virtual meeting with Garrett Park Estates and Friends of White Flint

• February 26, 2021 - Virtual Meeting with Symphony Park Homeowners Association

• March 30, 2021 - Virtual Meeting with Holy Cross Community

• October 4, 2021 - Virtual Meeting with Representatives of Garrett Park Estates and White Flint Park Citizens Association

• November 8, 2021 - Virtual Meeting with Holy Cross Parish and School Community

- email correspondence with Grosvenor III Park Condominium Association, Stoneybrook Homeowners Association, Grosvenor Citizens Association, Parkside Condominium, and Strathmore Park Condominium.

Exhibit 62, p. 27-28.

Staff noted additional concerns related by community members with respect to the overall change of the school property, traffic impacts, and pedestrian safety concerns. Exhibit 62, p. 27-32. Staff also received correspondence in support for the proposed rezoning. Community concerns raised prior to the LMA hearing are comprehensively addressed in the Staff Report, p. 27-32. *See* Exhibit 62. Mr. Shaffer, on behalf of the community associations, in his opening remarks on the second day of testimony, stated that residents' concerns primarily had to do with traffic and the environment, as the testimony from community members confirmed. T. 244. Ms. Gerilee Bennett, councilperson for the Town of Garrett Park, testified as to a common theme from other community members that "We haven't been shown what other options were considered and what the pros and cons of those options were." T. 313.

Staff noted that many questions and concerns raised by community members will be addressed through subsequent preliminary plan and site plan review processes, which are independent of this LMA process by the Hearing Examiner. Specific community testimony will be referenced throughout the following findings and conclusions.

IV. FINDINGS AND CONCLUSIONS

A floating zone is a flexible device that allows a legislative body to establish development standards and uses for a zoning district before "attaching" it to a specific property. The zone is applied to properties via the approval of an LMA.

To approve an LMA, the District Council must find that the proposal will meet the standards required by the Zoning Ordinance and that it will be consistent with the coordinated and systematic development of the Regional District. *See, Md. Land Use Art.,* §21-101(a) and (b). While many of the site-specific requirements for development are addressed by later approvals, the Zoning Ordinance contains various standards, or "Necessary Findings," that the Council must make. *See, Zoning Ordinance,* §59.7.2.1.E. These standards incorporate the requirements of other sections of the Zoning Ordinance, and most fall within three main categories: (1) conformance with the Master Plan, (2) compatibility with the surrounding area and adjacent properties, and (3) whether the project is supported by adequate public facilities.

A. The "Necessary Findings" Required by Zoning Ordinance §59.7.2.1.E.2.

1. Substantial Conformance with the Master Plan

Several sections of the Zoning Ordinance require an applicant to demonstrate that the proposed rezoning conforms to the applicable Master Plan:

> ***Section 7.2.1.E.2.a. For a Floating zone application the District Council must find that the floating zone plan will:***
>
> ***a. substantially conform with the recommendations of the applicable master plan, general plan, and other applicable County plans;***

* * *

Section 59.7.2.1.E.2.b: …further the public interest…[1]

* * *

Section 59.7.2.1.E.2.c: …satisfy the intent and standards of the proposed zone…

* * *

Section 59.5.1.2.A.1. (Intent of Floating Zones): Implement comprehensive planning policies by… furthering the goals of the general plan, applicable master plan, and functional master plan…

The entirety of the subject property falls within the boundaries of the 1992 North Bethesda/Garrett Park Master Plan ("Master Plan" or "Plan"). Exhibit 62, p. 17. The Master Plan area is bordered by I-270 to the west, the City of Rockville to the north, Rock Creek Park to the east, and I-495 to the south. *Id.* The subject property is listed as one of the "Key Vacant or Redevelopable Parcels" in the Plan area, or Parcel #14. Exhibit 34, p. 12.

The Master Plan lays out both general recommendations for the Master Plan area and specific recommendations for the subject property. According to Staff, the proposed rezoning will support the objectives of the plan "to encourage land use patterns that preserve and increase the variety of the housing stock particularly with elderly housing, provide safe and efficient transportation, provide facilities to meet the recreational needs of the public, and reduce environmental impacts." Exhibit 62, p. 17. General recommendations of the Plan include: focusing future development at Metrorail stops, new transit stations, and areas best served by transportation infrastructure, with more emphasis on housing; reduction in block sizes in the vicinity of Metro areas; improvements to the pedestrian friendliness of streets, particularly near transit nodes; and provision of a landmark quality and sense of place for nodal areas and districts. *Id.* Staff opined that the proposed development supports these objectives as it "achieve[s] this critical land use and

[1] OZAH has interpreted the "public interest" to address whether the property conforms to adopted County plans and policies and whether there are adequate public facilities to support the use.

transportation linkage" by providing residential housing to replace a vacant retirement home and "deliver more housing than was previously on the Site" while accessible to nearby rail service at the Grosvenor-Strathmore Metrorail Station, public bus stops and routes that traverse Strathmore Avenue, coupled with the construction of an "internal system of new private roads that create short, walkable blocks." *Id.* Based on her experience with other Brandywine sites, Ms. Bacon testified that many employees of the Brandywine residential care facility will likely use public transit for their daily travel to and from work. T. 57. The Applicant stated that the provision of housing is repeated as a primary objective throughout the plan, which calls for development of "[a] wide range of housing types within each neighborhood…to avoid large concentrations of any single type and increase the potential for pedestrian connection between diverse housing types," "preserv[ing] and increase[ing] the variety of housing stock, including affordable housing" and "encourag[ing] a mixture of land uses in redeveloping areas to promote variety and vitality." Exhibit 53, p. 5, citing the Master Plan at pp. 12, 33, 35.

In addition to general recommendations, the Master Plan also includes recommendations specific to 4910/4920 Strathmore Avenue. Exhibit 62, p. 18. Listed as Parcel No. 14, the Plan specifically identifies the 35+ acre tract for the Academy of the Holy Cross which includes the school buildings, athletic fields, and a former group home for retired nuns. Exhibit 62, p. 18 (citing the Master Plan, pp. 80-81). Also linking to nearby transit, Staff notes that the Plan "supports the continued existence of the Academy and the retirement home at this location and recommends that the existing R-60 zoning be confirmed." *Id.* Staff opines that the application satisfies this specific objective by retaining the Academy of the Holy Cross School but replacing the now vacant retirement home with a new but analogous use as a residential care facility for seniors, and adding residential housing as infill development in a previously unimproved portion of the lot, all within

proximity to a transit node. Exhibit 62, p. 18. The Plan specifically recommended retaining the Academy of the Holy Cross because of its proximity to excellent transit. Exhibit 34, p. 13.

The Master Plan also emphasizes other objectives for 4910/4920 Strathmore Avenue including "preserving green areas and institutional open space for environmental protection, wildlife sanctuary, recreation, and visual relief." *Plan*, p. 81. Staff notes that portions of the existing open lawn areas on the property are proposed to be protected through Conservation Easements with native plantings that can provide water quality protection, wildlife habitat, and visual relief from the surrounding development. Exhibit 62, p. 18. Portions of these conservation easements are proposed to be located along a planned nature trail located along the western edge of the property which will be open to the public during daylight hours. *Id.*

Staff further noted that the proposed development will "complement the existing sense of place" created by the surrounding residential neighborhoods to the north and west and educational and institutional spaces to the southwest and east. Exhibit 62, p. 17. Staff concluded that the proposed development "aims to fit within the existing neighborhood fabric of this well-established community while also delivering exceptional urban design and architectural detailing to further articulate quality." *Id.*

Transportation

According to Staff, the Master Plan "makes significant recommendations to encourage and support transit use, including expansion to the public transportation system." Exhibit 62, p. 19. The Master Plan recommends that "future development be focused on Metrorail (Metro) stops, new transit stations, and areas best served by transportation infrastructure, with more emphasis on housing." *Id.;* citation to Master Plan, unknown. Staff notes that the proposed site is in close proximity to existing transit services including bus and rail services and the application includes: improving access to transit services through upgrading pedestrian and bicycle infrastructure along

the corridor; constructing a new master-planned 10-foot-wide shared use path along Strathmore Avenue to support walking to the nearby Grosvenor-Strathmore Metrorail Station; construction of a new internal road and pathway system with five-foot wide asphalt sidewalks throughout the Site's new roads and natural surface trail along the western edge of the Property. *Id.* With respect to public transit, Mr. Sloan added that Ride-On Routes 5 and 37 run along Strathmore Ave while Routes 37 & 46 run along Rockville Pike. Exhibit 34, p. 6. Further, he estimated that "the Garrett Park MARC station is a 12-minute walk to the northwest and the Grosvenor-Strathmore Metro Red Line Station is a 10-minute walk along the trails in Symphony Park and the Music Center at Strathmore." *Id.* Mr. Douglas Burdin, a community member, testified that because of the site layout, residents living in this new development would be required to use Strathmore Avenue and a walking path in Symphony Park to access the Metro station, as the planned development does not contain a cut-through connecting to Cloister Drive or Tuckerman Lane. T. 340-341. Mr. Burdin estimated this walk-time to be between 13-18 minutes. *Id.* Mr. Burdin estimated this same walk-time to the Garrett Park MARC station. *Id.*

Senior Care Housing

Staff notes that the Master Plan recommends supporting adult day-care facilities and affordable elderly housing including through the special exception process, and encouraging the location of elderly housing and elderly support services along public transit. Exhibit 62, p. 20. Staff opines that the subject application supports these recommendations by replacing the vacant St. Angela's Hall with a new senior care facility located in close proximity to public transit and serving the needs of seniors as identified in the Plan. *Id.*

In sum, Staff concluded that the underlying application furthers the public interest by supporting the goals and recommendations of the Master Plan through the project's proposed uses, land improvements including stormwater management and conservation easements, and the design

of the residential care facility and residential housing as a complement to the surrounding residential neighborhoods. Exhibit 62, p. 21.

Conclusion: The Hearing Examiner agrees with Staff and the Applicant that the proposed rezoning supports the general objectives of the North Bethesda/Garrett Park Master Plan, and satisfies the intent and standards of the floating zone by furthering the goals of the Plan to provide housing near public transit and mixed-use nodes, and furthers the public interest by advancing the goals and objectives of the Master Plan. In closing argument, Mr. Shaffer makes the assertion, based on the testimony offered at the hearing, that the proposed development is not a transit-oriented development as envisioned by the Master Plan. The Hearing Examiner disagrees, and finds that the proposed residential development restricts commercial uses as a binding element and its location within 15 minutes of Metro, MARC, and public bus lines will service the single-family residential and residential care facility (residents and staff), in furtherance of the goals of the Plan. Therefore, the preponderance of the evidence supports a finding that this standard has been met.

2. Compatibility

Several sections of the Zoning Ordinance require an analysis of the compatibility of the proposed FZP with adjacent uses and the surrounding area. The application must:

> ***Section 7.2.1.E.1.c.: satisfy the intent and standards of the proposed zone and, to the extent the Hearing Examiner finds it necessary to ensure compatibility, meet other applicable requirements of this Chapter****;*
>
> * * *
>
> ***Section 5.1.2.C. (Intent of Floating Zones). Ensure protection of established neighborhoods by:***
>
> ***1. establishing compatible relationships between new development and existing neighborhoods through limits on applicability, density, and uses;***
> ***2. providing development standards and general compatibility standards to protect the character of adjacent neighborhoods; and***
> ***3. allowing design flexibility to provide mitigation of any negative***

impacts found to be caused by the new use.

* * *

Section 7.2.1.E.2.d. be compatible with existing and approved adjacent development…

* * *

The existing community is comprised predominantly of attached (e.g. townhouse) and detached residential homes and condominiums as well as nearby institutional uses such as the Music Center at Strathmore, public transit at the Grosvenor-Strathmore Metro stop, and neighborhood schools. Exhibit 62, p. 3; Exhibit 34, p. 5. The proposed development includes single-family detached homes, single-family attached homes, and a residential care facility to serve seniors all with a maximum height of 50 feet. *Id.* The rezoning of the property to the CRNF zone would allow for the development of the residential care facility portion of this application by right, in addition to increased density for single-family housing. Staff concluded that the proposed mix of residential uses was compatible with adjacent development, which includes a townhouse development to the west, institutional uses to the south and east, and a single-family residential neighborhood to the north. Exhibit 62, p. 22. Mr. McLaurin testified that "when we create infill communities like this which have surrounding context around our immediate site, it's important that we focus on compatibility. And one aspect of compatibility is height and scale. So I think we, after studying the property, we come up with a land plan that I believe addresses that." T. 231. Under the requested CRNF zone, up to 1.25 FAR is permissible while the application requests 0.75 FAR with no commercial uses except for permitted accessory uses associated with the residential care facility. Exhibit 62, p. 18. Staff found this density more consistent with the abutting and confronting existing residential uses. Exhibit 62, p. 23.

Staff noted that the closure of St. Angela's Hall and major mixed-use redevelopment proposals on parcels nearby or adjacent to the Grosvenor-Strathmore Metrorail Station make

rezoning an appropriate land use tool rather than a scheduled Master Plan update "to meet the intent of the governing plan that prioritizes housing." Exhibit 62, p. 22. Staff further noted that according to the 2020 housing needs assessment, Montgomery County currently faces a housing shortage and estimates that more than 60,000 new housing units are needed by 2040. Exhibit 62, p. 22. Staff concluded that this application and proposal will help meet an acute need for diverse housing within Montgomery County. *Id.* The Applicant's Land Planning Report, prepared by Joshua Sloan at VIKA, stated that:

> …the proposed development will not have any adverse impact to the existing character of the neighborhood: detached lots will face onto Strathmore Avenue enhancing the residential character of the street; the existing institutional use will be replaced with a residential building ensuring compatible uses and maintaining the feel of the clustered civic, institutional, and cultural building types to the east; and the townhouses to the west are complemented by the proposed interior townhouse uses with similar block and open space patterns.

Exhibit 34, p. 5-6.

Regarding the planned design of the residential care facility, Ms. Brenda Bacon of Brandywine testified:

> "The thing that I think is important is that sometimes people think that senior living communities or nursing homes are institutional settings, [but] our communities are never institutional looking. They are more residential looking because these are indeed residences for seniors." T. 48.

Conclusion: The Hearing Examiner finds that the proposed development will be compatible with adjacent properties and the surrounding area. The proposed residential care facility will replace and provide necessary improvements to the previous retirement home with an updated residential care facility to serve seniors. The FZP utilizes the site's topography to mitigate the height, size, and impact of the proposed buildings, as the lot slopes east to west. T. 150; *See* Exhibit 40. The proposed residential housing serves the needs of increased residential housing demand as identified in the Master Plan, by providing single-family housing specifically located in close proximity to

public transit at the Grosvenor-Strathmore Metro station, Garrett Park MARC station, and bus routes. For these reasons, the Hearing Examiner finds that these standards are satisfied.

3. Adequate Public Facilities/Public Interest

Several sections of the Zoning Ordinance require an applicant for a Floating Zone to demonstrate that public facilities will be adequate to serve the property. The Council must find that the application meets the following standards:

> ***Section 7.2.1.E.1.e: generate traffic that does not exceed the critical lane volume or volume/capacity ratio standard as applicable under the Planning Board's LATR Guidelines, or, if traffic exceeds the applicable standard, that the applicant demonstrate an ability to mitigate such adverse impacts; and…***
>
> * * *
>
> ***Section 7.2.1.E.1.b: further the public interest…***
>
> * * *
>
> ***Section 7.2.1.E.1.c.: satisfy the intent and standards of the proposed zone and, to the extent the Hearing Examiner finds it necessary to ensure compatibility, meet other applicable requirements of this Chapter;***
>
> * * *
>
> ***Section 5.1.2.A.2: (Intent of the Floating Zones). …"implement comprehensive planning objectives by…ensuring that the proposed uses are in balance with and supported by the existing and planned infrastructure…"***

LATR & Traffic

According to Staff, the 2020-2024 Growth and Infrastructure Policy went into effect on January 1, 2021. Exhibit 62, p. 14. The scope of the Applicant's traffic impact study was approved by Staff in November of 2020 and as such, the transportation study for the Local Map Amendment was subject to the previous 2016-2020 Subdivision Staging Policy. *Id.* At the time of the review, the subject property was located within the North Bethesda orange policy area, as determined under the 2016-2020 Subdivision Staging Policy. *Id.* Under the North Bethesda orange policy area, LATR compliance is required, and the Applicant submitted a traffic impact study to determine multimodal adequacy including both Critical Lane Volume (CLV) and Highway Capacity Manual (HCM) delay

analyses. *Id.*

In accordance with the 2016-2020 *Subdivision Staging Policy*, a transportation study was conducted by Ms. Katie Wagner, Applicant's traffic engineer, to analyze the congestion levels at nearby intersections to satisfy the LATR test, as preliminary analysis determined that peak a.m. and peak p.m. trips generated by the proposed land uses would exceed the 50-trip threshold. Exhibit 62, p. 14. *See* Table 2 below for site generated trips. Staff notes that Preliminary Plan will be subject to the 2020-2024 *Growth and Infrastructure Policy* (GIP) and a new transportation study will be required as part of that analysis. *Id.* Critical Lane Volume (CLV) and Highway Capacity Manual delay analysis (HCM) conducted by Ms. Wagner are described below.

With respect to Critical Lane Volume (CLV) and Highway Capacity Manual (HCM) delay analysis, the intersection congestion standards for the policy area are a CLV of 1,550 and 71 seconds of delay per vehicle. Exhibit 62, p. 14. As demonstrated in Table 3, provided in the traffic engineer's report and reproduced below, each of the studied intersections remain "within acceptable levels of congestion." *Id.* The traffic study further concluded, as did Staff, that the LATR capacity analysis was consistent with the Department's LATR Guidelines in that while existing delay for the Stillwater Avenue and Strathmore Avenue intersection exceeds the 71 second delay per vehicle standard, the proposed realignment of the driveway for the Academy of the Holy Cross and construction of a new driveway at the Stillwater Avenue approach will accommodate school traffic during the AM peak hour sufficient to mitigate the capacity delay. Exhibit 62, p. 14. Staff concluded that the traffic study demonstrates that "all intersections within the study area will operate within the policy area's congestion standards." *Id.*

Mr. Kip Edwards, a member of the community, testified that the community had concerns regarding the credibility of the traffic study and therefore purchased a traffic counting software service called Camlytics that uses "machine learning to count cars which enter and exit the frame"

to conduct their own lay analysis. T. 249. Mr. Edwards testified that the Camlytics analysis resulted in a traffic count that was "much higher than the numbers used in the August 2021 LATR supplemental report, which is what planning board staff ultimately relied on when they met their conclusions." T. 250. Ms. Wagner responded that she reviewed the video and compared the video recorded by the community with her own analysis and "found that the spreadsheet overexaggerated the number of vehicles traveling along Strathmore Avenue." T. 162. Ms. Wagner also noted that the video was "not collected on a typical weekday as required by the park and planning staff." *Id.* Staff noted that future traffic analysis will be completed in accordance with the updated 2020-2024 Growth and Infrastructure Policy, with the property now being located in the Grosvenor Policy Area and subject to those requisite standards. *Id.*

Mr. Douglas Burdin, a community member, testified that despite measures taken by the Academy of the Holy Cross to assist with traffic control, "…the traffic still backs up and the delays are still significant. And I have also, occasionally, been stuck trying to get out of my development, either going east or west and had delays from traffic. And I have been personally in that traffic occasionally that gets backed up on Strathmore." T. 342. Mr. Burdin also expressed concern about the "massive delays" noted in the LATR study and the supplemental analysis with respect to the studied intersections, and the reliability of the proposed traffic mitigation measures (e.g. traffic signal, turn lane, realignment of Stillwater) proposed to alleviate that delay and congestion.

Land Uses	Square Feet, Units, or Beds	Site-Generated Peak-Hour Person Trips	
		Morning	Evening
Former Use			
Assisted Living	38,000 sf.	12	15
Total Existing Person Trips		22	28
Proposed Land Uses under this application			
Townhomes	115 Units	45	56
Detached Single Family Residential	10 Units	10	9
Assisted Living	150 Beds	24	32
Proposed Subtotal Vehicular Trips		79	97

Proposed Subtotal Person Trips	127	154
Net Increase in Peak-Hour Person Trips	**+105**	**+126**

Table 2: Site-Generated Peak-Hour Person Trips

	AM				PM			
	Existing CLV	Future CLV	Existing Delay	Future Delay	Existing CLV	Future CLV	Existing Delay	Future Delay
Rockville Pike and Strathmore Avenue	716	1,289	16.8	21.4	964	1,538	23.3	29.1
Stillwater Avenue and Strathmore Avenue	862	1,033	445.2	2.0	757	1,102	5.3	1.7

Table 3: Existing and Future Traffic Impact

Other Public Facilities

While the findings necessary for approval of an LMA specifically require an analysis of whether the proposed development complies with the traffic and transit congestion standards in the LATR Guidelines, a final determination of the adequacy of other public facilities will be determined by the Planning Board at preliminary or site plan approval. Exhibit 62, p. 15. However, Sections 7.2.1.E.1.b and 7.2.1.E.1.c, as well as Section 5.1.2.A.2, permit the Hearing Examiner to evaluate other public facilities in which compatibility, the public interest, and the intent of the floating zone are satisfied. Staff concluded that "a preliminary analysis indicates that public facilities will be adequate for the proposed development."

With respect to circulation, existing and future vehicular access to the site is provided primarily from three access points on Strathmore Avenue. The primary entrance/exit will be utilized for the proposed residential care facility and the Academy of the Holy Cross, and secondarily for the single-family residential portion of the development. The second access/exit on Strathmore Avenue will be located more proximate to the single-family homes, and is intended to primarily serve those residences and only secondarily for the school and residential care facility. And the third access/exit will be located proximate to the rear of the residential care facility and will only

be used for loading/unloading, deliveries, and other servicing for the residential care facility including limited employee parking. Exhibit 34, p. 10. This third access point will not be connected to the internal roadway system proposed throughout the site, and therefore cannot be utilized for the other uses or for school traffic. *See* Exhibit 37. Staff found that the vehicular access points along Strathmore Avenue were adequate to accommodate vehicular traffic anticipated by the proposed redevelopment while internal roadways and sidewalks will be upgraded under this application including the addition of a shared use path proposed along Strathmore Ave. Exhibit 62, p. 15. Staff noted that property's frontage currently lacks sidewalks and that "future roadways and sidewalks will be constructed to provide additional infrastructure along the frontage and internal to the Site." *Id.* Members of the community testified to their preference for access to the site be from Tuckerman Lane or Cloister Drive, at the southern end of the property. Jeff Amateau, the Applicant's civil engineer, testified that while that option was considered, site conditions including a steep slope, a stream valley buffer, floodplain and other topographic conditions made vehicular access from the southern portion of the property unfeasible. T. 75.

With respect to water and sewer services, Staff states that the property is currently served by a 12" water line along Strathmore Avenue and a 15" sewer line running north-south through the Property. Exhibit 62, p. 15. "Electric, gas, and communications will be provided via a public utility easement connected to Strathmore Avenue and running along the central drive, alleys, and behind the proposed front-load townhouses." *Id.*

With respect to public services like schools, police, and fire access, due to the proposed residential use, a subsequent Preliminary Plan will be subject to the FY21 Annual School Test under the 2020-2024 Growth and Infrastructure Policy (GIP). Exhibit 62, p. 15. Staff notes that the property falls within the Walter Johnson School cluster, which includes the nearby Garrett Park Elementary School, Tilden Middle School, and Walter Johnson High School. *Id.* at 16. Staff opines

that further assessment of school capacity will be conducted at the time of Preliminary Plan. *Id.* The Applicant submitted a fire access plan into the record (Exhibit 9) and a formal determination for fire access adequacy will be issued by the Montgomery County Department of Fire and Rescue Service.

Conclusion: The Hearing Examiner finds that adequate public facilities are met under this application and that the FZP furthers the public interest by implementing the comprehensive planning objectives contained in the Master Plan to support diverse residential housing options in close proximity to public transit. The concerns expressed by community members during this two-day hearing were real, sincere, well-considered, and reasonable, but at the rezoning stage the Council must determine only that the development complies with traffic and transit congestion standards set by the LATR and the Annual Growth Policy, unless there is some evidence that other public facilities cannot be provided. While the Hearing Examiner shares the reservations of community members with regard to traffic congestion on an instinctual level, as the development proposes dense residential uses on previously unimproved land and a vacant building, Ms. Wagner's methodology was sound and her testimony was credible with regard to the LATR study, the supplemental analysis, and the conclusions drawn from that study. Without evidence or compelling argument to the contrary, the Hearing Examiner accepts the LATR and supplemental analysis as satisfying this standard. The record reveals that the Applicant has demonstrated that the proposed development meets the LATR Guidelines and there is no credible evidence suggesting that other public facilities will be insufficient to meet demand.

B. The Intent and Purposes of the Zone (Section 59.7.2.1.E.2.c)

Section 59.7.2.1.E.2.c of the Zoning Ordinance requires the District Council to find that the FZP "satisfy the intent and standards of the proposed zone." The Zoning Ordinance includes an "intent" clause for all Floating Zones and a "purpose" clause for the zone requested. Some of

the intent or purpose clauses have already been analyzed above. The balance of the intent findings for Floating Zones and the purposes of the CRTF Zone, are examined here.

1. Intent of Floating Zones (Section 59.5.1.2)

The intent of Floating Zones is to ensure (1) the FZP complies with the Master Plan, (2) is supported by adequate public facilities, and (3) achieves the following goals:

Section 59.5.1.2.A.3 … The intent of the Floating zones is to:

A. Implement comprehensive planning objectives by…
3. allowing design flexibility to integrate development into circulation networks, land use patterns, and natural features within and connected to the property…

The first two goals of Section 59.1.2.A (compliance with the Master Plan and adequacy of public facilities) are addressed above. The third intent standard of Section 59.5.1.2 is addressed below.

Staff opined that the proposed uses include single-family detached and single-family attached, as well as a residential care facility, "provide an appropriate mix of uses for the Property's context, and the maximum height of 50 feet for all uses ensures compatibility within the Property's setting." Exhibit 62, p. 22. Staff further stated that "the proposed mix of residential uses is compatible with adjacent development, which includes a townhouse development to the west, institutional uses to the south and east, and a single-family residential neighborhood to the north." *Id.* According to Staff, the arrangement of density and uses as proposed is more consistent with the abutting and confronting existing residential uses then the current state of the property, and the replacement of the currently vacant retirement home and parking lot with an updated building with amenities will be a "productive use that fits within the residential character and provides minimal parking spaces with direct view from the public realm." *Id.* at 23. Mr. Sloan testified that the FZP meets the intent standard as:

"One, it provides a residential care facility, replacing the vacant building now for our aging

> population. It provides housing including moderately priced dwelling units at a time when we are facing a housing shortage. It does place density appropriately near transit and other services. And it will significantly improve the environmental conditions of these two tributaries that drain to the Rock Creek by placing conservation easements on them and enhancing the habitat and forest in those areas." T. 119.

With regard to integrating development into circulation networks, there was some community testimony questioning the purpose behind multiple access points to the property versus limiting access to one primary access point. Mr. Sloan responded that:

> "Working with staff they required a second entrance to disperse traffic and give different options for people to access Strathmore Avenue, both pedestrians and drivers. So we took that requirement and worked on maintaining the primary entrance as our focal point for the community where it will sort all three different uses, where it will serve for fire and emergency access, and where it is the most safe, effective, and efficient for our primary point to get into and around the site. The secondary access, we worked with staff to align it with Stillwater and keep it at a size that would not impact any environmental areas, but otherwise we were working under a requirement of agency review for that. We think it does provide some benefits. It does get us closer to the Metro access at Strathmore Avenue that way and some other elements. But I think from a land planning perspective it was really driven by that dispersal of traffic required by staff."

T. 374. Ms. Wagner's testimony supported this reasoning by adding:

> "We worked for months prior to developing this plan for the access scenarios with park and planning staff and determined that each access point was needed for a very specific reason. The Stillwater connection was adamantly proposed by staff that they wanted to have that as a secondary access point for residents, for emergency vehicles to connect to the community."

T. 354

Conclusion: From this record, the Hearing Examiner finds that the FZP utilizes the design flexibility provided by the Floating Zones to integrate the development compatibly with surrounding uses, employing design strategies to mitigate the visual impact of the proposed single-family homes and the residential care facility, and expanding access points for vehicular and pedestrian safety and efficiency of access to eliminate queuing and traffic congestion, thereby satisfying the intent of a floating zone in furtherance of the public interest.

B. Encourage the appropriate use of land by:
1. providing flexible applicability to respond to changing economic, demographic, and planning trends that occur between comprehensive District or Sectional Map Amendments;
2. allowing various uses, building types, and densities as determined by a property's size and base zone to serve a diverse and evolving population; and
3. ensuring that development satisfies basic sustainability requirements including:
a. locational criteria,
b. connections to circulation networks,
c. density and use limitations,
d. open space standards,
e. environmental protection and mitigation; and

Staff noted that the Master Plan confirmed the continuance of the institutional uses on the property (St. Angela's Hall and The Academy of the Holy Cross). Exhibit 62, p. 22. The Applicant reiterated that the Master Plan that recommended retention of the property's R-60 zoning is now almost 20 years old, and as stated on page VII of the Master Plan, "[m]aster plans generally look ahead to a time horizon of about 20 years from the date of adoption….[i]t is recognized that the original circumstances at the time of plan adoption will change over time, and the specifics of a master plan may become less relevant as time goes on." Exhibit 53, p. 8. As St. Angela's Hall has closed and major mixed-use redevelopment proposals for other properties adjacent to the Grosvenor-Strathmore Metrorail Station have progressed, Staff found that a rezoning was appropriate to address the surrounding changes as well as to meet the intent of the Master Plan that prioritizes housing. Exhibit 62, p. 22. Under the new CRNF zone, the property will help mitigate a housing shortage identified by a 2020 housing needs assessment, and locating that housing near public transit. *Id.* Staff noted that the FZP and accompanying application indicate that all open space and environmental requirements are satisfied. *Id.* The density proposed (.75 FAR) is half of the permitted density (1.50), and the application contains a binding element prohibiting commercial uses on site. *Id.*

Conclusion: The Hearing Examiner finds that these requirements are satisfied. The FZP will provide diverse housing options for families and seniors which supports Master Plan goals for single-family residential and senior housing, and self-limits with a restriction on commercial uses and a density below the maximum permitted under zone regulations.

2. Purpose of Commercial/Residential Floating Zones (Section 59.5.3.2)

Section 59.5.3.2 of the Zoning Ordinance describes the purpose of the Commercial/Residential Floating Zones.

Section 59.5.3.2. (Purpose of Commercial/Residential Floating Zones)

> ***The purpose of the Commercial/Residential Floating zones is to:***
> ***A. allow development of mixed-use centers and communities at a range of densities and heights flexible enough to respond to various settings;***
> ***B. allow flexibility in uses for a site; and***
> ***C. provide mixed-use development that is compatible with adjacent development.***

The Applicant's Land Planning Report asserts that the purposes of the CRNF Zone are met under this application as the proposed development will "create a neighborhood appropriate to the setting with compatible uses and site design." Exhibit 34, p. 17. The uses allowed in the CRNF Zone are the same as those allowed in the CRN Zone including the proposed single-family and senior residential housing, while no commercial uses or commercial building types are proposed. *Id.* The Applicant proposes a "unique multi-generational community, where families, students of the adjacent schools, and seniors can interact and benefit from proximity to one another." Exhibit 53, p. 3.

Conclusion: The Hearing Examiner finds that the FZP furthers the purpose of commercial/residential floating zones. Binding elements limiting the use of the property to density, height, and restriction on commercial uses will further ensure compatibility with adjacent development and the surrounding area. The CRNF Zone allows the flexibility to incorporate a new building to replace an aging one, and to provide diverse infill housing to

a previously unimproved site in a manner compatible with the surrounding area while minimizing environmental impacts through open space requirements, conservation easements, and protection of two stream valley buffers.

C. The Applicability of the Zone (Section 59.5.1.3)

Section 59.5.1.3. of the Zoning Ordinance sets up a series of threshold tests to determine whether a property may apply for a Floating Zone. These subsections are addressed as follows:

> ***Section 59.5.1.3. A. A Floating zone must not be approved for property that is in an Agricultural or Rural Residential zone.***

Conclusion: The property to be rezoned is currently within the R-60 Zone, a Residential Detached Zone; therefore, this provision does not apply.

> ***Section 59.5.1.3. C. If a Floating zone is not recommended in a master plan, the following apply:***
>
> ***1. The maximum allowed density is based on the base zone and on the size of the tract as stated in Division 5.2 through Division 5.5. Any density bonus requested under Chapter 25A may be added to the density allowed under Division 5.2 through Division 5.5 and included in the units per acre or FAR of the zone requested.***
>
> ***2. Residential Base Zone***
>
> **** * ****
>
> ***b. When requesting a Townhouse Floating (TF) zone, Apartment Floating (AF) zone, or Commercial Residential Neighborhood Floating (CRNF) zone for a property with a Residential base zone:***
>
> ***i. The property must front on a nonresidential street or must confront or abut a property that is in a Residential Townhouse, Residential Multi-Unit, Commercial/Residential, Employment, or Industrial zone; and***
>
> ***ii. The application must satisfy a minimum of 2 prerequisites for each of the categories under Section 5.1.3. D.Section 59.5.1.3. D. Prerequisites [see table]***

Per Section 59-5.1.3.C.2.b of the Zoning Ordinance, to request the CRNF zone for a property with a residential base zone, the property must "front on a nonresidential street" and "satisfy a minimum of two (2) prerequisites for each of the categories under Section

59.5.1.3.D." The subject property fronts on Strathmore Avenue, which, according to Staff, is designated as an arterial road in the Master Plan, meeting the first requirement. Exhibit 62, p. 23. Further, Staff found that the LMA Application meets the following prerequisites in the three (3) categories listed below:

1. Transit and Infrastructure:
    a. At least 75% of the site is within ¼ mile of a Level 3, ½ mile of a Level 2, or ¼ mile of a Level 1 transit station/stop.
    b. The site is served by existing water and sewer infrastructure that will not require either an upgrade to the service line or installation of a pump station due to the proposed development.

2. Vicinity and Infrastructure:
    a. The site is adjacent to a route that provides access to an existing or master-planned school within ½ mile.
    b. The site is adjacent to a pedestrian route that provides access to existing public park and recreation facilities that satisfy a minimum of 30% of the recreation demand under the Planning Board's Recreation Guidelines, as amended, within ¾ mile.

3. Environment and Resources:
    a. The limits of disturbance for the development will not reduce the forest cover to less than an area of 10,000 square feet and width of 35 feet at any point.
    b. The site does not contain any rare, threatened, or endangered species or critical habitats listed by the Maryland Department of Natural Resources.

Exhibit 62, p. 23; *See* Section 5.1.3.D (and Table 5.1.3.D) for a full list of eligible prerequisites.

Conclusion: Having no evidence to the contrary, the Hearing Examiner finds that the subject property meets the prerequisites to filing a Floating Zone application.

D. Development Standards and Uses Permitted in the Commercial/Residential Floating Zones (Division 59.5.4)

1. Uses and Building Types Permitted (Sections 59.5.3.)

Section 59.5.3.3A.2 of the Zoning Ordinance permits "only" those uses permitted in the CRN Zone in the CRNF zone. Detached residential, attached residential, and residential care

facilities are all permitted uses in the CRN and, therefore, the CRNF zone, as proposed under this application.

Under Section 59.5.3.4.A., "[a]ny building type" is permitted in the Commercial/Residential Floating Zone, therefore, the FZP meets this standard as well.

Conclusion: The Hearing Examiner finds that the proposed use and building type satisfy the standards under this requirement.

2. Development Standards of the CRNF Zone (Section 5.3.5.A-D)

Section 5.3.5.A-E sets out the development standards for floating zones including: density, setback and height, lot size, general requirements, and public benefits requirements. Staff concluded that the FZP meets the development standards of the proposed CRNF 0.75 C-0.25 R-0.75 H-50' (Commercial Residential Neighborhood-Floating) Zone. The Staff Report includes a table, marked as Table 4 and reproduced on the next page, comparing the development standards of the Zone with those proposed. Exhibit 62, p. 24. Development beyond 1.0 FAR is not requested under this application and therefore no public benefits are requested or required, and therefore Section 5.3.5.E. does not apply.

In accordance with Section 59-5.3.5.D.2.a, the application must provide common open space for the townhouses and public open space for the residential care facility. Exhibit 62, p. 9. The Applicant proposes to provide a combined total of 10% or 63,463 square feet of public open space and common open space spread across the site including 19,451 square feet (0.44 acres) of linear pathway along proposed "Street A" (to be constructed), lawn area with terraced seating and other amenities, a 1.01 acre natural surface trail that traverses the rear of the townhouse units to the west of the site and within two smaller areas adjacent to proposed "Street C." Exhibit 62, p.10. The

	Required/Permitted	Proposed
Site		
Gross Tract Area (Overall Site)		38.55 acres

Gross Tract Area (Subject Property)	N/A	15.36 acres 688,877 sf.
Previous ROW Dedications		19,952 sf.
Proposed ROW Dedications		0 sf.
Net Lot Area (Subject Property)		668,925 sf.
Maximum Density of Development (CRNF-0.75, C-0.25, R-0.75, H-50)	Residential - 0.75 FAR/ (516,658 sf.) Commercial - 0.25 FAR (172,219 sf.)	Residential - 0.70 FAR/ (482,000 sf.) Commercial - 0 FAR (0 sf.)
Public Open Space	10%	44,012 sf. (1.01 acres)
Common Open Space	10%	19,451 sf. (0.44 acres)
Lot Coverage (max.)	Set at Site Plan	To be determined at Site Plan
Building Height (max.)	50 feet	50 feet
Principal Building Setbacks (min.)		
Front setback from public street	Set at Site Plan	To be determined at Site Plan
Side street setback		
Side setback		
Rear setback		
Parking*		
Townhouse	1 space per unit; 2 per unit max	297-313 spaces To be determined at Site Plan
Townhouse MPDU	minimum reduced by 50%	
Single-Family Residential	1 space per unit; 2 per unit max	
Residential Care Facility	0.25 per bed min./max. 0.5 space per employee min./max.	

Applicant submitted an Open Space Plan, shown on the next page, which provides a color-coded site plan indicating where the proposed common open space (blue shade) and public open space (red shade) may be located. *See* Exhibit 41, shown below. Mr. Sloan testified that the purpose of the conceptual design of the open space areas was to:

> "…focus people and get them down and engaged with the natural conservation areas where we are going to be planting different types of habitat species and provide screening to the school. And also maintain no impervious area really, so that we can keep the environmental quality there. So it's very unique in those aspects. It's focused on the environmental open spaces." T. 116.

Staff noted that these defined areas will be further reviewed at Preliminary Plan. Exhibit 62, p. 9.

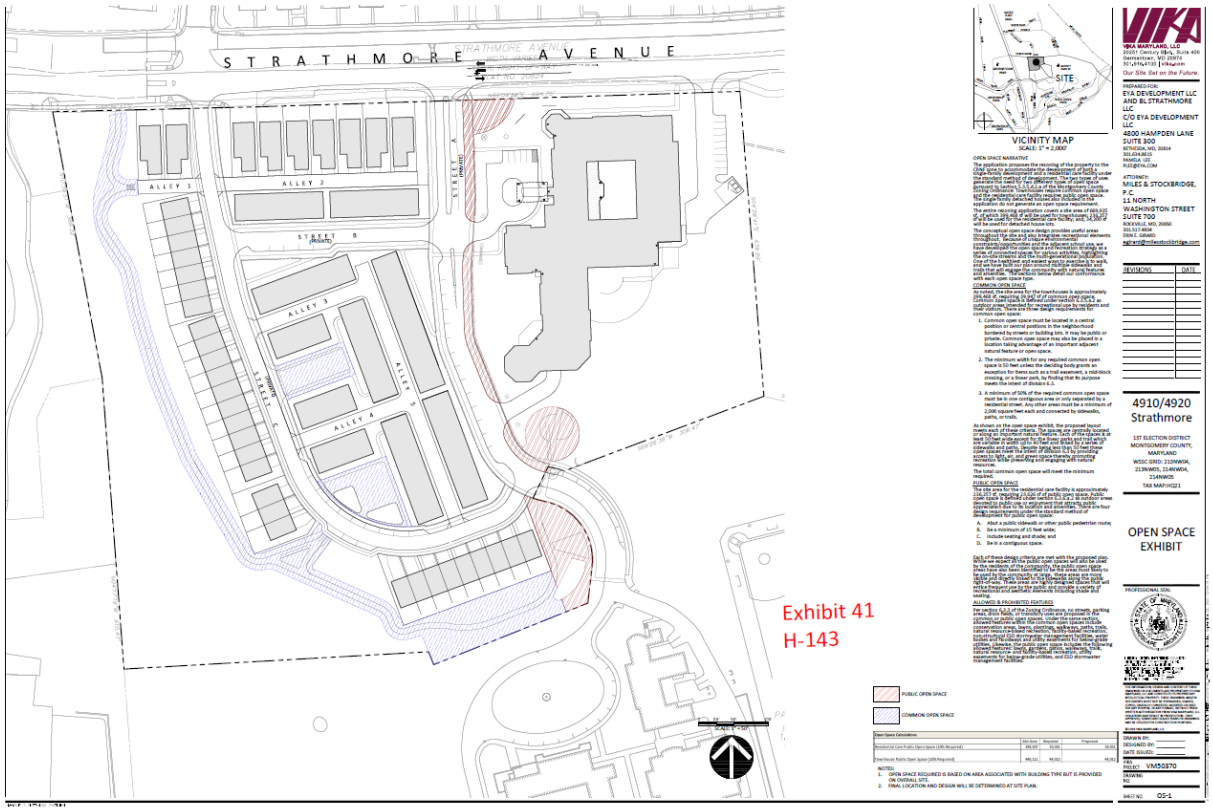


Exhibit 41: Open Space Plan

Conclusion: Having no evidence to the contrary, the Hearing Examiner finds that all development standards of the CRTF zone have been satisfied under this application.

E. General Development Requirements (Article 59.6)

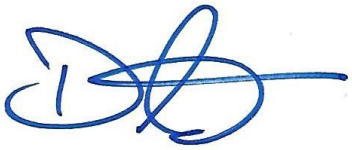
Staff found that the plans provided with the application show that the development "will comply with parking requirements (Division 59.6.2), recreation facility requirements (Division 59.6.3), general landscaping and outdoor lighting requirements (Division 59.6.4), and screening requirements (Division 59.6.5)." Exhibit 37, p. 17. Mr. Loe testified that "we will comply with the recreation facility requirement per division 59-6.3, the general landscaping and outdoor and lighting requirements per division 59-6.4, and then we will comply with the screening requirements per division 59-6.5." T. 96.

V. RECOMMENDATION

For the foregoing reasons, the undersigned conclude that the proposed reclassification and Floating Zone Plan will meet the standards set forth in the Zoning Ordinance and that it will be consistent with a coordinated and systematic development of the Regional District under State law. Therefore, we recommend that Local Map Amendment Application No. H-143, requesting reclassification from the R-60 Zone to the CRNF-0.75 C-0.25 R-0.75 H-50 zone be **approved** subject to the specifications and requirements of the Floating Zone Plan (Exhibit 88(a)), provided that the Applicant files an executed Declaration of Covenants reflecting the binding elements in the land records and submits to the Hearing Examiner for certification a true copy of the Floating Zone Plan approved by the District Council within 10 days of approval, in accordance with §§59.7.2.1.H.1.a. and b. of the Zoning Ordinance.

Issued: April 6, 2022

Respectfully submitted,



Derek J. Baumgardner
Hearing Examiner

Issued by:



Lynn Robeson Hannan
Hearing Examiner

Resolution No.: _____
Introduced: _____
Adopted: _____

COUNTY COUNCIL FOR MONTGOMERY COUNTY, MARYLAND SITTING AS THE DISTRICT COUNCIL FOR THAT PORTION OF THE MARYLAND-WASHINGTON REGIONAL DISTRICT IN MONTGOMERY COUNTY, MARYLAND

By: District Council

SUBJECT: APPLICATION NO. H-143 FOR AMENDMENT TO THE ZONING ORDINANCE MAP, Erin Girard, Esquire, Attorney for the Applicant, EYA Development LLC and BL Strathmore LLC; OPINION AND RESOLUTION ON APPLICATION; 4920 Strathmore Avenue, more particularly known as Parcel No. 045, Parcel B, Garrett Park Academy of the Holy Cross, as shown on Plat No. 20824, and all of the property located at 4910 Strathmore Avenue, more particularly known as Parcel N875, Parcel A, Garret Park- Holy Cross Convent, as shown on Plat No. 9347; Tax Account Nos. 04-03234564 and 04-00045122

OPINION

On August 4, 2021, EYA Development, LLC ("Applicant" or "EYA") filed Local Map Amendment (LMA) application (H-143) requesting the rezoning of the property located at 4910/4920 Strathmore Avenue (the "Property") in North Bethesda, Maryland from its current R-60 Zone (detached residential) to CRNF 0.75, C 0.25, R 0.75, H 50 (Commercial Residential Neighborhood- Floating). Exhibit 1. The property is currently improved by Garrett Park Academy of the Holy Cross (Parcel B), and Garret Park- Holy Cross Convent, or St. Angela's Hall (Parcel N875/Parcel A), a vacant and unoccupied retirement home for nuns. If approved, the proposed development of the property will include 125 single-family dwelling units (including a minimum of 15% MPDUs) and a 145-bed residential care facility.

On December 6, 2021, Staff of the Montgomery County Planning Department (Planning Staff or Staff) issued its revised report recommending approval of the application with binding elements. Exhibit 62. The Planning Board agreed with Staff and recommended approval on December 17, 2021. Exhibit 61. OZAH's public hearing proceeded as noticed on January 31, 2022 and concluded on February 1, 2022. Six (6) witnesses testified for the Applicant: Jack Lester (Applicant), Brenda Bacon (Brandywine Living), Jeff Amateau (civil engineer), Joshua Sloan (land planner), Katie Wagner (traffic engineer), and Jack McLaurin (architect). Community members Katie Prebble and Sister Ruth Marie Nickerson also testified in support of the application. Mr. David Shaffer, Esq. appeared on behalf of Garrett Park Estates and White Flint Civic Association. Community members testifying in opposition included: Douglas Burdin, Kip

Edwards, Arthur Ribeiro, Vanessa Lide, Cynthia Weitz, and Gerilee Bennett, a town councilmember representing the Town of Garrett Park. The Hearing Examiner left the record open until February 11, 2022. Several additional exhibits were received during this period and marked and admitted without objection as evidentiary exhibits. The Hearing Examiner issued a report recommending approval on April 6, 2022. The Hearing Examiner reopened the record to receive the revised Floating Zone Plan with binding elements, entered into the record as Exhibit 88.

To avoid unnecessary detail in this Opinion, the Hearing Examiner's Report is incorporated herein by reference. Based on its review of the entire record, the District Council finds that the application meets the standards required for approval of the requested rezoning for the reasons set forth by the Hearing Examiner.

Subject Property

The subject property is located at 4910/4920 Strathmore Avenue, immediately south of the intersection of Strathmore Avenue and Stillwater Avenue. Exhibit 62, p. 4. The two areas proposed for rezoning under this LMA are Parcel A, which is currently improved with the former St. Angela's Hall (approximately 38,000 square feet) with two driveway entrances on Strathmore Avenue, surface parking, outdoor amenity spaces, pedestrian paths, and open lawn areas, and a portion of Parcel B, which is currently improved by a school site known as the Academy of the Holy Cross, a Catholic high school for girls, consisting of various school buildings and athletic fields. *Id*.

The entire property including all of parcels A and B is approximately 38.22 acres in size. Exhibit 62, p. 4. The portion subject to this rezoning application (hereinafter the "site"), comprised of all of Parcel A and a portion of Parcel B, is approximately 15.36 acres (669,082 square feet) under common ownership. Id. The building and driveways for the existing but closed and vacant St. Angela's Hall are located on the high point of the site and slope down to a nearby tributary of Rock Creek and associated wetlands along the western, southern, and eastern sides of the property. Id. The main existing school site, which will remain unchanged under this application and is not subject to rezoning, is further improved by buildings, lawn, athletic fields, driveways, and parking areas. The property is currently zoned R-60. Id.

Surrounding Area

The Staff-defined neighborhood includes the community of single-family detached homes that front the property to the north across Strathmore Avenue (Garret Park Estates), the single-family attached neighborhood to the west (Symphony Park townhouse community), institutional uses abutting the property to the south and east (The Music Center at Strathmore and The Mansion at Strathmore), and a public transit station (Grosvenor-Strathmore Metro Station). Exhibit 62, p. 4; Exhibit 34, p. 5. Other surrounding uses include nearby public and private schools and a church. Exhibit 34, p. 5. Three public parks or playgrounds are also nearby: Garrett Park Estates Local Park, Druid Drive Neighborhood Park, and Garrett Park – Waverly Park. Exhibit 62, p. 4.

The Hearing Examiner concurred with the delineation of the surrounding area as described by Staff and the Applicant. The Hearing Examiner further characterized the area as predominantly

residential with single-family detached and single-family attached homes with institutional uses to serve the surrounding community. *Hearing Examiner's Report,* p. 9.

Proposed Development

The subject application seeks to rezone this R-60 property to CRNF 0.75 C-0.25 R-0.75 H-50, (Commercial Residential Neighborhood-Floating). Private roads, open spaces, environmental conservation areas, and infrastructure will also be implemented through the redevelopment process with access to the Academy of the Holy Cross maintained but redesigned through the redevelopment. Exhibit 34, p. 4. Following approval of the rezoning, future development on the site will relocate the entry drive, replace St. Angela's Hall on Parcel A with a 145- bed residential care facility owned and operated by Brandywine Living, and up to 10 detached single-family dwellings and 115 attached townhouse units on the area currently occupied by athletic fields and landscaped lawns, for a total of 125 single-family dwelling units (including a minimum of 15% MPDUs). Exhibit 34, p. 9. No commercial uses are proposed and a prohibition on commercial uses is listed as a binding element to this application. Exhibit 34, p. 19. The property's existing R-60 zone only allows townhouses by limited or conditional use and residential care facilities by conditional use only, therefore, the Applicant is seeking to rezone the property to the CRNF zone to permit both uses by right as a comprehensive project. Exhibit 53, p. 2. The FZP contains six binding elements that will permanently restrict future development:

1. Permitted uses on the Site include up to 125 single-family detached and attached dwelling units (including a minimum of 15% MPDUs) and a residential care facility (with up to 145 beds).
2. Commercial uses are not permitted on the Property, except permitted accessory uses associated with the residential care facility.
3. A natural surface trail must be provided along the western side of the Site that is subject to a public access easement
4. The Property is limited to no more than three points of vehicular access from Strathmore Avenue.
5. The Property must be subdivided to delineate the boundary of the area subject to the rezoning at the time of Preliminary Plan.
6. A Phase I Noise Analysis must be submitted with the Preliminary Plan to identify noise levels that might impact interior and exterior spaces subject to the Planning Department's Noise Guidelines. The analysis must be performed by a qualified acoustical engineer. If a combined Preliminary/Site Plan is submitted, the Site Plan must include recommendations from a qualified acoustical engineer to mitigate excessive noise levels per the Noise Guidelines.

Criteria for Approval

To approve an LMA, the District Council must find that the proposal will meet the standards required by the Zoning Ordinance and that it will be consistent with the coordinated and systematic development of the Regional District. See, *Md. Land Use Art*., §21-101(a) and (b). While many of the site-specific requirements for development are addressed by later approvals, the Zoning Ordinance contains various standards, or "Necessary Findings," that the Council must make. *See*,

Zoning Ordinance, §59.7.2.1.E. These standards incorporate the requirements of other sections of the Zoning Ordinance, and most fall within three main categories: (1) conformance with the Master Plan, (2) compatibility with the surrounding area and adjacent properties, and (3) whether the project is supported by adequate public facilities.

Conformance with the Master Plan[1]

The entirety of the subject property falls within the boundaries of the *1992 North Bethesda/Garrett Park Master Plan* ("Master Plan" or "Plan"). Exhibit 62, p. 17. The Master Plan area is bordered by I-270 to the west, the City of Rockville to the north, Rock Creek Park to the east, and I-495 to the south. Id. The subject property is listed as one of the "Key Vacant or Redevelopable Parcels" in the Plan area, or Parcel #14. Exhibit 34, p. 12.

The Master Plan lays out both general recommendations for the Master Plan area and specific recommendations for the subject property. According to Staff, the proposed rezoning will support the objectives of the plan "to encourage land use patterns that preserve and increase the variety of the housing stock particularly with elderly housing, provide safe and efficient transportation, provide facilities to meet the recreational needs of the public, and reduce environmental impacts." Exhibit 62, p. 17. General recommendations of the Plan include: focusing future development at Metrorail stops, new transit stations, and areas best served by transportation infrastructure, with more emphasis on housing; reduction in block sizes in the vicinity of Metro areas; improvements to the pedestrian friendliness of streets, particularly near transit nodes; and provision of a landmark quality and sense of place for nodal areas and districts. Id. Staff opined that the proposed development supports these objectives as it "achieve[s] this critical land use and transportation linkage" by providing residential housing to replace a vacant retirement home and "deliver more housing than was previously on the Site" while accessible to nearby rail service at the Grosvenor-Strathmore Metrorail Station, public bus stops and routes that traverse Strathmore Avenue, coupled with the construction of an "internal system of new private roads that create short, walkable blocks." Id. Based on her experience with other Brandywine sites, Ms. Bacon testified that many employees of the Brandywine residential care facility will likely use public transit for their daily travel to and from work. T. 57. The Applicant testified that the provision of housing is repeated as a primary objective throughout the plan, which calls for development of "[a] wide range of housing types within each neighborhood…to avoid large concentrations of any single type and increase the potential for pedestrian connection between diverse housing types," "preserv[ing] and increase[ing] the variety of housing stock, including affordable housing" and "encourag[ing] a mixture of land uses in redeveloping areas to promote variety and vitality." Exhibit 53, p. 5, citing the Master Plan at pp. 12, 33, 35.

In addition to general recommendations, the Master Plan also includes recommendations specific to 4910/4920 Strathmore Avenue. Exhibit 62, p. 18. Listed as Parcel No. 14, the Plan

[1] Section 59-7.2.1.E.2.a. of the Zoning Ordinance requires the District Council to find that the FZP "substantially conforms with the recommendations of the applicable master plan, general plan, and other applicable County plans." Section 59-7.2.1.E.2.b requires the FZP to be "in the public interest," which includes a review of conformity with County plans and policies and whether the development will be consistent with the coordinated and systematic development in the Regional District under State law. Section 59-7.2.1.E.2.c requires the application to satisfy the intent of Floating Zones. The intent of Floating Zones incorporates compliance with the applicable master plan. *Zoning Ordinance,* §59-5.1.2.A.1.

identifies the 35+ acre tract for the Academy of the Holy Cross which includes the school buildings, athletic fields, and a former group home for retired nuns. Exhibit 62, p. 18 (citing the Master Plan, pp. 80-81). Also linking to nearby transit, Staff notes that the Plan "supports the continued existence of the Academy and the retirement home at this location and recommends that the existing R-60 zoning be confirmed." Id. Staff opines that the application satisfies this specific objective by retaining the Academy of the Holy Cross School but replacing the now vacant retirement home with a new but analogous use as a residential care facility for seniors, and adding residential housing as infill development in a previously unimproved portion of the lot, all within proximity to a transit node. Exhibit 62, p. 18. The Plan specifically recommended retaining the Academy of the Holy Cross because of its proximity to excellent transit. Exhibit 34, p. 13.

The Master Plan also emphasizes other objectives for 4910/4920 Strathmore Avenue including "preserving green areas and institutional open space for environmental protection, wildlife sanctuary, recreation, and visual relief." Plan, p. 81. Staff notes that portions of the existing open lawn areas on the property are proposed to be protected through Conservation Easements with native plantings that can provide water quality protection, wildlife habitat, and visual relief from the surrounding development. Exhibit 62, p. 18. Portions of these conservation easements are proposed to be located along a planned nature trail located along the western edge of the property which will be open to the public during daylight hours. Id.

Staff further noted that the proposed development will "complement the existing sense of place" created by the surrounding residential neighborhoods to the north and west and educational and institutional spaces to the southwest and east. Exhibit 62, p. 17. Staff concluded that the proposed development "aims to fit within the existing neighborhood fabric of this well-established community while also delivering exceptional urban design and architectural detailing to further articulate quality." Id.

According to Staff, the Master Plan "makes significant recommendations to encourage and support transit use, including expansion to the public transportation system." Exhibit 62, p. 19. The Master Plan recommends that "future development be focused on Metrorail (Metro) stops, new transit stations, and areas best served by transportation infrastructure, with more emphasis on housing." *Id*.; citation to Master Plan, unknown. Staff notes that the proposed site is in close proximity to existing transit services including bus and rail services and the application includes: improving access to transit services through upgrading pedestrian and bicycle infrastructure along the corridor; constructing a new master-planned 10-foot-wide shared use path along Strathmore Avenue to support walking to the nearby Grosvenor-Strathmore Metrorail Station; construction of a new internal road and pathway system with five-foot wide asphalt sidewalks throughout the Site's new roads and natural surface trail along the western edge of the Property. Id. With respect to public transit, Mr. Sloan added that Ride-On Routes 5 and 37 run along Strathmore Ave while Routes 37 & 46 run along Rockville Pike. Exhibit 34, p. 6. Further, he estimated that "the Garrett Park MARC station is a 12-minute walk to the northwest and the Grosvenor-Strathmore Metro Red Line Station is a 10-minute walk along the trails in Symphony Park and the Music Center at Strathmore." Id. Mr. Douglas Burdin, a community member, testified that because of the site layout, residents living in this new development would be required to use Strathmore Avenue and a walking path in Symphony Park to access the Metro station, as the planned development does not contain a cut-through connecting to Cloister Drive or Tuckerman Lane. T. 340-341. Mr. Burdin

estimated this walk-time to be between 13-18 minutes. Id. Mr. Burdin estimated this same walk-time to the Garrett Park MARC station. Id.

Both the Hearing Examiner and Staff agreed that the proposed development substantially conforms to the Master Plan. The Hearing Examiner concluded that the the proposed rezoning supports the general objectives of the North Bethesda/Garrett Park Master Plan, and satisfies the intent and standards of the floating zone by furthering the goals of the Plan to provide housing near public transit and mixed-use nodes, and furthers the public interest by advancing the goals and objectives of the Master Plan. *Hearing Examiner's Report*, p. 27. Based on this record, the District Council agrees with the Hearing Examiner and so finds.

Compatibility

Several sections of the Zoning Ordinance require the District Council to decide whether the FZP is compatible with adjacent uses and the surrounding area.[2] The Hearing Examiner found that the proposed development will be compatible with adjacent properties and the surrounding area. *Hearing Examiner's Report*, p. 30. The Hearing Examiner found that the proposed residential care facility will replace and provide necessary improvements to the previous retirement home with an updated residential care facility to serve seniors. *Id.* The FZP utilizes the site's topography to mitigate the height, size, and impact of the proposed buildings, as the lot slopes east to west. T. 150; *See* Exhibit 40. Further, the proposed residential housing serves the needs of increased residential housing demand as identified in the Master Plan, by providing single-family housing specifically located in close proximity to public transit at the Grosvenor-Strathmore Metro station, Garrett Park MARC station, and bus routes. *Hearing Examiner's Report*, p. 30. The District Council agrees and finds that the FZP will be compatible with the surrounding area.

Adequacy of Public Facilities/Public Interest

The District Council must also find that public facilities will be adequate to serve the FZP. While a more detailed review will occur later in the development process, a threshold analysis must be performed at the rezoning stage.[3]

---

[2] The application must satisfy the intent and standards of the proposed zone and, to the extent the Hearing Examiner finds it necessary to ensure compatibility, meet other applicable requirements of this Chapter. *Zoning Ordinance,* §59.7.2.1.E.1.c. The intent of the Floating Zones requires the applicant to "ensure protection of established neighborhoods" by "establishing compatible relationships between new development and existing neighborhoods through limits on applicability, density, and uses" and "providing development standards and general compatibility standards to protect the character of adjacent neighborhoods." *Id.,* Section 59.5.1.2.C.1 and 2. One purpose of the Commercial/Residential Floating Zones (which includes the CRNF Zone), is to "provide development that is compatible with adjacent development." *Id.*, 59.5.3.2.C. Finally, §59.7.2.1.E.2.f states that "when applying a non-Residential Floating zone to a property previously under a Residential Detached zone, [it must] not adversely affect the character of the surrounding neighborhood." Because the property falls within a Residential Detached Zone (the R-60 Zone), this provision applies as well.

[3]Section 59.7.2.1.E.2.e requires that an Applicant demonstrate that traffic generated from the proposed development "does not exceed the critical lane volume or volume/capacity ratio standard as applicable under the Planning Board's LATR Guidelines, or, if traffic exceeds the applicable standard, that the applicant demonstrate an ability to mitigate such adverse impacts . . ." The adequacy of other facilities is part of the Council's determination that an application will be "in the public interest…" and that it be "it will be consistent with a coordinated and systematic development of the Regional District" under State law. Zoning Ordinance, §59-7.2.1.E.1.b; *Md. Land Use Art*., §21-101(a) and

The FZP must comply with the Planning Board's Local Area Transportation Review (LATR) Guidelines. *Zoning Ordinance,* 59.7.2.1.E.1.c. According to Staff, the 2020-2024 Growth and Infrastructure Policy went into effect on January 1, 2021. Exhibit 62, p. 14. The scope of the Applicant's traffic impact study was approved by Staff in November of 2020 and as such, the transportation study for the Local Map Amendment was subject to the previous 2016-2020 Subdivision Staging Policy. *Id*. At the time of the review, the subject property was located within the North Bethesda orange policy area under the 2016-2020 Subdivision Staging Policy. Id. In this policy area, LATR compliance is required, and the Applicant submitted a traffic impact study to determine multimodal adequacy including both Critical Lane Volume (CLV) and Highway Capacity Manual (HCM) delay analyses. Id. Staff noted that Preliminary Plan will be subject to the 2020-2024 Growth and Infrastructure Policy (GIP) and a new transportation study will be required as part of that analysis.

The Traffic Study concluded that Critical Lane Volume (CLV) and Highway Capacity met the intersection congestion standards for the policy area. CLVs are 1,550 and the HCM analysis measured 71 seconds of delay per vehicle. Both are "within acceptable levels of congestion." Exhibit 62, p. 14. The traffic study further concluded congestion standards met the LATR requirements even though existing delays for the Stillwater Avenue and Strathmore Avenue intersection exceed the 71 second delay standard. Staff concluded that the proposed realignment of the driveway for the Academy of the Holy Cross and construction of a new driveway at the Stillwater Avenue approach will accommodate school traffic during the AM peak hour sufficient to mitigate the capacity delay. Exhibit 62, p. 14. Staff concluded that the traffic study demonstrates that "all intersections within the study area will operate within the policy area's congestion standards." Id. The Hearing Examiner found that adequate public facilities are met under this application and that the FZP furthers the public interest by implementing the comprehensive planning objectives contained in the Master Plan to support diverse residential housing options in close proximity to public transit. *Hearing Examiner's Report*, p. 35. The Hearing Examiner further noted that "at the rezoning stage the Council must determine only that the development complies with traffic and transit congestion standards set by the LATR and the Annual Growth Policy, unless there is some evidence that other public facilities cannot be provided" and concluded that the methodology used in the Traffic Study was credible and there was no credible evidence suggesting that LATR requirement were not satisfied by this application or that other public facilities will be insufficient to meet demand. *Id.* The District Council agrees and finds that public facilities will be adequate to serve the FZP.

Mr. Kip Edwards, a member of the community, testified that the community had concerns regarding the credibility of the traffic study. purchased a traffic counting software service called Camlytics that uses "machine learning to count cars which enter and exit the frame" to conduct their own lay analysis. T. 249. Mr. Edwards testified that the Camlytics analysis resulted in a traffic count that was "much higher than the numbers used in the August 2021 LATR supplemental report, which is what planning board staff ultimately relied on when they met their conclusions." T. 250. Ms. Wagner responded that she reviewed the video and compared the video recorded by the community with her own analysis and "found that the spreadsheet overexaggerated the number of

(b). The intent of the Floating Zones is to "implement comprehensive planning objectives by…ensuring that the proposed uses are in balance with and supported by the existing and planned infrastructure…" Zoning Ordinance, §59-7.2.1.E.1.b; 59-5.1.2.A.2.

vehicles traveling along Strathmore Avenue." T. 162. Ms. Wagner also noted that the video was "not collected on a typical weekday as required by the park and planning staff." Id. Staff noted that future traffic analysis will be completed in accordance with the updated 2020-2024 Growth and Infrastructure Policy, with the property now in a different policy area (*i.e.,* the Grosvenor Policy Area) and subject to those requisite standards. *Id*.

Mr. Douglas Burdin, a community member, also expressed concern about the "massive delays" noted in the LATR study and the supplemental analysis with respect to the studied intersections, and the reliability of the proposed traffic mitigation measures (e.g. traffic signal, turn lane, realignment of Stillwater) proposed to alleviate that delay and congestion. T. 342.

The Hearing Examiner characterized the community's traffic concerns as "real, sincere, well-considered, and reasonable", but found the weight of the evidence in the Applicant's favor, stating:

> …at the rezoning stage the Council must determine only that the development complies with traffic and transit congestion standards set by the LATR and the Annual Growth Policy, unless there is some evidence that other public facilities cannot be provided. While the Hearing Examiner shares the reservations of community members with regard to traffic congestion on an instinctual level, as the development proposes dense residential uses on previously unimproved land and a vacant building, Ms. Wagner's methodology was sound and her testimony was credible with regard to the LATR study, the supplemental analysis, and the conclusions drawn from that study.

The Council finds that the Traffic Impact Study and Supplemental Analysis in the record are the best, most reliable evidence that the application will meet the LATR Guidelines and finds the evidence sufficient to approve the rezoning of the property. Further review will occur at subdivision under the current Growth and Infrastructure Policy will occur at subdivision.

The Intent of Floating Zones (§59.5.1.2)

The District Council must determine whether the FZP fulfills the intent of the Floating Zones. Several of these have already been addressed.[4] The remaining include (from Section 59-5.1.2):

> *Section 59-5.1.2.A.3. Implement comprehensive planning objectives by:*
>
> *3. allowing design flexibility to integrate development into circulation networks, land use patterns, and natural features within and connected to the property; and*

[4] The intent of Floating Zones contained in Sections 59-5.1.2.A.1 and 2 and 59-5.1.2.C of the Zoning Ordinance has already been addressed in the Council's findings relating to the compatibility of the FZP with surrounding uses and the adequacy of public facilities. The balance of the Floating Zone intent clauses are discussed here.

The Hearing Examiner found that the FZP utilizes the design flexibility provided by the Floating Zones to integrate the development compatibly with surrounding uses by employing design strategies to mitigate the visual impact of the proposed single-family homes and the residential care facility, and expanding access points for vehicular and pedestrian safety and efficiency of access to eliminate queuing and traffic congestion, thereby satisfying the intent of a floating zone in furtherance of the public interest. From this record, the District Council finds, as did the Hearing Examiner, that the proposed FZP satisfied the intent of Floating Zones.

> *Section 5.1.2.B. Encourage the appropriate use of land by:*
>
> *1. providing flexible applicability to respond to changing economic, demographic, and planning trends that occur between comprehensive District or Sectional Map Amendments;*
>
> *2. allowing various uses, building types, and densities as determined by a property's size and base zone to serve a diverse and evolving population;*
>
> *3. ensuring that development satisfies basic sustainability requirements, including open space standards and environmental protection and mitigation; and*

The FZP will provide diverse housing options for families and seniors which supports Master Plan goals for single-family residential and senior housing, and self-limits with a restriction on commercial uses and a density below the maximum permitted under zone regulations. The District Council finds that the development proposed meets this intent, as did the Hearing Examiner.

Purpose of Commercial/Residential Floating Zones (Section 59.5.3.2)

The purpose of the Commercial/Residential Floating zones is to:

> ***A. allow development of mixed-use centers and communities at a range of densities and heights flexible enough to respond to various settings;***
> ***B. allow flexibility in uses for a site; and***
> ***C. provide mixed-use development that is compatible with adjacent development.***

The District Council has already addressed the third purpose (*i.e.,* providing compatible development) above. The Hearing Examiner found that that the FZP furthers the other purposes of commercial/residential floating zones. Binding elements limiting the use of the property to density, height, and restriction on commercial uses will further ensure compatibility with adjacent development and the surrounding area. The CRNF Zone allows the flexibility to incorporate a new building to replace an aging one, and to provide diverse infill housing to a previously unimproved site in a manner compatible with the surrounding area while minimizing environmental impacts through open space requirements, conservation easements, and protection of two stream valley buffers. *Hearing Examiner's Report*, p. 40. The CRNF Zone allows the

flexibility to incorporate a new building into a developed site in a manner compatible with the surrounding area while minimizing environmental impacts. The District Council agrees with this analysis and finds that the FZP proposed meets the purposes of the Commercial/Residential Floating Zone.

The Applicability of the Zone (Section 59.5.1.3.)

Section 59.5.1.3. of the Zoning Ordinance sets up a series of threshold tests to determine whether a site may apply for a Floating Zone.[5] Because the Master Plan does not recommend a Floating Zone for this property and the property is in a Residential Detached Zone, it must meet the following prerequisites (*Zoning Ordinance,* §59.5.1.3.C.2.b):

i. The property must front on a nonresidential street or must confront or abut a property that is in a Residential Townhouse, Residential Multi-Unit, Commercial/Residential, Employment, or Industrial zone; and
ii. The application must satisfy a minimum of 2 prerequisites for each of the categories under Section 5.1.3. D., Section 59.5.1.3. D. Prerequisites.

The Hearing Examiner found that the FZP meets these prerequisites. The Staff Report and the Hearing Examiner's Report set forth in detail the reasons the application meets the additional requirements of Section 59.5.1.3. Having no evidence to the contrary, the District Council finds that the FZP meets the applicability standards of the Zoning Ordinance.

Uses and Building Types Permitted (Section 59.5.4.3 and 59.5.4.4)

Section 59.5.3.3A.2 of the Zoning Ordinance permits "only" those uses permitted in the CRN Zone in the CRNF Zone. Detached residential, attached residential, and residential care facilities are all permitted uses in the CRN and, therefore, the CRNF zone, as proposed under this application. Under 59.5.3.4.A., "[a]ny building type" is permitted in the Commercial/Residential Floating Zone, therefore, the FZP meets this standard. The District Council finds that the use and building type proposed meet these standards.

Development Standards of the Zone (Section 5.3.5)

Staff concluded and the Hearing Examiner found that the FZP meets the development standards of the CRNF Zone. Based on this evidence, the District Council agrees with the finding of the Hearing Examiner that the application meets the development standards of the CNRF Zone.

[5] Section 59-5.1.3.A prohibits placement of a Floating Zone on property currently in an Agricultural or Rural Residential Zone. As this property is zoned R-60, a Residential Detached Zone and NR, and Employment Zone, that section does not apply.

Conclusion

Based on the foregoing analysis and after a thorough review of the entire record, including the Hearing Examiner's Report issued April 6, 2022, the District Council concludes that the proposed reclassification and development will meet the standards set forth in the Zoning Ordinance, and that it will be consistent with the coordinated and systematic development of the Regional District under State law.

ACTION

The County Council for Montgomery County, Maryland, sitting as the District Council for that portion of the Maryland-Washington Regional District located in Montgomery County, Maryland, approves the following resolution:

Local Map Amendment Application No. H-143, requesting reclassification of the property located at 4910/4920 Strathmore Avenue (the "Property") in North Bethesda, Maryland, Tax Account Nos. 04-03234564 and 04-00045122, from its current R-60 Zone (detached residential) to CRNF 0.75, C 0.25, R 0.75, H 50 (Commercial Residential Neighborhood-Floating)., is hereby **approved** subject to the specifications and requirements of the revised Floating Zone Plan (Exhibit 88), provided that the Applicant files an executed Declaration of Covenants reflecting the binding elements in the land records and submits to the Hearing Examiner for certification a true copy of the Floating Zone Plan approved by the District Council within 10 days of approval, in accordance with §§59.7.2.1.H.1.a. and b. of the Zoning Ordinance.

This is a correct copy of Council action.

Judy K. Rupp
Clerk of the Council

LOCAL MAP AMENDMENT APPLICATION
DISCLOSURE STATEMENT
(Revised February 7, 2019)

State law requires that each and any Applicant for a local zoning map amendment, or Party of Record, who has made a contribution to a candidate for County Executive or County Council of $500.00 or more, calculated cumulatively for the four-year election cycle either before the filing of the application or during the four-year cycle within which the application is pendent, must disclose the name of the candidate to whose treasurer, political committee, or slate the contribution was made, the amount and the date of the contribution.

A Disclosure Statement must be filed when the application is filed or within two weeks after entering the proceeding by a Party of Record and be updated within 5 business days of any contribution made after the filing of the initial disclosure and before final disposition of the application by the District Council. If more than one contribution is made, please specify in the space provided below each contribution and to whom it was made. **If more than one applicant is involved in a single application, each applicant must file this statement.**

Subject to the penalties of perjury, I, EYA Development LLC
(NAME OF APPLICANT FOR LOCAL MAP AMENDMENT OR PARTY OF RECORD)
HEREBY AFFIRM that the contents of this statement are true to the best of my

knowledge, information and belief, and that: **(SELECT EITHER 1 OR 2 BELOW AND CHECK APPROPRIATE STATEMENT)**

1. ☐ I HAVE made a contribution of _____
(FILL IN AMOUNT OF CONTRIBUTION IF $500 OR MORE, OR STATE N/A IF NOT APPLICABLE)

on _____
(FILL IN DATE (MONTH, DAY AND YEAR) OF CONTRIBUTIONS),

to the following candidate's treasurer, political committee, or slate:

_____
(FILL IN NAME OR NAMES OF CANDIDATE, OR STATE N/A IF INAPPLICABLE)
(If more space is required, use the back of this form.)

2. ☒ I HAVE NOT made a contribution requiring disclosure.

_____, EVP
SIGNATURE OF DECLARANT

This Statement is filed in compliance with the public ethics requirements of Md. Code Ann, General Provisions, §§5-842 through 5-845; 2014 Md. Laws Ch. 94. A person who knowingly and willfully violates this part is guilty of a misdemeanor and on conviction is subject to a fine not exceeding $ 1,000.

For convenience, several definitions in State law are contained on the next page.

Subscribed and sworn to me, a Notary Public for Montgomery County, Maryland, this

22 day of December, 2020.

_____
NOTARY PUBLIC
My Commission Expires: 06/26/2023

NANCY N. HALL
My Commission Expires
NOTARY PUBLIC
06/26/2023
MONTGOMERY COUNTY, MD

Partial List of Definitions under Md. Code Ann., Gen. Prov. §5-842

* * *

(b) Applicant.

(1) (i) "Applicant" means an individual or business entity that is:

1. a title owner or contract purchaser of land that is the subject of an application;
2. a trustee who has an interest in land that is the subject of an application, excluding trustees described in a mortgage or deed of trust; or
3. a holder of 5 percent or greater interest in a business entity who has an interest in land that is the subject of an application.

(ii) "Applicant" includes, if the applicant is a corporation, the directors and officers of the corporation that actually holds title to the land, or is a contract purchaser of the land , that is the subject of an application.

(2) "Applicant" does not include:

(i) a financial institution that has loaned money or extended financing for the acquisition, development, or construction or improvements on the land that is the subject of an application;
(ii) a municipal or a public corporation;
(iii) a public authority;
(iv) a public service company acting within the scope Division I of the Public Utilities Article; or
(v) a person who is hired or retained an accountant, an attorney, an architect, an engineer, a land use consultant, an economic consultant, a real estate agent, a real estate broker, a traffic consultant, or a traffic engineer.

* * *

(e) "Candidate" means an individual who wins an election to the Office of County Executive or County Council of Montgomery County.

* * *

(f) (1) (i) "Contribution" means:

1. A payment or transfer of money or property of $500 or more, calculated cumulatively during a 4-year election cycle, to the treasurer of either a candidate or a political committee.
2. The incurring of any liability or promise of anything of value of $500 or more, calculated cumulatively during a 4-year election cycle, to the treasurer of either a candidate or political committee.

(ii) "Contribution" includes a payment or transfer to a slate with which a candidate is associated.

(2) (i) Except as provided in subparagraph (II) of this subsection, the $500 cumulative threshold contribution is calculated separately as to each candidate or elected official.
(ii) For purposes of this subtitle, a cumulative contribution of $500 or more to a slate is fully attributed to each candidate on the slate.

LOCAL MAP AMENDMENT APPLICATION
DISCLOSURE STATEMENT
(Revised February 7, 2019)

State law requires that each and any Applicant for a local zoning map amendment, or Party of Record, who has made a contribution to a candidate for County Executive or County Council of $500.00 or more, calculated cumulatively for the four-year election cycle either before the filing of the application or during the four-year cycle within which the application is pendent, must disclose the name of the candidate to whose treasurer, political committee, or slate the contribution was made, the amount and the date of the contribution.

A Disclosure Statement must be filed when the application is filed or within two weeks after entering the proceeding by a Party of Record and be updated within 5 business days of any contribution made after the filing of the initial disclosure and before final disposition of the application by the District Council. If more than one contribution is made, please specify in the space provided below each contribution and to whom it was made. **If more than one applicant is involved in a single application, each applicant must file this statement.**

Subject to the penalties of perjury, I, BL Strathmore, LLC
(NAME OF APPLICANT FOR LOCAL MAP AMENDMENT OR PARTY OF RECORD)
HEREBY AFFIRM that the contents of this statement are true to the best of my

knowledge, information and belief, and that: **(SELECT EITHER 1 OR 2 BELOW AND CHECK APPROPRIATE STATEMENT)**

1. ☐ I HAVE made a contribution of _____
(FILL IN AMOUNT OF CONTRIBUTION IF $500 OR MORE, OR STATE N/A IF NOT APPLICABLE)

on _____
(FILL IN DATE (MONTH, DAY AND YEAR) OF CONTRIBUTIONS),

to the following candidate's treasurer, political committee, or slate:

_____
(FILL IN NAME OR NAMES OF CANDIDATE, OR STATE N/A IF INAPPLICABLE)
(If more space is required, use the back of this form.)

2. ☑ I HAVE NOT made a contribution requiring disclosure.

Kenneth C. Segarnick
SIGNATURE OF DECLARANT

This Statement is filed in compliance with the public ethics requirements of Md. Code Ann, General Provisions, §§5-842 through 5-845; 2014 Md. Laws Ch. 94. A person who knowingly and willfully violates this part is guilty of a misdemeanor and on conviction is subject to a fine not exceeding $ 1,000.

For convenience, several definitions in State law are contained on the next page.

Subscribed and sworn to me, a Notary Public for Montgomery County, Maryland, this

4 day of January, 2021.

NOTARY PUBLIC
My Commission Expires: 06/26/2023

NANCY N. HALL
My Commission Expires
NOTARY PUBLIC
06/26/2023
MONTGOMERY COUNTY, MD

Partial List of Definitions under Md. Code Ann., Gen. Prov. §5-842

* * *

(b) Applicant.

(1) (i) "Applicant" means an individual or business entity that is:

1. a title owner or contract purchaser of land that is the subject of an application;
2. a trustee who has an interest in land that is the subject of an application, excluding trustees described in a mortgage or deed of trust; or
3. a holder of 5 percent or greater interest in a business entity who has an interest in land that is the subject of an application.

(ii) "Applicant" includes, if the applicant is a corporation, the directors and officers of the corporation that actually holds title to the land, or is a contract purchaser of the land , that is the subject of an application.

(2) "Applicant" does not include:

(i) a financial institution that has loaned money or extended financing for the acquisition, development, or construction or improvements on the land that is the subject of an application;
(ii) a municipal or a public corporation;
(iii) a public authority;
(iv) a public service company acting within the scope Division I of the Public Utilities Article; or
(v) a person who is hired or retained an accountant, an attorney, an architect, an engineer, a land use consultant, an economic consultant, a real estate agent, a real estate broker, a traffic consultant, or a traffic engineer.

* * *

(e) "Candidate" means an individual who wins an election to the Office of County Executive or County Council of Montgomery County.

* * *

(f) (1) (i) "Contribution" means:

1. A payment or transfer of money or property of $500 or more, calculated cumulatively during a 4-year election cycle, to the treasurer of either a candidate or a political committee.
2. The incurring of any liability or promise of anything of value of $500 or more, calculated cumulatively during a 4-year election cycle, to the treasurer of either a candidate or political committee.

(ii) "Contribution" includes a payment or transfer to a slate with which a candidate is associated.

(2) (i) Except as provided in subparagraph (II) of this subsection, the $500 cumulative threshold contribution is calculated separately as to each candidate or elected official.
(ii) For purposes of this subtitle, a cumulative contribution of $500 or more to a slate is fully attributed to each candidate on the slate.

December 17, 2021

Ms. Lynn Robeson Hannan, Director/Hearing Examiner
Montgomery County Office of Zoning and Administrative Hearings
Stella B. Werner Council Office Building
100 Maryland Avenue, Room 200
Rockville, Maryland 20850

SUBJECT: Local Map Amendment No. H-143
4910-4920 Strathmore Avenue

Dear Ms. Robeson Hannan:

On December 16, 2021, the Montgomery County Planning Board of the Maryland-National Capital Park and Planning Commission reviewed Local Map Amendment No. H-143, a request to rezone 15.36 acres from the R-60 Zone to the CRNF-0.75, C-0.25, R-0.75, H-50 Zone for the future subdivision of up to 126 lots, containing up to 125 single-family dwelling units and a 145-bed residential care facility with up to 50 employees during the peak shift, located at 4910-4920 Strathmore Avenue, Kensington. The Planning Board received a presentation from Planning Staff, and the Applicant was present to answer questions.

The Planning Board received written testimony ahead of the hearing that both supported the requested rezoning and opposed its approval. Written comments received by the date of the Staff Report are included as Staff Report Attachment B (Attachment 1 to this letter) and correspondence received after the date of the Staff Report is included in Attachment 3 to this letter for your reference. During the hearing, the Planning Board heard public testimony regarding concerns about potential impacts related to school capacity, the traffic study, cut-through traffic, traffic control devices, pedestrian facilities, parking, access to open space, and preservation of a landscaped median.

In addition to its endorsement of the Local Map Amendment and approval of the Preliminary Forest Conservation Plan, the Planning Board recommends that the Hearing Examiner consider the comments submitted by the Town of Garrett Park, dated December 14, 2021 (Attachment 4). Those comments include constructive comments pertaining to general circulation, bicycle access, and pedestrian access to the nearby Metrorail.

The current submission of the proposed Local Map Amendment, dated September 22, 2021, complies with the general conditions and standards of Residential Uses, subject to the recommended conditions of approval.

The Subject Application is governed by the Zoning Ordinance in effect on October 29, 2014. As conditioned, the proposed uses meet the findings set forth in Section 59-7.2.1.E.2 of the Zoning Ordinance, are consistent with the goals and recommendations of the 1992 *North Bethesda/Garrett Park Master Plan*; and the Applicant has met the burden of proof by showing that the proposed residential uses and residential care facility will not create a detriment to the neighborhood and will not adversely affect the public interest.

On a motion by Commissioner Cichy, seconded by Commissioner Verma, with Chair Anderson, and Commissioner Patterson voting in favor and Commissioner Rubin absent, the Board recommends (4-0) that Local Map Amendment No. H-143, 4910-4920 Strathmore Avenue, be approved with the conditions enumerated in the Staff Report.

We hope the Planning Board's recommendations and the Staff Report will be helpful to your proceedings. Please contact Ms. Tamika Graham, Senior Planner, with any questions. Ms. Graham can be reached by phone at 301-495-4551 or via email at Tamika.Graham@montgomeryplanning.org.

Sincerely,



Casey Anderson
Chair

Exhibit 60
H-143

CA:tg:ha

Attachments:
1. Revised Staff Report for Local Map Amendment H-143 with Attachments
2. Staff Report for Preliminary Forest Conservation Plan H-143 with Attachments
3. Correspondence received following Staff Report Posting
4. Town of Garrett Park comment letter, dated December 14, 2021

Montgomery Planning

4910-4920 STRATHMORE AVENUE LOCAL MAP AMENDMENT NO. H-143



Description

Request to rezone 15.36 acres from the R-60 Zone to the CRNF-0.75, C-0.25, R-0.75, H-50 Zone to construct 126 lots containing up to 125 single-family dwelling units and a 145-bed residential care facility.

NO. H-143

COMPLETED: ~~11-5-2021~~
REVISED: 12-6-2021

MCPB
Item No.
~~11-18-2021~~ 12-16-2021

2425 Reedie Drive
Floor 14
Wheaton, MD 20902

Exhibit 62
H-143

TG Tamika Graham, Senior Planner, Mid-County Planning, Tamika.Graham@montgomeryplanning.org, 301.495.4551

MAF Matthew Folden, Supervisor, Mid-County Planning, Matthew.Folden@montgomeryplanning.org, (301) 495-4539

CS Carrie Sanders, Chief, Mid-County Planning, Carrie.Sanders@montgomeryplanning.org, (301) 495-4653

LOCATION:

4910-4920 Strathmore Avenue, Kensington

MASTER PLAN ZONE

1992 North Bethesda/Garrett Park Master Plan

PROPERTY SIZE

15.36 acres

APPLICANTS

EYA Development LLC ("EYA") and BL Strathmore LLC ("Brandywine")

ACCEPTANCE DATE:

July 29, 2021

HEARING EXAMINER PUBLIC HEARING:

~~November 29, 2021~~ REVISED December 27, 2021

REVIEW BASIS:

Chapter 59, Zoning Ordinance

Summary

- Staff recommends approval of Local Map Amendment (LMA) H-143 to rezone the 15.36-acre Site from the R-60 zone to the CRNF 0.75, C-0.25 R-0.75 H-50', zone with conditions, to be transmitted to the Hearing Examiner.
- The Property is currently developed with the vacant St. Angela Hall Retirement Home, open space, and frontage associated with the Academy of the Holy Cross School.
- The rezoning will allow for the future redevelopment of the Property with up to 125 single-family dwelling units (including a minimum of 15% MPDUs) and a 145-bed residential care facility.
- The Property is not recommended for a floating zone in the North Bethesda/Garrett Park Master Plan; therefore, the Application must meet the prerequisites in Section 59.5.1.3.C & D, "Floating Zone Applicability," of the Zoning Ordinance.
- An associated Preliminary Forest Conservation Plan and Tree Variance is recommended for approval and discussed in a separate Staff Report.
- Subsequent Preliminary and Site Plan reviews will be required if the Local Map Amendment is approved.
- Staff received correspondence for this Application regarding concerns about traffic and impacts to the surrounding existing neighborhoods, and they are addressed below.
- This Staff Report has been revised from the original Report (dated 11/5/21), beginning on page 27 "Community Correspondence", to include comments received through 11/29/21.

SECTION 1

STAFF RECOMMENDATION

Staff Recommendation

Staff recommends approval of Local Map Amendment H-143 and the associated Floating Zone Plan with the following binding elements:

1. Permitted uses on the Site include up to 125 single-family detached and attached dwelling units (including a minimum of 15% MPDUs) and a residential care facility (with up to 145 beds).
2. Commercial uses are not permitted on the Property, except permitted accessory uses associated with the residential care facility.
3. A natural surface trail must be provided along the western side of the Site that is subject to a public access easement.
4. The Property is limited to no more than three points of vehicular access from Strathmore Avenue.
5. The Property must be subdivided to formally delineate the boundary of the area subject to the rezoning at the time of Preliminary Plan.
6. A Phase I Noise Analysis must be submitted with the Preliminary Plan to identify noise levels that might impact interior and exterior spaces subject to the Planning Department's *Noise Guidelines*. The analysis must be performed by a qualified acoustical engineer. If a combined Preliminary/Site Plan is submitted, the Site Plan must include recommendations from a qualified acoustical engineer to mitigate excessive noise levels per the *Noise Guidelines*.

At the time of Preliminary Plan and Site Plan(s) approval, the Applicant must address the following:

1. The Applicant will upgrade the Strathmore Avenue frontage through the construction of the 10-foot-wide shared use path and 6-foot-wide green buffer that complies with the North Bethesda/Garrett Park Master Plan, the Bicycle Plan, and other applicable plans and policies.
2. Create a safe and attractive pedestrian trail that connects open spaces within the development and, to the extent practicable, connects the development with the surrounding community.
    a) The trail should be of a permeable material (i.e. natural surface, wood chip, wood mulch) that provides good accessibility and low maintenance and seating should be provided along select portions of the natural surface trail that are outside of the floodplain but may lie within the stream valley buffer.
3. Create an attractive and walkable streetscape on both sides of Street C:
    a) Continue to coordinate with Staff on the townhouse driveways to create a pedestrian friendly environment.
4. Create useable public open spaces:
    a) Consolidate public open space to two or three areas and work with staff to improve the utility of these spaces at the time of Site Plan.

SECTION 2

PROPERTY AND PROJECT DESCRIPTION

Vicinity

The Site is located at 4910-4920 Strathmore Avenue (MD 547), which is approximately 1,500 feet east of Rockville Pike (MD 355) and is adjacent to both the Strathmore Music Hall and the Holy Cross School and Church, as shown in Figure 1. Directly to the west of the Site is a stream valley and the Symphony Park townhouse development, which includes an open space that visually links the Property to Rockville Pike.

The Site is located near established residential neighborhoods and associated amenities, such as the Garrett Park Elementary School, Garrett Park Estates Local Park, Druid Drive Neighborhood Park, and Garrett Park – Waverly Park. The Site is within 0.6 miles of the Grosvenor-Strathmore Metro Station.

The Staff-defined neighborhood, outlined in blue in Figure 1 below, identifies the properties that contribute to the community character and may experience the most direct impacts of the proposed rezoning. The Staff-defined neighborhood is primarily defined by the community of single-family detached dwelling units that confront the Property to the north, across Strathmore Avenue, the single-family attached neighborhood, to the west, and the institutional uses abutting the Property to the south and east.

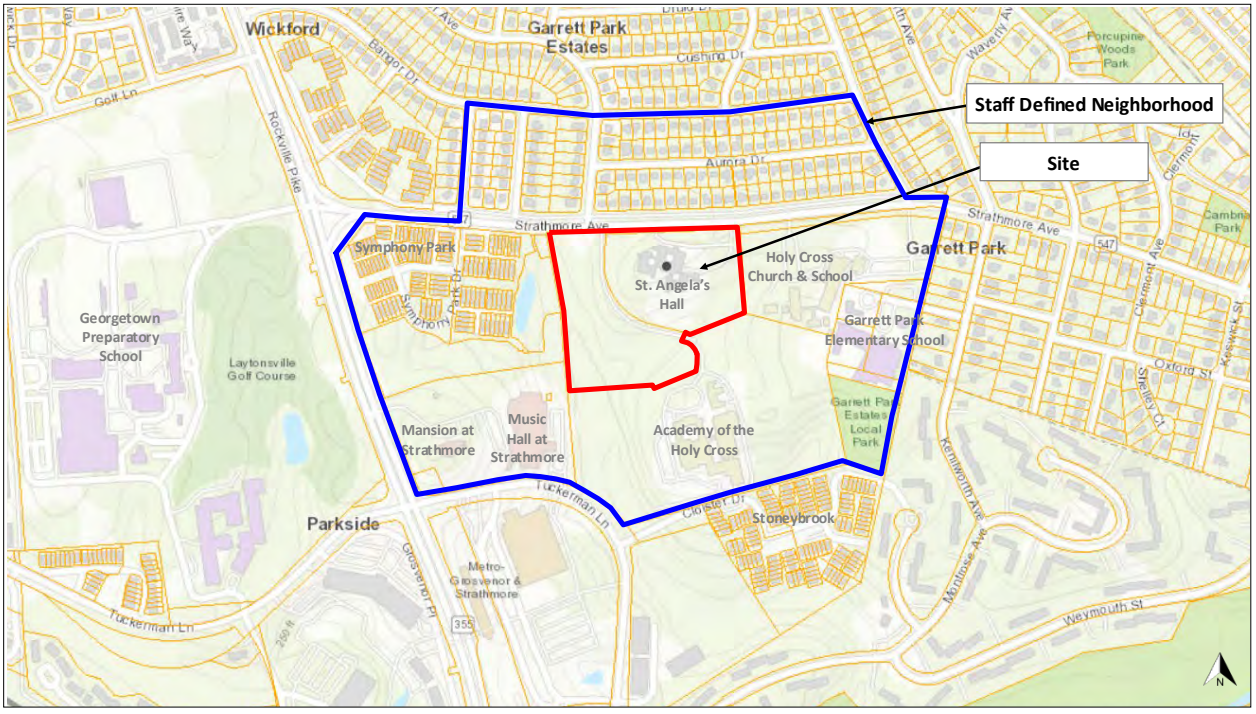


Figure 1: Vicinity/Staff Defined Neighborhood

Although the Subject Property is not listed as a historic site, there are properties in the surrounding area listed in the National Register of Historic Places, including the Strathmore Hall Arts Center to the southwest of the Site and the Garrett Park Subdivision approximately 1,000 feet to the east of the Site. The proposed Local Map Amendment will not negatively impact these nearby historic resources.

Property Description

The Sisters of The Holy Cross, Inc. is located at 4910 Strathmore Avenue (Parcel N875, Parcel A, Garret Park-Holy Cross Convent, as shown on Plat No. 9347) and the Academy of The Holy Cross, Inc. is located at 4920 Strathmore Avenue (Parcel No. N045, Parcel B, Garrett Park Academy of the Holy Cross, as shown on Plat No. 20824).

The Site, the area subject to the Application ("Proposal", "Project", or "LMA Application"), as outlined in red in Figure 2 below, is located along Strathmore Avenue, immediately south of its intersection with Stillwater Avenue. The Site is more specifically described as part of Parcel B and consists of all the Property located at 4910 Strathmore Avenue known as Parcel A. Together these two areas compose approximately 15.36 acres (669,082 square feet) out of the Subject Property, all areas under common ownership.

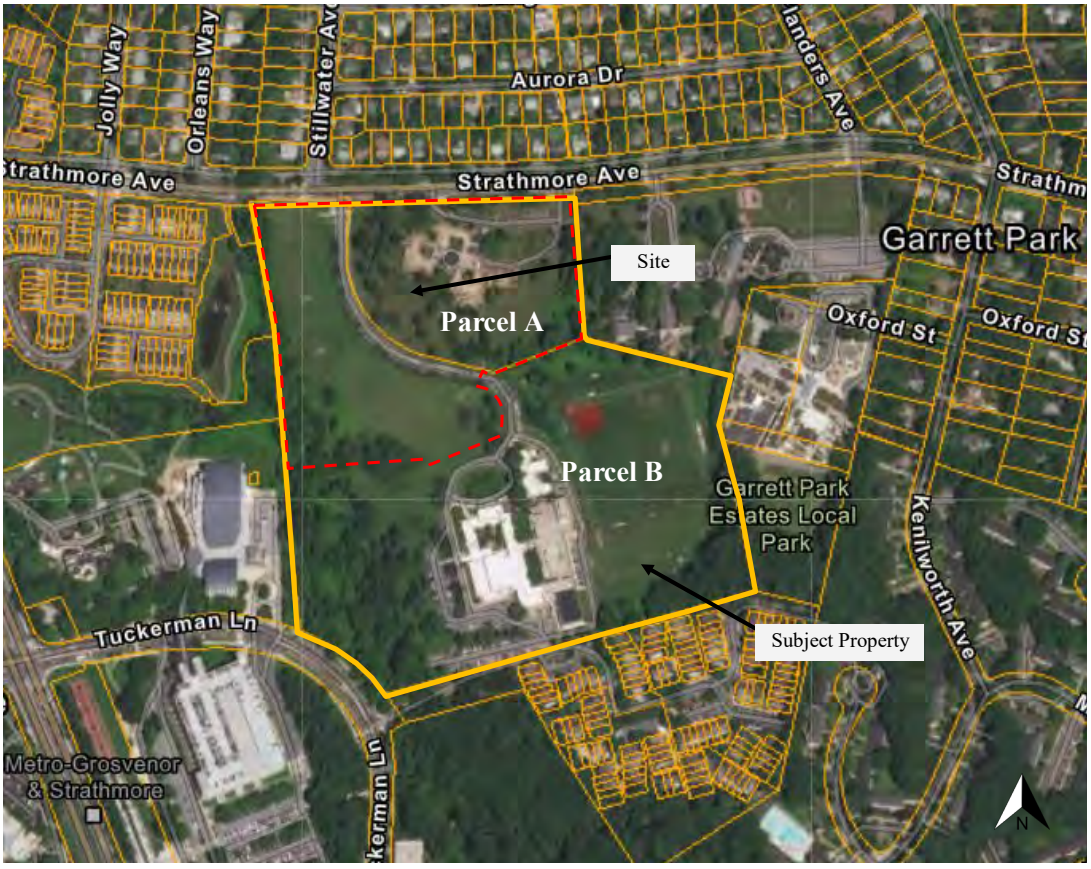


Figure 2: Overall Site (outlined in yellow) and LMA Subject Property (outlined in red)

The Subject Property, outlined in yellow in Figure 2, represents the entirety of both Parcels A and B, is approximately 38.22 acres in size. The Subject Property is zoned R-60 and improved with school buildings, athletic fields, and a former group home for retired nuns (St. Angela's Hall) that fronts onto Strathmore Avenue. The school site is known as the Academy of the Holy Cross, which is a Catholic high school for girls.

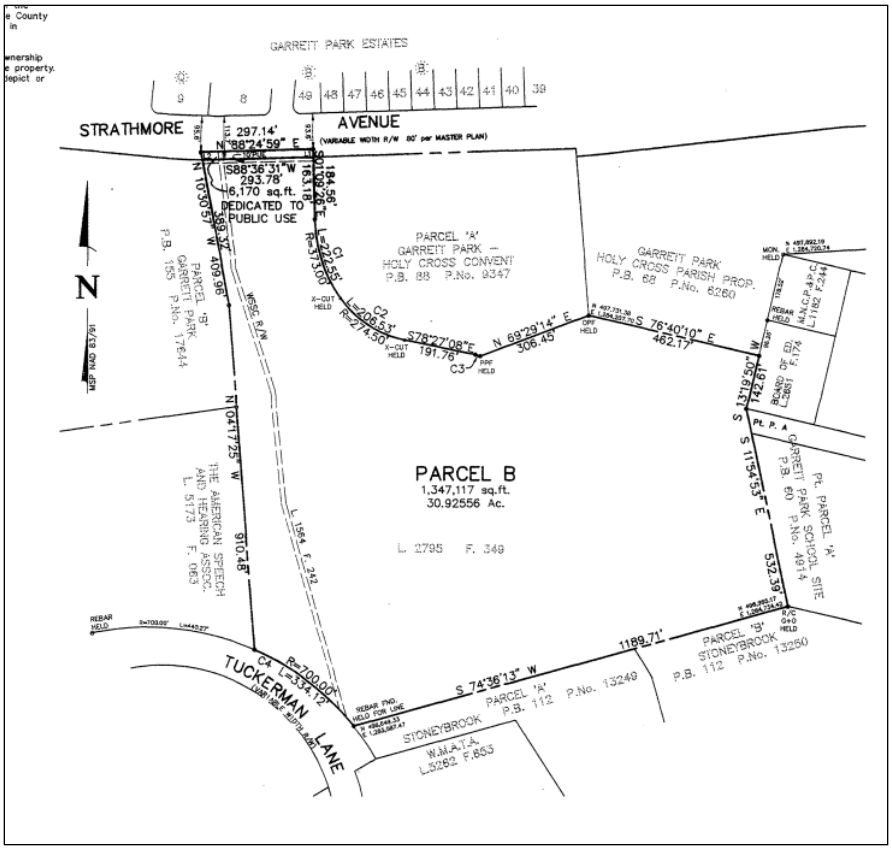


Figure 3: Plat 20824 (Parcels A and B)

More specifically, Parcel A is improved with the former St. Angela's Hall (approximately 38,000 square feet) with two driveway entrances on Strathmore Avenue, surface parking, outdoor amenity spaces, pedestrian paths, and open lawn areas. The building and driveways for the existing St. Angela's Hall are located on the high point of the site and slope down to a nearby tributary of Rock Creek and associated wetlands along the western, southern, and eastern sides of the Site. The portion of Parcel B, subject to the rezoning Application, is improved with a driveway and two athletic fields, sloped lawns, and a stream along the western border of the Site.

The Subject Property, including the LMA Site, has several environmental resources that impact the Application and is discussed further in Section 3.

Zoning Context

The Subject Property (the entirety of Parcels A and B) and all adjacent properties are currently zoned R-60. The Subject Property and Site was not recommended for rezoning the in 1992 *North Bethesda/Garrett Park Master Plan* (the "Master Plan"). The Master Plan recommended that "the zoning for all parcels in North Bethesda, outside of [the above areas[1]], remain unchanged with the single exception of White Flint Neighborhood Park" (page 35). After the adoption of the Master Plan, Montgomery County adopted a new Zoning Ordinance in 2014, which also retained the R-60 Residential Detached zoning district for the Subject Property which allows development under either the Standard or Optional Methods of Development. Some uses permitted in the R-60 zone include single-unit living, residential care facilities (up to 8 persons), cultural institutions, family day care,

[1] The Master Plan refers to "the above areas" as Twinbrook, White Flint, Grosvenor, Key Vacant and Redevelopable Parcels, Garrett Park Overlay District, and Rock Spring Park.

and religious assembly. Further, the existing R-60 zone only allows townhouses by limited or conditional use, depending on the circumstances, and residential care facilities by conditional use only; therefore, the Applicant is seeking rezoning to the CRNF zone to permit both townhouse and residential care facility uses on the Site as a joint project.



Figure 4: Existing Zoning for the Site

SECTION 3

PROPOSAL DESCRIPTION

Project Overview

The Subject Local Map Amendment Application seeks to rezone the R-60 property to CRNF 0.75 C-0.25 R-0.75 H-50', (Commercial Residential Neighborhood-Floating). Following approval of the rezoning, future development on the Site is envisioned to relocate the entry drive, replace the religious institution use on Parcel A with a 145-bed residential care facility and locate up to 10 detached and 115 attached townhouse units on the area currently occupied by athletic fields and landscaped lawns, for a total of 125 single-family dwelling units (including a minimum of 15% MPDUs). The western portion of the Site will be developed with the single-family residential uses and the eastern portion will contain the residential care facility. While permitted under the CRNF zone, no commercial uses are proposed and as a binding element, and none will be permitted on the Site in the future except permitted accessory uses associated with the residential care facility. Future development on the Site will be governed by subsequent Preliminary Plan and Site Plan approvals.

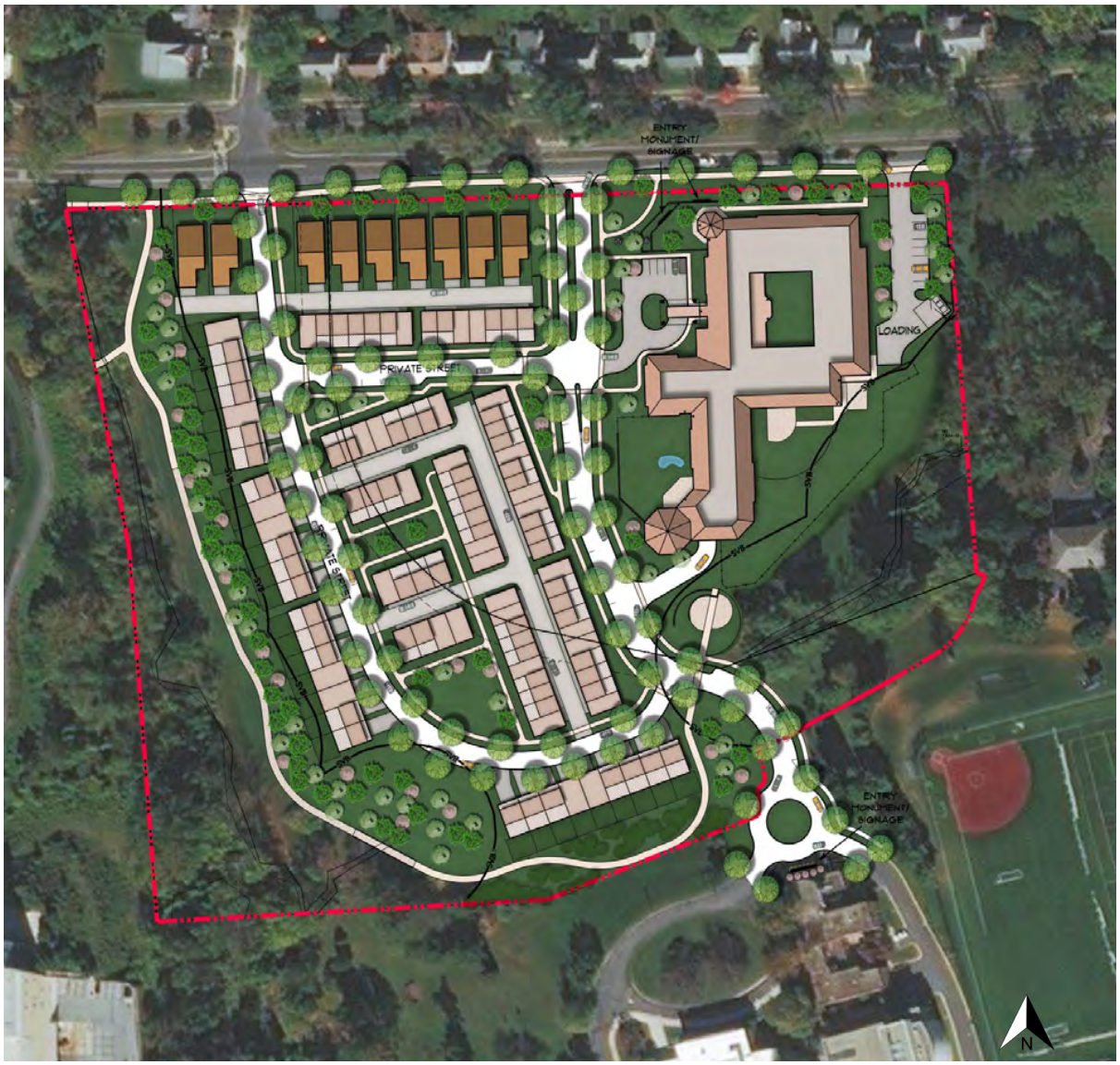


Figure 5: Local Map Amendment Floating Zone Plan

Architectural Precedents

The conceptual architectural precedents, shown in Figure 6, demonstrate the type of future development envisioned through the Subject Local Map Amendment. Details pertaining to the Site design and architecture will be refined as part of the future Site Plan review.



Figure 6: Conceptual Architectural Precedents

Open Space and Recreation

Open Space

In accordance with Section 59-5.3.5.D.2.a, "Commercial/Residential Floating Zones General Requirements," of the Montgomery County Zoning Ordinance, the Application must provide common open space for the townhouses and public open space for the residential care facility. The proposed single-family detached homes are not subject to this requirement. Therefore, the Applicant proposes to provide a combined total of 10% or 63,463 square feet of public open space and common open space spread across the Site, as shown in Table 1 below. The LMA Application includes a conceptual open space design and the exact location and design details for each of these areas will be refined during the subsequent development review phases.

Table 1: Open Space Requirement by Residential Type & Square Footage

Type	Type of Open Space Required	Area for Building Type	Proposed Open Space
Residential Care	Common	194,507 sf.	19,451 sf.
Detached Single Family	Not required	N/A[2]	N/A
Attached Single Family	Public	440,111 sf.	44,012 sf.
Total		634,618 sf.	63,463 sf. (1.45 ac.)

[2] A total of 54,259 s.f. is associated with the site area designated for the detached single-family dwellings not subject to provide open space.

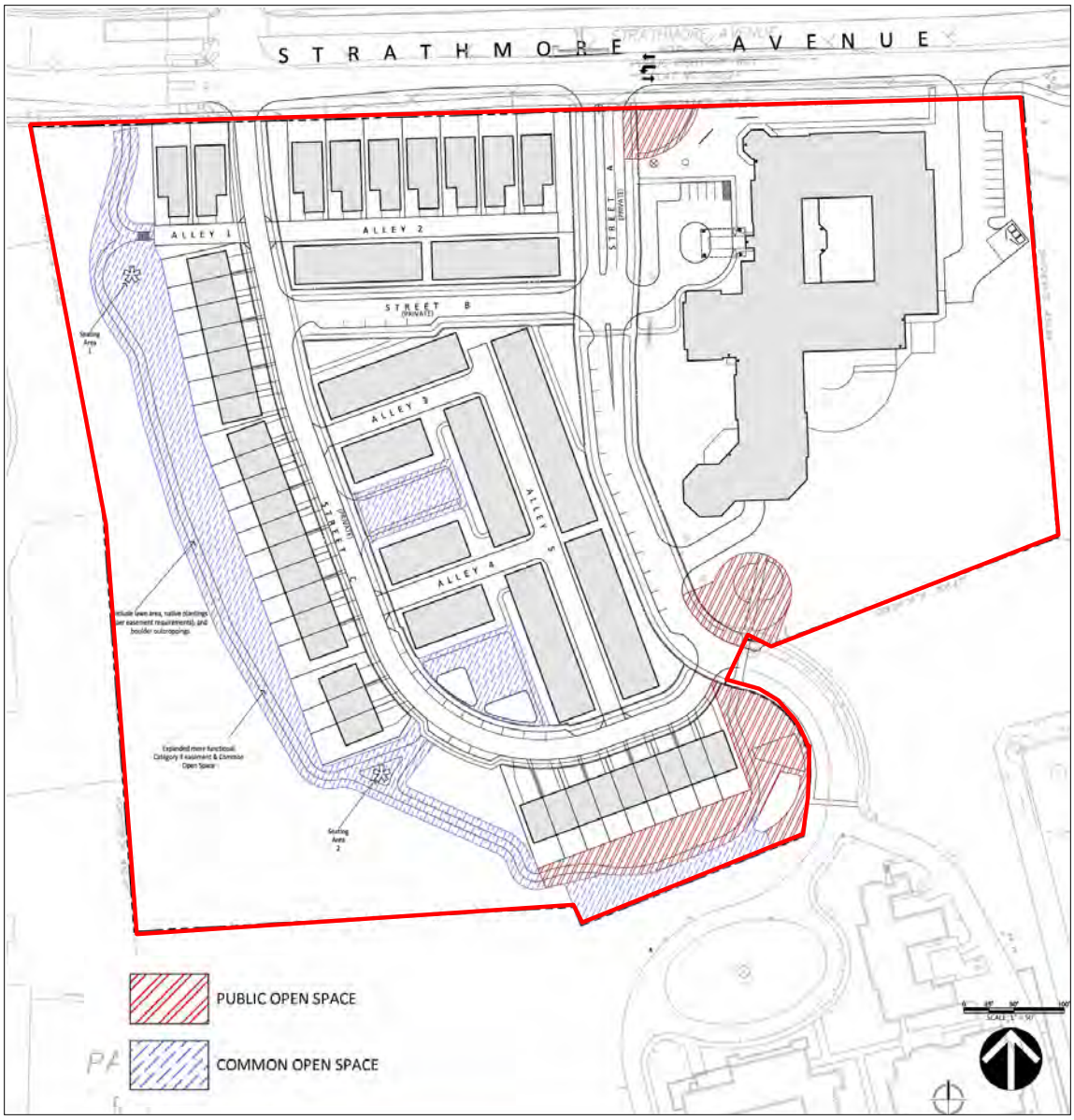


Figure 7: Proposed Open Spaces for the LMA Site

To satisfy the public open space requirement for the proposed residential care facility, the Applicant proposes approximately 19,451 square feet (0.44 acres) as a linear pathway along proposed Street A and a lawn area with terraced seating and other amenities that appeal to a wide range of residents. While the open space proposed on Street A is internal to the Site and intended to be accessible and visible, Staff has requested that the Applicant continue to explore alternative configurations that separate this space from a significant amount of traffic that is expected and consolidates the space into two or three more usable open spaces.

To satisfy the common open space requirement for the proposed townhouses, the Floating Zone Plan is providing approximately 44,012 square feet (1.01 acres) as a natural surface trail that traverses the rear of the townhouse units to the west of the Site and within two smaller areas adjacent to proposed Street C. The trail will remain in private ownership with a public access easement. Per Section 59-6.3.5.B of the Zoning Ordinance, three design requirements must be met for common open space. Accordingly, the Applicant is proposing common open space area that is centrally located to the development - around proposed Street A and adjacent to an open space area identified for multi-generational use. The minimum width for any required common open

space is 50 feet unless the deciding body grants an exception for items such as a trail easement, a mid-block crossing, or a linear park, by finding that its purpose meets the intent of Division 6.3 of Chapter 59 of the Zoning Ordinance. As proposed, the common open space is variable in width up to 40 feet and linked by a series of sidewalks and paths. These open spaces must meet the intent of Section 59-6.3., "Open Space and Recreation," by providing access to light, air, and green space thereby promoting recreation while preserving and engaging with natural resources. At the time of Site Plan, the Planning Board will make the final determination of compliance. Further, given the site constraints, the common open space overlaps the proposed stream valley buffer areas, which is a permitted feature within an environmentally sensitive area under Section 59-6.3.3 of the Zoning Ordinance.

Recreation

In addition to the open space requirements, the Application is subject to recreation requirements for developments with 20 or more dwelling units. The Applicant must provide a calculation of demand, supply, and adequacy of recreation facilities based on the M-NCPPC 2017 *Recreation Guidelines for Private Residential Development*. Recreation is proposed to be satisfied through several amenities, such as a pedestrian connection, heart smart trail, bikeways, natural areas, playground, picnic/seating areas, and a terraced garden. The Applicant's proposed onsite recreation facilities and their supply points will be finalized at the time of Site Plan.

Environment

The Natural Resources Inventory/Forest Stand Delineation (NRI/FSD) No. 420211410 was approved by Staff on July 27, 2021 for the Subject Property, of which there are several environmental resources that impact the Site and Subject Property. The Property is within the Rock Creek watershed and streams run along the eastern, southern, and western edges of the Property where three (3) non-tidal wetlands are present. After being piped under the driveway, the tributary from Parcel A runs into the western stream, which continues to the south. The NRI/FSD illustrates that more than 10 acres of the 35+ acres that make up the Subject Property is encumbered by stream valley buffer. A portion of this stream is within a FEMA 100-year floodplain. There is 4.06 acres of forest on the Site, with 152 significant and specimen trees on-site and within 100 feet. There is 0.64 acres of forest and 46 significant and specimen trees on the Subject Property for this LMA Application. There is one soil type (16D) classified as highly erodible, along with areas of steep slopes (15% to 25%) with erodible soil, and steep slopes greater than 25%. There are no observed or known rare, threatened, or endangered species, nor historic resources on the Property.

As previously noted, streams run along the eastern, southern, and western edges of the Property. Due to the shape of the Subject Property, the associated buffers create challenges for the Site's new layout. As a result, approximately four acres of the Property lie in stream valley buffers. As required by the Environmental Guidelines (updated 2021), these stream valley buffers will be preserved and restored as part of the Project. The Applicant proposes minor encroachments into the stream valley buffer for a natural surface trail, which may possibly connect to the Symphony Park trail to the Metrorail Station and Strathmore Avenue (pending the Applicant's access easement discussions). The trail will traverse the primary open space area behind residential units on the western side of the Property. Along this trail, small open spaces and numerous plantings are proposed within Category I and II Conservation Easements. A second area of Category I and II Conservation Easements is proposed along the southeastern tributary.

Other encroachments into the stream valley buffer include some stormwater management features, a small portion of Street C for fire access that is permeable pavement, and rear yards and fencing, all as allowed by the Environmental Guidelines. Per the Environmental Guidelines these encroachments may be permitted under unique circumstances, which is further explained under Section 4 and within the separate Staff Report for the Forest Conservation Plan. A total of 2.84 acres is required for new plantings to meet reforestation and afforestation requirements. The Applicant proposes to plant 3.0 acres and the extra area of plantings as enhanced forestation for mitigation for proposed stream buffer encroachments.

Stormwater Management

To accommodate the new residential development, the Applicant proposes to implement micro-bioretention features to the maximum extent practicable to meet the current stormwater requirements. Due to the topography and location of the two streams around the Site, new stormwater management facilities will be placed at these low points to capture and filter roadway runoff.

Transportation

For circulation, the Application proposes a realigned entry road that will bisect the Site into western and eastern halves and will serve both the Project uses and the abutting Academy of the Holy Cross. The Project will be served by three access points: one on the western side of the site, re-aligning the existing entry with Stillwater Avenue to the north, the main entry road through the center of the Site, and a service-only entrance along the eastern edge of the Site, serving the residential care facility. Internal private roads (Streets A through C) will be established for direct access to the attached and detached residential units which will develop into an on-site circulation system that also provides enhanced access to the Academy of the Holy Cross to the south. The two access points to the far west will serve all the residential units, the residential care facility, and the existing school to the rear of the Site. The access point to the east provides exclusive access to the residential care facility service area and a small parking area for employees. Additionally, the Strathmore Avenue and Center Driveway Access intersection is proposed to be improved with the installation of a 150-foot-long westbound left turn lane.

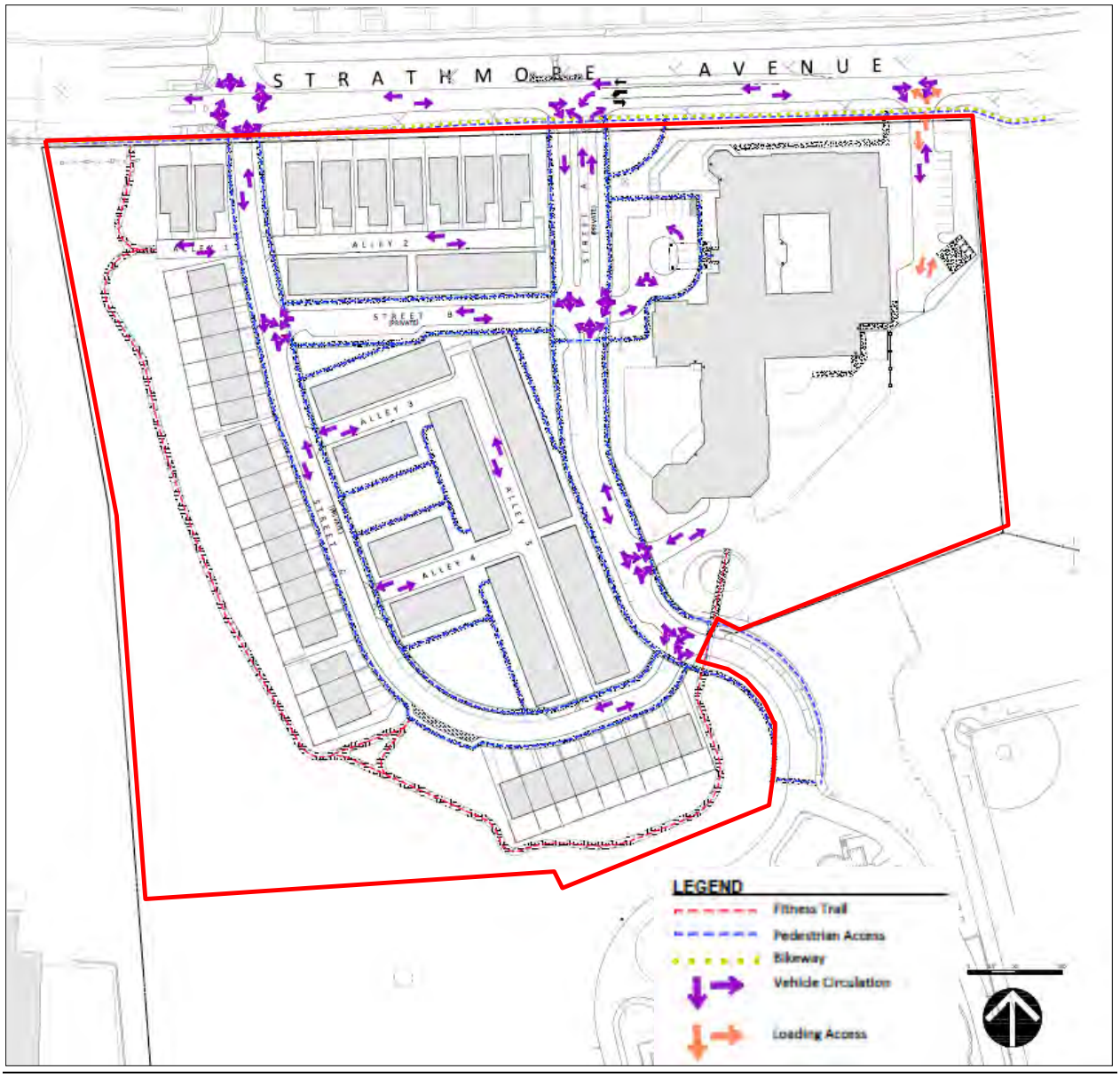


Figure 8: Proposed Circulation Plan

Master-Planned Roadways and Bikeways

In accordance with the 1992 *North Bethesda/Garrett Park Master Plan*, Strathmore Avenue (MD 547) is designated as an Arterial, A-272, with a planned 80-foot right-of-way and a separated bikeway. According to the 2018 *Bicycle Master Plan*, a two-way shared use path is designated along the southern frontage between Rockville Pike (MD 355) and Kenilworth Avenue. No sidewalk currently exists along the Strathmore Avenue property frontage. The Applicant proposes to construct the master planned 10-foot-wide shared use path with a 6-foot-wide green panel, extending the existing sidepath from the west of the Property.

The Application also includes the provision of a natural surface trail**,** that is sensitive to the on-site environmental features and provides a connection from the Property to the paths leading to Metro to the west. This natural surface trail improvement exceeds the requirements in the Bicycle Master Plan.

Local Area Transportation Review (LATR)

Montgomery Council Resolution 19-655, the 2020-2024 *Growth and Infrastructure Policy*, went into effect on January 1, 2021. The scope for their proposed traffic impact study was approved by Staff in November of 2020 and as such, the transportation study for the Local Map Amendment was subject to the 2016-2020 *Subdivision Staging Policy*. Additionally, at the time of the review of the Local Map Amendment, the Subject Property was previously located within the North Bethesda orange policy area, as determined under the 2016-2020 *Subdivision Staging Policy*. Therefore, LATR compliance is required, and the Applicant submitted a traffic impact study to determine multimodal adequacy.

Table 2: Site-Generated Peak-Hour Person Trips

Land Uses	Square Feet, Units, or Beds	Site-Generated Peak-Hour Person Trips	
		Morning	Evening
Former Use			
Assisted Living	38,000 sf.	12	15
Total Existing Person Trips		22	28
Proposed Land Uses under this application			
Townhomes	115 Units	45	56
Detached Single Family Residential	10 Units	10	9
Assisted Living	150 Beds	24	32
Proposed Subtotal Vehicular Trips		79	97
Proposed Subtotal Person Trips		127	154
Net Increase in Peak-Hour Person Trips		**+105**	**+126**

In accordance with the 2016-2020 *Subdivision Staging Policy*[3], a transportation study is required to analyze the congestion levels at the nearby intersections to satisfy the LATR test because the net number of new peak-hour person trips generated by the proposed change in land uses exceeds 50 trips within the weekday morning and evening peak periods. Based on an effective date that is noted above, the forthcoming Preliminary Plan will be subject to the 2020-2024 *Growth and Infrastructure Policy* (GIP) and a new transportation study will be required as part of that analysis.

Under the 2016-2020 Subdivision Staging Policy, the Property was previously subject to the North Bethesda Policy Area, which required both Critical Lane Volume (CLV) and Highway Capacity Manual (HCM) delay analyses. The intersection congestion standards for the policy area are a CLV of 1,550 and 71 seconds of delay per vehicle. As demonstrated in Table 3, each of the studied intersections remain within acceptable levels of congestion. The LATR capacity analysis was consistent with the Department's LATR Guidelines.

Table 3: Existing and Future Traffic Impact

	AM				PM			
	Existing CLV	Future CLV	Existing Delay	Future Delay	Existing CLV	Future CLV	Existing Delay	Future Delay
Rockville Pike and Strathmore Avenue	716	1,289	16.8	21.4	964	1,538	23.3	29.1
Stillwater Avenue and Strathmore Avenue	862	1,033	445.2	2.0	757	1,102	5.3	1.7

[3] The LMA transportation analysis was subject to the former 2016-2020 Subdivision Staging Policy based on the Subject Property previously being located within the North Bethesda orange policy area and the traffic impact study scoping submittal received prior to January 1, 2021 when the 2020-2024 Growth and Infrastructure Policy went into effect.

	AM				PM			
	Existing CLV	**Future CLV**	**Existing Delay**	**Future Delay**	**Existing CLV**	**Future CLV**	**Existing Delay**	**Future Delay**
Strathmore Avenue and center drive access	427	1,044	0.0	10.7	561	1,091	0.0	3.4
Strathmore Avenue and eastern drive access	427	807	0.0	0.1	561	929	0.0	0.1
Strathmore Avenue and Kenilworth Avenue	479	738	11.7	11.6	639	902	10.8	10.8
Rockville Pike and Flanders Avenue	626	1,003	2.8	7.9	838	1,113	19.7	6.5

(Source: Applicant's LATR Review prepared by Gorove Slade, dated August 24, 2021.)

While existing delay for the Stillwater Avenue and Strathmore Avenue intersection exceeds the 71 second delay per vehicle standard, realignment of the driveway for the Academy of the Holy Cross and construction of a new driveway at the Stillwater Avenue approach will accommodate school traffic during the AM peak hour. As such, all intersections within the study area will operate within the policy area's congestion standards. Future traffic analysis completed in accordance with the 2020-2024 *Growth and Infrastructure Policy* will review the project under the Grosvenor Policy Area due to the Policy Area's expansion under the recently adopted GIP.

Traffic Mitigation Requirements

The Applicant is required to submit a Project-based Transportation Demand Management (TDM) Plan with the Montgomery County Department of Transportation (MCDOT) and the Planning Board, and to participate in the North Bethesda Transportation Management District (TMD) due to the site being located within the TMD's boundary.

Adequate Public Facilities

A preliminary analysis indicates that public facilities will be adequate for the proposed development. The Planning Board will make a final determination at the time of Preliminary Plan.

Circulation

A formal determination of adequacy is required at the time of Preliminary Plan. Existing and future vehicular access to the Site is provided primarily via Strathmore Avenue, which is adequate to accommodate vehicular traffic anticipated by the proposed redevelopment and will be upgraded**.** Currently, sidewalks are lacking along the Property's frontage. Future roadways and sidewalks will be constructed to provide additional infrastructure along the frontage and internal to the Site. Also, Ride On Routes 5 and 37 operate along the Strathmore Avenue frontage. Both the Grosvenor-Strathmore Metrorail and Garrett Park MARC stations are located within a 1/2 of mile from the Site, with additional Ride On routes located along Rockville Pike to the west of the Subject Property.

Water and Sewer

The Subject Property is served by a 12" water line along Strathmore Avenue and a 15" sewer line running north-south through the Property. Dry utilities (electric, gas, and communications) will be provided via a public utility easement connected to Strathmore Avenue and running along the central drive, alleys, and behind the proposed front-load townhouses.

Schools

Due to the proposed residential use, a subsequent Preliminary Plan will be subject to the FY21 Annual School Test under the 2020-2024 *Growth and Infrastructure Policy* (GIP). The Property falls within the Walter Johnson School cluster, which includes the nearby Garrett Park Elementary School, Tilden Middle School, and Walter

Johnson High School. The proposed residential care facility will not generate any school-aged children to impact school capacity. However, the remaining residential portion of the Project may require a Utilization Premium Payment at the time of building permit for one or all the schools. Further assessment of school capacity will be conducted at the time of Preliminary Plan.

Other Public Facilities

The Project will be served by dry utilities including gas, electricity, and telephone. Fire access for the Property has been evaluated; however, during the subsequent Preliminary Plan, a formal determination for fire access adequacy will be issued by the Montgomery County Department of Fire and Rescue Service.

SECTION 4

ANALYSIS AND FINDINGS

Per Section 59-7.2.1.E.2 of the Zoning Ordinance, for a Floating zone application, the District Council must find that the floating zone plan will:

> ***Section 59-7.2.1.E.2.a.*** *- substantially conform with the recommendations of the applicable master plan, general plan, and other applicable County plans;*

The Subject Property falls within the boundaries of the 1992 *North Bethesda/Garrett Park Master Plan* ("Master Plan"), which is at the confluence of two major thoroughfares. The Master Plan area is bordered by I-270 to the west, the City of Rockville to the north, Rock Creek Park to the east, and I-495 to the south. A major north/south roadway within the Plan area is Rockville Pike (MD 355), which is less than a half-mile west from the Subject Property. The *North Bethesda/Garrett Park Master Plan* lays out both general recommendations for the Master Plan area and specific recommendations for the Subject Property. Since the approval of the Master Plan, some recommendations have been realized while others remain yet to be implemented. This Subject Application contributes to the objectives established for this area. The proposed rezoning will support the objectives to encourage land use patterns that preserve and increase the variety of the housing stock particularly with elderly housing, provide safe and efficient transportation, provide facilities to meet the recreational needs of the public, and reduce environmental impacts.

Master Plan Compliance

The Application substantially conforms to the recommendations within the 1992 *North Bethesda/Garrett Park Master Plan*, as outlined below for various areas of emphasis.

Land Use and Zone Plan

Generally, the Master Plan provides a blueprint for the future that will transform the Master Plan area into a vibrant community served by transit and enhanced by activating uses, open spaces, and amenities. The Subject Property is not contained within a particular Master Plan Sub-Area. The nearby Grosvenor-Strathmore Metrorail Station is located within the Grosvenor-Strathmore Plan Sub-Area, which abuts the western border of the Subject Property, and is also zoned R-60.

Some general recommendations include:

- Focus future development at Metrorail stops, new transit stations, and areas best served by transportation infrastructure, with more emphasis on housing.
- Reduction in block sizes in the vicinity of Metro areas.
- Improvements to the pedestrian friendliness of streets, particularly near transit nodes.
- Provision of a landmark quality and sense of place for nodal areas and districts.

The Project satisfies the areawide objectives of the Master Plan. In terms of future development with a heavy focus on transit and housing, the Project proposes to achieve this critical land use and transportation linkage. The Proposal will replace a vacant retirement home and deliver more housing than was previously on the Site.

The Subject Property is accessible to nearby rail service and is served by bus stops and routes that traverse Strathmore Avenue. Within the vicinity of the Grosvenor-Strathmore Metrorail Station, the Project proposes to deliver an internal system of new private roads that create short, walkable blocks. The new sidewalks and

sidepath will contribute to the civic realm and create attractive, pedestrian friendly streets that are en-route to adjacent transit nodes. In addition to reducing block sizes, the sidepath will include a green buffer that provides enhanced protection from adjacent travel lanes.

In terms of the vision for landmark quality and sense of place, the Site benefits from the existing surrounding human and physical environment. A broader sense of place is present and well established due to the existing surrounding residential areas to the north and west and educational and institutional spaces to the southwest and east. The Project aims to fit within the existing neighborhood fabric of this well-established community while also delivering exceptional urban design and architectural detailing to further articulate quality.

Key Redevelopable Parcels

Beyond general recommendations, the Master Plan also includes recommendations specific to the Property. Outside of sub-areas, the Master Plan identifies parcels and groups of parcels that are undeveloped or under-developed and have the greatest potential for redevelopment. Listed as Parcel No. 14 (pages 80-81), the Plan specifically identifies the 35+ acre tract for the Academy of the Holy Cross which includes the school buildings, athletic fields, and a former group home for retired nuns. Citing the students' use of nearby transit, the Plan "supports the continued existence of the Academy and the retirement home at this location and recommends that the existing R-60 zoning be confirmed" (page 81).

Following the Plan's recommendation, the Proposal includes the retention of the Holy Cross School alongside of the proposed redevelopment. However, with the closure of the St. Angela's Hall retirement home, this part of the recommendation can no longer be fully realized. While a change in use for the Site was not specifically prescribed by the Master Plan, the overall goals are achieved through the rezoning and redevelopment process. As noted in the land use and community facilities sections, the Plan emphasizes new housing that capitalizes on its adjacency to a transit node. Through the rezoning, a variety of housing types can be provided as infill development near a transit node. The proposed housing includes attached and detached single-family units and elderly housing through a residential care facility. Further, since the Property is not recommended for a floating zone in the Master Plan, the Application must meet the prerequisites in Section 59-5.1.3.C and D of the Zoning Ordinance, which is explained on page 22 of this Report.

The Master Plan also emphasizes other objectives for the Subject Property: "preserving green areas and institutional open space for environmental protection, wildlife sanctuary, recreation, and visual relief" (page 81). While a portion of the institutional use on the Property is proposed for alteration (redevelopment of St. Angela's Hall), the Application seeks to address this environmental objective and others. In response, portions of the existing open lawn areas on the Site are proposed to be protected through Category I and Category II Conservation Easements with native plantings that can provide water quality protection, wildlife habitat, and visual relief from the surrounding development.

Density and Building Height

The Master Plan does not provide specific density and height recommendations for the Subject Property. However, by referencing the Master Plan language that confirms the continued use of the Academy of the Holy Cross School, the school's building height can be used for comparative purposes. None of the new structures will exceed the existing heights of any existing school structure on the Subject Property.

Furthermore, the Subject Application's proposed density and building heights are consistent with the requested zoning district. Per Section 59-5.3.5 of the Zoning Ordinance, since the requested floating zone was not recommended in the Master Plan, requested density cannot exceed 1.25 FAR, as the tract is greater than 3 acres and the existing zoning is R-60. Therefore, the Application is requesting 0.75 in overall FAR. The proposed height

of the detached and attached residential units and residential care facility is within the 50-foot height limit established by the CRNF Zone.

Urban Design

The Master Plan urges special attention to the design of existing and proposed streetscapes to encourage pedestrian usage, particularly along corridors that are within walking distance to transit. The Master Plan acknowledges that most of the Plan area has sidewalks that are immediately adjacent to travel lanes and lack buffering for enhanced safety and comfort. This is the current condition of the Subject Property's frontage along Strathmore Avenue. To improve the condition of existing streets, the Master Plan recommends that addition of street trees to create an appropriate buffer and the widening of sidewalks, and where necessary, additional special design treatment.

The Application will upgrade the Strathmore Avenue frontage through the construction of the master-planned 10-foot-wide shared use path with 6-foot-wide green buffer which will improve the pedestrian experience along this stretch of road to reach various surrounding destinations, including Holy Cross School and the Garrett Park Middle School. New streets will contain street trees between the curb and sidewalk and, wherever possible, on-street parking.

Transportation

The *North Bethesda/Garrett Park Master Plan* makes significant recommendations to encourage and support transit use, including expansion to the public transportation system. The Master Plan recommends that "future development be focused on Metrorail (Metro) stops, new transit stations, and areas best served by transportation infrastructure, with more emphasis on housing."

The Site is in close proximity to existing transit services. The Proposal includes improving access to these transit services. Currently, bus routes traverse Strathmore Avenue and a bus stop is located at the entrance of the vacant St. Angela's Hall. The Project proposes to substantially upgrade the pedestrian and bicycle infrastructure along this corridor to support the frequent use of public transit. Additionally, the previously noted new master-planned 10-foot-wide shared use path, along the Property's Strathmore Avenue frontage, will support walking to the nearby Grosvenor-Strathmore Metrorail Station.

The Application proposes a new internal pathway system with the construction of the natural surface trail along the western edge of the Property, the ten-foot-wide shared use path along Strathmore Avenue, and the five-foot wide asphalt sidewalks throughout the Site's new roads. Additionally, the Application will comply with the guidance provided by Staff for a front-loaded townhome layout to maximize streetscapes for pedestrians.

Historic Resources

The Master Plan emphasizes that historic sites play an important role and highlight the values to this Master Plan area and the broader region and should be integrated into new developments (page 192). As previously noted, there are no historic resources on the Subject Property; however, a few surrounding uses (Strathmore Hall Arts Center and the Garrett Park Subdivision) have historic designations. The Proposal does not propose any negative impacts to these surrounding uses. The Project will maintain public access and views of the surrounding historic resources while also constructing new residential structures within an appropriate scale. The new structures are well below the existing height of these existing structures as well.

Community Facilities

Related to schools, the Master Plan recommends that safe pedestrian access is provided to all school facilities. The Plan proposes a shared use path that will be extended off-site and will assist in providing a walkable/bikeable facility that connects to the adjacent Holy Cross School. Additionally, the proposed sidewalks along Street A will facilitate pedestrian movements to the south to access the Academy of the Holy Cross School.

Related to elderly housing facilities, the Master Plan recommends the following:

- Support the provision of adult day-care facilities,
- Encourage the location of elderly housing and elderly support services along bus routes,
- Support the provision of affordable elderly housing through the special exception process, and
- Support the consideration of land in public ownership for affordable elderly housing.

With the closure of St. Angela's Hall retirement home and the need for elderly housing identified in the Master Plan, the rezoning Application seeks to bring forth a use that fills a significant gap in the community's existing housing stock. Further, the Application will address the Moderately Priced Dwelling Units requirements of Chapter 25A of the County Code.

Related to park and recreation facilities, the *North Bethesda/Garrett Park Master Plan* recommends providing green spaces in appropriate locations. There are no specific open space recommendations for the Subject Property.

In accordance with the Zoning Ordinance, the Site must provide a minimum of 10% of the Site for public open space and common open space related to the attached townhouse units and the residential care facility (shown in Figure 7). As previously noted, the Applicant proposes to provide a combined total of 63,463 square feet or 10% of public open space and common open space spread across the Site. These open spaces will be connected by an internal network of sidewalks and a natural surface trail as well as sidewalks external to the Property that connect to surrounding neighborhood uses.

Environmental Resources

The Master Plan makes the following wide-ranging environmental recommendations to restore environmental functions in the Plan area as it undergoes redevelopment (pages 4 and 247):

- Protect the woodlands through land use recommendation and development guidelines,
- Create a system of greenways,
- Adopt a "green corridors" policy for North Bethesda roadways,
- Focus development at transit stations to improve air quality, and
- Address existing stormwater management problems, particularly at the time of new development.

The Proposal meets the recommendations of the *North Bethesda/Garrett Park Master Plan* as well as the intent of the Forest Conservation law, and the Environmental Guidelines (also expounded upon in the associated Forest Conservation Staff Report). The Proposal provides broad environmental sustainability improvements, including preserving natural resources, improving water and air quality, and reducing carbon emissions.

Regarding the intent to protect the woodlands, the Project follows the environmental regulations and guidelines for the protection of existing natural resources on the Site. To preserve and enhance natural resources and their associated functions, the Project will create new housing and new roadways that avoid impact to natural resource areas. While some forest is proposed for removal and some specimen trees are proposed for impacts, the Project will provide appropriate tree mitigation and satisfy afforestation and reforestation requirements. As a result, areas that are currently lawn will have some new tree cover.

To advance the vision for greenways and green corridors, an interconnected system of sidewalks, a ten-foot-wide-sidepath, and natural surface trail are proposed. Where feasible, these important site elements will be connected to existing infrastructure for broader mobility beyond the Site. Given the Site's close proximity to bus and rail service, this proposed system for pedestrians and bicyclists will make alternative modes of transportation safer, more convenient, and contribute to broader air quality improvements. Additionally, the Project follows the Environmental Guidelines as it relates to minor encroachments that are permitted into a stream valley buffer under unique circumstances for the construction of the natural surface trail and stormwater management.

To address stormwater management and to protect and improve water quality, the Project proposes to minimize imperviousness by using permeable pavers where needed along proposed Street C, using micro-bioretention areas and other techniques to assist with filtering and retaining water on-site and landscaping the redeveloped Site with native plants. Further, in an additional analysis requested by nearby residents concerned about stormwater, the Applicant calculated that there are approximately 1.5 acres that currently sheet flow into Strathmore Avenue. With the stormwater management improvements, this flow will be captured and managed on-site after development of the Project and will substantially reduce the amount of stormwater the community has reported to observe flowing.

In conclusion, the rezoning request is consistent with the *North Bethesda/Garrett Park Master Plan*, the General Plan, or any other applicable county plans and policies.

> ***Section 59-7.2.1.E.2.b.*** *- further the public interest;*

The General Plan, the *North Bethesda/Garrett Park Master Plan*, and other relevant county plans and policies reflect the mandate to promote the public health, safety, and general welfare and responsible, effective ways to advance the public interest through plans, policies, programs, and new and redevelopments. This Project furthers the public interest through the following:

- Proper and efficient use of the land and appropriate density with respect to the surrounding neighborhood.
- Redevelopment of a vacant structure to eliminate blight.
- Providing sufficient space for residential dwelling units.
- Address a need for single-family housing, affordable housing, and assisted living housing for the diverse population of the Plan area within close proximity to transit.
- Preservation of the residential character of the neighborhood with a binding element for no commercial uses, except permitted accessory uses associated with the residential care facility.
- Provides adequate light and open space.
- Provides a desirable visual environment through good urban design.
- Road improvements that promote free-flowing traffic.
- Provision of new streetscape and a sidewalk along the Property frontage.
- Preservation of the environmental features of the Property.
- Protection from natural hazards by locating properties outside of the nearby floodplain.
- Protection of existing surrounding historic properties.

> ***Section 59-7.2.1.E.2.c.*** *- satisfy the intent and standards of the proposed zone and, to the extent the Hearing Examiner finds it necessary to ensure compatibility, meet other applicable requirements of this Chapter;*

The Applicant requests a rezoning to the CRNF-0.75 C-0.25 R-0.75 H-50', (Commercial Residential Neighborhood-Floating).

Per Section 59-5.1.2. of the Zoning Ordinance, the intent of the Floating zones is to:

Implement comprehensive planning objectives by:

1. furthering the goals of the general plan, applicable master plan, and functional master plans;
2. ensuring that the proposed uses are in balance with and supported by the existing and planned infrastructure in the general plan, applicable master plan, functional master plan staging, and applicable public facilities requirements; and
3. allowing design flexibility to integrate development into circulation networks, land use patterns, and natural features within and connected to the Property; and

Compared to Euclidean zones, Floating zones have more flexible development standards, which the Proposal requires, but must prove that the development will be compatible with the surrounding land uses and meet the purpose of the zone. The proposed uses, which include single-family detached, single-family attached, and a residential care facility, provide an appropriate mix of uses for the Property's context, and the maximum height of 50 feet for all uses ensures compatibility within the Property's setting. The Applicant is seeking rezoning from the R-60 (which precludes the construction of the residential care facility), to the CRNF zone due to its permission of both the single family and residential care components of the Project. The proposed mix of residential uses is compatible with adjacent development, which includes a townhouse development to the west, institutional uses to the south and east, and a single-family residential neighborhood to the north.

Encourage the appropriate use of land by:

1. providing flexible applicability to respond to changing economic, demographic, and planning trends that occur between comprehensive District or Sectional Map Amendments;
2. allowing various uses, building types, and densities as determined by a Property's size and base zone to serve a diverse and evolving population; and
3. ensuring that development satisfies basic sustainability requirements, including open space standards and environmental protection and mitigation; and

As previously noted, the Master Plan confirmed the continuance of institutional uses on the Property. Since then, several changes have occurred within this area of the Master Plan, including the closure of St. Angela's Hall and major mixed-use redevelopment proposals advancing for other properties adjacent to the Grosvenor-Strathmore Metrorail Station. Therefore, in lieu of a scheduled Master Plan update, a rezoning is appropriate to address the surrounding changes as well as to meet the intent of the governing plan that prioritizes housing. While residential uses are already permitted within the base R-60 zone, the request to apply the CRNF zone will allow for both the proposed single-family and residential care uses needed to serve the diverse population of the area. Under the new CRNF zone, the Proposal will comply with all open space and environmental requirements. Additionally, the Proposal will meet an acute need for housing within the County. According to the 2020 housing needs assessment, Montgomery County currently faces a housing shortage and estimates that more than 60,000 new housing units are needed by 2040.

Ensure protection of established neighborhoods by:

1. establishing compatible relationships between new development and existing neighborhoods through limits on applicability, density, and uses;
2. providing development standards and general compatibility standards to protect the character of adjacent neighborhoods; and
3. allowing design flexibility to provide mitigation of any negative impacts found to be caused by the new use.

Under the requested CRNF zone, up to 1.25 FAR is permissible (since the requested floating zone is not recommended in the Master Plan, the tract is greater than 3 acres, and the existing zoning is R-60), whereas the Proposal seeks 0.75 FAR with no commercial uses (except permitted accessory uses associated with the residential care facility). This arrangement of density and uses is more consistent with the abutting and confronting existing residential uses. The build-out of the Subject Property will include the currently vacant retirement home and associated surface parking lot to be transformed into a productive use that fits within the residential character and provides minimal parking spaces with direct view from the public realm. Mitigation related to traffic and environmental requirements will be addressed fully in subsequent applications.

Section 59-5.1.3. Applicability

To ensure the objectives of the floating zones are achieved, the Zoning Ordinance sets forth specific requirements and prerequisites for CRNF local map amendment applications. Per Section 59-5.1.3.C.2.c of the Zoning Ordinance, to request the CRNF zone for a property with a residential base zone, the property must "front on a nonresidential street" and "satisfy a minimum of two (2) prerequisites for each of the categories under Section 59.5.1.3.D."

The Subject Property fronts on Strathmore Avenue, which is designated as an arterial road in the Master Plan, meeting the first requirement. To address the second requirement for the CRNF zone request, Staff concurs that the LMA Application meets the following prerequisites in the categories listed below:

1. Transit and Infrastructure:
   a. At least 75% of the site is within ¼ mile of a Level 3, ½ mile of a Level 2, or ¼ mile of a Level 1 transit station/stop.
   b. The site is served by existing water and sewer infrastructure that will not require either an upgrade to the service line or installation of a pump station due to the proposed development.

2. Vicinity and Infrastructure:
   a. The site is adjacent to a route that provides access to an existing or master-planned school within ½ mile.
   b. The site is adjacent to a pedestrian route that provides access to existing public park and recreation facilities that satisfy a minimum of 30% of the recreation demand under the Planning Board's Recreation Guidelines, as amended, within ¾ mile.

3. Environment and Resources:
   a. The limits of disturbance for the development will not reduce the forest cover to less than an area of 10,000 square feet and width of 35 feet at any point.
   b. The site does not contain any rare, threatened, or endangered species or critical habitats listed by the Maryland Department of Natural Resources.

Additionally, per Section 59-5.3.2 of the Zoning Ordinance, the purpose of the Commercial/Residential Floating zones is to:

A. allow development of mixed-use centers and communities at a range of densities and heights flexible enough to respond to various settings;
B. allow flexibility in uses for a site; and
C. provide mixed-use development that is compatible with adjacent development.

Development Standards for CRNF Zone

The design of the development will be finalized and reviewed by the Montgomery County Planning Board at the time of subsequent Preliminary Plan and Site Plan review. The Project will meet the Development Standards for the CRNF 0.75 C-0.25 R-0.75 H-50' (Commercial Residential Neighborhood-Floating) zone as illustrated in the table below. The height and principal building setbacks from the Site boundaries are established and shown on the Floating Zone Plan, whereas the internal setbacks will be established at the time of Site Plan. Further, the minimum lot sizes will also be established at the time of Site Plan.

Table 4: Development Standards and Parking Requirements

	Required/Permitted	**Proposed**
Site		
Gross Tract Area (Overall Site)	N/A	38.55 acres
Gross Tract Area (Subject Property)		15.36 acres 688,877 sf.
Previous ROW Dedications		19,952 sf.
Proposed ROW Dedications		0 sf.
Net Lot Area (Subject Property)		668,925 sf.
Maximum Density of Development (CRNF-0.75, C-0.25, R-0.75, H-50)	Residential - 0.75 FAR/ (516,658 sf.) Commercial - 0.25 FAR (172,219 sf.)	Residential - 0.70 FAR/ (482,000 sf.) Commercial - 0 FAR (0 sf.)
Public Open Space	10%	44,012 sf. (1.01 acres)
Common Open Space	10%	19,451 sf. (0.44 acres)
Lot Coverage (max.)	Set at Site Plan	To be determined at Site Plan
Building Height (max.)	50 feet	50 feet
Principal Building Setbacks (min.)		
Front setback from public street	Set at Site Plan	To be determined at Site Plan
Side street setback		
Side setback		
Rear setback		
Parking*		
Townhouse	1 space per unit; 2 per unit max	297-313 spaces To be determined at Site Plan
Townhouse MPDU	minimum reduced by 50%	
Single-Family Residential	1 space per unit; 2 per unit max	
Residential Care Facility	0.25 per bed min./max. 0.5 space per employee min./max.	

*Final parking counts to be determined at the time of Site Plan.

Section 59-7.2.1.E.2.d. *- be compatible with existing and approved adjacent development;*

The proposed rezoning for future redevelopment of the Property is in substantial conformance with the recommendations of the 1992 *North Bethesda/Garrett Park Master Plan* as well as compatible with the adjacent and confronting uses and pending developments.

The Subject Property is close to institutional and residential uses, including the Holy Cross Church and School to the east, the Academy of the Holy Cross to the south, and Symphony Park and Garrett Park residences to the

west and north. The Floating Zone Plan provides compatibility with the existing neighboring properties and roads. The Project includes single-family detached residences along Strathmore Avenue to reflect the confronting single-family uses and locates the proposed townhouse units to the interior to the Site. These detached residential units also avoid front yard parking facing Strathmore Avenue. The proposed layout of the townhouses establishes a compatible relationship with the abutting townhouses and create uniformity. Additionally, the Application includes a binding element that ensures that no principal commercial uses (except permitted accessory uses associated with the residential care facility) will be developed on the Property, which will preserve the residential character of the neighborhood.

The Project will separate the detached and attached residential units on the west of the Site from the residential care facility on the east of the Site by Street A. The residential uses to the south will be separated from the Academy of the Holy Cross with landscaping and the proposed natural surface trail. In fact, significant buffering will be provided between the proposed uses and those to the west, south and east, further ensuring compatibility between the uses. The Project conforms with reduction of the building height to establish a compatible relationship with the nearby existing structures. The residential care facility also takes advantage of the Subject Property's gently sloping grade to reduce bulk and massing from Strathmore Avenue, and is compatible with the institutional uses to the south and east.

The Project is compatible with approved adjacent development and pending developments. Nearby pending development includes the Strathmore Square Redevelopment to the southwest of the Subject Property. The Strathmore Square Development is located directly adjacent to the Grosvenor-Strathmore Metro Station and is bordered on the north and east by Tuckerman Lane, just east of the intersection of Tuckerman Lane and Rockville Pike. Strathmore Square will be redeveloped as a mixed-use, predominately residential, center and is envisioned to be a transit-oriented, walkable and dynamic arts and cultural community that will be well connected through streets, blocks, and open spaces to surrounding neighborhoods. This development aims for many of the same efficient design features and are proposed for the LMA Applicant and both sides will be connected via pathways and sidewalks that tie into Cloister Avenue to the south. Therefore, the Subject Application is compatible with existing and approved or pending adjacent development.

> ***Section 59-7.2.1.E.2.e.*** *- generate traffic that does not exceed the critical lane volume or volume/ capacity ratio standard as applicable under the Planning Board's LATR Guidelines, or, if traffic exceeds the applicable standard, that the applicant demonstrates an ability to mitigate such adverse impacts; and*

A Transportation Study was submitted with the LMA Application that analyzed the Floating Zone Plan's access concept and proposed residential density in accordance with the 2016-2020 Subdivision Staging Policy. In terms of access and circulation, proposed vehicular access for the new single-family dwellings and residential care facility will be provided via private Streets A through B and via private alleyways. The reconfiguration of private Street C with Stillwater Avenue across Strathmore Avenue will improve connectivity and access points into the abutting developments. Staff supports the site access concept pending further review and approval by MDSHA.

The required off-street parking will be provided, along with efforts to reduce of the number of vehicular parking spaces per dwelling unit. The surface parking for the residential care facility is intended to provide adequate parking without dominating the streetscape. The Project aligns with the general site access requirements such as reducing conflicts between vehicular and non-motorized travel, allowing vehicles to safely enter and exit parking areas, and the provision of off-street loading. As noted under the LATR summary, realignment of the driveway for the Academy of the Holy Cross and construction of a new driveway at the Stillwater Avenue approach will accommodate school traffic during the AM peak hour and each of the studied intersections will operate below their relevant congestion standards. As illustrated in the Applicant's traffic study submitted as part of the LMA, multimodal traffic generated from the proposed 125 dwelling units and assisted living facility will not have detrimental impacts to capacity and delay. The Project is also required to provide traffic mitigation improvements which will be further evaluated and finalized at the time of Preliminary Plan. Furthermore, under

the Preliminary Plan review process, the Applicant will be required to submit a new traffic study that conforms with the standards in place by the 2020-2024 Growth and Infrastructure Policy, which will provide definitive guidance with regards to potential improvements tied to safety, accessibility, and congestion mitigation as they relate to the programming and design of the Project.

> ***Section 59-7.2.1.E.2.f.*** *- when applying a non-Residential Floating zone to a property previously under a Residential Detached zone, not adversely affect the character of the surrounding neighborhood.*

The Application seeks to apply a non-Residential Floating zone to the Subject Property that is currently zoned R-60, which is a Residential Detached zone. The Staff-defined neighborhood generally includes institutional and residential uses, whereas commercial uses are further north and south of this delineated neighborhood. Despite the commercial uses that are permitted under the CRNF zoning designation, the Application proposes a binding element to prohibit principal commercial uses on the Property (except permitted accessory uses associated with the residential care facility), thereby protecting the existing character of the neighborhood. As previously explained, the proposed single-family detached and attached residences on the western portion of the Site are compatible with the density and arrangement of the Symphony Park townhouse development on the west and the confronting single-family residences of the Garrett Park subdivision to the north.

The proposed scale and massing of the residential care building is minimized using the Site's topography and a compatible building height to the existing institutional uses. While the architecture will be finalized at the later stage, the Applicant's intent is to use architectural details that are complementary to the new adjacent and existing confronting residential uses. The currently vacant St. Angela's Hall institutional use will be converted into residential uses, which further contributes to the residential uses along Strathmore Avenue. Therefore, the Project's proposed land uses will not adversely impact the character of the neighborhood.

SECTION 5

COMMUNITY CORRESPONDENCE

The Applicant has complied with the required notification signage and has informed all the adjacent property owners, community organizations, and homeowners' associations within one-half mile of the Property about the Application and the proposed Project as required under the Zoning Ordinance and the Manual of Development Review Procedures for Montgomery County.

While a pre-submittal community meeting is not required for Local Map Amendments, there has been an intentional and robust effort to engage the surrounding community in this public process. The Applicant has conducted significant community outreach for this Application, as summarized below:

- January 19, 2021 - Virtual meeting with Garrett Park Mayor and Staff
- February 12, 2021 - Virtual meeting with Garrett Park Estates and Friends of White Flint
- February 26, 2021 - Virtual Meeting with Symphony Park Homeowners Association
- March 30, 2021 - Virtual Meeting with Holy Cross Community
- October 4, 2021 - Virtual Meeting with Representatives of Garrett Park Estates and White Flint Park Citizens Association
- November 8, 2021 - Virtual Meeting with Holy Cross Parish and School Community

The Applicant has also had email correspondence regarding the Application with Grosvenor III Park Condominium Association, Stoneybrook Homeowners Association, Grosvenor Citizens Association, Parkside Condominium, and Strathmore Park Condominium.

Additionally, by request of the Garrett Park Estates and Friends of White Flint, the Applicant conducted a virtual community meeting on October 4, 2021, with 8 attendees, to address questions and concerns regarding:

1. Circulation and Parking:
    A. request for the school to create a new entrance on Cloister Drive to the south.
    B. use of traffic counts from pandemic-level traffic.
    C. more information on the grassy median on Strathmore Avenue.
    D. need for overflow parking for guests.
    E. sidepath extended to the east of the Property to the existing crosswalk and bus stop.
    F. How stormwater management will be addressed.
2. How will trees be addressed with the redevelopment, particularly along Strathmore Avenue.

Along with speaking to surrounding residents via telephone calls and email correspondence, Planning staff also met virtually with residents of the Garrett Park Estates-White Flint Park Citizens Association on October 20, 2021, to review these concerns. A total of 7 members from the community attended the virtual community meeting.

All Staff produced documents have been provided in an accessible format and the majority of the Application Materials have been modified for accessibility. As of the date of the initial Staff Report and this updated Community Correspondence report section, staff received several letters from the community raising concerns about the overall change of the school property, traffic impacts, and pedestrian safety concerns. Letters received echo earlier meeting discussions which are reflected in Attachment B. Planning Staff also received correspondence in support for the proposed rezoning.

The following summary re-addresses and expands on the list of concerns. Generally, many questions and concerns raised will be addressed through subsequent preliminary plan and site plan review processes.

Zoning

Staff received public correspondence related to the overall rezoning of the Site and summarized it below.

- Comment: There is no community support for an increase in density.

  Staff Response: Staff has also received correspondence in support of the Application. Staff and the Applicant understand the concerns about the overall change that the redevelopment will bring if approved. As explained in Section 4 of the Report, much has changed over the past 29 years since the adoption of the 1992 North Bethesda/Garrett Park Master Plan, including the closure of St. Angela's Hall that sits vacant and underutilized on the Site. Today, the Master Plan area is a part of a fast-growing metropolitan area that has a great need for housing, multimodal solutions to move people and goods, and dynamic, mixed-use communities that exhibit design excellence. Current plans and policies reflect support for infill development that creates livable, walkable communities. Infill development allows the County to meet its growth needs while also maintaining existing neighborhoods and protecting environmental resources. Some compromises offered by surrounding residents include reducing the number of units. Density is not solely represented by a total number of units. Site layout, design features, and building form and massing are also important elements in this Applicant that supports how this new development "fits" with existing development. Further, the Applicant meets all the objectives of the floating zones and the requirements of Section 59-5.1.3.C.2.c of the Zoning Ordinance for the requested density.

- Comment: There is community support to maintain the existing R-60 zoning classification.

  Staff Response: The Applicant's rezoning petition is to allow for the future development of the Site with up to 125 single-family detached and attached dwelling units and a residential care facility (with up to 145 beds). The existing R-60 zoning permits these land uses that are proposed including single-family detached, residential care facilities (up to 8 persons), and allows attached dwelling units by limited or conditional use. The rezoning effectively allows more than 8 beds for elderly persons and an increase in townhouses with additional prerequisites imposed. As conditioned, principal commercial uses would not be permitted on the Site, although this use is permitted under the requested CRNF zone.

- Comment: A possible alternative could be building single-family homes of all sizes.

  Staff Response: Please see the comment and response above. The rezoning would support the future development of residential uses only including up to 125 single-family homes of various configurations. The minimum lot sizes will be established at the time of the Site Plan.

Circulation and Parking

Staff received public correspondence related to traffic concerns and pedestrian safety that have been grouped and summarized below. Additionally, please refer to Attachment B for a point-by-point response to the community.

- Comment: The Traffic Study is inadequate and uses traffic counts from pandemic-level traffic.

  Staff Response: There are several points to consider concerning the revised traffic study, including the following:

  1) The traffic counts conducted follow the latest requirements related to pre-and post-pandemic conditions. In past briefings to the Planning Board, Staff has acknowledged that the COVID-19

pandemic added uncertainty to traffic analysis. Therefore, the Montgomery County Planning Department initiated an interim policy to not accept transportation impact studies using traffic counts taken during the COVID-19 pandemic on March 14, 2020, or later. The policy was updated on May 7, 2020, to reflect changing conditions and to allow the use of existing counts taken prior to the pandemic, with potential modifications. Therefore, the Proposal follows the latest policies adopted by the Planning Board and the County Council and is thoroughly reviewed by transportation professionals within the Planning Department, MDSHA, and MCDOT.

2) Per the 2020-2024 Growth and Infrastructure Policy (GIP) and Chapter 50 of the County Code, this analysis will carry over into a future Preliminary Plan application and conclude, including a statement of adequate public facilities for transportation and schools. Future traffic analysis completed in accordance with the GIP will review the project under the Grosvenor Policy Area due to the Policy Area's expansion under the recently adopted GIP. The updated traffic study that is required at the time of the Preliminary Plan will not have new conclusions about the traffic analysis related to motor vehicles.

3) Both the Applicant and the Planning Department have met with the community to discuss a myriad of concerns related to the revised traffic study and provided an understanding of how it fits within the new Growth and Infrastructure Policy. Please refer to Attachment B for an extensive 6-page point-by-point response to traffic study questions from the community.

- Comment: Parking for the residential care facility should not front onto Strathmore Avenue.

  Staff Response: Vehicle parking design standards are both general and specific when governed by the zoning district, such as the prohibition of parking between the building and street. For example, within the R-60 district for which the Site is currently zoned, Section 59.6.2.5.M.1 of the Zoning Ordinance states that: "Parking for any vehicle or trailer in the area between the lot line and the front or side street building line must be on a surfaced parking area." Development standards per Article 59-6 for the CRNF zone that is requested will govern the Application. Additionally, final parking spaces and the arrangement of parking is a Site Plan element and will be re-evaluated and approved at the time of the Site Plan.

- Comment: There is not adequate parking with the development.

  Staff Response: In response to concerns from surrounding residents, particularly the Symphony Park Citizens Association, the Applicant increased the total number of parking spaces on the Site. In terms of adequate parking, the Plan will meet the minimum parking requirement, while creating the provision for overflow guest parking that is not excessive and out of character for the area. This means that the additional parking spaces have been provided on several townhouse lots and along the new private roads as on-street parking. No new surface parking has been proposed to meet the surrounding neighbor's requests for additional parking.

- Comment: Traffic currently backs up several times daily along Strathmore Avenue. The rezoning of this property will add more traffic to Strathmore Avenue, making it difficult for existing residents to travel and create cut-through traffic.

  Staff Response: If the rezoning petition is approved, the future Project will provide traffic mitigation measures such as the realignment of the access road with Stillwater Avenue, a left-bound turn lane, and a traffic signal on Strathmore Avenue at the main entrance. Within the traffic analysis, these measures

demonstrated a significant reduction in existing traffic delays. Under future applications, Staff will continue to examine the concerns raised about cut-through traffic in the Garrett Park neighborhood.

- Comment: Vehicular access points should be reduced to one point of access on Strathmore Avenue.

  Staff Response: There are currently three access points along Strathmore Avenue associated with the Site. The future development proposal maintains these points to accommodate the anticipated vehicular traffic and movements for fire safety vehicles. The Project will be served by three access points: one on the western side of the site, which will be realigned with Stillwater Avenue to the north, the main entry road down the center of the site, and a service-only entrance along the eastern edge of the site, serving the residential care use.

- Comment: Vehicular access should be provided south of the Academy of the Holy Cross.

  Staff Response: Please refer to Attachment B for a point-by-point response to this question. The creation of a new entrance on Cloister Drive to the south was examined by the Applicant and is infeasible due to the stream valley, topography, existing forest cover, and projected traffic counts on Tuckerman Lane. Please refer to the Forest Conservation Plan Staff Report for a detailed summary of the environmental resources and constraints.

- Comment: Traffic to the existing schools in the area is difficult. It is also detrimental to permit these developments without adequate schools.

  Staff Response: Please refer to Attachment B for the previous response provided. Due to the proposed residential use, a subsequent Preliminary Plan will be subject to the FY21 Annual School Test under the 2020-2024 *Growth and Infrastructure Policy* (GIP). The proposed residential care facility will not generate any school-aged children to impact school capacity. However, the remaining residential portion of the Project may require a Utilization Premium Payment at the time of building permit for one or all the schools. Required assessment of school capacity will be assessed and approved at the time of the Preliminary Plan.

- Comment: Pedestrian safety should be a priority.

  Staff Response: The Department agrees that pedestrian and bicycle safety is a priority and well-supported in our planning documents and policies. The Project is also nearby transit services (Ride On and Metrorail) and improvements are proposed to facilitate safe and convenient access to these alternative modes of transportation, which is promoted by the Master Plan. We've heard several valuable comments about existing challenges with crossing Strathmore Avenue at Stillwater Street from the north side to the south side and traversing the arterial to reach the Grosvenor-Strathmore Metrorail Station. Through the Growth and Infrastructure Policy, the future Preliminary Plan submission will address ADA requirements to reach transit services.

- Comment: Describe the sidepath extended to the east of the Property to the existing crosswalk and bus stop.

  Staff Response: The Plan proposes a new shared-use path along the Strathmore Avenue frontage that may be slightly extended off-site to the west, which requires the Applicant to acquire the right-of-way or an easement from the adjacent property owner. The final extent and details of this shared-use path will be confirmed through the Preliminary and Site Plan processes.

Environment and Stormwater Management

Staff received public correspondence related to environment and stormwater management that have been grouped and summarized below.

- Comment: The developer is cutting down all these trees for this project.

  Staff Response: All existing trees on the Site are not being removed. The Application complies with Chapter 22A: Forest Conservation Law, which permits removal of protected trees under certain circumstances, and complies with the Environmental Guidelines. There are 152 significant and specimen trees on-site and within 100 feet of the Subject Property. The Applicant is requesting a variance to remove 12 specimen trees and to impact but retain 3 specimen trees. There are 4.06 acres of forest on-site and the Applicant proposes to clear 0.49 acres of existing forest and retain 3.57 acres. Please refer to the Preliminary Forest Conservation Plan Staff Report for details of tree preservation, impacts, and mitigation requirements that will be met. Environmental comments were also previously provided to the community and found in Attachment B. The Final Forest Conservation Plan will be reviewed and approved under future development applications.

- Comment: Stormwater management is a concern.

  Staff Response: To address stormwater management, the Project proposes to implement new facilities that meet current State standards and will improve the current state of stormwater pooling that is reported to occur in the area. Additionally, the new roads will incorporate stormwater management within the road right-of-way. In response to the community's questions, the Applicant conducted an additional analysis as previously explained on Page 21 which calculated that there are approximately 1.5 acres that currently sheet flow into Strathmore Avenue. With the stormwater management improvements, this flow will be captured and managed on-site after the development of the Project and will substantially reduce the amount of stormwater the community has reported to observe flowing.

Open Space and Landscaping

- Comment: This development should have a park.

  Staff Response: The Site is not identified in any planning document as a location for a master-planned public park. However, the North Bethesda/Garrett Park Master Plan has a broad recommendation for providing green spaces in appropriate locations. Please refer to pages 9-11 of this Report for the details of the Proposal's intended compliance with the 10% open space requirements and Recreation Guidelines. If the rezoning is approved, final details of the proposed common open spaces and public open spaces will be re-reviewed and approved at the time of the Site Plan.

- Comment: The community is losing open space with the redevelopment.

  Staff Response: The Property owner is pursuing legal rights to transform the existing open lawn areas and building areas on their Site in a manner that conforms with established zoning and land use regulations. The Site is privately owned, has a gated entrance, and is not a part of any public open space inventory. Through the future redevelopment, the required 10% of open spaces to be provided will permit use from surrounding residents via public access easements. Additionally, the Proposal will meet the Master Plan's objective of preserving green areas and open spaces on the Property through the preservation of approximately 4 acres in the stream valley.

- Comment: How will trees be addressed with the redevelopment, particularly along Strathmore Avenue?

  Staff Response: The south side of Strathmore Avenue will be lined with newly planted trees and the overall Site is anticipated to have more trees after redevelopment due to the Site's reforestation requirement where there are currently playing fields. The Proposal will comply with the minimum tree caliper at the time of planting and the trees will produce greater environmental impacts in the longer term as they mature. The Staff Report explaining the Preliminary Forest Conservation Plan for the Site covers forest and tree retention and removal in more detail.

Public Input

- Comment: This site should consider the neighborhood's concerns and suggestions.

  Staff Response: Staff agrees that public input is valuable. Efforts to take the public concerns into account are reflected in responses to calls, emails, and the more than a half-dozen meetings convened to dialogue with the surrounding residents and citizen groups. Please refer to Attachment B for public comments reviewed and under consideration by Planning Staff, the Applicant, the Planning Board, and the OZAH. If the rezoning is approved, there will be additional opportunities to provide input into the public process as plan details are refined.

SECTION 6

RECOMMENDATION

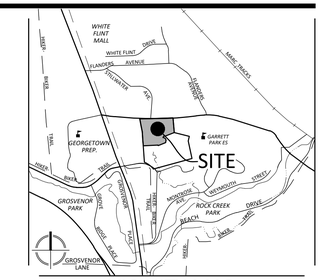
The proposed CRNF-0.75 C-0.25 R-0.75 H-50' (Commercial Residential Neighborhood-Floating) zone complies with the standards and requirements for approval of a Local Map Amendment. The proposed zone and use (residential only with no commercial) are consistent with the goals and recommendations of the 1992 *North Bethesda/Garrett Park Master Plan*, are in the public interest, and will not alter the character of the surrounding neighborhood. Staff recommends approval of the Local Map Amendment and the associated Floating Zone Plan with the proposed binding elements.

ATTACHMENTS

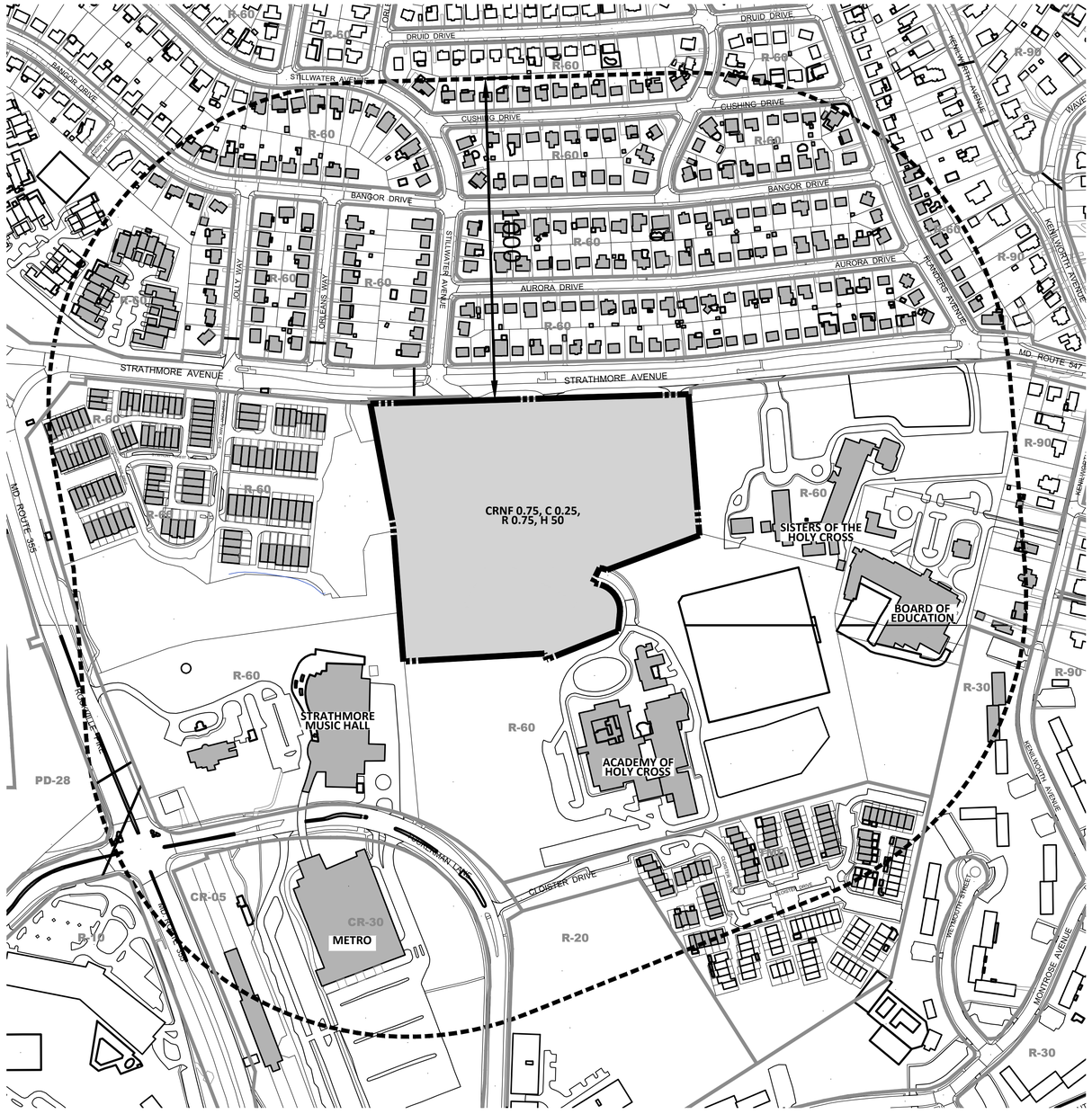
A. Floating Zone Plan
B. Public Correspondence (REVISED 12/3/21)

4910/4920 STRATHMORE

LOCAL MAP AMENDMENT



VICINITY MAP
SCALE: 1" = 2,000'



SCALE: 1" = 200'

NORTH

REFERENCE NOTES

TAX ACCOUNT REFERENCE:	04-03234564 & 04-00045122
CURRENT ZONING:	R-60
PROPOSED ZONING:	CRNF 0.75, C 0.25, R 0.75, H 50
NRI/FSD NO:	420211410
WATERSHED:	ROCK CREEK
WATER SERVICE CATEGORY:	W-1
SEWER SERVICE CATEGORY:	S-1
SOIL DESIGNATION:	2B, 2C, 2UB, 2UC, 16D, 53A
FLOODPLAIN ZONE:	'X'
FIRM COMMUNITY PANEL NO.:	[24031C04 55D], FOR MONTGOMERY COUNTY, MD DATED SEPTEMBER 29, 2006.

GENERAL NOTES

1. THE HORIZONTAL DATUM IS MARYLAND STATE GRID NORTH (NAD83) AND THE VERTICAL DATUM IS NVGD29.
2. THE BUILDING FOOTPRINTS AND LOTS SHOWN ON THE FLOATING ZONE PLAN ARE ILLUSTRATIVE. FINAL BUILDING LOCATIONS, RELATED DETAILS SUCH AS UTILITIES AND GRADING WILL ULTIMATELY BE DETAILED AND DETERMINED AT TIME OF SITE PLAN. PLEASE REFER TO THE ZONING DATA TABLE FOR DEVELOPMENT STANDARDS SUCH AS SETBACKS. THE AREAS ATTRIBUTABLE TO THE VARIOUS USES AND THE AMOUNT OF THEIR RESPECTIVE OPEN SPACES MAY BE ADJUSTED AT THE TIME OF SITE PLAN.
3. FUTURE MODIFICATIONS TO SCHOOL DRIVEWAY MAY ENCROACH UPON SUBJECT PROPERTY AS WILL BE DETERMINED AT THE TIME OF PRELIMINARY PLAN.
4. STREET 'A' TO BE CONSTRUCTED FIRST. PHASING OF THE BALANCE OF THE DEVELOPMENT MAY BE DONE IN ANY ORDER OR CONCURRENTLY.

SHEET INDEX

FZP-1 COVER SHEET
FZP-2 FLOATING ZONE PLAN

EXHIBITS:

EX-100	EXISTING CONDITIONS PLAN COVER
EX-200	EXISTING CONDITIONS PLAN
PFCP-1	PRELIMINARY FOREST CONSERVATION PLAN PLAN COVER SHEET
PFCP-2	PRELIMINARY FOREST CONSERVATION PLAN COMPOSITE
VAR-100	VARIANCE TREE EXHIBIT
OS-1	OPEN SPACE
REC-1	RECREATION
FIRE-1	FIRE ACCESS PLAN
CIRC-1	CIRCULATION PLAN
GUP	GRADING & UTILITY EXHIBIT
SWM-1	PRELIMINARY STORMWATER MANAGEMENT EXHIBIT
ROW-1	ILLUSTRATIVE ROAD SECTIONS

NOTE: EXHIBITS ARE ILLUSTRATIVE AND MAY BE REVISED BY SUBSEQUENT ENTITLEMENT REVIEWS AND APPROVALS.

LEGEND

- 1000' RADIUS FROM PROPOSED SITE
- X-XXX — ZONING AND ZONE DESIGNATION
- SUBJECT PROPERTY
- PROPERTY LINE
- EXISTING BUILDINGS

"FOR LOCATION OF UTILITIES CALL 8-1-1 or 1-800-257-7777 OR LOG ON TO www.call811.com or http://www.missutility.net 48 HOURS IN ADVANCE OF ANY WORK IN THIS VICINITY"

The excavator must notify all public utility companies with underground facilities in the area of proposed excavation and have those facilities located by the utility companies prior to commencing excavation. The excavator is responsible for compliance with requirements of Chapter 36A of the Montgomery County Code.

VIKA MARYLAND, LLC
20251 Century Blvd., Suite 400
Germantown, MD 20874
301.916.4100 | vika.com

Our Site Set on the Future.

PREPARED FOR:
EYA DEVELOPMENT LLC AND BL STRATHMORE LLC
C/O EYA DEVELOPMENT LLC
4800 HAMPDEN LANE
SUITE 300
BETHESDA, MD, 20814
301.634.8615
PAMELA LEE
PLEE@EYA.COM

ATTORNEY:
MILES & STOCKBRIDGE, P.C.
11 NORTH WASHINGTON STREET
SUITE 700
ROCKVILLE, MD, 20850
301.517.4804
ERIN E. GIRARD
egirard@milesstockbridge.com

REVISIONS	DATE

4910/4920 Strathmore

1ST ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND
WSSC GRID: 213NW04, 213NW05, 214NW04, 214NW05
TAX MAP:HQ21

COVER SHEET

PROFESSIONAL SEAL
STATE OF MARYLAND — JOSHUA C. SLOAN — No. 3719 — LANDSCAPE ARCHITECT

THE INFORMATION, DESIGN AND CONTENT OF THESE DRAWINGS OR DOCUMENTS ARE PROPRIETARY TO VIKA MARYLAND, LLC AND CONSTITUTE ITS PROPRIETARY INTELLECTUAL PROPERTY. THESE DRAWINGS AND/OR DOCUMENTS MUST NOT BE FORWARDED, SHARED, COPIED, DIGITALLY CONVERTED, MODIFIED OR USED FOR ANY PURPOSE, IN ANY FORMAT, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM VIKA MARYLAND, LLC. VIOLATIONS MAY RESULT IN PROSECUTION. ONLY APPROVED, SIGNED AND SEALED PLANS OR DRAWINGS MAY BE UTILIZED FOR CONSTRUCTION PURPOSES.

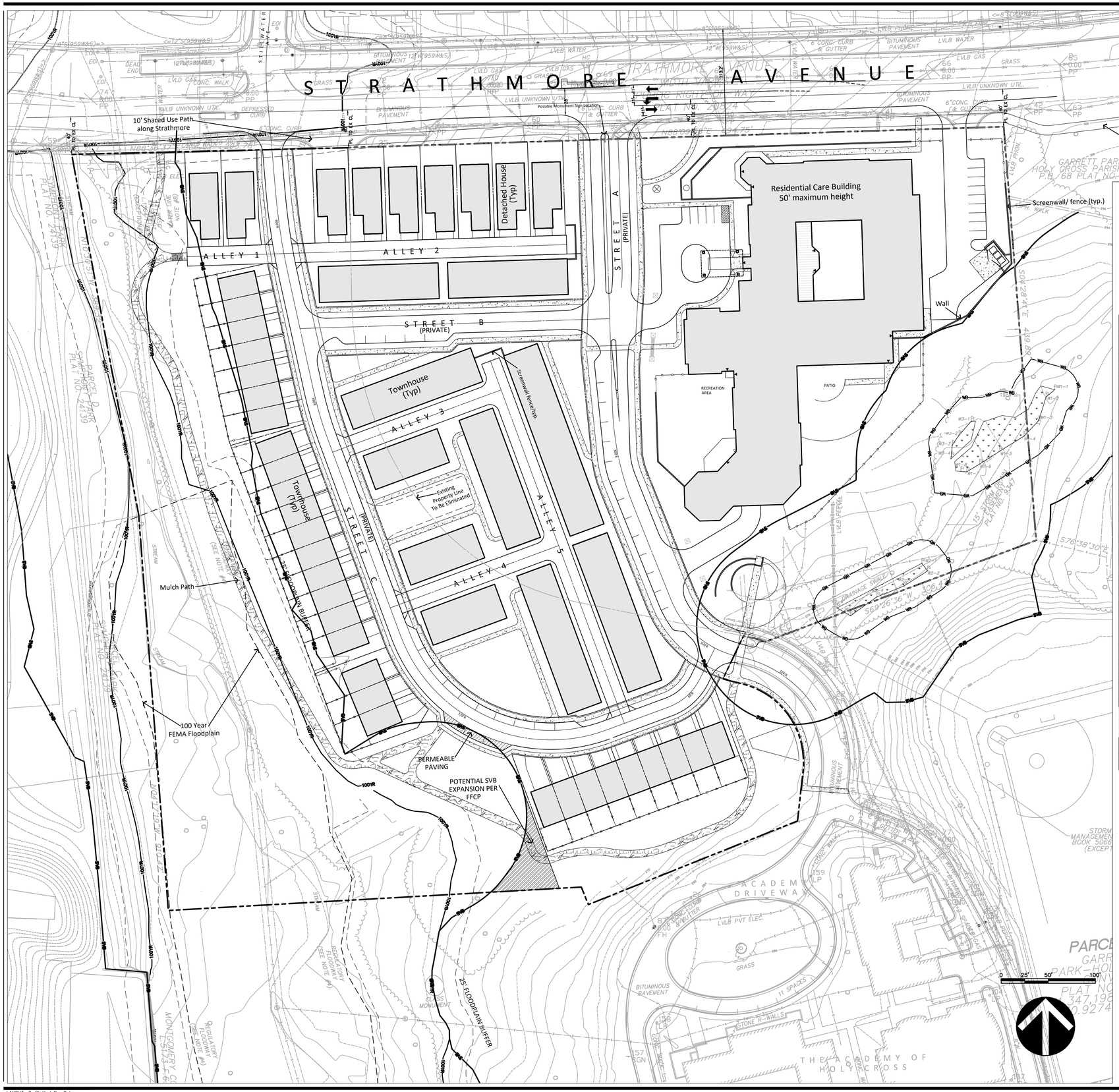
© 2019 VIKA MARYLAND, LLC

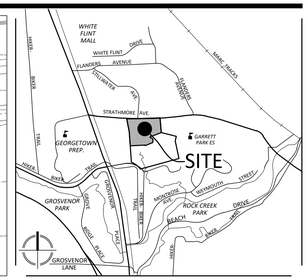
DRAWN BY:
DESIGNED BY:
DATE ISSUED:

VIKA PROJECT VM50370

DRAWING NO.

SHEET NO. FZP-1





VICINITY MAP
SCALE: 1" = 2,000'

LEGEND

- Proposed Building
- Subject Property Limits
- Proposed Sidewalk
- Proposed Face of Curb
- Proposed Public Utility Easement
- Proposed Fence

BINDING ELEMENTS

1. NO COMMERCIAL USES WILL BE PROPOSED OR ALLOWED ON THE SUBJECT PROPERTY.
2. INTERNAL TRAIL SYSTEM SHOWN WILL BE SUBJECT TO A PUBLIC ACCESS EASEMENT TO ENSURE PUBLIC ACCESS.

FLOATING ZONE PLAN DEVELOPMENT TABULATIONS				
Address	4910/4920 Strathmore Avenue			
Property Description	Parcel No. N875, Parcel A, Plat 9347 and Part of Parcel No. N045, Parcel B, Plat 20824			
Current Zone:	R-60			
Proposed Zone	CRN-0.75 C-0.25 R-0.75 H-50			
Existing Site Area to be rezoned (full tract is 38.55 acres between Plats 20824 and 9347)	**668,925 SF**		**15.36 AC**	
AREA TO BE RE-ZONED TO CRNF	*SF*		*Acres*	
Tract Area	688,877 SF		15.81 AC	
Previous R.O.W. Dedications (Plats 9347 & 20824)	19,952 SF		0.46 AC	
Proposed R.O.W. Dedications	.0 SF		0.00 AC	
Proposed Site Area	**668,925 SF**		**15.36 AC**	
PROPOSED USES				
Townhouse - Residential			115 du	
Single Family Detached - Residential			10 du	
Total Units			**125 du**	
Total MPDU ***			19 du	
Residential Care Beds			**145 beds**	
Residential Care Employees at peak shift			**50 Employees**	
DEVELOPMENT STANDARD	*Permitted / Required*		*Provided*	
Maximum Density*				
CRNF-0.75 Zone (CRNF-0.75 C-0.25 R-0.75 H-50)	*FAR*	*SF*	*FAR*	*SF*
Commercial	0.25	172,219 SF	0.00	.0 SF
Residential	0.75	516,658 SF	0.70	482,000 SF
Principal Building Setbacks				
From Site Boundary - Strathmore Avenue	Est. by FZP		10'	
From Site Boundary - Side & Rear	Est. by FZP		50'	
Front Setback	Est. by Site Plan		TBD	
Side Street Setback	Est. by Site Plan		TBD	
Side Setback	Est. by Site Plan		TBD	
Rear Setback, Alley	Est. by Site Plan		TBD	
Accessory Structure Setbacks	Est. by Site Plan		TBD	
Maximum Building Height	50'		50'	
Minimum Lot Size	Est. by Site Plan		TBD	
Maximum Lot Coverage	Est. by Site Plan		TBD	
Minimum Public Open Space, see Open Space Plan for Breakdown by Type	41,464 SF		41,464 SF	
Minimum Common Open Space, see Open Space Plan for Breakdown by Type	23,626 SF		23,626 SF	
PARKING**	*Baseline Min/Max*		*Provided*	
Townhouse (1 per unit min / 2 per unit max)	115 min / 230 max		Off-Street Resident Parking	184-200 spaces
			On-Street Visitor Parking	31 spaces
Townhouse MPDU (min reduced by 50%)	9 min / 35 max			10 spaces
Single Family - Residential (1 per unit min / 2 per unit max)	9 min / 18 max			10 spaces
Residential Care Beds (0.25 per bed min / max)	37 spaces			37 spaces
Residential Care Employees (0.5 space per employee min / max)	25 spaces			25 spaces
Total Parking	**195 min / 345 max**			**297-313 spaces**
Parking Setbacks for Surface Parking Lots (Residential Care)				
Front Setback	behind front		Yes	
Side Street Setback	behind the side		Yes	
Side Setback	must accommodate		Provided	
Rear Setback	must accommodate		Provided	
Rear Setback, Alley				

** Density is calculated in the CRNF zone based on tract area.*
*** Final parking will be determined at site plan.*
****MPDUs will be provided and distributed among the townhouse units, at 15% of those permitted and constructed.*
Note: Although 9 detached homes are illustrated, final building footprint and number of lots will be determined at preliminary plan up to 10 detached units.

Open Space Calculations				
	Site Area	*Required*	*Proposed*	
Residential Care Public Open Space (10% Required)	194,507	19,451	19,451	
Townhouse Public Open Space (10% Required)	440,111	44,012	44,012	

VIKA MARYLAND, LLC
20251 Century Blvd., Suite 400
Germantown, MD 20874
301.916.4100 | vika.com

Our Site Set on the Future.

PREPARED FOR:
EYA DEVELOPMENT LLC AND BL STRATHMORE LLC
C/O EYA DEVELOPMENT LLC
4800 HAMPDEN LANE
SUITE 300
BETHESDA, MD, 20814
301.634.8615
PAMELA LEE
PLEE@EYA.COM

ATTORNEY:
MILES & STOCKBRIDGE, P.C.
11 NORTH WASHINGTON STREET
SUITE 700
ROCKVILLE, MD, 20850
301.517.4804
ERIN E. GIRARD
egirard@milesstockbridge.com

REVISIONS	DATE

4910/4920 Strathmore

1ST ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND
WSSC GRID: 213NW04, 213NW05, 214NW04, 214NW05
TAX MAP:HQ21

FLOATING ZONE PLAN

PROFESSIONAL SEAL
STATE OF MARYLAND · JOSHUA C. SLOAN · No. 3775 · LANDSCAPE ARCHITECT

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED REGISTERED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND. JOSHUA SLOAN LICENSE No. 3276 EXPIRATION DATE: MAY 13, 2022

THE INFORMATION, DESIGN AND CONTENT OF THESE DRAWINGS OR DOCUMENTS ARE PROPRIETARY TO VIKA MARYLAND, LLC AND CONSTITUTE ITS PROPRIETARY INTELLECTUAL PROPERTY. THESE DRAWINGS AND/OR DOCUMENTS MUST NOT BE FORWARDED, SHARED, COPIED, DIGITALLY CONVERTED, MODIFIED OR USED FOR ANY PURPOSE, IN ANY FORMAT, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM VIKA MARYLAND, LLC VIOLATIONS MAY RESULT IN PROSECUTION. ONLY APPROVED, SIGNED AND SEALED PLANS OR DRAWINGS MAY BE UTILIZED FOR CONSTRUCTION PURPOSES.

© 2019 VIKA MARYLAND, LLC

DRAWN BY: ____
DESIGNED BY: ____
DATE ISSUED: ____

VIKA PROJECT VM50370
DRAWING NO.
SHEET NO. FZP-2

October 15, 2021
Staff Response – October 19, 2021

Strathmore 4910/4920 Development:

List of Questions for Montgomery County Parks & Planning

Accessibility of MNCPPC Documents

- Are there plans to make the documents posted on the MNCPPC website accessible to those with visual disabilities? We have a neighbor on our committee, who has experience with environmental law, who is unable to review the documents due to his disability.

  Staff Response:
  Many of the documents submitted to the Planning Department are not accessible at this time. However, the Staff Report and Planning Board Presentation can be made into an accessible format.

Traffic and Roads

Staff Responses are in Blue font below:

- A DOT attachment is referenced in the response to comments but is not included anywhere in the document list, on the MNCPPC website with documents for this development. If possible, please share this document with us ahead of the meeting. If there are any other documents referenced in the response that are not posted on the website, please share them with us.
  - **Please see the attached MCDOT response letter.**

- Was consideration given to having the developer build an entrance to the Academy of the Holy Cross from Tuckerman Lane instead of, or in addition to, the one that currently comes from Strathmore Avenue?

  - **Various avenues for adequate vehicular access were considered. The Subject Property for the Application, which is delineated separately from the Academy of Holy Cross School to the south, does not have direct access to Tuckerman Lane as that portion of the Overall Site will soon be under separate ownership. Additionally, while a secondary access to Tuckerman Lane was reviewed during initial conversations with the Applicant, the presence of the stream buffer, elevation, and private ownership of Cloister Drive limit potential connections to Tuckerman Lane.**

- When was the traffic study for this development done?

    - **Details of the Study can be found here: https://www.mcatlas.org/daic8/Default.aspx?apno=H143**

- Please describe the plans for the access roads into the development. Will it involve stop lights?
    - **No traffic signals are proposed along Strathmore Avenue. Staff is conducting discussions with the Applicant for the need of a potential traffic signal at the intersection of Strathmore Avenue and the central driveway.**

- What are the safety measures for cars accessing Strathmore Avenue? What are the safety measures for pedestrians crossing Strathmore Avenue? A stop light at the main entrance to the EYA development may help. But what about Stillwater and Jolly Way?

    - **The existing signalized pedestrian crossing between the Ride On bus stops at the Strathmore Avenue and Stillwater Avenue intersection will remain. There are no traffic signals proposed for Stillwater or Jolly Way.**

- Are safe bicycle lanes a part of the plans for this section of Strathmore Avenue, adjacent to your development? Currently the service roadway serves as part of the bicycle initiative.

    - **The Plan proposes a 10-foot-wide sidepath with a 6-foot-wide green buffer along Strathmore Avenue that pedestrians and bicyclists can use.**

- Are there plans to continue the sidewalk on the south side of Strathmore Avenue all the way to the Town of Garrett Park? Will this sidewalk involve planted trees along the path?

    - **The Plan proposes a 10-foot-wide sidepath with a 6-foot-wide green buffer along Strathmore Avenue that pedestrians and bicyclists can use. This sidepath is being discussed for an off-site extension; however, the Applicant is currently in discussions with adjacent Property owners regarding the feasibility via an assessment easement to the west and/or the purchase of right-of-way to the east. Final details will be determined during subsequent applications.**

- EYA assured us their plans for the left turn lane/ROW do not carve into the grass buffer strip separating Strathmore Avenue from the north side access road that runs from Stillwater to Flanders. Who do we talk to at the county and state highway level to protect this buffer strip -

- and ensure that adequate plantings protect the north side homes from the traffic light and headlights from the new development's main entry?

    - **The Plans submitted do not include changes to the median. Planting details will be provided and reviewed at the time of Site Plan.**

- How can our neighborhood be protected from cut-thru traffic from Strathmore Avenue to Rockville Pike by vehicles using Flanders, Stillwater, and Jolly Way?

    - **Minimal cut-through traffic is anticipated.**

- How much parking is planned for the assisted living facility? Is it enough parking for employees and visitors, in addition to the residents?

    - Final parking for counts is finalized at the time of Site Plan. The Plan must comply with Section 59.6.2 of the Zoning Ordinance for off-street parking and loading.

- How much parking will be available within the development?

    - Please see the response above.

- I think it is important that any assisted living have a design that allows for an ambulance and fire engine to be on their property and not blocking Strathmore Avenue when they have calls at the facility. This is not the case for the facility near Connecticut Avenue, but there are more lanes there to get around.

    - **The Fire and Rescue Services (FRS) Division of the Department of Permitting Services has reviewed the LMA Application. During future Preliminary and Site Plans, FRS will review the final plans for adequacy against fire access standards.**

<u>Schools</u>

- What is the expectation/calculation for the number of children going to Montgomery County public schools from this development?

    - **Due to the proposed residential use, a subsequent Preliminary Plan will be subject to the FY21 Annual School Test under the 2020-2024 Growth and Infrastructure Policy (GIP). The proposed residential care facility will not generate any school-aged children to impact school capacity. However, the remaining residential portion of the Project may require a Utilization**

Premium Payment at the time of building permit for one or all the schools. Further assessment of school capacity will be conducted at the time of Preliminary Plan.

- How does this calculation compare to the number of children going to public schools right now from Symphony Park, a new neighboring development of similar size?

    - **Please see the response above.**

<u>Environmental Impact/Recreation</u>

- What are the plans for storm water runoff on the development?

    - **To accommodate the new residential development, the Applicant proposes to implement micro-bioretention structures to the maximum extent practicable to meet the current stormwater requirements. Due to the topography and location of the two streams around the Site, new stormwater management facilities will be placed at these low points to capture and filter roadway runoff.**

- Are there plans to include a green area on the development site for a playground, dog park, recreation, exercise or relaxation? If so, would there be access for neighbors in our community?

    - **In addition to the open space requirements, the Application is subject to recreation requirements for developments with 20 or more dwelling units. The Applicant must provide a calculation of demand, supply, and adequacy of recreation facilities based on our *Recreation Guidelines for Private Residential Development*. Recreation is proposed to be satisfied through several amenities, such as a pedestrian connection, heart smart trail, bikeways, natural areas, playground, picnic/seating areas, and a terraced garden. These amenities are planned to be accessible to the surrounding existing residents. The Applicant's proposed onsite recreation facilities and their supply points will be finalized at the time of Site Plan.**

- Will there be a pedestrian path to get to the Grosvenor metro stop?

- **As previously noted, the new master-planned 10-foot-wide sidepath, along the Property's Strathmore Avenue frontage, will support walking to the nearby Grosvenor-Strathmore Metrorail Station.**

Zoning

- Was there required to be a pre-submission community meeting under Sec. 50.10.01.05(A)(1)? If yes, did it happen and if it didn't why not?

  - **A pre-submission community meeting is not required for a Local Map Amendment application. However, a pre-submission meeting is required for the subsequent Preliminary and Site Plan applications. The Application complies with the required notification signage and the Applicant has informed all the adjacent Property owners, community organizations and homeowners' associations within one-half mile of the Property about the Application and the proposed Project as required under the Zoning Ordinance and the Manual of Development Review Procedures for Montgomery County.**

- The DOT reviewer referenced an attachment of comments from the DOT. See Response to Comments, p. 2. Why is this attachment?

  - **Please see the attached MCDOT response letter.**

- Why does the "Notice of Application" describe the submission as a "Forest Conservation Plan to be Considered by the Montgomery County Planning Board at a Public Meeting," and "Forest Conservation Plan under Local Map Amendment to Convert the Zone from R-60 to CRNF 0.75 C 0.25 R0.75 H50."? The main and most important action is the zoning change, which is ultimately decided by the Council, not the Planning Board. Also, the meaning of the numbers and letters following the Commercial Residential Neighborhood Floating acronym needs to be explained (it has to do with percentage of commercial and residential development and the height, see Section 5.3.1, page 247 of the zoning ordinance).

  - **The Planning Board is required to review Local Map Amendment Applications and transmit a recommendation to the Hearing Examiner for final approval.**

  - **Each zone classification is followed by a number and a sequence of 3 additional symbols. The first number following the classification is the maximum total floor area ratio (FAR) allowed which in this case is 0.75 FAR. The number following the C is the maximum nonresidential FAR allowed, R is the maximum residential FAR,**

and following the H is the maximum building height. The "F" in CRNF represents a Floating Zone.

- By what standard did the traffic report conclude that the project would have no detrimental impact on traffic? What were the parameters:
    - Development vs. no-development?
    - Development vs. R-60 development? (see question below about what this means)

    - **Traffic Study related comments and questions have been forwarded to Gorove Slade.**

- The R-60 zoning allows 6,000 sq. ft. lots. What number of homes does this translate into on each of the two parcels if single family homes were built instead of mostly townhomes? In this calculation, how are streets, sidewalks, parking, open space, water retention, etc., accounted for.

    - **The total yield for single-family lots could vary based on how the streets, sidewalks, parking, open space, stormwater management, etc., are addressed.**

- The Statement of Justification from the developer mostly focuses on bicycles, what about cars?
    - **Please refer to the details of the Study found here: https://www.mcatlas.org/daic8/Default.aspx?apno=H143**

- Regarding Local Area Transportation Study for 4910 & 4920 Strathmore Ave, the report details a Transportation Impact Study (TIS) developed by Gorove Slade Transportation Planners and Engineers. The TIS study was developed based on the site within the North Bethesda Policy Area (Policy Area 22), however, as of January 1st, 2021, the site lies within the Grosvenor Policy Area per Montgomery County's 2020-2024 Growth and Infrastructure Policy.
    - What impact does that change in Policy Area have?

- Referencing pages 4-5 and the graph on page 7, the TIS includes only background developments North and Northwest of the proposed site. There are nearby developments in Kensington on Knowles Road and in the Kensington area of Connecticut Avenue.
    - Should the impact of these developments be included, too? Especially those that impact Knowles Road that turns into Strathmore Ave.

- The TIS does not provide sufficient evidence or explanation as to how the elimination of the offset condition at Stillwater Ave in favor of a curb cut to the proposed development

directly across from Stillwater Ave will reduce vehicular movement conflicts or lessen traffic demand.

- Details: On page 16 (and in Figure 12), the authors explain that the elimination of the current offset of Stillwater and the school entrance and school traffic being rerouted to utilize the center site driveway will result in improvements at study intersections so that all intersections operate below congestion standard of 71 seconds (see results in Table 7). However, it is not clear how these modifications/design elements will decrease wait times/congestion - especially considering the increased use of all three site entrances.

- **Please see comment above.**

- According to Table 3: Trip Generation Summary, the AM Peak Hour Total Proposed Vehicle Trips will increase by 467% (from 12 to 68 total trips) from the existing land use to the proposed land use. The PM Peak Hour Total will increase by 453% (from 15 to 83 total trips). Question for Montgomery County Planner: How do these results not impact the delays at intersections, etc, and not exceed thresholds? Please explain LATR guidelines/thresholds considering increases in vehicle trips of this magnitude that LATR guidelines/thresholds are not exceeded. The conclusions in question are on page 12.
  - It should be noted that a scoping form which informed the scope of this analysis was agreed to by M-NCPPC (from approved on November 23, 2020).

- Concerns about turning count data being gathered in Fall of 2020 during pandemic and Holy Cross being operated under hybrid model of virtual and in person schooling. We also have concerns that this analysis fails to include the impact of rush hour traffic or traffic as the result of accidents on I-495/I-270. Strathmore Ave is often used as an alternate route when I-495/I-270 are congested.
  - Questions for Montgomery County Planner: Please explain the adjustment factor of 1.07 under the County's policy on new traffic counts.
  - Are there alternatives we can suggest to developer such as an entrance to Holy Cross on the back side (from Tuckerman or Cloisters Dr)?

- **The Subject Property for the LMA Application is being subdivided from the Overall Site and it will not have direct access to Tuckerman Lane or Cloister Drive.**

- Does the planned left turn lane at the new entrances involve taking land from the existing green buffer zone that separates Strathmore Avenue from access road/homes on the north side of Strathmore?

- **At this time, this is not proposed.**

- Several homes on the north side of Strathmore will now have oncoming headlights shining into their living rooms/bedrooms. Are there plans to ensure the plantings in the existing green buffer zone are preserved, or replaced?

  - **Planting details will be provided and reviewed at the time of Site Plan.**

- What is the timeline/procedure for discussions with MDSHA and MNCPPC on the planned changes to Strathmore Avenue?

  - **Through our inter-agency development review process, MDSHA along with other relevant regulatory agencies will review the subsequent Preliminary and Site Plan applications for approval. A schedule for these future submittals is unknown currently.**

Part 2 - Questions from Garrett Park Residents – 10/20/21
Montgomery Planning Staff Response – 10/22/21

Staff Responses in Blue font below:

1. Explain the process for the decision-making and what each decision-maker decides and when. Zoning change vs. compliance of project with development requirements.

   - **Step by step details about the approval process can be found here: https://www.montgomerycountymd.gov/COUNCIL/Resources/Files/ZoningProcesses/Updated_Local_map_amendment_rezoningMarty_Final.pdf**

   - **Compliance is evaluated for applicable sections of the County Code during the corresponding regulatory application and by the corresponding regulatory agency with jurisdiction. Certain development requirements are reviewed with the site layout concept during the rezoning request but will be finalized at the time of Site Plan, such as open space, recreation facilities, parking and loading spaces, minimum lot sizes, landscaping, etc. Also, please see the response to Question No. 7 that is related to timing of requirements.**

2. How does the location relative to the Metro Station and GP train station factor into the analysis and decision-making?
   a. What is the projected use of each transit option by the future residents of the development and senior living residents and employees and what is this based on?
      i. Very few residents of Symphony Park use either station, Grosvenor Metro is underutilized, and the walk to each station is longer than suggested in the developers' materials.
      ii. Statement of Justification says that the development will be geared to empty nesters, who generally are not big users of public transportation. Page 7.
      iii. If this is a factor, County should look at the developers' statement that the project is going to generate a "minimal amount of transit trips." Page 38 Traffic Study (8/24/21). Transit trips are on metro, the train, and buses.

   - **The presence of a Metro Station influences the designated transportation policy area; please see the response to question No. 6. Transit is factored into the analysis via the Local Area Transportation Review (LATR) Guidelines. More details about modal adequacy can be found on pages 14-17 and 51-52 of the Guidelines: https://montgomeryplanning.org/planning/transportation/latr-guidelines/. Transit adequacy applies for any site generating at least 50 net new weekday peak-hour person trips in red, orange, and yellow policy areas.**

3. The peak traffic hours in the traffic study are 5:00-6:00, which doesn't account for the Holy Cross Academy end of school and the outflow of cars then. Shouldn't they recount with school in session and during this dismissal time.

   - **The submitted study complies with the defined peak periods for morning (6:30 a.m. to 9:30 a.m.) and evening (4:00 p.m. to 7:00 p.m.). The study also identifies the system peak**

period as 5:00 p.m. to 6:00 p.m., which represents the single hour within the study period that has the highest hourly volume.

- **Additionally, if the LMA is approved by the County Council, the Applicant will file a new transportation study at the time of Preliminary Plan. More information about the Department's 2020-2024 Growth and Infrastructure Policy (GIP) can be found here: https://montgomeryplanning.org/planning/countywide/growth-and-infrastructure-policy/**

4. Is Strathmore Ave. worse on Fridays, when Beach Drive, the other route from Connecticut and Knowles to Rockville Pike, is closed?

   - **Please see above for the link to the GIP.**

5. The Statement of Justification claims that the "Applicant is requesting less than the maximum density allowed as a result of the Property's site and base zone."? Page 8 (undated and unsigned). This appears to be an alleged satisfaction of the density if the zoning change is approved and does not addressed increased density as compared to the existing R-60 zoning.

   - **Per Section 59.5.3.5.A of the Zoning Ordinance, the requested floating zone density cannot exceed 1.25 FAR, as the tract is greater than 3 acres and the existing zoning is R-60. The LMA Application is requesting 0.75 in overall FAR.**

6. Under Zoning Ordinance 59-7.2.1(E), the floating zone plan must "substantially conform with the recommendations of the applicable master plan, general plan, or other applicable County plans." What plans apply here?
   a. The Statement of Justification says that the property is now included in the Grosvenor red policy area under the Growth and Infrastructure Policy. Page 5, n.4. What does this mean? It is not apparently from that Policy that this property is now subject to the Grosvenor Plan and in what ways. Note that the Grosvenor Policy Area is red, presumably signaling the worst traffic conditions. This Plan also recommends keeping Symphony Park and Strathmore Music Hall areas at the current R-60.

   - **The Site falls within the 1992 North Besthesda/ Garrett Park Master Plan. Other functional plans include the 2018 Bicycle Master Plan and the Master Plan of Highways and Transitways.**

   - **The Red Policy Areas cover Downcounty central business districts, Purple Line station policy areas and Metro station policy areas (MSPAs) which are generally characterized by high-density development and the availability of premium transit service (i.e., Metrorail, Purple Line, MARC). There are 4 transportation policy areas in the county and are used as a basis for transportation analysis and review. For each Metro Station Policy Area, the Planning Board, in consultation with MCDOT, evaluates adequate safety for pedestrians and vehicles, access to buildings and sites, and traffic flow within the vicinity. A map of the Policy Areas can be found here: https://montgomeryplanning.org/wp-content/uploads/2018/04/PolicyAreaMap_20201111_Inset.pdf**

- **The current R-60 zoning for Symphony Park and Strathmore Music Hall areas will remain as those areas are not a part of the LMA application.**

7. What calculations of storm water runoff will be created by the increase in impermeable surfaces?

   - **The Montgomery County Department of Permitting Services (MCDPS) is the regulating authority that reviews and approves stormwater management plans. The LMA submission requirement include a requirement to submit a Preliminary Stormwater Management Strategy. A Preliminary Stormwater Concept exhibit is included among the documents on the DAIC: https://www.mcatlas.org/Development_Info/Default.aspx. That exhibit includes a description of the stormwater review and approval process at the successive stages of the regulatory review process, including at Preliminary Plan and Site Plan. The calculations become more accurate with each stage in the review process as more detailed engineering is done.**

8. What is the project storm control plan; will there be a storm water drainage holding facility to prevent the runoff from going into the stream?

   - **Please see the Preliminary Stormwater Concept exhibit included with the submitted plans.**

9. What runoff increases are anticipated to go into the stream, which feeds into Rock Creek?

   - **MCDPS would be the best source for that information.**

10. What permitting requirements are there for containing storm water runoff?

    - **The project will have to comply with the requirements of Chapter 19 of the County Code. That chapter deals with stormwater, sediment and erosion control, and floodplain regulations. An approved stormwater management concept will be required at each stage of the regulatory review process. MCDPS is the regulatory authority for Chapter 19.**

11. Does the developer plan to get a permit from the Army Corp of Engineers due to the effect on the runoff into Rock Creek?

    - **Typically, an ACE permit is not required for stormwater discharges. It is required for significant floodplain modifications or large wetland disturbances.**

12. If ACE permit is required, what is the developer doing to anticipate the proposed Biden regulations that roll back the definition of navigable water to pre-Trump regulations?

    - **Please see the answer to question above.**

13. Since one of the nearby residents is blind, will there be an APS installed at Strathmore and Stillwater to permit safe pedestrian crossing, not only for the blind, but the older population anticipated in the development? If there is an APS, will it be tied to a traffic light to permit safe pedestrian crossing?

- **Pedestrian safety is a high priority and is factored in via a pedestrian adequacy test as required by the Local Area Transportation Review. Details about a traffic signal and its associated pedestrian facilities, including street lighting and ADA compliance, will be finalized during the subsequent Preliminary and Site Plans.**

14. Is there a wildlife population study of the effected environment?

    - **A wildlife population study is not required by the current laws and regulations for this review. The process does require approval of a Natural Resources Inventory and Forest Stand Delineation (NRI/FSD), which maps important natural resources such as streams, floodplains, wetlands, forests, and significant and specimen trees. It also requires that the Maryland Department of Natural Resources be contacted to see if any records of Rare, Threatened or Endangered (RTE) species occurring on the site. Environmental staff are also aware of other resources that have documented RTE species in areas near the property and watch for occurrences of those species as they field check the NRI/FSD information.**

15. What additional carbon emissions will be caused by the increase in traffic and density?

    - **Staff recognizes the importance of this issue. However, at this time there are no laws or regulations requiring accounting for projected emissions associated with individual development projects in Montgomery County.**

16. Does the anticipated Metro traffic take into account reduced ridership projections on Metro, the effect of the recent derailments, and safety concerns?

    - **Please see the response to Question No. 2. WMATA may be the best contact for information about derailment safety.**

17. What is the estimated increased usage of Metro by the project, and when was the study done? Does it take into account the agency's admissions that service won't be back to normal until 2024, and then the commuting patterns are anticipated to change significantly due to internal agency studies of the effects of increased telecommuting?

    - **Please see the response to Question No. 2 regarding how transit adequacy is factored into the transportation analysis.**

Gorove Slade Responses to Questions from Garrett Park Residents
10/27/21

- By what standard did the traffic report conclude that the project would have no detrimental impact on traffic? What were the parameters:

  Based on the LATR Guidelines adopted by the Montgomery County Planning Board, impact is determined by the Motor Vehicle Adequacy Test and the specific policy area congestion standards. If the addition of the net new trips generated by the project exceeds the congestion threshold, the project is then required to mitigate the impact to the congestion standard. If conditions without the project (background conditions) already exceed the congestion standards, the project is required to mitigate the impact to background conditions. In the North Bethesda Policy Area, the congestion standard is 71 seconds per vehicle. This is documented on page 16 of the LATR and page 24 in the Supplemental Analysis.

  - Development vs. no-development?

    The no-development scenario (background conditions) includes volumes from the approved background developments, the existing driveway configuration (school traffic using the westmost entrance), the AHC School at full enrollment (600 students) and volumes from an occupied site as currently approved.

    For the purposes of traffic analysis, the development scenario includes volumes from background developments, the proposed site driveway improvements (school traffic using the center entrance), the proposed signal, and the volumes generated by the project.

    In the development scenario, no study intersection is found to exceed the congestion standard of 71 seconds per vehicle because of the project, with the exception of the Rockville Pike and Strathmore Avenue intersection. In the case of the Rockville Pike and Strathmore Avenue intersection, delays increase by approximately 5 seconds at a location that already exceeds the congestion standard in the no-development scenario. The 5 second "impact" or increase in delay can be mitigated with optimized signal timings that more efficiently allocate green time to movements and approaches based on the analyzed traffic volumes.

    Because the impact is mitigated and no additional intersections exceed the congestion standards, the project does not have a detrimental impact on the area's roadways in accordance with the LATR Guidelines.

  - Development vs. R-60 development? (see question below about what this means)

- Regarding Local Area Transportation Study for 4910 & 4920 Strathmore Ave, the report details a Transportation Impact Study (TIS) developed by Gorove Slade Transportation

Planners and Engineers. The TIS study was developed based on the site within the North Bethesda Policy Area (Policy Area 22), however, as of January 1st, 2021, the site lies within the Grosvenor Policy Area per Montgomery County's 2020-2024 Growth and Infrastructure Policy.

- What impact does that change in Policy Area have?

Per Montgomery County's 2020-2024 Growth and Infrastructure Policy (GIP) and the new Policy Area designation, the project would not be subject to the motor vehicle system adequacy test described above, nor the required vehicular analysis/traffic study to determine whether the project meets the congestion standards. As the project was scoped before the GIP and change of Policy Area were implemented, however, the project was subject to the former 2016-2020 Subdivision Staging Policy for purposes of the present analysis.

- Referencing pages 4-5 and the graph on page 7, the TIS includes only background developments North and Northwest of the proposed site. There are nearby developments in Kensington on Knowles Road and in the Kensington area of Connecticut Avenue.
  - Should the impact of these developments be included, too? Especially those that impact Knowles Road that turns into Strathmore Ave.

The "approved but unbuilt" background developments included in the analysis are consistent with the applicable LATR Guidelines which call for the inclusion of background developments from the same geographic area as the study intersections so long as those background developments are estimated to contribute at least 5 peak hour trips to the study intersections. The list of included background developments was submitted to and approved by Planning, MCDOT, and SHA Staff prior to the preparation of the Traffic Study.

Of the current development pipeline in Kensington on Knowles Road and Connecticut Avenue, the Knowles Manor, the Residences at Knowles Station, and the Tomar's Addition developments would have been considered approved but unbuilt developments at the time of Scoping in November 2020, but were not included or analyzed for the following reasons:

- Knowles Manor: up to 94 independent living units for seniors estimated to generate 11 new trips total on the network during the morning peak hour and 16 new trips total during the afternoon peak hour. This development was not included as it is estimated to add less than 5 trips to the study intersections for this project during both peak hours.
- Residences at Knowles Station: up to 6 townhome units estimated to generate 5 new trips total on the network during the morning peak hour and 5 new trips total during the afternoon peak hour. This development was not included as it is estimated to add less than 5 trips to the study intersections for this project during both peak hours.

- Tomar's Addition: one single-family detached unit. This development was not included as it is estimated to add less than 5 trips to the study intersections for this project during both peak hours.

As the Flats at Knowles Station project (100 dwelling units and 23 kSF of commercial land use) was approved **after** the proposed project's scoping review it was not required to be analyzed per the LATR Guidelines. Per Figure 8 on page 17 of the approved traffic impact study for the Flats at Knowles Station project, the project is specifically estimated to add 9 vehicle trips to the study intersections along Strathmore Avenue for the 4910 & 4920 Strathmore Ave project during the morning peak hour and 13 vehicle trips during the afternoon peak hour. These trips would have minimal impact on analyzed conditions.

The addition of the background developments listed above would not substantially change the analysis and conclusions included in the LATR and in the Supplemental Analysis.

- The TIS does not provide sufficient evidence or explanation as to how the elimination of the offset condition at Stillwater Ave in favor of a curb cut to the proposed development directly across from Stillwater Ave will reduce vehicular movement conflicts or lessen traffic demand.
    - Details: On page 16 (and in Figure 12), the authors explain that the elimination of the current offset of Stillwater and the school entrance and school traffic being rerouted to utilize the center site driveway will result in improvements at study intersections so that all intersections operate below congestion standard of 71 seconds (see results in Table 7). However, it is not clear how these modifications/design elements will decrease wait times/congestion - especially considering the increased use of all three site entrances.

The internal connection to the school will be realigned to make the Center Driveway the primary entrance for school traffic. This change in circulation shifts traffic demand from the westmost driveway to the center driveway. With these circulation changes, development conditions result in significantly less vehicles entering and exiting the site at the Strathmore Ave and Stillwater Ave intersection that is currently off-set and experiences turning conflicts between neighborhood traffic and school traffic entering and exiting their respective minor street/driveway. The improved delays are a result of the significantly reduced traffic demand on the existing site driveway.

Also, please note the reported delays reflect delays experienced by vehicles on every approach. The delays under existing conditions and background conditions at the Strathmore Ave and Stillwater Ave intersection are primarily influenced by long delays experienced by left-turning vehicles entering and exiting the School driveway. In the proposed condition, this traffic demand is shifted to the Center Driveway. Because the Center Driveway intersection only includes one

minor approach the delays are primarily influenced by left-turning vehicles entering and exiting the site.

- According to Table 3: Trip Generation Summary, the AM Peak Hour Total Proposed Vehicle Trips will increase by 467% (from 12 to 68 total trips) from the existing land use to the proposed land use. The PM Peak Hour Total will increase by 453% (from 15 to 83 total trips). Question for Montgomery County Planner: How do these results not impact the delays at intersections, etc, and not exceed thresholds? Please explain LATR guidelines/thresholds considering increases in vehicle trips of this magnitude that LATR guidelines/thresholds are not exceeded. The conclusions in question are on page 12.
    - It should be noted that a scoping form which informed the scope of this analysis was agreed to by M-NCPPC (from approved on November 23, 2020).

  The change in trip generation was reviewed by Planning, MCDOT, and SHA Staff as part of the scoping process.

  Per the LATR Guidelines, the motor vehicle adequacy test and project impact are based on the delay/congestion standard, in this case 71 seconds, and measured as the change in delays between future conditions with the project and future conditions without the project (background conditions).

  - If delays with the project **increase to exceed** the congestion standard, the project is required to mitigate the delay back down to below the congestion standard.
  - If delays with the project **increase where delays already exceed** the congestion standard in background conditions, the project is required to mitigate the delay back down to background delays.

  If the project does not result in delays that exceed the congestion standard and/or unacceptable delays that exceed congestion standard without the project in background conditions, the project is found to satisfy the motor vehicle adequacy test.

  As shown on Table 7 on page 30 of the LATR and on Table 5 on page 26 of the Supplemental Analysis, the majority of study intersections operate well below the congestion standard even after the proposed additional trips are added to the network.

- Concerns about turning count data being gathered in Fall of 2020 during pandemic and Holy Cross being operated under hybrid model of virtual and in person schooling. We also have concerns that this analysis fails to include the impact of rush hour traffic or traffic as the result of accidents on I-495/I-270. Strathmore Ave is often used as an alternate route when I-495/I-270 are congested.

  In the LATR analysis, school trips as captured in the Fall of 2020 counts at the driveways were removed because these were not considered to reflect typical school day operations.

School trips were then added back in as estimated in Table 5 (page 13) of the LATR to assume full enrollment and in-person operations.
In the Supplemental Analysis, the school trips in the raw data reflected enrollment from 2013, these were similarly removed from the network and replaced with school trip generation that reflects full enrollment.

With respect to travel patterns and congestion on Strathmore Avenue associated with accidents or delays on I-495/I-270, please note that per the LATR Guidelines counts are required to be collected on typical non-holiday weekdays and the County does not require worst case scenario analysis as that would lead to over designed infrastructure. Traffic that often uses Strathmore Avenue as an alternate route would be captured as part of typical weekday patterns. Because the Supplemental Analysis also used historical count data from typical weekdays, both models would reflect traffic using Strathmore Avenue as an alternate route.

Both MCDOT and SHA had expressed concerns through the review process that current counts to which the 1.07 growth factor was applied were still not representative of actual traffic volumes outside of the pandemic. We therefore prepared the Supplemental Analysis to address their concerns. The volumes used to establish baseline conditions in the Supplemental Analysis are comprised of the following:

1. Turning movement count data at two (2) study intersections, collected in the Fall of 2020 with an adjustment factor of 1.07 applied to volumes collected before 4:30 PM, per the County's policy on new traffic counts:
    a. Strathmore Avenue and Kenilworth Avenue, collected by Gorove Slade on Tuesday, October 6, 2020
    b. Rockville Pike and Flanders Avenue/Wickshire Way, collected by Gorove Slade on Wednesday, November 18, 2020

    Pre-COVID-19 historical volumes were not available at these locations.
2. Historical pre-COVID-19 volumes at two (2) study intersections, collected in April 2013 and October 2016, with applied growth factors based on MDOT SHA AADT data:
    a. Strathmore Avenue and Stillwater Avenue/School Driveway, collected by MDOT SHA on Wednesday, April 17, 2013.
    b. Rockville Pike and Strathmore Avenue, collected by Sabra, Wang & Associates on Tuesday, October 18, 2016.

i. A positive growth factor of 0.1% per year was added to the historical data along Rockville Pike despite an average decrease in traffic volumes between 2011 and 2019. Between 2011 and 2019, volumes decreased by at an annual rate of -1.4% per SHA AADT Volume data as shown on Table 4 on page 5 of the Supplemental Analysis.

3. Volume adjustments to account for the following:

   a. Adjustments to account for a 600-student enrollment at the Academy of the Holy Cross

   b. Additional added traffic volumes (average of 22% increase) to the intersections collected in 2020 to bring them up to "pre-COVID-19" traffic volumes based on the historical data after growth factor adjustments.

c. Questions for Montgomery County Planner: Please explain the adjustment factor of 1.07 under the County's policy on new traffic counts.

Park and Planning is best able to address this question.

d. Are there alternatives we can suggest to developer such as an entrance to Holy Cross on the back side (from Tuckerman or Cloisters Dr)?

There is significant topography and environmental constraints separating Holy Cross and Tuckerman/ Cloisters. Because the Traffic Study demonstrates that the project will not have a detrimental impact on area roadways with the access points as proposed on Strathmore Avenue, further exploration of an alternative access point and the attendant environmental impacts such a connection would have is not warranted.

From: Barbara Jackson <BEJR@msn.com>;
Received: Mon Sep 20 2021 13:04:49 GMT-0400 (Eastern Daylight Time)
To: MCP-Chair@mncppc-mc.org <mcp-chair@mncppc-mc.org>; MCP-Chair # <mcp-chair@mncppc-mc.org>; <mcp-chair@mncppc-mc.org>;
Cc: mayorkacky@garrettparkmd.gov;
Subject: Objections to new developments at: 4910 and 4920 Strathmore and Strathmore Square

I am writing to express my concerns regarding the developments at 4910 and 4920 Strathmore as well as Strathmore Square.

These developments show a total lack of livability consideration for the communities surrounding it, as well as for their own future residents. The current infrastructure cannot support the existing traffic let alone additional traffic generated by such a dramatic increase in population density. These new developments put tremendous pressure on the local area both in terms of traffic but also on our parks and open space, treasured even more since the pandemic hit. Accommodations must be made to provide additional egress and sidewalks for the community before these plans can be approved.

The current traffic situation is barely tenable:

1. Strathmore is already frequently at capacity with lanes completely filled between 355 and Connecticut Avenues. Garrett Park Elementary, Holy Cross and the Academy all depend on vehicular access to and from Strathmore. Garrett Park students have the option of buses, but Holy Cross and the Academy rely more on private cars for transportation.
2. When the schools closed early for Hurricane Ida, traffic was backed up on 355 going north from Tuckerman to turn right on Strathmore and from Nicholson Lane going south to turn left onto Strathmore. It is not uncommon to see traffic blocking 355 whenever there is an issue on Strathmore.
3. Whenever the Beltway backs up (which is fairly frequently) Strathmore becomes the alternate east-west route for many commuters.
4. When Beach Drive is closed for the pandemic yet another route for commuters is blocked putting more pressure on Strathmore.
5. Turn lanes may marginally increase storage but the real issue is the traffic lights at each end of Strathmore/Knowles. The light at Summit also becomes a major source of delay when Walter Reed shifts change. With the right turn on red, the storage space from Summit to Connecticut is already filled before the light turns green for people going east on Knowles.

In addition, there seems to be no realistic consideration of where residents in this new community will attend school. Garrett Park Elementary is already beyond capacity with talk of requiring portable classrooms. The most recent expansion failed to include any additional parking which means staff and visitors are utilizing our town streets for parking.

Access to the elementary school has always been difficult due to the sharp right hand turn from Kenilworth onto Oxford Street which is very narrow. Bus drivers have continually complained about this turn and emergency fire and rescue equipment also have difficulty. Should there be a fire at the school it is not clear that emergency vehicles could respond if the street is blocked or if cars are parked on it. This entrance should and would be much improved by paving a street directly from Strathmore across the Holy Cross parking lot.

The assumption that many of these residents will depend on Metro, rather than driving is also incorrect. The estimated driving trip count for the new development is laughingly low. In addition, Metro has been so relentlessly unreliable many gave up on riding it even prior to the pandemic. My son used to commute from Grosvenor to Dupont Circle on the red line but found the service so miserable that he moved to more affordable housing in Baltimore and enjoyed riding the Marc train from Camden.

While the developer may argue that cutting down all of these trees for this project is cost effective, it is ironic that they refuse to provide egress to preserve, "forest." Trees seem to only matter when they serve the developer's desire to not provide any additional needed infrastructure.

And, given our weather patterns with climate warming, allowing any new construction in a flood zone makes absolutely no sense. There is growing evidence that the recently constructed sidewalks along Strathmore have caused substantial new flooding in Garrett Park by increasing the amount of impervious surfaces and water runoff, overwhelming existing infrastructure.

I urge the Planning Board, County Council and State Highway administration to take a harder look at both the density and infrastructure before approving these projects.

Barbara Jackson
10922 Montrose Ave.
Garrett Park, MD 20896

240-731-7043

Barbara E. Jackson
10922 Montrose Ave.
Garrett Park, MD 20896

November 14, 2021

Mr. Casey Anderson, Montgomery County Planning Board Chair
Planning Board, M-NCPPC
2425 Reedie Drive, 14th floor
Wheaton, MD 20902

Dear Mr. Anderson,

I have been a resident of Garrett Park for 64 years. During this time there have been numerous developments approved and added into the Master Plan, encouraged by the concept of smart growth and building around mass transit. I believe that the latest developments envisioned by EYA for 4910 and 4920 Strathmore Avenue are severely detrimental to current residents and to potential future residents, by making it more difficult to access their own homes or to travel elsewhere.

Strathmore Avenue is already facing gridlock between the intersections of Connecticut Avenue and Rockville Pike. Adding such increased density of housing will only exacerbate an already troublesome traffic reality. We have four schools that depend on Strathmore for access: Garrett Park Elementary; Holy Cross Elementary; the Academy of Holy Cross and; Georgetown Prep. The only school providing bus service for their students is Garrett Park Elementary. The remaining schools depend on private transportation for their students.

There is a finite amount of vehicular storage on Strathmore Avenue. We already see congested traffic stalled on Rockville Pike and backed into Kensington without any additional new development.

It is also detrimental to all involved, current or future residents, to permit these developments without adequate schools. All of the schools that the developer mentions for these communities are at, or over, capacity. It is irresponsible to permit any further development unless additional classroom space is made available. It takes considerably more time to approve and construct a school than it does to build such a development.

The infrastructure for storm water drainage along Strathmore Avenue is currently incapable of handling our existing developments. We are already experiencing flooding in parts of Garrett Park and can anticipate even more with the increase in impervious surfaces that are proposed by these developments. This issue must be addressed by SHA as well as the developer.

In addition, I find it incredible that a $700,000 town house could be considered, "affordable housing." To make this, "affordable housing," I understand that County residents will ultimately be subsidizing this housing by paying more taxes.

If this rezoning is approved, despite all of the problems I have mentioned, there are a few changes that might help mitigate the adverse impact.

First, the entrance for the Academy should be relocated to Cloister Drive. This would eliminate the steady stream of inexperienced drivers passing through the development every day and help lessen the load on Strathmore. I find it ironic that the Academy, which stands to collect millions from the sale of this property while creating such harm for its neighbors, refuses to be in any way inconvenienced by their decision.

Second, if the traffic survey is to be trusted, the amount of additional traffic generated by the development would not justify three entrances to Strathmore. One entrance should suffice, particularly if the Academy entrance is repositioned.

Third, the developer should be required to set aside land and money for schools. There is no justification for permitting a developer to capitalize on building in an area without contributing to the type of infrastructure that made this area desirable. The current residents not only paid the taxes and volunteered to support our schools, cultural institutions and libraries but, at least in the case of Garrett Park, actually contributed a library.

As a current resident I see no positive outcomes from this development. It is obvious that the Academy and the developer will collect substantial sums. The County may increase its tax base but at what cost to its residents?

Sincerely,

Barbara Jackson

Barbara Jackson

October 27, 2021

Casey Anderson, Chair
Montgomery County Planning Board
2425 Reedie Drive 14th floor
Wheaton, Maryland 20902

To Chairman Anderson:

Re: Local Map Amendment No. H-143 - Rezoning of Holy Cross Property

My name is Kip Edwards, President of the Garrett Park Estates-White Flint Park Citizens Association ("GPE-WFP CA") which represents the families and residents of more than 650 homes adjacent to the proposed development of 4910-4920 Strathmore Avenue, Local Map Amendment No. H-143. **The purpose of this letter is to serve as notice of our request to be provided with copies of all documents, exhibits, letters, maps, drawings, filings, etc., in an accessible format for the visually impaired.**

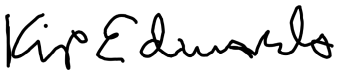
One of our residents whose property directly faces the proposed development and who is a member of GPE-WFP CA's 14-member ad hoc committee reviewing and assessing the impact this development will have on our community with respect to traffic, pedestrian safety, and our local ecology, is blind.

Accordingly, under 28 U.S.C. Section § 35.160, the Code of Federal Regulations requires that all documents be provided in accessible format upon request and in the requester's preferred means of communication. This means, in the case at hand, that all documents relating to the development be compliant with WCAG 2.1AA, PDF/UA or Section 508 standards. See also, the ADA Tool Kit for state and local governments: https://www.ada.gov/pcatoolkit/chap3toolkit.htm

These documents must be provided in this format in a reasonable time to allow the attorney to review the materials and provide his analysis in preparation for the scheduled MCPD and OZAH hearings next month.

Thank you for your understanding and if you have any questions, please don't hesitate to reach out to me at president@gpewfp.org.

Sincerely,



Kip M. Edwards, Esq.

President

GPE-WFP Citizens Association

CC:
Tamika Graham
Lead Reviewer, MCPD
graham@montgomeryplanning.org

Pamela Lee
Development Manager, EYA
plee@eya.com

Kacky Chantry
Mayor, Town of Garrett Park, MD
301-933-7488
mayorkacky@garrettparkmd.gov

From: Torma, Rebecca
To: Doug Burdin; Kwesi Woodroffe
Cc: "Arthur Ribeiro"; Graham, Tamika; dgunn; Gonzalez, Elwyn
Subject: RE: County and State Review of Holy Cross Development Traffic Report
Date: Friday, November 5, 2021 10:48:57 AM
Attachments: image002.png
image003.png
image004.png
image005.png
image006.png
image007.png

[EXTERNAL EMAIL] Exercise caution when opening attachments, clicking links, or responding.

As I stated below, the applicant will be required to install the traffic signal and construct the left turn lane. As for the requirement, that will come from planning staff.

Rebecca Torma | Manager, Development Review
Director's Office | Department of Transportation
101 Monroe Street
10th Floor
Rockville MD 20850
(240) 777-2118 (work)
(240) 383-5252 (cell)
Rebecca.torma@montgomerycountymd.gov

Please call my cell for time-sensitive communications.

From: dburdin@verizon.net <dburdin@verizon.net>
Sent: Thursday, November 4, 2021 5:01 PM
To: Torma, Rebecca <Rebecca.Torma-Kim@montgomerycountymd.gov>; 'Kwesi Woodroffe' <KWoodroffe@mdot.maryland.gov>
Cc: 'Arthur Ribeiro' <ardasilva@verizon.net>; tamika.graham@montgomeryplanning.org; dgunn <dgunn@mdot.maryland.gov>
Subject: RE: County and State Review of Holy Cross Development Traffic Report

[EXTERNAL EMAIL]

Rebecca - Thank you, that is helpful. One follow up question. If the proposed development is not compliant with the requirements without a traffic light and left turn lane at the center entrance, where in the supplemental report is it proven that the installation of light and turn lane (and adjusted timing at Strathmore and Rockville Pike if I understand it correctly) will bring the development into compliance. It seems that just because the light and turn lane are "warranted" under your rules does not necessarily mean they will fix the problem. If the purported proof is in technical attachment, would an expert on your staff be able to point it out to us lay people and explain the rationale?

I'm sure others in the neighborhood would like to hear this explanation.

Doug Burdin
Cell: 571-277-0266

From: Torma, Rebecca <Rebecca.Torma-Kim@montgomerycountymd.gov>
Sent: Thursday, November 4, 2021 4:22 PM
To: Doug Burdin <dburdin@verizon.net>; 'Kwesi Woodroffe' <KWoodroffe@mdot.maryland.gov>
Cc: 'Arthur Ribeiro' <ardasilva@verizon.net>; tamika.graham@montgomeryplanning.org; dgunn <dgunn@mdot.maryland.gov>
Subject: RE: County and State Review of Holy Cross Development Traffic Report

Good afternoon Mr. Burdin,

Thank you for your questions and concerns regarding the traffic study for the Holy Cross development. Montgomery County's Department of Transportation reviews and provides comments on traffic studies submitted by the applicant/consultant for all developments which require one.. The studies are sent to our Division of Traffic Engineering and Operations for their agreement with the conclusions and recommendations provided by the traffic consultants proposed in the study.

For this project, the applicant/consultant submitted a traffic study and a traffic signal was warranted at the new intersection with Strathmore Avenue. In addition, the applicant/consultant findings included a proposed left turn lane into the site as the proposed mitigation to satisfy the LATR and to accommodate a safe traffic operation at the new intersection. MCDOT agreed with the conclusions of the report and these improvements will need to be completed prior to the completion off the development.

Please let me know if you have any questions.

Rebecca Torma | Manager, Development Review
Director's Office | Department of Transportation
101 Monroe Street
10th Floor
Rockville MD 20850
(240) 777-2118 (work)
(240) 383-5252 (cell)
Rebecca.torma@montgomerycountymd.gov

Please call my cell for time-sensitive communications.

From: dburdin@verizon.net <dburdin@verizon.net>
Sent: Thursday, November 4, 2021 4:00 PM
To: 'Kwesi Woodroffe' <KWoodroffe@mdot.maryland.gov>; Torma, Rebecca <Rebecca.Torma-

Kim@montgomerycountymd.gov>
Cc: 'Arthur Ribeiro' <ardasilva@verizon.net>; tamika.graham@montgomeryplanning.org; dgunn <dgunn@mdot.maryland.gov>
Subject: RE: County and State Review of Holy Cross Development Traffic Report

[EXTERNAL EMAIL]

Thank you for your response. That helps explain things.

Doug Burdin
Cell: 571-277-0266

From: Kwesi Woodroffe <KWoodroffe@mdot.maryland.gov>
Sent: Thursday, November 4, 2021 8:09 AM
To: dburdin@verizon.net; 'Torma, Rebecca' <Rebecca.Torma-Kim@montgomerycountymd.gov>
Cc: 'Arthur Ribeiro' <ardasilva@verizon.net>; tamika.graham@montgomeryplanning.org; Derek Gunn <DGunn@mdot.maryland.gov>
Subject: RE: County and State Review of Holy Cross Development Traffic Report

Good morning Mr. Burdin.

Thank you for your email outlining your concerns with the proposed Holy Cross development.

When Maryland Department of Transportation – State Highway Administration (MDOTSHA) receives Developers' traffic reports, they are distributed internally to several offices in in the agency to be reviewed by our Traffic experts. Although the Developers' engineers conclude that the proposed traffic being generated by their client's development will not have an adverse effect on the surrounding road networks, our Traffic experts still must perform their own independent reviews to determine if the generated traffic will have any safety or operational issues to the network.

Based on information included in the report submitted by the Developer's Traffic Engineer for this project, a traffic signal is warranted, along with a longer turn lane on Strathmore (MD 547) at the central site/school entrance. Our reviewers confirmed that these improvements will be required as part of their Access Permit. Once detailed engineering plans and other supporting information are submitted, a comprehensive review will again be performed to ensure that the required improvements are provided and all applicable standards are being met.

Hope this addresses your concerns. Please feel free to reach out to me with any additional questions or concerns.

Thank you.

Kwesi

Kwesi Woodroffe
Regional Engineer
District 3 Access Management

MDOT State Highway Administration
KWoodroffe@mdot.maryland.gov
301-513-7347 (Direct)
1-888-228-5003 – toll free
Office Hours
M-Thurs.: 6:30a-3:30p
Fr: 6:30a-10:30a
9300 Kenilworth Avenue,
Greenbelt, MD 20770
http://www.roads.maryland.gov

From: dburdin@verizon.net <dburdin@verizon.net>
Sent: Wednesday, November 3, 2021 11:37 AM
To: 'Torma, Rebecca' <Rebecca.Torma-Kim@montgomerycountymd.gov>; Kwesi Woodroffe <KWoodroffe@mdot.maryland.gov>
Cc: 'Arthur Ribeiro' <ardasilva@verizon.net>; tamika.graham@montgomeryplanning.org
Subject: RE: County and State Review of Holy Cross Development Traffic Report - SECOND REQUEST FOR INFORMATION

Rebecca – when can I expect an answer? The Staff/Director's report and recommendation must be published by next Tuesday at the latest. I am hoping to submit comments by tomorrow. I cannot submit full comments without answers.

Thank you.

Doug Burdin
Cell: 571-277-0266

From: Torma, Rebecca <Rebecca.Torma-Kim@montgomerycountymd.gov>
Sent: Monday, November 1, 2021 12:07 PM
To: Doug Burdin <dburdin@verizon.net>; KWoodroffe@mdot.maryland.gov
Cc: 'Arthur Ribeiro' <ardasilva@verizon.net>; tamika.graham@montgomeryplanning.org
Subject: RE: County and State Review of Holy Cross Development Traffic Report - SECOND REQUEST FOR INFORMATION

Thank you for your concerns. DOT, SHA and Planning on working together to provide a response.

Rebecca Torma | Manager, Development Review
Director's Office | Department of Transportation
101 Monroe Street
10th Floor
Rockville MD 20850
(240) 777-2118 (work)
(240) 383-5252 (cell)
Rebecca.torma@montgomerycountymd.gov

Please call my cell for time-sensitive communications.

From: dburdin@verizon.net <dburdin@verizon.net>
Sent: Monday, November 1, 2021 11:40 AM
To: KWoodroffe@mdot.maryland.gov; Torma, Rebecca <Rebecca.Torma-Kim@montgomerycountymd.gov>
Cc: 'Arthur Ribeiro' <ardasilva@verizon.net>; tamika.graham@montgomeryplanning.org
Subject: RE: County and State Review of Holy Cross Development Traffic Report - SECOND REQUEST FOR INFORMATION

[EXTERNAL EMAIL]

Kwesi and Rebecca – I ask for a reply to my email below. The hearing is less than three weeks away and time is growing short.

Doug Burdin
Cell: 571-277-0266

From: dburdin@verizon.net <dburdin@verizon.net>
Sent: Tuesday, October 26, 2021 3:40 PM
To: 'KWoodroffe@mdot.maryland.gov' <KWoodroffe@mdot.maryland.gov>; 'Rebecca.torma@montgomerycountymd.gov' <Rebecca.torma@montgomerycountymd.gov>
Cc: 'Arthur Ribeiro' <ardasilva@verizon.net>
Subject: County and State Review of Holy Cross Development Traffic Report

Kwesi and Rebecca – I am a neighbor of the proposed development at Holy Cross in Kensington (4910-4920 Strathmore Avenue Local Map Amendment No. H-143). Staff at the Planning Department gave me your contact information.

I had asked them who would be critically reviewing the traffic reports submitted by the developer of the Holy Cross Property. Large parts of these documents are very technical and beyond the understanding of lay persons. For that reason, the community is counting on the State and County to critically review these documents and challenge the analysis and conclusions in those documents. The increase in the already problematic traffic on Strathmore Ave. (a two lane road with no turn lanes) that will occur with the proposed project is the major concern of the neighbors and wider community.

One particular concern is the conclusion of the expert hired by the developer that the project (adding 125 single-family housing units and a 150-bed residential care facility with 50 employees) will not have a detrimental impact on traffic. Strathmore Ave. is the only access to the project and the 400-student Holy Cross Academy behind the land where the development will go (the development and the Academy will be sharing one of the access points).

Also concerning (and confusing) is that the hired expert prepared a second set of traffic reports based on the assumption that the developer could convince the State and County to install a traffic light and add a left turn lane at one of the project's three access points. As approval of the traffic light and extra lane is not certain or knowable at this time, the State and County should not base any approvals on the assumption a light will be installed.

I am working with a larger group of neighbors and will share any information you can provide. I already have the comments on the proposal by various state and county agencies. I note that none of them appear to address the traffic report in any detail, including the report that addresses the impact of a traffic light.

Thank you for your time.

Doug Burdin
5112 Strathmore Ave.
Rockville, MD 20852
Cell: 571-277-0266

For COVID-19 Information and resources, visit: www.montgomerycountymd.gov/COVID19



For COVID-19 Information and resources, visit:
www.montgomerycountymd.gov/COVID19

November 5, 2021

Via email: gwen.wright@montgomeryplanning.org

Gwen Wright, Planning Director
Montgomery County Planning Department
2425 Reedie Drive, 14th floor
Wheaton, Maryland 20902

Re: Comments of Doug and Dianna Burdin - Local Map Amendment No. H-143 - Rezoning of Holy Cross Property (4910-4920 Strathmore Ave.)

Dear Planning Director Wright:

We are residents of Symphony Park, which is directly adjacent to the property at 4910-4920 Strathmore Ave., for which a developer is requesting a change to the zoning from R-60 to CRNF 0.75, C 0.25, R 0.75, H 50. We oppose the zoning amendment and proposed development, as currently formulated, for numerous reasons, including the adverse and unacceptable impact on traffic, that the project would not serve the goal of placing high density housing near transit (such as Metro), and that the project does not currently serve walkability goals. We discuss these point in more detail below.

The Code Requires the County to Critically Analyze the Zoning Change

The Code requires the County, in each level of the decision-making process, to critically analyze the application and clearly detail and explain, with citations to facts and data in the record, the analysis. The County must make what are called **"Necessary Findings"** per Section 7.2.1(E), provided below.

E. Necessary Findings
1. A Floating zone application that satisfies Article 59-5 may not be sufficient to require approval of the application.
2. For a Floating zone application the District Council must find that the floating zone plan will:
    a. substantially conform with the recommendations of the applicable master plan, general plan, and other applicable County plans;
    b. **further the public interest**;
    c. satisfy the intent, purposes, and standards of the proposed zone and requirements of this Chapter;
    d. **be compatible with existing and approved adjacent development**;
    e. **generate traffic that does not exceed the critical lane volume** or volume/ capacity ratio standard as applicable under the Planning Board's LATR Guidelines, or, if traffic exceeds the applicable standard, that the applicant demonstrate an **ability to mitigate such adverse impacts**; and

f. when applying a non-Residential Floating zone to a property previously under a Residential Detached zone, **not adversely affect the character of the surrounding neighborhood**.

(Emphasis added.)

The Impact on Traffic Will be Unacceptable

- **Traffic Will Increase and be Unacceptable.** Without doubt, **traffic on the already overburdened two-lane Strathmore Ave. (which serves three schools and is a major cut-through between Kensington and Rockville) and nearby streets would increase considerably**. More congestion will makes this road even less safe and will make getting out of our neighborhood and nearby neighborhoods even harder. While this is not a factor for the Symphony Park neighborhood, the congestion will also lead to increased cut-through in the Garrett Park Estates (*i.e,,* on Flanders and Stillwater), which is unfair to those neighbors.
    - The **125 homes**, with likely at least two cars each, will add numerous new cars to Strathmore and surrounding streets.
    - The assisted-living facility will compound the problems, as it adds **150 residents, visitors, 50 employees, and 24-hour staffing**.

- **More information on Post-Pandemic Traffic Projections is Needed.** The County needs information that better **reflects or calculates current traffic conditions and better projects post-COVID 2021 conditions.** The historical traffic data is only available for two intersections (and apparently the 2016 data was from a Friday in July, not a reliable baseline) and the 2020 data was inadequately adjusted. The County needs **solid and justifiable data for all intersections** before making a decision**.**

- **The County Should Critically Analyze the Developer's Traffic Report.** The County should critically analyze the already submitted traffic report to ascertain the correctness of the developer's conclusion that the development will have no detrimental impact on traffic**. Lay people cannot be expected to refute the expert report.** Presumably the basis for this conclusion is buried in the technical attachments, which the **neighborhood must rely on the County and State experts to ensure that the reasoning and data are sound and justified**. But it seems inescapable that the addition of a significant number of cars would have a detrimental and unreasonable impact on traffic.

- **The County Should Not Approve the Zoning Change Without Certainty about Mitigation.** Until the mitigation actions are approved, the County should not rely on a traffic report based on the existence of these hypothetical actions at these intersections, as it appears the developer's second traffic report does. The developer's Supplemental Analysis on traffic only concludes that the project will not have a detrimental impact if certain mitigation steps are implemented, including changing the timing of the light at Strathmore and Rockville Pike, installing a light at the center entrance, and installing a west-bound left turn lane at the center entrance. See Supplemental Analysis at page 24-25. **This report admits that without hypothetical mitigation, these intersections are not compliant. Not one of these measures is certain to occur.**

- **The Report Ignores the Critical 3:00 pm Traffic.** The traffic report does not address traffic problems around 3:00, when the Holy Cross Academy lets out and the traffic gets so bad a traffic police officer must direct traffic. It also doesn't address Fridays, when the next closest cut-through from Kensington to Rockville Pike – Beach Drive – is closed to vehicular traffic.

Pedestrian Safety/Walkability

- **Sidewalk to Nowhere.** Nothing guarantees that the developer will be able to connect the planned sidewalk (multi-use path that ends at the border of its property) to the sidewalk that starts near Kenilworth and Strathmore. The developer touts this action as a benefit for walkability. **But for this to happen, the developer would have to purchase the land or an easement from the Parish of Holy Cross.** The likelihood of this happening is low because such a path would:
    - Increase foot and bike traffic on a path right in front of their church, school, and playground.
    - Cross the western entrance to the Church and School and the eastern entrance to the School (both heavily trafficked during drop off and pick up).
    - Infringe on the current drainage along the road.
    - Require the Parish to relocate the fencing on the northeast end of their field, making their field smaller.
    - Likely require the removal of very mature trees, especially in the small field at the eastern end of the property.

- **Improvement to Walkability is Minimal.** The proposed **path from the new development to the Grosvenor Metro as planned is neither safe nor Americans with Disabilities Act compliant**. The developer has suggested that it only takes 10 minutes to walk from the development to the Metro and to the train station in Garrett Park. We have walked both, starting from the Holy Cross main entrance, and walked both routes at a relatively fast pace. The actual walking time by an average walker is closer to 15 minutes, in the best of weather. For those residents in the back of development, the walk would be even longer to both stations. The employees of the residential care facility would have an even longer walk to the Metro.

- **Strathmore-Stillwater Crossing is Not Signalized and is Already Dangerous.** The County should correct its misperception that the Strathmore and Stillwater intersection has a "signalized pedestrian crossing." **It does not**. Those walking or biking across this intersection must rely on the car drivers seeing the pedestrians at the crosswalk and stopping in time. The eastbound cars often come down the hill at excessive speed. More cars on Strathmore will exacerbate this problem.

The Change to Denser Zoning is Not Warranted

- **Relative Proximity to Metro Does Not Warrant Zoning Change.** The developer is arguing for the zoning change and approval of this denser housing project largely based on the proximity (relative) of the development to mass transit, mainly the Grosvenor Metro station. See Statement of Justification at page 8. However**, the developer also admits in its own documents that use of transit will be "minimal."** Local Area Transportation Report, amended August 24, 2021, at page 38. The Grosvenor Metro is underutilized, including by the residents of Symphony Park where we live, an adjacent townhome development that is even closer to Metro than the property. We are out most morning between 8-9 walking our dog and almost never see anyone heading to the Metro. The **developer should not be able to rely on this goal of the Master Plan** without hard evidence of projected strong use of Metro (and to a lesser extent the bus line and MARC train station at Garrett Park).

The requested change is from the R-60 zone, which allows only housing and at a much lower number of units. The amendment, if approved, would allow a greater number of houses and a large assisted-living facility, which add more impacts from the project. While the amendment no doubt would add to the developer's bottom line, the burden of this increased use and density would fall on the neighborhood and community. The County should not lightly change this longstanding zoning status.

We appreciate the efforts of the Planning Department during these trying times and ask for your careful consideration of this important issue. Please let us know if have any questions or need anything further from us.

Sincerely,

Doug Burdin
Dianna Gonzales-Burdin

Doug Burdin
Dianna Gonzales-Burdin

cc: Tamika Graham (tamika.graham@montgomeryplanning.org)
Kip Edwards (president@gpewfp.org)

November 8, 2021

Via email: gwen.wright@montgomeryplanning.org

Gwen Wright, Planning Director
Montgomery County Planning Department
2425 Reedie Drive, 14th Floor
Wheaton, Maryland 20902

Re: Correction and Sign on by Symphony Park Neighbors to Comments of Doug and Dianna Burdin (filed Nov. 5, 2021) - Local Map Amendment No. H-143 - Rezoning of Holy Cross Property (4910-4920 Strathmore Ave.)

Dear Planning Director Wright:

The undersigned and listed persons are residents of Symphony Park, which is directly adjacent to the property at 4910-4920 Strathmore Ave., for which a developer is requesting a change to the zoning from R-60 to CRNF 0.75, C 0.25, R 0.75, H 50. We collectively oppose the zoning amendment and proposed development, as currently formulated, for the reasons explained in the Comments of Doug and Dianna Burdin submitted to you on November 5, 2021. We ask that you and your Department consider those comments before publishing your report and recommendation.

In addition, we need to correct one error in the Burdin Comments. The second to last paragraph contained the following sentence: "While the amendment no doubt would add to the developer's bottom line, the burden of this increased use and density would not fall on the neighborhood and community." (Emphasis added.) As is clear from the context of the comments, the sentence should not have contained the word "not." Thus, the sentence should have read: "While the amendment no doubt would add to the developer's bottom line, the burden of this increased use and density would fall on the neighborhood and community."

In case it is easier for you to use a corrected copy, the attached copy of the November 5 Burdin Comments contains the corrected sentence and is otherwise the same.

Please let us know if have any questions or need anything further from us.

Sincerely,

Doug Burdin
Dianna Gonzales-Burdin
5112 Strathmore Ave.
Rockville, Md 20852

The following Symphony Park Residents have indicated a desire to sign on to the November 5, 2021 Comments of Doug and Dianna Burdin, as corrected above:

Steven and Mara Brick	10882 Symphony Park Dr.
Jerry and Mindy Stouck	10863 Symphony Park Dr.
Cathie and Al Goltz	10753 Symphony Park Dr.
Jody Menick	10758 Symphony Park Dr.
Joseph and Nancy Rose	10737 Symphony Park Dr.
Leslie Tarantola and Simeon Taylor	10845 Symphony Park Dr.
Edda Guerrero	10880 Symphony Park Dr.
Jean-Michel Eid and Amy Ballard	10873 Symphony Park Dr.
Sudha Srinivasan	10796 Symphony Park Dr.
Bob and Gail Dufek	10875 Symphony Park Dr.
Jeffrey and Michelle Milton	10857 Symphony Park Dr.
Sheila Levin	5226 Strathmore Ave.
Tim Arling	5238 Strathmore Ave.
Katharine Roberts	5110 Strathmore Ave.
Marcia Feuerstein	5242 Strathmore Ave.
Julie Black and Robert Shepard	5250 Strathmore Ave.
Ivy Baer and Marc Rothenberg	5248 Strathmore Ave.
John and Marylouise Serrato	5216 Strathmore Ave.
Benjamin and Susan Pontano	5227 Symphony Forest Ln.

cc: Tamika Graham (tamika.graham@montgomeryplanning.org)
Kip Edwards (president@gpewfp.org)
Kacky Chantry (mayorkacky@garrettparkmd.gov)
William Neches, President, Strathmore Place HOA (nechesw@yahoo.com)

DAVID SHAFFER LAW, PLLC
CIVIL RIGHTS AND DISABILITY LAW

David J. Shaffer
202-210-7424
david.shaffer@davidshafferlaw.com

November 8, 2021

Gwen Wright, Planning Director
Montgomery County Planning Board
2425 Reedy Drive, 14th Floor
Wheaton, Maryland 20902

Re: Comments on Local Map Amendment No. H-143 - Rezoning of Holy Cross Property

To Whom it May Concern:

As a resident of Garret Park Estates, and as an attorney with experience in environmental law, having represented NRDC, Sierra Club, EDF, Defenders of Wildlife and other environmental organizations, as well as a class action civil rights lawyer, I have been attempting to assess the impact of this zoning change on myself and advise the neighborhood on these issues.

However, I am legally blind, and despite my requests for accessible documents required by the Department of Justice under 28 C.F.R. Section 35.160[1], I have been denied access to any accessible documents relating to this porject. Moreover, your own planning website is completely inaccessible to the residents of the County with disabilities. (See attached compliance

[1] The applicable DOJ regulation states:

"(1) A public entity shall furnish appropriate auxiliary aids and services where necessary to afford individuals with disabilities, including applicants, participants, companions, and members of the public, an equal opportunity to participate in, and enjoy the benefits of, a service, program, or activity of a public entity.

(2) The type of auxiliary aid or service necessary to ensure effective communication will vary in accordance with the method of communication used by the individual; the nature, length, and complexity of the communication involved; and the context in which the communication is taking place. In determining what types of auxiliary aids and services are necessary, a public entity shall give primary consideration to the requests of individuals with disabilities. In order to be effective, auxiliary aids and services must be provided in accessible formats, in a timely manner, and in such a way as to protect the privacy and independence of the individual with a disability."

report, in direct violation of the Americans with Disabilities Act and Section 508 of the Rehabilitation Act, applicable to any entity receiving federal funds. *See Generally,* Shaffer and Simoneaux, Web Accessibility and Layered Approaches. https://davidshafferlaw.com/web-accessibility-and-layered-approaches/.)

Recently, WMATA experienced this same issue and was required to re-notice it budget and accept additional comments toc legally adopted budget.[2] This was under legal threat that the entire budget for the year did not confirm to legally required notice and comment requirements, which could also affect these proceedings.

I write to object to these proceedings because they leave out the 20% of residents in Montgomery County with disabilities and does not conform with the notice requirements of Maryland law. Unless delayed, these proceedings are subject to an immediate injunction from a federal court until the materials involved are made accessible to the 20% of Montgomery County residents with disabilities.

If necessary, I will consider a class action on behalf of the disabled residents of this County to address the county's failures to comply with the ADA and seek and order halting any official ats of the county until it comes unto compliance with the ADA, and, particularly, in the zoning change at hand, will seek to halt all proceedings until accessible documents are provided to the residents of this County.

I also agree with and incorporate by reference the comments of Garret Park/White Flint Estates, on the traffic and environmental impact of the proposed change.

Moreover, as a blind resident of the area, it is already unsafe for me to try to cross Strathmore Ave during peak hours when I need to walk to the Metro, which is my only means of transportation. There should be an APS at the intersection of Stillwater and Strath ore to permit safe crossing by disabled and seniors to cross this street safety. Moreover, the planned path to the Metro is unsafe as planned and not accessible to people with disabilities, in vii9olation of the ADA.

You have demonstrated total disregard of the civil rights of the disabled population Of Montgomery County and must take immediate steps to make this process accessible to 100% of the population of the country, not just 80%.

Sincerely,

[2] https://wamu.org/story/20/03/04/metros-proposed-2021-budget-wasnt-accessible-to-blind-riders-until-this-week/.

/s/ David J. Shaffer, Esq.
David J. Shaffer
D.C. Bar Number: 413484
Maryland Bar Number: 13055

DAVID SHAFFER LAW, PLLC
Phone: 202-210-7424
Email: David.Shaffer@davidshafferlaw.com

November 8, 2021

Gwen Wright, Planning Director
Montgomery County Planning Board
2425 Reedie Drive 14th floor
Wheaton, Maryland 20902

Re: Comments of Arthur and Ariel Ribeiro on Local Map Amendment No. H-143 - Rezoning of Holy Cross Property

Dear Planning Director Wright:

We are residents and homeowners of 5101 Strathmore Avenue, the house across the street from the property at 4910-4920 Strathmore Ave., for which a developer is requesting a change to the zoning from R-60 to CRNF 0.75, C 0.25, R 0.75, H 50. We are members of the Garrett Park Estates - White Flint Park (GPE-WFP) citizens association. We submit the following comments to the Planning Department, in the hope that they will take them into account before finalizing their report and submitting their recommendation to the Planning Board.

We oppose the request to change the zoning for the subject property from R-60 to a CRNF 0.75, C 0.25, R 0.75, H 50 zone. **We also oppose the proposed development, as currently formulated**, for numerous reasons, including the adverse and unacceptable impact on traffic, that the project would not serve the goal of placing high density housing near transit (such as Metro), that the project does not currently serve walkability goals, and the failure to properly analyze the environmental impact of the development. We discuss these points in more detail below.

The Code Requires the County to Critically Analyze the Zoning Change

The GPE-WFP homes have existed across from the Holy Cross Academy and the St. Angela convent property since the 1950's. The R-60 zoning, with its limited density, are a part of the fabric of this community. **The community expected continued lower density development** if this property was ever developed.

The Code requires the County, in each level of the decision-making process, to critically analyze the application and clearly detail and explain, with citations to facts and data in the record, the analysis. The County must make what are called **"Necessary Findings"** per Section 7.2.1(E), provided below.

E. Necessary Findings
1. A Floating zone application that satisfies Article 59-5 may not be sufficient to require approval of the application.
2. For a Floating zone application the District Council must find that the floating zone plan will:
    a. substantially conform with the recommendations of the applicable master plan, general plan, and other applicable County plans;

b. **further the public interest**;
c. satisfy the intent, purposes, and standards of the proposed zone and requirements of this Chapter;
d. **be compatible with existing and approved adjacent development**;
e. **generate traffic that does not exceed the critical lane volume** or volume/ capacity ratio standard as applicable under the Planning Board's LATR Guidelines, or, if traffic exceeds the applicable standard, that the applicant demonstrate an **ability to mitigate such adverse impacts**; and
f. when applying a non-Residential Floating zone to a property previously under a Residential Detached zone, **not adversely affect the character of the surrounding neighborhood**.

(Emphasis added.)

The Impact on Traffic Will be Unacceptable

- **Traffic Will Increase and be Unacceptable.** Without doubt, **traffic on the already overburdened two-lane Strathmore Ave. (which serves three schools and is a major cut-through between Kensington and Rockville) and nearby streets would increase considerably.** More congestion will make this road even less safe and will make getting out of our neighborhood and nearby neighborhoods even harder. The congestion will also lead to increased cut-through in our neighborhood (i.e., on Flanders and Stillwater Avenues), which is unfair to residents on those streets.
    - The **125 homes**, with likely at least two cars each, will add numerous new cars to Strathmore and surrounding streets.
    - The assisted-living facility will compound the problems, as it adds **150 residents, visitors, 50 employees, and 24-hour staffing.** There will also be emergency vehicles responding to incidents at the assisted-living facility possibly daily and at all hours of the night. There will also be increased delivery trucks, visitors, and additional medical support personnel.

- **More information on Post-Pandemic Traffic Projections is Needed.** The County needs information that better **reflects or calculates current traffic conditions and better projects post-COVID 2021 conditions.** The historical traffic data is only available for two intersections (and we have on record that the 2016 data was from a Friday in July, not a reliable baseline) and the 2020 data was inadequately adjusted. The County needs **solid and justifiable data for all intersections** before making a decision.

- **The County Should Critically Analyze the Developer's Traffic Report.** The County should critically analyze the already submitted traffic report to ascertain the correctness of the developer's conclusion that the development will have no detrimental impact on traffic. **Lay people cannot be expected to refute the expert report.** Presumably the basis for this conclusion is buried in the technical attachments, which the **neighborhood must rely on the County and State experts to ensure that the reasoning and data are sound and justified.** But it seems inescapable that the addition of a significant number of cars, delivery trucks to

the assisted-living facility, and ambulances would have a detrimental and unreasonable impact on traffic.

- **The County Should Not Approve the Zoning Change Without Certainty about Mitigation.** Until the mitigation actions are approved, the County should not rely on a traffic report based on the existence of these hypothetical actions at these intersections, as it appears the developer's second traffic report does. The developer's Supplemental Analysis on traffic only concludes that the project will not have a detrimental impact if certain mitigation steps are implemented, including changing the timing of the light at Strathmore and Rockville Pike, installing a light at the center entrance, and installing a west-bound left turn lane at the center entrance. See Supplemental Analysis at page 24-25. **This report admits that without hypothetical mitigation, these intersections are not compliant. Not one of these measures is certain to occur.**

- **The Report Ignores the Critical 7:00 am and 3:00 pm Traffic.** The traffic report does not address traffic problems around 7:00 am, before the start of school at Holy Cross Academy, and 3:00 pm, when the Holy Cross Academy lets out, and the traffic gets so bad a traffic police officer must direct traffic. It also doesn't address Fridays, when the next closest cut-through from Kensington to Rockville Pike – Beach Drive – is closed to vehicular traffic.

Pedestrian Safety/Walkability

- **Sidewalk to Nowhere.** Nothing guarantees that the developer will be able to connect the planned sidewalk (multi-use path that ends at the border of its property) to the sidewalk that starts near Kenilworth and Strathmore. The developer touts this action as a benefit for walkability. **But for this to happen, the developer would have to purchase the land or an easement from the Parish of Holy Cross.** The likelihood of this happening is low because such a path would:
    - Increase foot and bike traffic on a path right in front of their church, school, and playground.
    - Cross the western entrance to the Church and School and the eastern entrance to the School (both heavily trafficked during drop off and pick up).
    - Infringe on the current drainage along the road.
    - Require the Parish to relocate the fencing on the northeast end of their field, making their field smaller.
    - Likely require the removal of very mature trees, especially in the small field at the eastern end of the property.

- **Improvement to Walkability is Minimal.** The proposed **path from the new development to the Grosvenor Metro as planned is neither safe nor Americans with Disabilities Act compliant**. The developer has suggested that it only takes 10 minutes to walk from the development to the Metro and to the train station in Garrett Park. I have received information from neighbors who have walked both, starting from the Holy Cross main entrance, at a relatively fast pace. The actual walking time by an average walker is closer to 15 minutes, in the best of weather. For those residents in the back of the development, the walk would be

even longer to both stations. The employees of the assisted-living facility would have an even longer walk to the Metro. The employees of the assisted-living facility will also have working hours during times the Metro is closed. Visitors to the assisted-living facility are likely families, who would more likely drive than pay Metro fares for each member of the family.

- **Strathmore-Stillwater Crossing is Not Signalized and is Already Dangerous.** The County should correct its misperception that the Strathmore and Stillwater Avenue intersection has a "signalized pedestrian crossing." **It does not.** Those walking or biking across this intersection must rely on the car drivers seeing the pedestrians at the crosswalk and stopping in time. The eastbound cars often come down the hill at excessive speed. More cars on Strathmore will exacerbate this problem. The pedestrian-crossing sign is regularly run over and some signs have not been replaced. There are routinely accidents at this intersection, especially as cars leave the Holy Cross road to turn onto Strathmore Avenue. The telephone pole at that intersection has also been hit by cars.

The Change to Denser Zoning is Not Warranted

- **Relative Proximity to Metro Does Not Warrant Zoning Change.** The developer is arguing for the zoning change and approval of this denser housing project largely based on the proximity (relative) of the development to mass transit, mainly the Grosvenor Metro station. See Statement of Justification at page 8. However, **the developer also admits in its own documents that use of transit will be "minimal."** Local Area Transportation Report, amended August 24, 2021, at page 38. The Grosvenor Metro is underutilized, including by the residents of Symphony Park, an adjacent townhome development that is even closer to Metro than the property. One of our neighbors, who lives in Symphony Park, is out most mornings between 8-9 am walking their dog and almost never sees anyone heading to the Metro. The developer should not be able to rely on this goal of the Master Plan without hard evidence of projected strong use of Metro (and to a lesser extent the bus line and MARC train station at Garrett Park).

Environmental Impact of this Development Has Not Been Properly Studied

- We are very concerned about potential environmental impacts of the zoning change. We have not seen any documents reflecting the amount of impermeable surfaces that will replace the current green space. As climate change increases rapidly, no zoning decision should be made until there is documentation of how the storm water flow from these unknown areas of impermeable surface will affect the stream that runs into Rock Creek and the navigable waters of the Potomac. **No zoning decision should be made until a storm water drainage control plan is provided that takes into account the immediate effects of climate change** we are seeing in this area with the increased flooding of many parts of our community.

- We also understand that there are some **wetlands on the project that may require federal approvals**, which are not discussed in the documents we have been provided. Moreover, bald eagles are often seen on this property, and we hear Barred Owls over there every night.

Essentially, this zoning change is proposed without any concept or data on the environmental impacts of the development.

- In addition, the noise from Strathmore will increase significantly with the increased traffic and **the noise levels in the community** affected should also be analyzed. The **increase in carbon footprint** of the proposed zoning change should also be considered in the light of climate change.

Development of this site should take full account of the neighborhood's concerns and suggestions

- **Rear Entrance to the Academy is a Viable Option.** The County **should require the construction of a rear entrance,** with a bridge over the creek, for the Academy of Holy Cross from Tuckerman Lane (an underused four-lane road). According to the developer, 600 students attend the Academy, plus faculty, other staff and delivery vehicles, with a total population of roughly 700, including daily drop-off and pick-up of students.

- **The County Should Require Brandywine to Flip its Design.** The developer's proposed plan has the center entrance to the property as the main car and foot entrance to the Brandywine assisted living facility. The developer proposes to share this center entrance with the Academy and some of the townhouses. **The County should require the developer to flip the current design** so that the main car and foot entrance is on the east side of the building, which would mean sharing the entrance with the currently proposed service entrance. At the least, this change would direct some traffic to an entrance other than the overburdened center entrance.

- **Recourse Needed if Assumptions are Wrong.** The County should explain to the neighborhood and community what recourse there would be if the County approves this zoning change, then the various projections and analyses turn out to be wrong. **The neighborhood and community must have measures built into the approval that provide relief** in this scenario.
    - This could include measures to address cut-through traffic in our neighborhood on Flanders Avenue and Stillwater Avenue. Such measures might include forbidding non-residents from entering our neighborhood during peak traffic times, and the addition of speed bumps on Stillwater Avenue (Flanders Avenue already has speed bumps).

- **Schools are too Overcrowded for Denser Development.** The Walter Johnson cluster has experienced large enrollment increases in recent years. MCPS attributes this primarily to turnover of existing homes to younger families. However, the residences at NoBe Market and Pike & Rose feed into our cluster. The Harwood Flats Apartments plans to open with 335 units in summer 2022, and Strathmore Square is moving ahead with their first phase of 220 units. While MCPS plans to open a new high school (Woodward) in a few years, there are no plans yet for another elementary school in our cluster. **MCPS should plan for another elementary school in this cluster to accommodate the increase in denser development**.

- **This Development Needs a Park.** The proposed plans preserve very little accessible green space, and expects families to leave their new neighborhood to access heavily used playgrounds nearby. The County should **require the developer to incorporate an ADA-compliant, accessible park** large and appropriate enough for this so-called intergenerational community.

- **Preserving the existing green buffer along Strathmore Avenue.** The homes along the Strathmore Avenue access road (on the north side of the street) are separated from traffic and road noise by a green buffer zone with trees and shrubs. Residents do not want to see spillover traffic along this narrow access road - but also want to be sure that **the proposed new turn lanes into the development are not created by carving into this green buffer zone**, or the loss of trees and shrubs along this buffer, both of which threaten to bring traffic noise and pollution significantly closer to our homes.

- **Placement of traffic light.** There are approximately 650 homes in GPE-WFP, and (a very modestly estimated) 1,000 vehicles in GPE-WFP associated with these homes. These vehicles leave the neighborhood either by Flanders Avenue or Stillwater Avenue. If a traffic light is added to Strathmore Avenue, **we request the light to be located at the intersection of Stillwater and Strathmore Avenues**, to facilitate cars exiting GPE-WFP. Placing a new traffic light at the new entrance to the proposed development could result in residents of GPE-WFP being unable to exit the neighborhood during the peak traffic times. A light located at Stillwater Avenue and Strathmore would benefit both the residents of GPE-WFP and the residents of the new development.

The requested change is from the R-60 zone, which allows only housing and at a much lower number of units. The amendment, if approved, would allow a greater number of houses and a large assisted-living facility, which add more impacts from the project. While the amendment no doubt would add to the developer's bottom line, the burden of this increased use and density would fall on the neighborhood and community. The County should deliberate carefully on changing this long-standing zoning status.

We appreciate the efforts of the Planning Department and ask for your careful consideration of this important issue. Please let us know if you have any questions or need anything further from us.

Sincerely,

Arthur Ribeiro
Ariel Michelman Ribeiro

Arthur Ribeiro
Ariel Michelman Ribeiro
5101 Strathmore Avenue, Kensington, MD 20895

cc: Tamika Graham (tamika.graham@montgomeryplanning.org)

November 8, 2021

Gwen Wright, Planning Director
Montgomery County Planning Board
2425 Reedie Drive 14th floor
Wheaton, Maryland 20902

Re: Comments from a resident of Strathmore Avenue, across from the proposed development site being discussed for rezoning: Local Map Amendment No. H-143 - Rezoning of Holy Cross Property/4910-4920 Strathmore Avenue

Dear Ms. Wright:

I live on the north side of Strathmore Avenue, and I'm writing to echo the submitted written objections of the Garrett Park Estates-White Flint Park Citizens Association ("GPE-WFP"). After meeting with the developer of this project, very helpful meetings with Ms. Tamika Graham and other Montgomery County planning officials, and also email correspondence with Ms. Brenda Pardo in the Montgomery County Department of Transportation, I remain very concerned that the proposed zoning change for the 4910-4920 Strathmore Avenue property, Local Map Amendment No. H-143, would bring highly unwanted changes to the surrounding neighborhoods.

For the single-family homes located on the north side of Strathmore Avenue in Garrett Park Estates, separated from the main Strathmore Avenue artery by a green buffer strip with trees and bushes, this proposed development and the certainty of increased traffic threatens to materially damage the value of our homes. Many of my neighbors and I are concerned that the increase in traffic, despite the traffic mitigation proposals the developer has promised will effectively bring more traffic noise, automobile emissions, and even light pollution from oncoming headlights into our bedrooms and living rooms.

My primary objections are as follows:

1) The request to **change the zoning for the subject property** from R-60 to a CRNF 0.75, C 0.25, R 0.75, H 50 zone **seems rushed and haphazard**, as it is predicated on faulty or missing data, particularly on road usage and typical traffic conditions. **Please do not make this zoning decision without a recent, reliable, accurate, and comprehensive traffic study** — and please consider the reality that a lower-density, R-60 development may be a far more prudent decision, as fewer homes would put fewer cars on the road, and have less of an impact on the environment.

Traffic currently backs up several times daily along Strathmore Avenue, in part timed to when students arrive and depart from the three schools located in close proximity to each other — but also simply because of heavier traffic during the morning and evening rush hour. When traffic backs up, some drivers seek to jump the queue, either by zipping far too quickly down our Strathmore access road (which is narrow, with cars parked in front of our homes on the north side, making this effectively a one-lane, go-slow road), or by making a quick turn onto Flanders Avenue or Stillwater Avenue to the only other alternative exit, at Rockville Pike. With added traffic, more drivers will no doubt attempt be cutting through our Garrett Park Estates neighborhood.

The traffic data and traffic studies also seem to rely on studies taken during the pandemic (when schools were not meeting in person, and many people were working from home) and an earlier data set from a traffic study conducted on a Friday afternoon in mid-summer, with no schools in session. It's simply not plausible, to anyone who lives here, that the proposed development will have no detrimental impact on local traffic, as the developer claims! An added concern about traffic backups is the fact that Strathmore Avenue provides critical access for emergency vehicles from the Kensington Fire Department, who frequently use this route to travel to emergencies along Rockville Pike or the Beltway, or transport patients to Suburban Hospital. What may appear as "extra curb space" is in fact critical pullover space to let emergency vehicles pass.



The developer has proposed the addition of a new traffic signal will resolve any traffic issues — and proposes to locate this light for the convenience of the new development. If the County is serious about overall traffic safety, and pedestrian safety, the logical place for a new traffic signal would be **at the bottom of the hill**, where the proposed plans indicate the current Stillwater intersection would become a 4-way intersection, continuing the road into the new development. A traffic signal at that intersection would allow GRE-WFP residents to exit safely onto Strathmore, and allow walkers/bikers to cross Strathmore safely on their way to the Metro (there is currently a pedestrian crossing and island, but the crossing on Strathmore is not signalized — see photo).

2) Local residents want to **fully protect the current Strathmore Avenue green buffer** zone that separates our homes from traffic along this busy roadway.

This buffer zone, with its trees and shrubs, is vital to mitigating road noise and pollution that affect our homes along the north side of Strathmore Avenue, but is also a place where people walk. This usage has become even more evident during the pandemic, as large numbers of local residents used the sidewalk, street, and the green buffer zone to move up and down Strathmore Avenue. Even the Holy Cross Academy cross-country team uses this side/access roadway to do interval workouts.

The developer has assured me that their plans for enlarging Strathmore Avenue to accommodate the proposed left turn lanes **would NOT encroach** on this green buffer zone, and comments from County planning and traffic officials also say that any right of way to accommodate the entries to the proposed development and road frontage to accommodate the proposed bike path must come from the south side of Strathmore Avenue.

Nonetheless, my neighbors and I seek assurances that any zoning changes, any future developments, and any future changes to the main roadway **will not materially alter the current buffer zone or our access road along the north side of Strathmore Avenue** — and that any destroyed trees and shrubs would be replanted. These may seem "minor" changes that might appear inconsequential on paper or schematic drawings, and yet matter immensely, as they materially threaten the livability, comfort, and value of the homes of people who live directly across from the proposed development plot.

3) The proposed **stormwater solutions appear inadequate**, given the downward slope towards the Strathmore-Stillwater Avenue dip in the road, where the roadway crosses over a small creek. Because of this terrain, what would stop rainwater from a new development, and more paved roads/built space, from flowing down the proposed center entrance and down the south side of Strathmore Avenue?

Currently, the dip at the bottom of Strathmore Avenue (near the pedestrian crossing at Stillwater Avenue) tends to flood during heavy rains, making driving dangerous or impossible. Please see this August 2021 photo taken after one storm, and note the debris level along the fence fronting the south side of Strathmore Avenue, at the southwest corner of the 4910-4920 Strathmore Avenue property, just west of the current entrance to Holy Cross Academy.



4) **Loss of overall green space in the area.** The recent Strathmore Square development, which was approved, offered maps that included the 4910-4920 parcel as "green space," to show that the Strathmore Square development would be surrounded by plenty of trees and green space. Does the County simply ignore one development's surrounding "green space," when considering the rezoning of that very "green space" to allow more dense development, in a hearing held just weeks later? This appears to be happening right now. What green space will be left in our area?

5) **Lack of parks/play areas, or connected walkways,** in the proposed rezoning/development.

The proposed plans accompanying this rezoning effort call for a bike/walking path that goes only as far as the eastern property line, but does not connect to anything east of the property. The proposed development also includes a "heart health" path that similarly goes nowhere — and County planners have raised concerns about the safety of that path, given that it will not be visible from the proposed new homes, and the lack of lighting or benches.

Every neighborhood deserves outdoor space, and it seems foolhardy to propose a new development that excludes a playground altogether — are families supposed to hop in their cars to drive toddlers to a park or playground? Are older children expected to hop on their bikes and cross a busy road to meet up with their friends? The proposed plans that are prompting this rezoning request simply don't make sense when it comes to parks and recreation, and the overall health and well-being that open spaces, playgrounds, and communal green space offer—please insist that plans include more green space/play areas that are accessible, ADA-compliant, and designed with both older/younger County residents in mind.

In any future development of the 4910-4920 parcel, wouldn't direct walking paths to Metro be a priority? And if we want children to walk to schools, wouldn't creating direct, safe pathways to the surrounding schools (Garrett Park Elementary and Holy Cross Parish School K-8) be a priority? Why would parents opt to walk out to the main road, then cautiously walk along the busy roadway to bring their children safely to either one of these schools? Out of convenience and safety considerations, it's likely most parents simply put their children in the car, even for a relatively short school run — and that puts more cars on a busy roadway, each day.

Thank you for your close consideration of these concerns, which are shared by many of my neighbors.

Sincerely,

Vanessa Lide
5013 Strathmore Avenue
Kensington, MD 20895
v.lide2345@gmail.com

cc: Tamika Graham (tamika.graham@montgomeryplanning.org)
Kip Edwards, President, Garrett Park Estates - White Flint Park Mayor (president@gpewfp.org)
Kacky Chantry, Mayor of Garrett Park (mayorkacky@garrettparkmd.gov)
William Neches, President, Strathmore Place HOA (nechesw@yahoo.com)

From: Courtenay Culp <Cejculp@aol.com>;
Received: Tue Nov 09 2021 12:45:43 GMT-0500 (Eastern Standard Time)
To: County Executive Marc Elrich <marc.elrich@public.govdelivery.com>; MCP-Chair@mncppc-mc.org <mcp-chair@mncppc-mc.org>; MCP-Chair # <mcp-chair@mncppc-mc.org>; <mcp-chair@mncppc-mc.org>;
Subject: EYA Planned Development on 15 acres of Holy Cross

I think the EYA development plans on the 15 acre Holy Cross property is way too extensive. Reducing the number of townhouses and beds in the assisted living facility by half could work. Or, just building single family homes would be a positive move. Anyway, the EYA plans cannot be sustainable for this area- too much traffic, unhealthy wildlife and people due to stress, hardly any green space, and very negative environmental impact. Please do not rezone property as it stands.
Sincerely yours,
Courtenay Culp
Garrett Park

Sent from my iPhone

From: Karol E. Soltan <ksoltan@umd.edu>;
Received: Tue Nov 09 2021 19:20:59 GMT-0500 (Eastern Standard Time)
To: MCP-Chair@mncppc-mc.org <mcp-chair@mncppc-mc.org>; MCP-Chair # <mcp-chair@mncppc-mc.org>; <mcp-chair@mncppc-mc.org>;
Subject: Holy Cross development on Strathmore

Hi,
I am a long time resident of Garrett Park and former Town Council member. I strongly support greater density near metro stations. Hence I also strongly support the EYA development plans, and the rezoning that is required.
Sincerely,
Karol Soltan

Graham, Tamika

From: Cynthia <weitzcyn@msn.com>
Sent: Wednesday, November 10, 2021 2:24 PM
To: Graham, Tamika
Cc: William Neches; president@gpewfp.org
Subject: Letter of support for Garrett Park Estates-White Flint Park Citizens Association position on proposed development of 4910-4920 Strathmore Ave
Attachments: Strathmore Place HOA Letter of Concern.pdf

Follow Up Flag: Follow up
Flag Status: Completed

[EXTERNAL EMAIL] Exercise caution when opening attachments, clicking links, or responding.

Ms. Graham, thank you for taking the time to speak with me this afternoon. I am attaching a letter from the Strathmore Place HOA supporting the position of the GPE-WFP Citizens Association that the current R-60 zoning of the property in question should be maintained.

Please do include me as well as our HOA President, William Neches (cc'd above) as persons to receive notice of any future hearings, meetings, public documents, etc. regarding this proposed development.

Thank you again,

Cyndy

Cynthia R. Weitz
5305 Strathmore Ave
Kensington, MD

Strathmore Place Homeowner's Association
5207-5357 Strathmore Ave.
Kensington, MD 20895
William Neches, President

November 8, 2021

Gwen Wright, Planning Director
Montgomery County Planning Board
2425 Reedie Drive 14th floor
Wheaton, Maryland 20902

Dear Planning Director Wright:

The Strathmore Place Homeowner's Association supports the position of the Garrett Park Estates – White Flint Park Citizens Association regarding the request for the zoning change and proposed development of 4910-4920 Strathmore Ave, Local Map Amendment No H-143.

Our Association, established in 1981, represents the 49 townhomes located at the intersection of Strathmore Ave. and Rockville Pike. Our community has one exit out, along our access road to Jolly Way. For residents wishing to travel east, towards the Connecticut Avenue corridor, this requires an often difficult and dangerous left turn onto Strathmore Ave. During school drop off and pick up times at The Academy of the Holy Cross, traffic frequently backs up to the light at Rockville Pike in both directions. Vehicles block "the box" as they wait in line for traffic to move, making it a challenge to exit onto Strathmore Ave.

Our community raised concerns about the speed and safety of traffic conditions along Strathmore Ave. during meetings held regarding the new development at the Grosvenor Metro. This development is proceeding and will add additional traffic to Strathmore Ave. Changing the zoning at the above referenced property will add even more vehicles and make entering and exiting our community extremely problematic.

We support maintaining the current R-60 zoning for this property and are in opposition to the current plan as submitted.

Sincerely,

William Neches
President
Strathmore Place Homeowner's Association

cc: Tamika Graham (tamika.graham@montgomeryplanning.org
Kip Edwards (president@gpewfp.org)

Strathmore Place Homeowner's Association
5207-5357 Strathmore Ave.
Kensington, MD 20895
William Neches, President

November 8, 2021

Gwen Wright, Planning Director
Montgomery County Planning Board
2425 Reedie Drive 14th floor
Wheaton, Maryland 20902

Dear Planning Director Wright:

The Strathmore Place Homeowner's Association supports the position of the Garrett Park Estates – White Flint Park Citizens Association regarding the request for the zoning change and proposed development of 4910-4920 Strathmore Ave, Local Map Amendment No H-143.

Our Association, established in 1981, represents the 49 townhomes located at the intersection of Strathmore Ave. and Rockville Pike. Our community has one exit out, along our access road to Jolly Way. For residents wishing to travel east, towards the Connecticut Avenue corridor, this requires an often difficult and dangerous left turn onto Strathmore Ave. During school drop off and pick up times at The Academy of the Holy Cross, traffic frequently backs up to the light at Rockville Pike in both directions. Vehicles block "the box" as they wait in line for traffic to move, making it a challenge to exit onto Strathmore Ave.

Our community raised concerns about the speed and safety of traffic conditions along Strathmore Ave. during meetings held regarding the new development at the Grosvenor Metro. This development is proceeding and will add additional traffic to Strathmore Ave. Changing the zoning at the above referenced property will add even more vehicles and make entering and exiting our community extremely problematic.

We support maintaining the current R-60 zoning for this property and are in opposition to the current plan as submitted.

Sincerely,

William Neches
President
Strathmore Place Homeowner's Association

cc: Tamika Graham (tamika.graham@montgomeryplanning.org
Kip Edwards (president@gpewfp.org)

From: Courtenay Culp <cejculp@aol.com>;
Received: Fri Nov 12 2021 14:42:31 GMT-0500 (Eastern Standard Time)
To: Councilmember Friedson <councilmember.friedson@montgomerycountymd.gov>; Jawando's Office, Councilmember <councilmember.jawando@montgomerycountymd.gov>; Senator Jeff Waldstreicher <jeff.waldstreicher@senate.state.md.us>; County Executive Marc Elrich <marc.elrich@public.govdelivery.com>; Albornoz's Office, Councilmember <councilmember.albornoz@montgomerycountymd.gov>; Katz's Office, Councilmember <councilmember.katz@montgomerycountymd.gov>; Councilmember Rice <councilmember.rice@montgomerycountymd.gov>; Councilmember.Riemer@montgomerycountymd.gov <councilmember.riemer@montgomerycountymd.gov>; Councilmember Navarro <councilmember.navarro@montgomerycountymd.gov>; MCP-Chair@mncppc-mc.org <mcp-chair@mncppc-mc.org>; MCP-Chair # <mcp-chair@mncppc-mc.org>; <mcp-chair@mncppc-mc.org>;
Cc: mayorandcouncil@garrettparkmd.gov;
Subject: EYA and Rezoning of the Holy Cross 15 acre land site

Dear Councilmembers,
As you know, EYA wants to develop the Holy Cross 15 acre land site and is planning on building 125 townhouses, a 145 bed assisted living facility and 9 single family homes. And, the Holy Cross land site must be rezoned by the MoCo Planning Board before EYA can move forward. And, the Planning Board wants to hear from us, the citizens on Nov 18th and Nov 29th to share our concerns and suggestions in person or virtually. Or, by email or written letter to Casey Anderson, Chair of the Planning Board.

My concerns as a citizen of Garrett Park are the following- the traffic on Strathmore Ave will be out of control, the neighboring schools are already busting at the seams, considerably less green space, the wildlife habitat and human stress levels in this area will be over capacity, and the environmental impact will only add to the downward spiraling of destructive weather patterns caused by climate change.

Also, as an observation, there are and will be 6 assisted and senior living facilities counting the proposed EYA facility planned at Holy
cross site. These 6 facilities are within a mile radius of each other all in a row from Plyers Mill Rd to Tuckerman Lane.

I know it's all about the tax revenue this development would generate but at what cost?

A possible alternative plan for development could be building single family homes of all sizes including saving lots of the trees and green space, creating recreational opportunities by building a swimming pool, tennis and pickleball courts, and a community center. Also, building a bypass road from Tuckerman to the new planned development would relieve the already congested Strathmore Ave.

Thanks for reading.

Sincerely yours,
Courtenay Culp
Citizen of Garrett Park

Sent from my iPhone

From: Amelia Fogarty <ameliafogarty@gmail.com>;
Received: Mon Nov 15 2021 13:59:05 GMT-0500 (Eastern Standard Time)
To: MCP-Chair@mncppc-mc.org <mcp-chair@mncppc-mc.org>; MCP-Chair # <mcp-chair@mncppc-mc.org>; <mcp-chair@mncppc-mc.org>;
Cc: Councilmember Friedson <councilmember.friedson@montgomerycountymd.gov>; eff.waldstreicher@senate.state.md.us;
Subject: Holy Cross Development Plan

Dear Casey Anderson,

I'm writing as a resident of Garrett Park, Maryland in regards to the Holy Cross Development Plan (H143)

I've been following along with the progress of the development since I first saw the zoning sign go up on HolyCross property. Often times I've had a good view of the sign from my car on Strathmore Ave because the traffic is so bad.
While a turn lane would improve traffic flow into the Holy Cross School now, after building 9 homes, 125 townhomes, and a 145 assisted living facility a turn lane will do nothing to assuage the new volume of traffic.
Strathmore ave is the only east/west street between Rockville Pike & Connecticut ave for miles in either direction, it's already woefully inadequate for the volume of traffic it sees most days. I don't believe that the traffic study done by the developer is at all a proper snapshot of how congested this street gets 2-3 times a day.

Traffic aside, this development may break the elementary school, which currently has over 800 students enrolled. The Strathmore Square project already promises a giant wave of students coming in as their phases are completed. Add in families from HolyCross townhomes & houses and it's going to overwhelm our already crowded Garrett Park ES.

Attaching assisted living facilities to building plans seems to be the new way to get a development approved without having to contribute to the educational infrastructure, which is a real shame.

I haven't spoken to one neighbor who thinks this zoning change & potential development is a good idea or asset to the community.
If you were able to put the entrance to this new community off of Tuckerman Lane, and contributed to the expansion of the current school or the building of a new one, it may seem feasible, but the current plan isn't one we can support.

Thanks,
Amelia Fogarty

From: Steve Warner <sdwarner219@gmail.com>;
Received: Mon Nov 15 2021 08:41:33 GMT-0500 (Eastern Standard Time)
To: MCP-Chair@mncppc-mc.org <mcp-chair@mncppc-mc.org>; MCP-Chair # <mcp-chair@mncppc-mc.org>; <mcp-chair@mncppc-mc.org>;
Subject: St Angela on Strathmore

I read with interest a,developer wants rezoning to construct housing on the St angels Hall site on Strathmore Avenue in Garrett Park as,that is open space with mature trees as, a taxpayer I do not support that request to rezone as,jam packed houses of any income level is not a good idea, as runoff from this as other sites cause, environmental damage.
Steve Warner
Silver Spring

Graham, Tamika

From: David Murray <davemur@mac.com>
Sent: Monday, November 15, 2021 9:27 PM
To: Graham, Tamika
Subject: 4910-4920 Strathmore, Local Map Amendment H-143

Follow Up Flag: Follow up
Flag Status: Completed

[EXTERNAL EMAIL] Exercise caution when opening attachments, clicking links, or responding.

Dear Ms. Graham,

I had prepared a comment letter on the local map amendment for this project, but having seen that the agenda item has been postponed, I thought I would summarize my comments in hopes that they could be addressed before the Board meets to consider its position.

I live in Garrett Park and enthusiastically welcome the proposed new housing and the proposed care facility on Strathmore Avenue, because the County urgently needs more housing. In particular, the County needs more transit-oriented housing. Unfortunately, the applicant's site plan does not deliver transit-oriented housing. Oddly, despite being just more than 1,000 from the entrance to a Metrorail station, the site plan is unambiguously oriented toward automobile travel. I have read with interest the comments that you and your team have transmitted to the applicant in an effort to shift the project's orientation from cars toward transit. It's too bad the developer has not taken more of them on board, especially the suggestion of a pedestrian connection from the site across Tuckerman to Grosvenor.

In addition, the site plan should:

- **Limit the site to one entrance to Strathmore Avenue.** The Bicycle Master Plan calls for "greater consolidation of driveways as part of facility planning and development approvals along master-planned bikeways." The Bicycle Master Plan rightly notes that "Driveways create a conflict area between bicyclists and motorists, and stronger policies are needed to require greater driveway consolidation." Strathmore Avenue has a master planned bikeway. Thus, the proposal for three entrances from Strathmore Avenue is inconsistent with the Bicycle Master Plan as well as common sense. The applicant's traffic study forecasts that the project will generate less than two car trips per minute even during the peak hour, so the three entrances to the development from Strathmore appear to exceed the site's needs and create unnecessary risk for pedestrians and cyclists. Accordingly, the site should have just one entrance to Strathmore Avenue.
- **Require the parking lots to be placed behind the residential care facility, away from Strathmore Avenue.** Located as proposed, the care facility's two parking lots will be prominent features for people approaching it on Strathmore Avenue from either Rockville Pike or Beach Drive. As the chair and Planning staff have noted, parking should never be the dominant feature of buildings. "What we keep asking to do is bring the building to the street and don't put parking in front of the building," the Chair said during a September meeting. Strathmore Avenue is the only east-west street that runs from Rockville Pike to Connecticut Avenue between Montrose Avenue and the Beltway. As such, it is one of this area's main streets. Trying to hide parking lots behind shrubbery is not sufficient; this approach is heavily — though ineffectively — used in commercial areas and is not appropriate for Strathmore Avenue. Accordingly, the care facility's parking lots should be moved behind the building.

I see that the staff report notes that the amount of parking is consistent with existing structures in the area. But most of the existing structures in the area were built decades ago, when the County grew up around the car. If developers continue to build in a manner similar to existing structures, the County will continue to put the car at the center of the built environment. To change the County's car orientation, Planning should insist that sites near transit be oriented toward transit, not cars. "Transit-oriented development" cannot merely be a label; it must be an ideal that imbues new development. Being close to transit and being oriented toward transit are not the same thing, as this site plan clearly demonstrates.

Endorsing the site plan as proposed would contradict the overall vision that the Planning Board has endorsed for Montgomery County through Thrive, the Growth and Infrastructure Policy, and recently adopted master plans. I hope that the Planning Board notes the site plan's considerable shortcomings when it transmits its comments to the hearing examiner.

Regards,
David Murray

November 17, 2021

Casey Anderson, Chair
Montgomery County Planning Board
2425 Reedie Drive 14th floor
Wheaton, Maryland 20902

Re: Local Map Amendment No. H-143 - Rezoning of Holy Cross Property

To Chairman Anderson:

I am Kip Edwards, President of the Garrett Park Estates-White Flint Park Citizens Association which represents the families and residents of more than 650 homes adjacent to the proposed development of 4910-4920 Strathmore Avenue, Local Map Amendment No. H-143.

Thank you for cancelling the November 18, 2021, Planning Board hearing related to this development to allow time for submission of relevant plan documents in accessible format so members of our citizens association and neighbors abutting the development can properly assess the relevant documents.

The purpose of this letter is to demand a stay on rescheduling of the Montgomery County Planning Department preliminary plan hearing and Office of Zoning and Administrative Hearings LMA hearing for this development until a new Local Area Transit Review (LATR) is performed with new traffic count data and submitted for analysis and review by our community and government stakeholders.

The proposed project redevelops the site currently occupied by a retirement home and infills most of the green space at the Academy of the Holy Cross with a larger retirement home, 9 single family homes and 110+ townhomes. Increased traffic volume and added cut through traffic is clearly a concern for our community. Even now many residents find it difficult to exit our neighborhood at Stillwater and Flanders onto Strathmore during rush hour and school drop off and pick up times.

The applicant submitted an initial LATR on December 18, 2020 and a supplemental analysis on August 24, 2021 to the Montgomery County Parks and Planning Department, Montgomery County Department of Transportation (MCDOT), and the Maryland Department of Transportation State Highway Administration (MDOT SHA) as part of their application to develop this property. However, **the data supporting both the original LATR and the supplemental analysis are unreliable and any decision made by MCPD or OZAH based on its flawed assumptions would be arbitrary and capricious and subject to legal challenge.**

The applicant completed the initial LATR by collecting traffic count data in October and November of 2020. These traffic counts occurred when four of the primary causes of congestion on Strathmore Avenue—the Academy of the Holy Cross, Garrett Park ES, the Holy Cross School, and the Garrett Park Co-Op Nursery—were either closed or on limited attendance due to the COVID-19 pandemic. The other primary source of congestion on Strathmore Avenue and Rockville Pike—commuter traffic—was also minimal in the Fall of 2020 due to widespread COVID-19 office closures and movement restrictions.

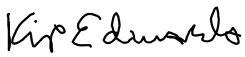
MCDOT reviewers saw the weakness in relying on COVID impacted data and asked for a new LATR relying on historical counts from 2013 and 2016. As the applicants own resubmission notes, relying on historical counts this old is not in compliance with rules pertaining to traffic study and analysis for our region. Noncompliance aside, even a lay observer would admit that relying on historical counts from five and eight years ago is a flawed approach considering the tremendous amount of development which has occurred in North Bethesda since the time those counts were taken.

Thus, the data which form the basis for the study's conclusions are clearly flawed and cannot be relied upon. The Applicant should prepare a new LATR now with realistic traffic counts, but they are instead attempting to submit new findings after the MCPD and OZAH approve their Local Area Map Amendment request and the Council rules on it. This would leave the record for both the MCPD and OZAH LMA hearings, and ultimate Council decision, devoid of an effective LATR, providing all these bodies with no reasonable basis to make an informed decision.

Smart growth is good policy. Blind growth is reckless. We respectfully ask MCPD and OZAH to reschedule their respective hearings until after a new LATR is submitted with realistic de novo background traffic counts obtained and with sufficient time for our association and the surrounding communities to analyze its findings.

Thank you for your consideration and we look forward to your response.

Sincerely,



Kip M. Edwards, Esq.
President
GPE-WFP Citizens Association
president@gpe-wfp.org

CC:

Tamika Graham
Lead Reviewer, MCPD
graham@montgomeryplanning.org

Pamela Lee
Development Manager, EYA
plee@eya.com

Kacky Chantry
Mayor, Town of Garrett Park, MD
mayorkacky@garrettparkmd.gov

Andrew Friedson
District 2 Councilman
Councilmember.Friedson@montgomerycountymd.gov

Casey Anderson, Chair
Montgomery County Planning Board
2425 Reedie Drive
Wheaton, Maryland 20902
MCP-Chair@mncppc-mc.org

Office of Zoning and Administrative Hearings
100 Maryland Avenue
Room 200
Rockville, Maryland 20850
OZAH@montgomerycountymd.gov

Re: 4910 and 4920 Strathmore Avenue; Local Map Amendment LMA-143

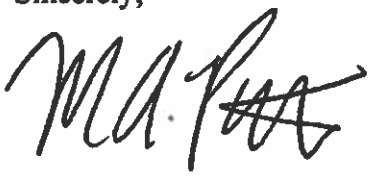
Dear Chair Anderson and Hearing Examiner Baumgardner,

I am writing to express my support for pending Local Map Amendment Application LMA-143. As a resident of the area, I believe the proposed project strikes an appropriate balance between providing needed infill housing and protecting the natural features of the site. I also believe the proposed assisted living building will provide our neighbors with an important housing opportunity that will allow them to remain a part of our community as they age and need supportive services.

While traffic generation from new development is always a concern, I understand that the relocation of the access for the Academy of the Holy Cross to a new driveway, the introduction of new turn lanes, and the installation of a traffic light at the new main entrance will actually improve traffic flow along Strathmore Avenue over existing conditions, which would be a welcome improvement. The new sidewalks, bikeway, and trail system proposed with the project will also create new opportunities for pedestrian and bicycle circulation in the area.

I look forward to welcoming the new residents of the project to our community and urge you to approve this local map amendment. Thank you.

Sincerely,



Matthew Anthony Pappano
10909 Clermont Avenue
Garrett Park, MD 20896

MILES & STOCKBRIDGE P.C.

Erin E. Girard
301-517-4804
egirard@milesstockbridge.com

November 19, 2021

Casey Anderson, Chair
and Members of the Montgomery County Planning Board
Maryland-National Capital Park and Planning Commission
2425 Reedie Drive
Wheaton, MD 20902

Re: November 17, 2021 Request of Garrett Park Estates- White Flint Park Citizens Association for Stay of Local Map Amendment H-143

Dear Chairman Anderson and Members of the Montgomery County Planning Board:

On behalf of our clients, EYA Development LLC and BL Strathmore LLC (collectively, the "Applicants"), the applicants for Local Map Amendment H-143 ("LMA"), the purpose of this letter is to respond and object to the November 17, 2021 request of Garrett Park Estates- White Flint Park Citizens Association ("Garrett Park Estates") for a stay of the LMA proceedings and the imposition of a requirement that a new Local Area Transportation Study ("LATR") be performed. As discussed more fully below, the LMA, which has been pending since early August, is in compliance with all regulatory review requirements and has fully satisfied the Planning Board's LATR policies. Therefore, contrary to Garrett Park Estates' representations, the granting of Garrett Park Estates' request would, in fact, be the arbitrary and capricious action, not Planning Board action on the LMA.

The Traffic Study associated with the LMA was originally submitted on December 18, 2020 ("Traffic Study"), and, as your Staff has noted, was reviewed under the 2016-2020 *Subdivision Staging Policy* because the scope of the study was approved in November 2020, prior to the 2020-2024 *Growth and Infrastructure Policy* going into effect on January 1, 2021 ("Growth Policy"). In accordance with the Planning Board's *Traffic Counts During Covid 19 Pandemic-Policy Update Memorandum* dated September 17, 2020 ("Pandemic Memorandum"), the traffic counts for the study were conducted on October 6, 2020 and November 18, 2020, and a growth factor of 1.07 was subsequently applied to account for the pandemic. Additionally, and contrary to Garrett Park Estate's allegations, in recognition of the fact that the Academy of the Holy Cross was operating under a hybrid schedule at the time of the counts, additional adjustments were made to the traffic analysis to account for school traffic at peak enrollment, as detailed on page 13 of the Traffic Study.

For a variety of reasons, the formal acceptance of the LMA was not completed until August 4, 2021. In response to comments received by Technical Staff as part of their review of the LMA and Traffic Study, an updated study was submitted on August 24, 2021. Per the Staff Report posted for the original Planning Board hearing date of November 18, 2021("Staff Report"), the

submitted "LATR capacity analysis was consistent with the Department's LATR Guidelines" and, as demonstrated by the study and verified by Staff, "all intersections within the study area will operate within the policy area's congestion standards" after development of the project. *See* Staff Report, pp. 14-15.

Importantly, Garrett Park Estates' request does not allege that there were any errors in the analysis contained in the Traffic Study or that the Applicants failed in any way to comply with the LATR requirements, which allegations, even if made, would be baseless. Instead, Garrett Park Estates' request directly challenges the policy adopted in the Pandemic Memorandum allowing traffic studies to continue during the pandemic using current counts and the application of an established growth factor. Granting Garrett Park Estates' request would therefore essentially be an admission on the part of the Planning Board that its policy, under which numerous other projects have been processed and approved, and under which the LMA proceeded, is erroneous. Moreover, treating the LMA differently than other projects approved under the Pandemic Memorandum, for which supplemental counts were not required, would be arbitrary and in violation of the Applicant's equal protection rights.

Additionally, it should be noted that, had the Traffic Study been completed after January 1, 2021 and subjected to the Growth Policy currently in effect, *no traffic counts would have been required.* As was recommended by this Planning Board and approved by the County Council, as part of the Growth Policy the subject property was moved from an Orange Policy Area into a Red Policy Area, given its proximity to transit. Therefore, a Traffic Study for the property under the Growth Policy, which will be required at the time of preliminary plan, will remove the focus on vehicular counts and increase the scope of analysis of the multimodal environment. This analysis will include an evaluation of the pedestrian, bicycle, and transit infrastructure, as well as a safety analysis to assess Vision Zero surrounding the site, but will not include additional vehicular analysis. Therefore, requiring additional traffic counts at this point in time, when none are required under the Growth Policy, would be counter to the County's current policies and would serve no logical purpose.

Finally, it is important to note that, in an abundance of caution, the Applicants' expert transportation consultants also prepared a supplemental analysis that used an alternate methodology to establish expected non-pandemic traffic volumes. This analysis was much more conservative than that required by the LATR guidelines, and identified the need for mitigation measures in the way of a new leftbound turn lane on Strathmore Avenue at the project and school's new main entrance, as well as the installation of a traffic signal at this intersection. The institution of these measures, in concert with the relocation of the Academy of the Holy Cross' main entrance away from Stillwater Avenue, were demonstrated in this analysis to dramatically improve traffic conditions over existing conditions, in some instances reducing current delays from 250 seconds to 9, as more fully explained in that analysis. This analysis was reviewed and approved by both the Montgomery County Department of Transportation and the Maryland State Highway Administration. as demonstrated by email correspondence between a Mr. Doug Burdin and these agencies, which is attached to the Staff Report. In this regard, the Applicants have already gone above and beyond the required LATR analysis in order to ensure that traffic concerns are addressed

and a very conservative analysis of future, post-pandemic traffic, and potential mitigation measures, are provided.

While the Applicants met with representatives of Garrett Park Estates on February 12th and October 4th and have attempted to address their questions regarding the traffic analysis both in those meetings and in the formal responses to their written questions included as an attachment to the Staff Report, what Garrett Park Estates is now requesting is a deviation from standard practice and established policies, which cannot be supported by the Planning Board. As such, and for the reasons outlined above, we respectfully request that the Planning Board deny Garrett Park Estates' request and schedule the LMA for a Planning Board hearing as soon as the accessibility issues that caused the postponement of the November 18th hearing can be appropriately addressed.

Thank you for your consideration. If you have any questions, or would like any additional information, please feel free to contact us.

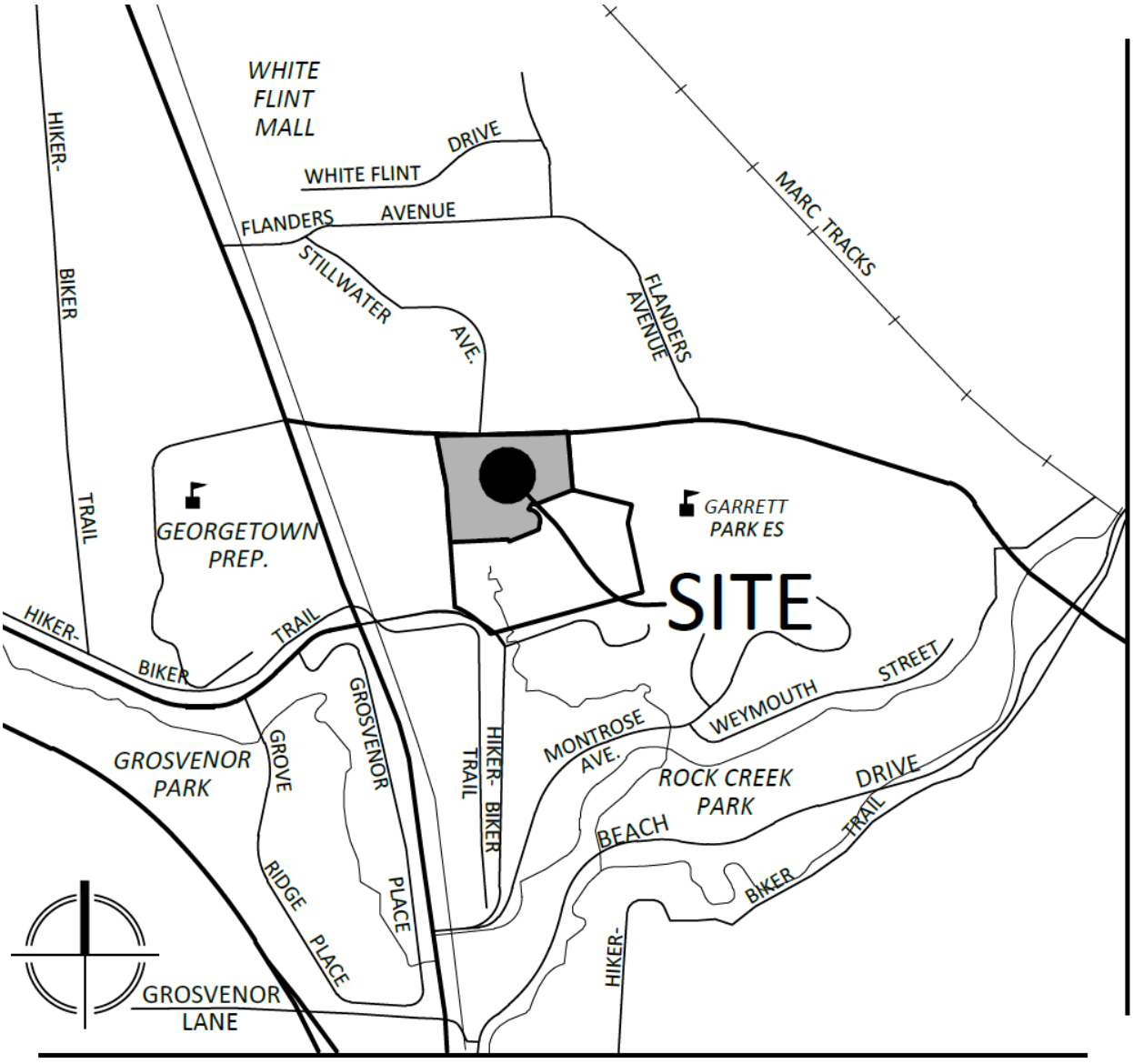
Sincerely,

Erin E. Girard

cc: Montgomery County Office of Zoning and Administrative Hearings
Mayor Kacky Chantry
Councilman Andrew Friedson
Matthew Folden
Tamika Graham

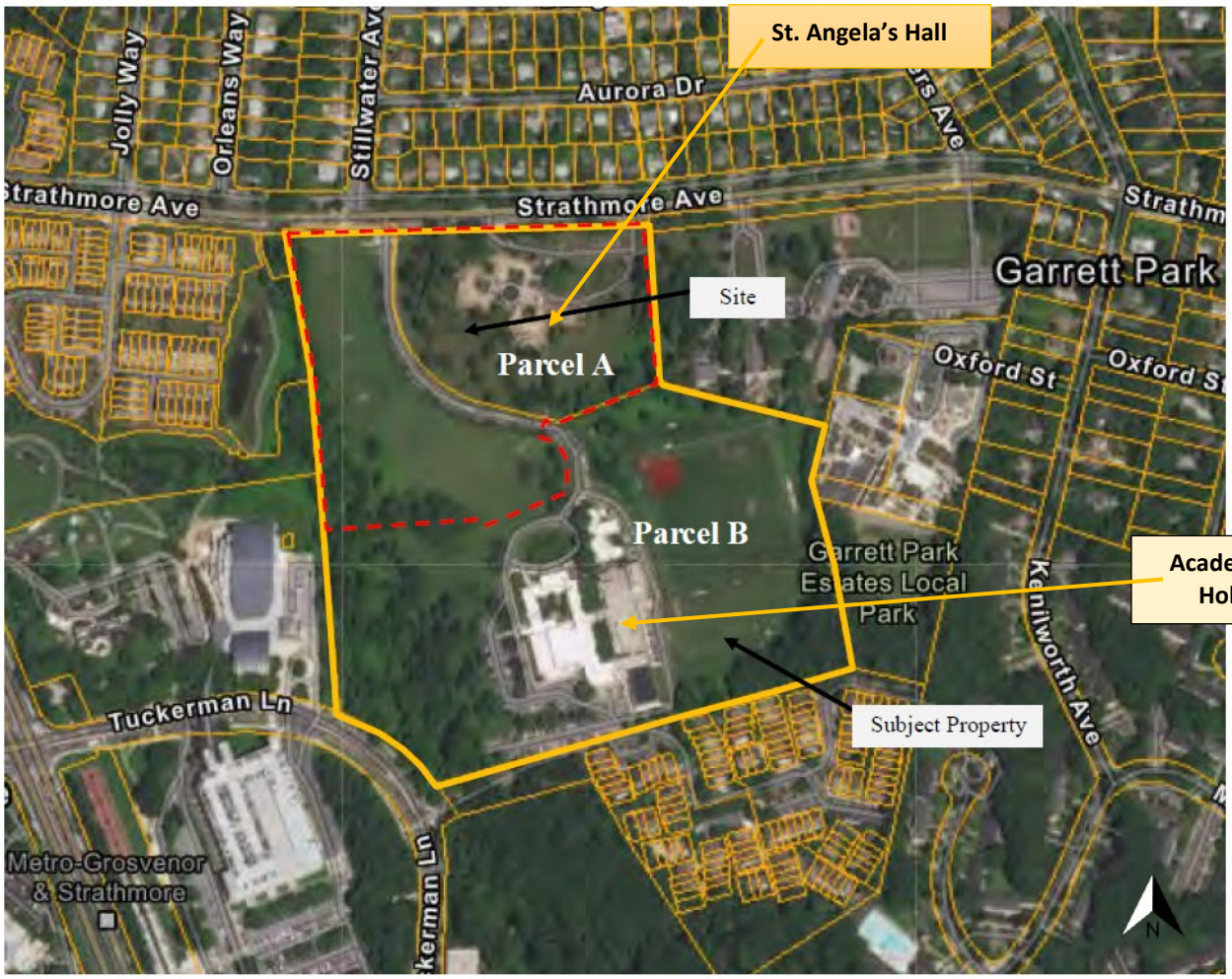
Vicinity Map

Exhibit 88(a) (Floating Zone Plan)

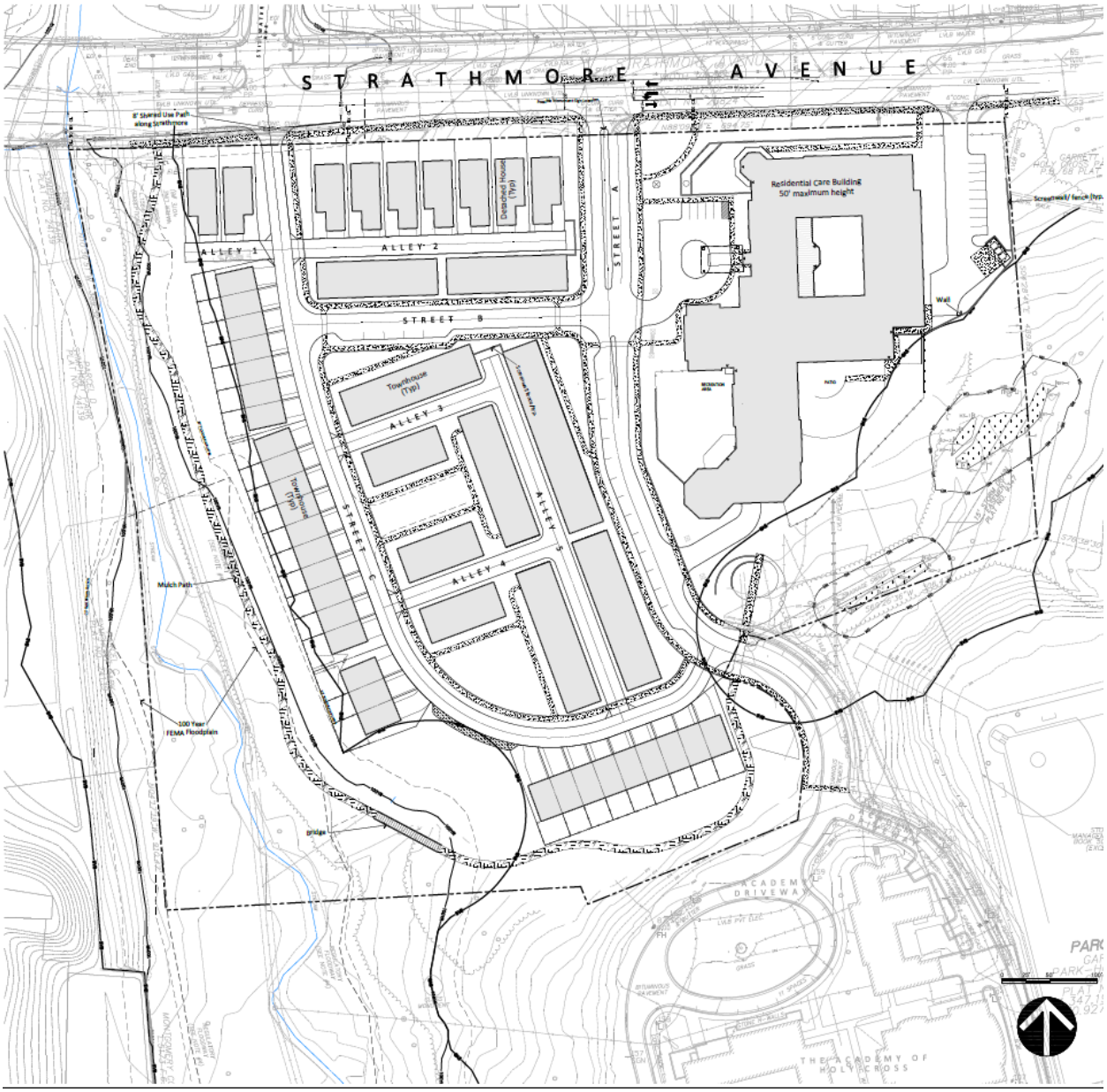


Aerial View of Subject Property

(Exhibit 62 (Planning Staff Report), p. 4



Floating Zone Plan (Exhibit 88(a))



LOCAL AREA TRANSPORTATION STUDY

4910 AND 4920 STRATHMORE AVENUE

NORTH BETHESDA, MD

Exhibit 47
H-143

2nd Submission: August 24, 2021
December 18, 2020

GOROVE SLADE
Transportation Planners and Engineers

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

This document, together with the concepts and designs presented herein, as an instrument of services, is intended for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization by Gorove/Slade Associates, Inc., shall be without liability to Gorove/Slade Associates, Inc.

Contents

Executive Summary i

Introduction 1

Contents of Study 1

Study Area Overview 3

Major Transportation Features 3

Planned Developments 4

Project Design 8

Site Access 8

Vehicle Parking 8

Loading 8

Pedestrian and Bicycle Facilities 9

Trip Generation 11

Traffic Operations 12

Study Area, Scope, & Methodology 12

Vehicular Analysis Results 15

Transit 31

Existing Transit Service 31

Site-Generated Transit Impacts 31

Pedestrian Facilities 34

Pedestrian Study Area 34

Pedestrian Infrastructure 34

Site Impacts 35

Bicycle Facilities 40

Existing Bicycle Facilities 40

Proposed Bicycle Facilities 40

Site Impacts 40

Summary and Conclusions 42

Figures

Figure 1: Site Aerial 2
Figure 2: Project Location and Transportation Facilities 6
Figure 3: Background Developments 7
Figure 4: Site Plan 10
Figure 5: Study Intersections Analyzed in LATR 17
Figure 6: Adjusted Existing Peak Hour Traffic Volumes (2020) 18
Figure 7: Background Projects Peak Hour Traffic Volumes 19
Figure 8: Approved Site Peak Hour Traffic Volumes (Existing 38,000 SF Senior Living Facility) 20
Figure 9: Future without Development Peak Hour Traffic Volumes 21
Figure 10: Inbound Trip Distribution and Assignment 22
Figure 11: Outbound Trip Distribution and Assignment 23
Figure 12: Reroute of Projected School Trips Peak Hour Traffic Volumes 24
Figure 13: Removal of Approved Site (38,000 SF Senior Living Facility) Trips Peak Hour Traffic Volumes 25
Figure 14: Site-Generated Peak Hour Traffic Volumes 26
Figure 15: Future with Development Peak Hour Traffic Volumes 27
Figure 16: Existing Lane Configuration and Traffic Control 28
Figure 17: Future Lane Configuration and Traffic Control 29
Figure 18: Existing Transit Facilities 33
Figure 19: Existing Pedestrian Facilities 36
Figure 20: Future Pedestrian Facilities 37
Figure 21: Existing Pedestrian Accommodations at Study Intersections 38
Figure 22: Streetlight Inventory 39
Figure 23: Existing and Future Bicycle Facilities 41

Tables

Table 1: Summary of Study Area Roadways 3
Table 2: LATR Trip Generation Adjustment Factors (PA 22) 11
Table 3: Mode Split Factors (Policy Area 22) 11
Table 4: Trip Generation Summary 11
Table 5: School Driveway Trip Projection 13
Table 6: Summary of Background Development Trip Generation 14
Table 7: Intersection HCM Delay Results 30
Table 8: Bus Stop Amenities Inventory 32
Table 9: Sidewalk Requirements 34
Table 10: Pedestrian Crossing Distance Analysis Results 35

EXECUTIVE SUMMARY

The following report is a Transportation Impact Study (TIS) for the 4910 and 4920 Strathmore Avenue development. This report reviews the transportation aspects of the project's Local Map Amendment application in compliance with Montgomery County's Local Area Transportation Review (LATR) guidelines.

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

The site, which is currently occupied with a vacant single-story retirement home (St. Angela Hall), is generally bounded by Strathmore Avenue to the north, existing residential homes to the west, the existing Academy of the Holy Cross school to the south, and the Holy Cross School to the east in North Bethesda, Maryland. The property is proposed to be rezoned to Commercial Residential Neighborhood Floating (CRNF). The site lies within the North Bethesda Policy Area (Policy Area 22). As of January 1st, 2021, the Policy Area for the site will be changed to Grosvenor Policy Area per Montgomery County's 2020-2024 Growth and Infrastructure Policy.

The project will replace the existing building with a residential subdivision and a senior living facility, consisting of a maximum of 10 single-family detached homes, 115 townhomes, and an assisted living facility with a maximum of 150 beds.

Pedestrian facilities along the perimeter of the site on Strathmore Avenue will be improved and designed to meet or exceed County, Maryland State Highway Administration (SHA), and American with Disabilities Act (ADA) standards for sidewalks, crosswalks, and curb ramps. This includes sidewalks that meet or exceed the width requirements, crosswalks at all necessary locations, and curb ramps with detectable warnings. Pedestrian paths will connect the site to Rockville Pike to the west and the Academy of the Holy Cross to the south, encouraging non-auto travel.

Access to the site is available via three (3) existing curb cuts along Strathmore Avenue. The westernmost curb cut provides a connection between Strathmore Avenue and the Academy of the Holy Cross to the south, and the two (2) eastern curb cuts provide access to the existing St. Angela Hall retirement facility.

Vehicular access to the site is expected to occur via the three (3) curb cuts. The existing western curb cut will be improved to provide primary access to a network of internal residential streets. The existing school driveway across from Stillwater Avenue will be reconstructed to align with Stillwater Avenue and will serve as an additional access to the residential subdivision. The central driveway will provide a connection to the Academy of the Holy Cross. It will bisect the western and eastern areas of development. The eastern curb cut will provide access to the employee parking lot and loading facilities to the senior housing facility.

Multi-Modal Impacts and Recommendations

Transit

The site is adequately served by regional and local transit services such as Metrorail, MARC, and Ride On-Montgomery County. The site is located less than a mile from the Grosvenor-Strathmore Metrorail station to the south and the Garrett Park MARC train station to the east. The nearest Ride On stop is located adjacent to the site on Strathmore Avenue. Two (2) Ride On-Montgomery County routes directly service the site, with five (5) buses scheduled during both the peak morning commute time and the peak afternoon commute time, providing a good connection to Metrorail and other destinations. Additional Ride On stops are located along Rockville Pike which is approximately 0.3 miles from the site.

The proposed development will generate approximately nine (9) transit trips in the morning peak hour and approximately 10 transit trips in the afternoon peak hour, below the 50-trip threshold required for a transit adequacy test. Although the development will be generating new transit trips on the network, the existing facilities have enough capacity to handle the new trips.

Pedestrian

The site is surrounded by a pedestrian network providing good connectivity to nearby points of interests. Most 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 a lack of sidewalks along the existing site frontage and the Holy Cross School frontage on Strathmore Avenue between Stillwater Avenue and Flanders Avenue.

As a result of the development, pedestrian facilities along the perimeter of the site will be improved. The development will construct shared use path along the site frontage on the southern side of Strathmore Avenue and the new sidewalks within the site will tie to the existing sidewalk for the Academy of the Holy Cross. The proposed sidewalks will meet or exceed SHA and ADA requirements and provide an improved pedestrian environment.

The site will be served by a new internal sidewalk network. These sidewalks will provide extensive pedestrian connections throughout the various uses within the development. The proposed internal sidewalk network will connect the site with the Academy of the Holy Cross south of the site.

The proposed development will generate approximately 22 and 26 pedestrian trips in the morning and afternoon peak hours, respectively, below the 50-trip threshold required for a pedestrian adequacy test.

Bicycle

The site has access to existing bicycle facilities. A shared-use path exists along the south side of Strathmore Avenue, adjacent to the site on the west. According to the Montgomery County Bicycle Master plan, the sidewalk is signed as a separated bikeway route, allowing shared use for bicyclists and pedestrians. The shared-use path ends at the property line of the site, extending westward to Rockville Pike and south to Tuckerman Lane as a paved off-street trail. A system of trails that included the Strathmore Path is also adjacent to the western edge of the site, providing southern and western connectivity to residential subdivisions and Rockville Pike.

The planned development will meet zoning requirements for bicycle parking and provide a shared use path along the site frontage along the southern side of Strathmore Avenue.

The proposed development will generate approximately 13 and 16 bicycle trips in the morning and afternoon peak hours, respectively, below the 50-trip threshold required for a bicycle adequacy test.

Vehicular

The site has direct frontage on Strathmore Avenue (MD 547) and is well-connected to regional roadways such as Rockville Pike (MD 355). These roads provide connectivity to nearby I-270, which provides access to the Capital Beltway (I-495).

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 intersection capacity analyses using HCM methodology. These overall intersection delays are compared to the congestion standards set by LATR standards to determine if the site will negatively impact the study area. **None of the study intersections were found to meet the mitigation criteria per LATR guidelines.**

Summary and Recommendations

This report concludes that the proposed development will not have a detrimental impact to the surrounding transportation network assuming that all planned site design elements are implemented.

The development has several positive elements contained within its design that minimize potential transportation impacts, including:

- The site's proximity to the Metrorail Red Line, MARC Train Brunswick Line, and several local and regional bus lines.
- The inclusion of secure long-term bicycle parking spaces on-site that meet or exceed zoning requirements.
- The construction of pedestrian paths that will connect the site with the Academy of the Holy Cross to the south and the share-use paths to the west.
- The pedestrian facilities adjacent and within the site will be greatly improved. This includes the installation of new sidewalks along eastbound Strathmore Avenue that will serve pedestrians and bicycles.
- The elimination of the existing offset condition at Stillwater Avenue, reducing vehicular movement conflicts due to the offset alignment.

INTRODUCTION

This report reviews the transportation elements of the 4910 and 4920 Strathmore Avenue development. The site, shown in Figure 1, is located in North Bethesda, Maryland.

The purpose of this report is to:

1. Review the transportation elements of the development site plan and demonstrate that the site conforms to Montgomery County LATR policies.
2. Provide information to M-NCPPC, MCDOT, and MDSHA 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 study area intersections using Highway Capacity Manual (HCM) methodology, with Critical Lane Volume (CLV) analyses included in the Technical Attachments, as required by the LATR guidelines. HCM standards are compared to the acceptable levels set by Montgomery County LATR standards within the North Bethesda Policy Area to determine if the site will negatively impact the study area. Although the Policy Area of the property will be changed to Grosvenor Policy Area as of January 1st, 2021, the standards for the North Bethesda Policy Area are used for the current traffic study report, following 2017 LATR guidelines as directed by M-NCPPC. The report discusses what improvements to the transportation network are needed to mitigate adverse impacts as needed.

CONTENTS OF STUDY

This report contains eight (8) 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.
- *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 as needed.
- *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.
- *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 Aerial

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 supports connectivity for the residents and employees of the proposed development with the surrounding areas.
- The site is well-served by public transportation, being in close proximity to the Metrorail Grosvenor-Strathmore station, MARC Garrett Park station, and several bus routes.
- There is existing bicycle infrastructure including shared use paths to the west of the site, signed routes to the east of the site, and bike lanes to the south of the site, which provide bicycle connectivity to the site.
- Pedestrian conditions are generally good, particularly along anticipated major walking routes.

MAJOR TRANSPORTATION FEATURES

Overview of Regional Access

The 4910 and 4920 Strathmore Avenue site has ample access to regional vehicular- and transit-based transportation options, as shown in Figure 2, that connect the site to destinations within the District, Virginia, and Maryland.

The site has direct frontage on Strathmore Avenue (MD 547), which connects to regional roadways such as Rockville Pike (MD 355) and Connecticut Avenue (MD 193/MD 185). The site is also accessible from I-270 as well as the Capital Beltway (I-495) that surrounds Washington, DC and its inner suburbs. All of these roadways bring vehicular traffic within a 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 Metrorail Red Line at the Grosvenor-Strathmore station. The Red Line connects Rockville, MD with Glenmont, MD while providing access to the District core. Connections can be made at the Metro Center and Gallery Place-Chinatown stations to access the five other Metrorail lines, allowing access to points in Virginia and Prince George's County, Maryland. The site also has access to the Brunswick Line of the MARC rail system at the Garrett Park station, which provides connections to areas in the District, Maryland, and West Virginia.

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.

The site is served by a local vehicular network that includes several primary and minor arterials such as Rockville Pike and Strathmore Avenue. In addition, there is an existing network of connector and local roadways that provide access to Strathmore Avenue and subsequently the site. Table 1 provides a list of the local roadways in the project study area.

Table 1: Summary of Study Area Roadways

Roadway	Jurisdiction	Functional Classification	Rural vs Urban	# of Lanes	Speed Limit
Rockville Pike (MD 355)	Maryland SHA	Principal Arterial Other	Urban	6	40 MPH (North of MD 547) 45 MPH (South of MD 547)
Strathmore Avenue (MD 547)	Maryland SHA	Minor Arterial	Urban	2	30 MPH
Kenilworth Avenue	Montgomery County	Local	Urban	2	25 MPH
Stillwater Avenue	Montgomery County	Local	Urban	2	25 MPH
Flanders Avenue	Montgomery County	Local	Urban	2	25 MPH

The Ride On-Montgomery County bus system provides local transit service in the vicinity of the site. The majority of routes travel along Rockville Pike and Strathmore Avenue. These bus routes connect the site to many areas of Maryland and the District, including several Metrorail stations.

There are existing bicycle facilities that connect the site to areas within North Bethesda. Most notably, the site is adjacent to the Strathmore Path, a paved off-road trail which lies to the west of the site. As part of the 2018 Montgomery County Bicycle Master Plan, planned bicycle facilities along Strathmore Avenue and Rockville Pike will fill in missing gaps and will improve connectivity for bicycles to and from the site.

In the vicinity of the site, most 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 good pedestrian facilities. There are some pedestrian barriers in the area, including a lack of sidewalks along the site frontage on Strathmore Avenue. Pedestrian paths connecting the site to the Academy of the Holy Cross are proposed as part of this project. 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.

Planned Developments

There are 12 potential development projects in the vicinity of the 4910 and 4920 Strathmore Avenue development. For the purpose of this analysis, only approved developments with an origin/destination within the study area were included. A list of all planned developments considered and relevant references to each development's LATR study or trip generation are included in the Technical Attachments. The 12 planned developments considered are described below. Figure 3 shows the location of these developments in relation to the proposed development.

Strathmore Square (#120190180)

The Strathmore Square development is located adjacent to the Grosvenor-Strathmore Metro Rail station, bounded Rockville Pike to the west and Tuckerman Lane to the north and the south and is approximately 0.25 miles from the 4910 and 4920 Strathmore Avenue project site. The development program features 1,309 single-family dwelling units and 317,537 square feet of retail.

North Bethesda Market II (#120120060)

North Bethesda Market II is a multi-use development located on Rockville Pike, south of Nicholson Lane, and is approximately 0.9 miles from the 4910 and 4920 Strathmore Avenue project site. The complex includes 470 multifamily dwelling units and 103,753 square feet of commercial retail space.

East Village at North Bethesda Gateway (#120140240)

The East Village at North Bethesda Gateway development is located at 5516 Nicholson Lane and is approximately 0.8 miles from the 4910 and 4920 Strathmore Avenue project site. The planned property includes two (2) residential buildings hosting about 567 units as well as up to 19,000 square feet of ground floor retail.

Offutt Estates (#120150040)

The Offutt Estates development is located off Hillery Way and is approximately 0.6 miles from the 4910 and 4920 Strathmore Avenue project site. The development program features five (5) residential units including one (1) single-family unit and four (4) duplex units. This project was not included in the analysis as it contributes less than five (5) trips to the study intersections.

VOB Development (#120190160)

The VOB Development is located at the southeast corner of Old Georgetown Road and Executive Boulevard and is approximately 1.3 miles from the 4910 and 4920 Strathmore Avenue project site. The development program features 1,000 multifamily residential units and 75,241 square feet of ground-floor retail.

North Bethesda Town Center (#120040490)

The North Bethesda Town Center is a large proposed development located at the southeast corner of Old Georgetown Road and Rockville Pike, bounded by Marinelli Road to the south and Nebel Street to the east. It is approximately 1.3 miles from the 4910 and 4920 Strathmore Avenue project site. The development program features 1,350 multifamily residential units (697 unbuilt), 809,338 square feet of office space, and 152,791 square feet of retail.

White Flint View (#120070380)

The White Flint View development is located at 5511 Nicholson Lane and is approximately 0.9 miles from the 4910 and 4920 Strathmore Avenue project site. The development program is a 16-story building consisting of 183 multifamily residential units and 10,964 square feet of ground-floor retail.

Mid Pike Plaza (Pike and Rose) (#120120020)

Mid Pike Plaza (Pike & Rose) is a major mixed-use development located in the Pike Districts, formerly known as White Flint. The property is located across the street from the White Flint Metro Station. The development, built over two phases, includes over 1,600 residential units including rentals and condominium units. Additionally, the development includes hotel space, over 300,000 feet of retail space, and over 1.1 million square feet of office space. The development also includes an iPic movie theater, music venue, and sports & health club. The development is approximately 1.4 miles from the 4910 and 4920 Strathmore Avenue project site. Currently, the unbuilt development program includes approximately 734 multifamily units, 682,691 SF of office space, and 143,835 SF of retail.

Gables White Flint (Gables Pike District) (#120150010)

Gables White Flint (Gables Pike District) is a three-building development located at the corner of Old Georgetown Road and Executive Boulevard and is approximately 1.3 miles from the 4910 and 4920 Strathmore Avenue project site. The complex is spread across 5.15 acres and includes approximately 476 apartments and 20,890 square feet of retail.

Saul Centers White Flint West (#120160080)

Saul Centers White Flint West is located on the southwest quadrant of the intersection of Rockville Pike and Marinelli Road and is approximately 1.0 mile from the 4910 and 4920 Strathmore Avenue project site. The development program features 655 multifamily residential units and 136,950 square feet of office space.

Wilgus (#120200140)

Wilgus development is located on the northwest quadrant of the intersection of Montrose Parkway and Towne Road and is approximately 1.6 miles from the 4910 and 4920 Strathmore Avenue project site. The development program features 107 single-family units, 638 multifamily units, and 11,880 square feet of retail.

Washington Science Center (#819730050)

Washington Science Center development West is located on southwest quadrant of Executive Boulevard and Old Georgetown Road and is approximately 1.4 miles from the 4910 and 4920 Strathmore Avenue project site. The development program features up to 141,429 square feet of office space.

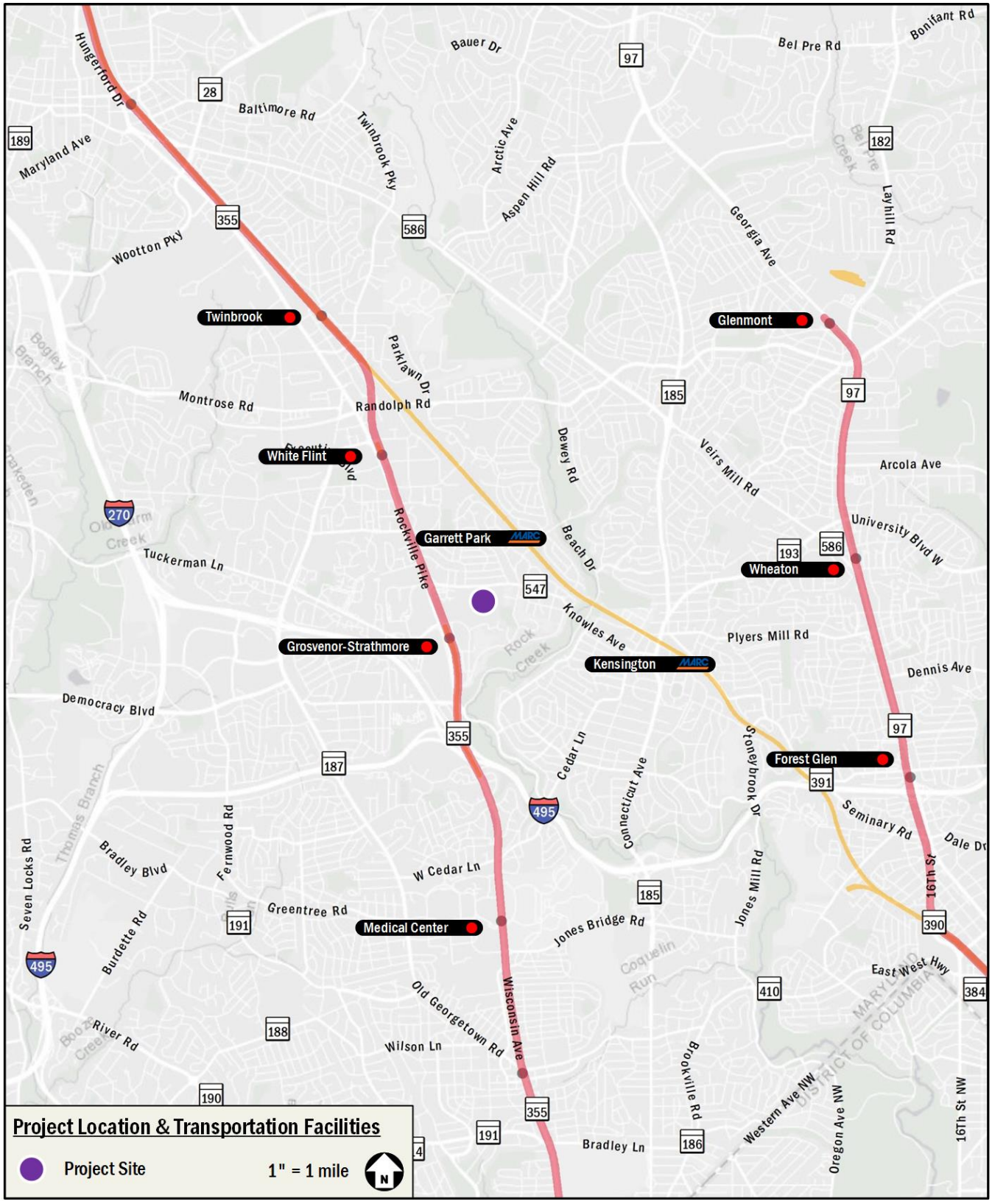


Figure 2: Project Location and Transportation Facilities

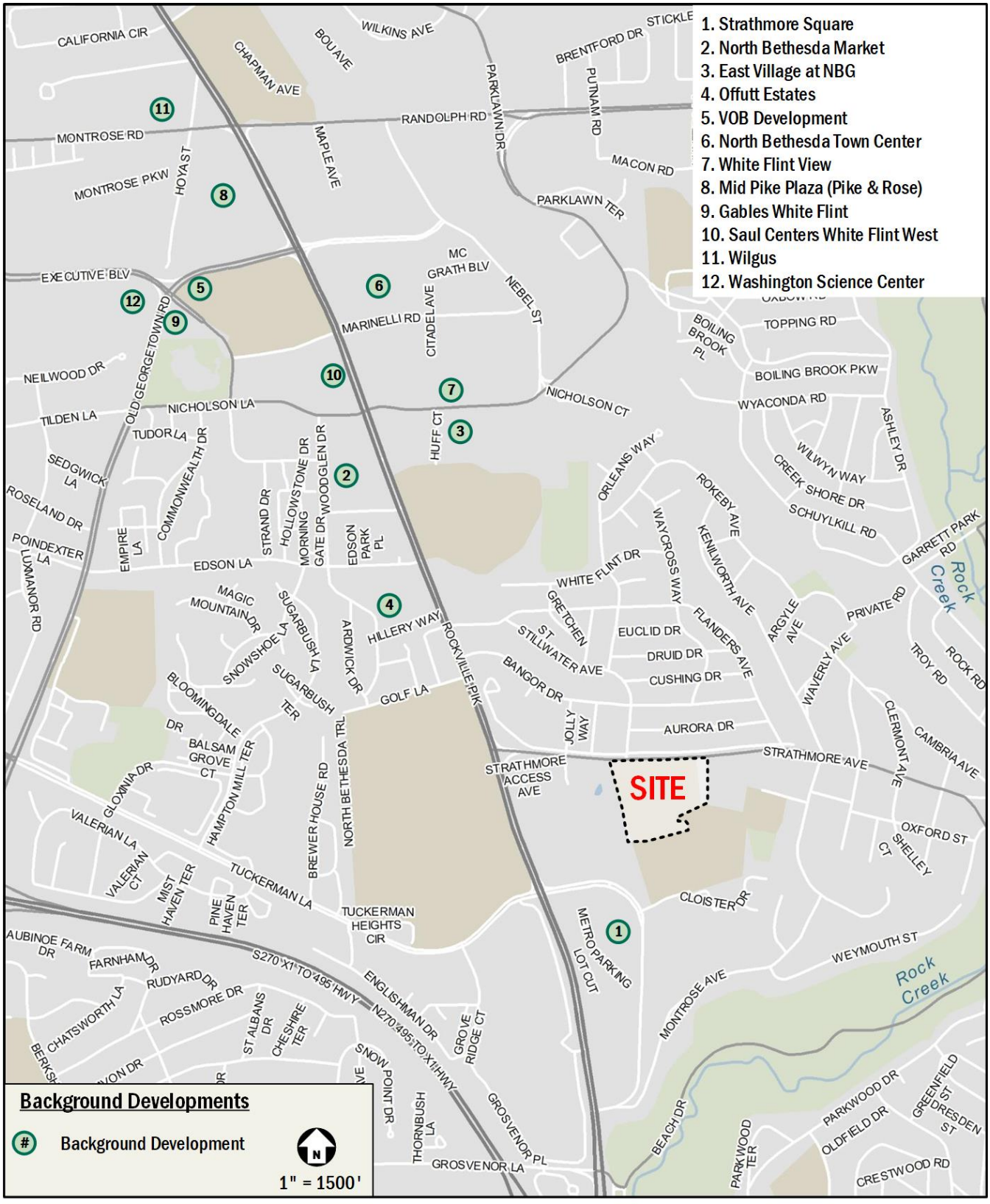


Figure 3: Background Developments

PROJECT DESIGN

This section reviews the transportation components of the 4910 and 4920 Strathmore Avenue development, including the proposed site plan and access points. It includes descriptions of the site's vehicular access, loading, and parking. It supplements the information provided in the site plan package that accompanied the Local Map Amendment Application.

The site is generally bounded by Strathmore Avenue to the north, existing residential homes to the west, the existing Academy of the Holy Cross school to the south, and the Holy Cross School to the east. The existing site consists of an approximately 38,000 square feet vacant senior living facility building. The project will replace the existing building with a residential subdivision and a senior living facility, consisting of a maximum of 10 single-family detached homes, 115 townhomes, and an assisted living facility with a maximum of 150 beds. Figure 4 shows an overview of the development program and site plan elements.

SITE ACCESS

Vehicular Access

Vehicular access to the site is expected to occur via the three (3) curb cuts. The existing western curb cut will be improved to provide primary access to a network of internal residential streets. The existing school driveway across from Stillwater Avenue will be reconstructed to align with Stillwater Avenue and will serve as an additional access to the residential subdivision. The central driveway will provide a connection to the Academy of the Holy Cross. It will bisect the western and eastern areas of development. The eastern curb cut will provide access to the employee parking lot and loading facilities to the senior housing facility.

The site will be served by an internal roadway network that will provide extensive connections throughout the development.

Pedestrian Access

Primary pedestrian access to the site is expected to occur via the proposed shared use path along the site frontage on Strathmore Avenue.

The site will be served by an internal sidewalk network that will provide extensive connections throughout the development. The proposed sidewalk will extend south to provide pedestrian access to the Academy of the Holy Cross.

Bicycle Access

Primary bicycle access to the site is expected to occur via the proposed shared use path along the site frontage on Strathmore Avenue.

A sidewalk/shared-use path exists along the south side of Strathmore Avenue, adjacent to west side of the site. According to the Montgomery County Bicycle Master plan, the sidewalk is signed as a separated bikeway route, allowing shared use for bicyclists and pedestrians. The shared-use path ends at the property line of the site, extending westward to Rockville Pike.

VEHICLE PARKING

The site is proposed to be rezoned to Commercial Residential Neighborhood Floating (CRNF) and will be located in a Reduced Parking Area. Under Montgomery County Zoning Code 59-6.2.4, residential care facility is required to provide a minimum of 0.25 vehicle parking space per bed, or a minimum of 0.5 vehicle parking space per dwelling unit, plus a minimum of 0.5 vehicle parking space per employee.

Given that the proposed assisted living facility consists of a maximum of 150 bed sand a maximum of 50 employees (maximum number of staff per shift), it results in the following minimum vehicle parking spaces requirements:

- Assisted Living:
  - 38 vehicle parking spaces
- Employee:
  - 25 vehicle parking spaces

The proposed development will provide approximately 63 vehicle parking spaces for the senior living facility, meeting the zoning requirements.

LOADING

The proposed loading facilities are expected to accommodate all delivery demand without detrimental impacts. Figure 4 shows the location of the loading facility for the senior living building.

Access to the senior living building's loading will be available from the eastern curb cut on Strathmore Avenue. The majority of loading vehicles are expected to approach the site from the west using major roadways, such as I-270 and Rockville Pike.

Under Montgomery County Zoning Code 59-6.2.8, group living development with 25,001 to 250,000 SF of gross floor area is required to provide a minimum of one (1) loading space. The proposed development will meet the loading zoning requirements.

Pedestrian and Bicycle Facilities

Pedestrian Facilities

As discussed previously, pedestrian facilities will be improved around the site. Under existing conditions, some pedestrian facilities around the site do not meet County, SHA, and/or ADA standards. As a result of the development, pedestrian facilities around the perimeter of the site will be improved to meet County, SHA, and ADA standards and provide an improved pedestrian environment.

Bicycle Facilities

The development will meet or exceed the amount of long-term and short-term bicycle parking as required by Montgomery County.

According to the Zoning Text Amendment No. 19-08 for Montgomery County Zoning Code 59-6.2.4, for assisted living facility, a minimum of 0.1 bicycle spaces are required for each employee, up to a maximum of 25 spaces. Of these, 95% are required to be long-term. Bicycle parking is not required for single-unit residential development. This results in the following minimum bicycle parking spaces requirements:

- Assisted Living:
    - Five (5) long-term bicycle parking spaces
    - One (1) short-term bicycle parking space

Long-term bicycle parking will be placed within the assisted living facility. Short-term bicycle parking will be placed near the main entrance of the assisted living building. Short-term bicycle parking will include inverted U-racks placed in high-visibility areas.

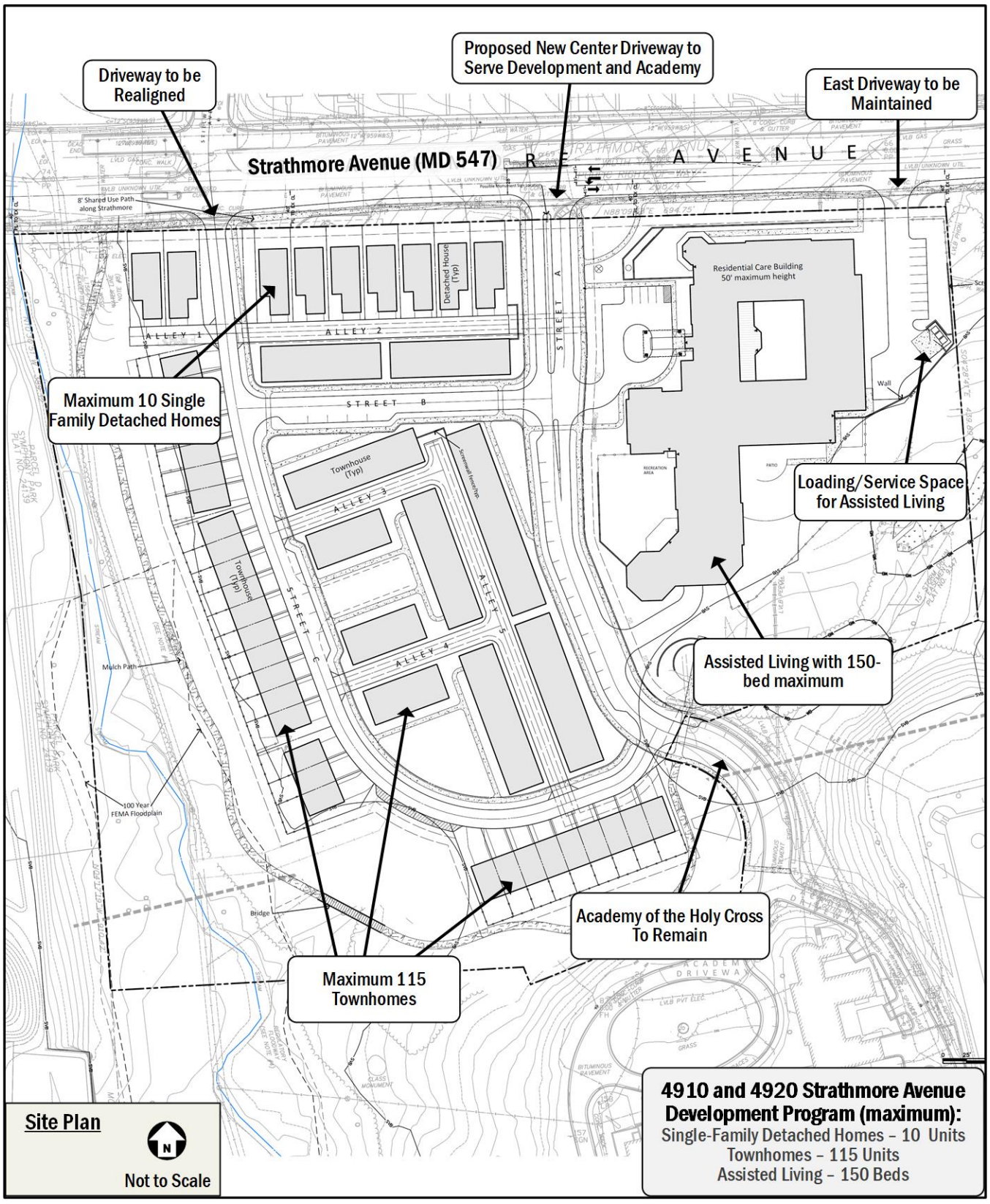


Figure 4: Site Plan

TRIP GENERATION

This section outlines the transportation demand of the proposed 4910 and 4920 Strathmore Avenue development. It summarizes the projected trip generation of the site, which forms the basis for the chapters that follow. The proposed development plan includes a residential subdivision and a senior living facility, consisting of a maximum of 10 single-family detached homes, 115 townhomes, and an assisted living facility with a maximum of 150 beds.

Traditionally, weekday peak hour trip generation is calculated based on the methodology outlined in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 10th Edition.* This methodology was supplemented in accordance with the M-NCPPC Local Area Transportation Review (LATR) guidelines to account for the context-sensitive multimodal trip generation adjustment factors associated with each policy area in Montgomery County.

To account for trips that traveled to the existing land uses on site, existing trip generation was calculated using ITE Land Use Code 254, *Assisted Living* as the current site building is vacant.

Residential trip generation for townhomes was calculated using ITE Land Use Code 221, *Multifamily (Mid-rise)*. Residential trip generation for single-family detached homes was calculated using ITE Land Use Code 210, *Single-Family Detached Housing*.

Residential trip generation for senior living facility was calculated using ITE Land Use Code 254, *Assisted Living*. All land uses were then adjusted for Policy Area 22, North Bethesda, based on Appendix Table 1a of the M-NCPPC Fall 2017 LATR Guidelines, as shown in Table 2.

Mode splits for the proposed development, shown in Table 3 are based on Appendix Table 1b of M-NCPPC Fall LATR Guidelines using Policy Area 22 (North Bethesda).

Table 2: LATR Trip Generation Adjustment Factors (PA 22)

Development Type	Trip Generation Rate Adjustment Factor
Residential	83%

Following the removal of existing trips, the proposed development will generate 56 net new trips during the morning peak hour and 68 net new trips during the afternoon peak hour, as detailed in Table 4. Detailed calculations are provided in the Technical Attachments.

Table 3: Mode Split Factors (Policy Area 22)

Development Type	Mode			
	Auto Driver	Auto Passenger	Transit	Non-Motorized
Residential	53.8%	25.9%	8.0%	12.3%

Table 4: Trip Generation Summary

Project Trip Generation										
Land Use	Size			AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Existing (Senior Living)									
Assisted Living	38	ksf	LATR Rate	10	2	12	4	11	15
			Existing Vehicle Trips	10	2	12	4	11	15
			Existing Person Trips	19	3	22	7	21	28
Proposed (Residential and Senior Living)									
Townhomes	115	du	LATR Rate	9	25	34	26	16	42
Detached Homes	10	du	LATR Rate	2	8	10	6	3	9
Assisted Living	150	beds	LATR Rate	15	9	24	12	20	32
			Total Proposed Vehicle Trips	26	42	68	44	39	83
			Total Proposed Person Trips	49	78	127	81	73	154
			Net New Vehicle Trips	**16**	**40**	**56**	**40**	**28**	**68**
			Net New Person Trips	**30**	**75**	**105**	**74**	**52**	**126**

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 4910 and 4920 Strathmore Avenue project and a discussion of potential improvements as needed.

The purpose of the capacity analysis is to:

- Determine the existing capacity of the study area roadways; and
- 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, if necessary.

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:

- The existing study area intersections operate at average vehicle delays below the thresholds per LATR guidelines during all analysis scenarios for the morning and afternoon peak hours.
- The addition of trip generated by background developments on the study area do not exacerbate average vehicle delays at the study intersections.
- The addition of site-generated trips results in only minor degradations in HCM delay. No intersections were found to meet the mitigation criteria per LATR guidelines.

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 by M-NCPPC as detailed in the scoping form approved November 23, 2020. The scoping form document is included within the Technical Attachments. The general methodology of the analysis follows national and Montgomery County/LATR 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 will lead to adverse impacts on traffic operations. This is accomplished by comparing future scenarios: (1) without the proposed development (referred to as the Background condition) and (2) with the proposed development (referred to as the Future condition).

Specifically, the roadway capacity analysis examined the following scenarios:

- 2020 Existing Conditions
- Future Conditions without the development (Background)
- Future Conditions with the development (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 M-NCPPC staff are those intersections most likely to have potential impacts or require changes to traffic operations to accommodate the proposed development. The number of intersections meet the LATR criteria, based on the maximum number of new weekday peak-hour vehicle trips generated by the proposed land uses. For the 4910 and 4920 Strathmore Avenue development, a minimum number of one (1) intersection in each direction was required.

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

1. Rockville Pike (MD 355) and Strathmore Avenue (MD 547)
2. Strathmore Avenue (MD 547) and Stillwater Avenue/School Driveway
3. Strathmore Avenue (MD 547) and Center Site Driveway
4. Strathmore Avenue (MD 547) and East Site Driveway
5. Strathmore Avenue (MD 547) and Kenilworth Avenue

6. Rockville Pike (MD 355) and Flanders Avenue/ Wickshire Way

Figure 5 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

Due to the COVID-19 pandemic, Montgomery County issued guidance on alternative approaches to establish existing baseline traffic counts. This analysis applies an adjustment factor to counts collected in 2020, consistent with the latest policy pertaining to traffic counts outlined in the Traffic Counts During COVID-19 Pandemic – Policy Update memorandum dated September 17, 2020, included in the Technical Attachments.

Turning movement count data was collected at five (5) out of the six (6) study intersections on Tuesday, October 6, 2020 and the sixth intersection of Rockville Pike and Flanders Avenue/Wickshire Way was collected on Wednesday, November 18, 2020. Per the County's policy on the new traffic counts an adjustment factor of 1.07 applied to the morning peak hour volumes. For all intersections, the system peak hours were used. The morning peak hour was from 8:00-9:00 AM and the afternoon peak hour was from 5:00-6:00 PM.

At the time of data collection, the Academy of the Holy Cross was operating under a hybrid learning schedule with limited on-site activity. Therefore, the collected counts at the intersection of Strathmore Avenue and School Driveway do not reflect typical traffic volumes traveling in and out of the school driveway when the school is in session. In order to establish typical school day volumes generated by the school, driveway counts were retrieved from MDSHA's Internet Traffic Monitoring System (ITMS) online application at the intersection of Strathmore Avenue (MD 547) and Stillwater Avenue/School Driveway. The available 2005 and 2013 MDSHA driveway counts show that the school's trip generation has remained consistent between 2005 and 2013 based on enrollment data provided by the school. In order to project the school's trip generation volumes, the driveway trip generation average rates were used with a maximum enrollment of 600 students, as provided by the school.

Table 5 shows the historical trip generation data and the corresponding enrollment numbers.

The 2013 inbound and outbound directional splits at the school driveway were used to determine the distribution and assignment of the projected school trips at the Strathmore Avenue and Stillwater Avenue/School Driveway intersection. The assignment of school trips at other study intersections was estimated using the collected 2020 count data.

In summary, the existing 2020 traffic volumes are comprised of the following:

1. Turning movement count data at six (6) study intersections collected in the Fall of 2020, with an adjustment factor of 1.07 applied to the morning peak hour volumes per the County's policy on the new traffic counts.
2. The removal of school-generated volumes as captured in the 2020 data collection.

Table 5: School Driveway Trip Projection

Enrollment	Trip Generation Source	AM Peak Hour (veh/hr)			PM Peak Hour (veh/hr)		
		In	Out	Total	In	Out	Total
2005 Driveway Count Trip Generation							
583 Students	Driveway Counts	310	182	492	70	149	219
	Trip Generation Rate per Student:*	*0.53*	*0.31*	*0.84*	*0.12*	*0.26*	*0.38*
2013 Driveway Count Trip Generation							
528 Students	Driveway Counts	312	207	519	77	103	180
	Trip Generation Rate per Student:*	*0.54*	*0.36*	*0.89*	*0.13*	*0.18*	*0.31*
Average Trip Generate Rates based on 2005 and 2013 Driveway Counts							
	Average Trip Generation Rate:	*0.53*	*0.33*	*0.87*	*0.13*	*0.22*	*0.34*
Projected 2020 Enrollment Trip Generation							
600 Students	Average Trip Generation Rates	320	200	520	76	130	205

**Trip Generation Rate derived using ratio of inbound/outbound vehicles compared to student enrollment*

3. Projected school-generated trips distributed through the network based on a maximum 600-student enrollment assumption.

Figure 6 shows the existing 2020 peak hour traffic volumes after the combination of the adjustments. The unadjusted peak hour traffic volumes as collected, the adjustment volumes based on the County's COVID-19 adjustment factors, the removal of school driveway trips, and the projected school volumes are all included in the Technical Attachments.

Background Traffic Volumes (without the project)

Traffic projections for the background conditions typically consist of the existing volumes with the addition of traffic generated by approved but unbuilt developments in the study area (known as background developments).

Following LATR guidelines, "background traffic from approved but unbuilt developments will be in the same geographic area as the intersections to be studied if that background development is estimated to contribute at least 5 peak-hour trips."

Based on these criteria, and as discussed previously, 11 out of the 12 considered developments were included in the Background scenario. These developments are:

1. Strathmore Square (1,309 residential units and 317,537 SF retail)
2. North Bethesda Market II (470 residential units and 103,753 SF retail)
3. East Village at North Bethesda Gateway (567 residential units and 19,000 SF retail)
4. VOB Development (1,000 residential units and 75,241 SF retail)
5. North Bethesda Town Center (1,350 residential units, 809,338 SF office, and 152,791 SF retail)
6. White Flint View (183 residential units and 10,964 SF retail)
7. Mid Pike Plaza (734 residential units, 682,691 SF office, and 143,835 SF retail)
8. Gables White Flint (476 residential units and 20,890 SF retail)
9. Saul Centers White Flint West (655 residential units and 136,950 SF office)
10. Wilgus (745 residential units and 11,880 SF retail)
11. Washington Science Center (141,429 SF office)

Existing transportation studies were available for most of the background developments. Trip distribution assumptions for the background developments were based on previous studies if applicable and altered where necessary based on anticipated travel patterns. Trip generation assumptions for the background developments are shown on Table 6. The traffic volumes generated by the background developments along the network are shown in Figure 7.

Table 6: Summary of Background Development Trip Generation

Proposed Development	Trip Generation Methodology	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Strathmore Square	Based on Approved LATR	296	432	728	484	421	905
North Bethesda Market II	Based on Approved LATR	54	97	151	207	188	395
East Village at NBG	Based on Approved Memo	52	108	160	155	120	275
VOB Development	Based on Approved Traffic Statement	177	201	378	289	226	515
North Bethesda Town Center	Based on Approved LATR	461	229	690	401	653	1,054
White Flint View	Based on ITE 10th Edition and LATR Rates	9	20	29	24	18	42
Mid Pike Plaza	Based on Approved LATR	365	194	559	335	545	880
Gable White Flint	Based on Approved LATR	30	85	115	115	87	202
Saul Centers White Flint	Based on Approved LATR	98	120	218	111	122	233
Wilgus	Based on Approved Traffic Statement	33	89	122	97	63	160
Washington Science Center	Based on Approved Traffic Statement	24	4	28	4	21	25
Total Background Development Trips		**1,599**	**1,579**	**3,178**	**2,222**	**2,464**	**4,686**

As the existing 38,000 SF senior living facility site is vacant, the approved site trips, shown in Table 4, were incorporated into the background traffic volumes. The addition of the approved site trip peak hour volumes is shown in Figure 8.

The traffic volumes generated by the background developments along the network and the approved site-generated trips were added to the existing traffic volumes in order to establish the Background traffic volumes. The traffic volumes for the Background conditions are shown in Figure 9.

Total Future Traffic Volumes (with the project)

The Total Future traffic volumes consist of the Background volumes with the removal of existing site volumes and addition of the traffic volumes generated by the proposed development (site-generated trips). Thus, the Total Future traffic volumes include traffic generated by the existing volumes, background developments, the removal of approved site driveway volumes, and the proposed project.

Trip distribution for the site was determined based on: (1) Table 2-6 of the M-NCPPC LATR Guidelines, (2) existing travel patterns in the study area, and (3) the site driveway layout of the development.

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 10 for inbound trips and Figure 11 for outbound trips.

The existing trips for the Academy of the Holy Cross are assumed to be rerouted to utilize the proposed center driveway. The rerouted school trips are shown on Figure 12. The removal of approved site driveway trips is shown on Figure 13. The site-generated traffic volumes are shown on Figure 14 and the Total Future traffic volumes are shown on Figure 15.

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. Existing signal timings and offsets were obtained from Montgomery County and confirmed during field reconnaissance.

The lane configurations and traffic controls for the Existing conditions are shown on Figure 16.

Background Geometry and Operations Assumptions

Following national and Montgomery County/LATR 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, there is no funded project which will affect the geometry of a study intersection.

Total Future Geometry and Operations Assumptions

The redevelopment will include a network of new internal streets that will provide internal ingress and egress points throughout the property. The future geometry and operation assumptions included in the analysis are based on the background conditions with the following improvements:

- Eliminating the existing western driveway to the Academy of the Holy Cross.
- Providing a new western site driveway aligned with Stillwater Avenue.
- Extending the existing center driveway to travel through the site and connecting to the existing driveway to the Academy of the Holy Cross south to site.
- Providing two (2) outbound lanes, a right-turn lane and a left-turn lane, on the center driveway intersection at Strathmore Avenue.

The lane configuration and traffic controls assumed in the Total Future conditions is presented in Figure 17.

VEHICULAR ANALYSIS RESULTS

Intersection Capacity Analysis

Intersection capacity analyses were performed for the three (3) scenarios outlined previously at the study intersections shown in Figure 5 for the morning and afternoon peak hours. Synchro Version 10 was used to analyze the study intersections based

on the HCM methodology as outlined in the LATR Guidelines. For the development's policy area (North Bethesda), a delay of 71 seconds or less is considered acceptable.

Table 7 presents the HCM results at the study intersections. As shown in Table 7, under the Existing and Background conditions, the intersection of Strathmore Avenue and Stillwater Avenue/School Driveway operate above the congestion standard during the morning peak hour. This is due to a significant number of westbound left-turning traffic turning into the school and northbound left-turning traffic turning out of the school, resulting in delays that exceed the congestion standard at this two-way stop-controlled intersection. The existing offset between Stillwater Avenue and the School Driveway exacerbates the delay at this intersection. However, under Total Future conditions, the westernmost site driveway is realigned to eliminate the offset as a result of the project, and the school traffic is rerouted to utilize the center site driveway which will serve as the school entrance. Delays under Background Conditions at the Strathmore Avenue and Stillwater Avenue intersection are shifted to the Center Site Driveway under Future Conditions to operate well within the congestion standard. The traffic pattern changes result in improved conditions in which all study intersections operate well below the congestion standard of 71.0 seconds.

LATR guidelines specify that intersections exceeding the policy area congestion standard be mitigated. Adequacy is achieved when the average intersection vehicle delay in the total future with mitigation condition does not exceed either the congestion standard or the average intersection vehicle delay in the background condition, whichever is higher. As shown in Table 7, no intersection meets mitigation criteria per LATR guidelines.

This report concludes the 4910 and 4920 Strathmore Avenue redevelopment project will not have a detrimental impact on the area's roadways under the analyzed conditions. In addition, with the realignment of the westernmost driveway and rerouting of the school traffic, the overall delay at the intersection of Strathmore Avenue and Stillwater Avenue/Western Site Driveway is improved compared with that in background conditions and does not meet mitigation criteria in future conditions. As required by LATR guidelines, CLV analysis is also included in the Technical Attachments.

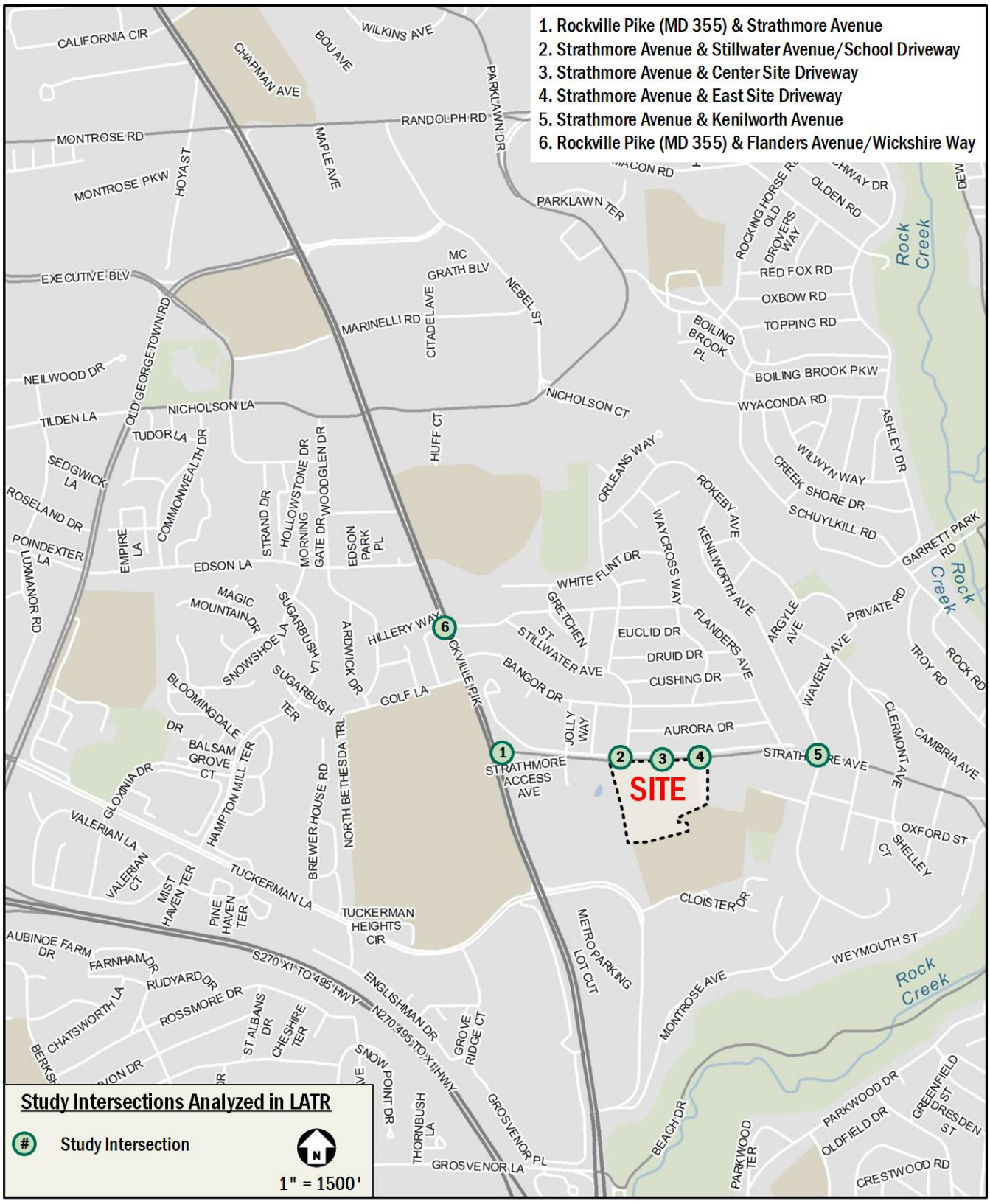


Figure 5: Study Intersections Analyzed in LATR

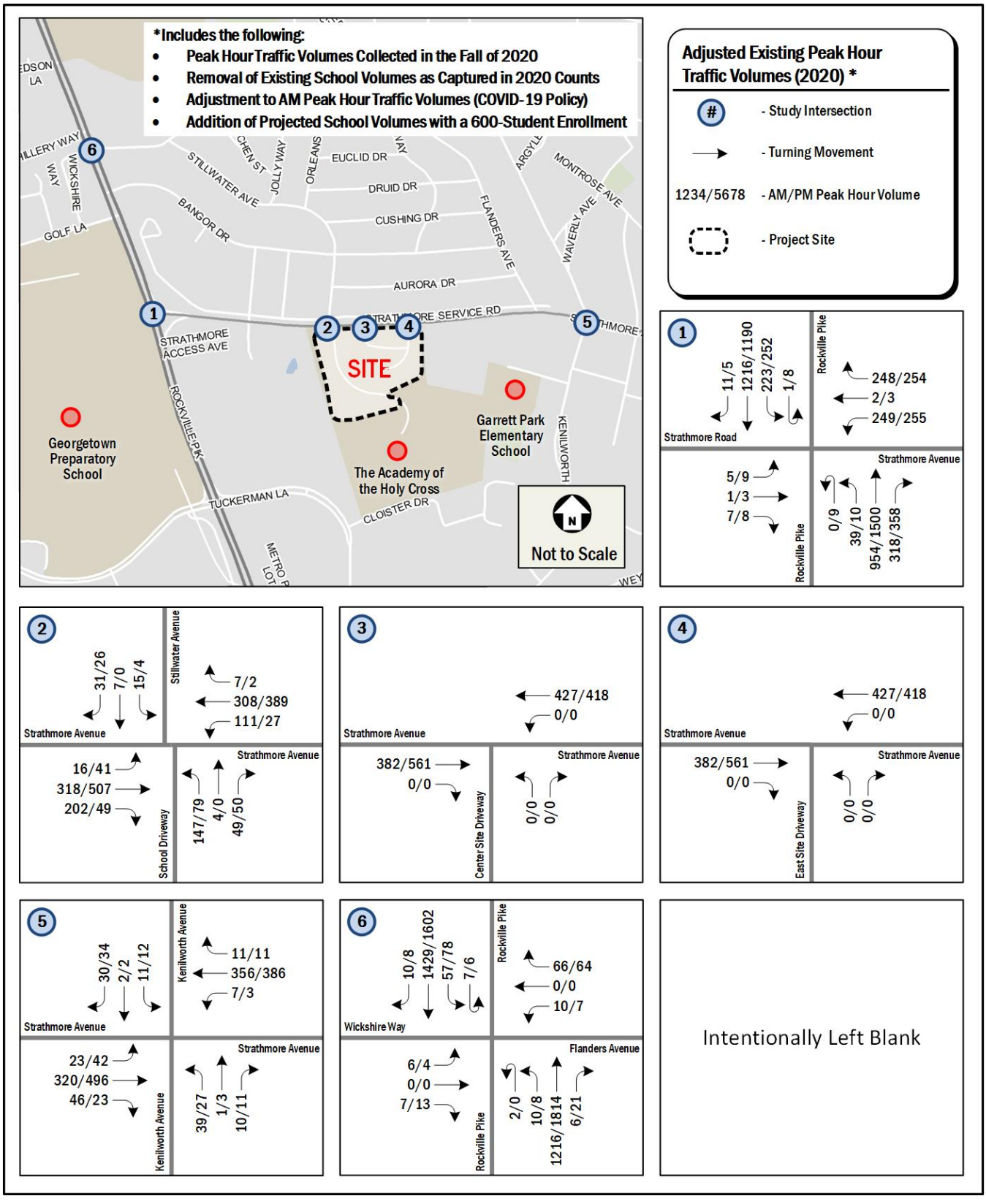


Figure 6: Adjusted Existing Peak Hour Traffic Volumes (2020)

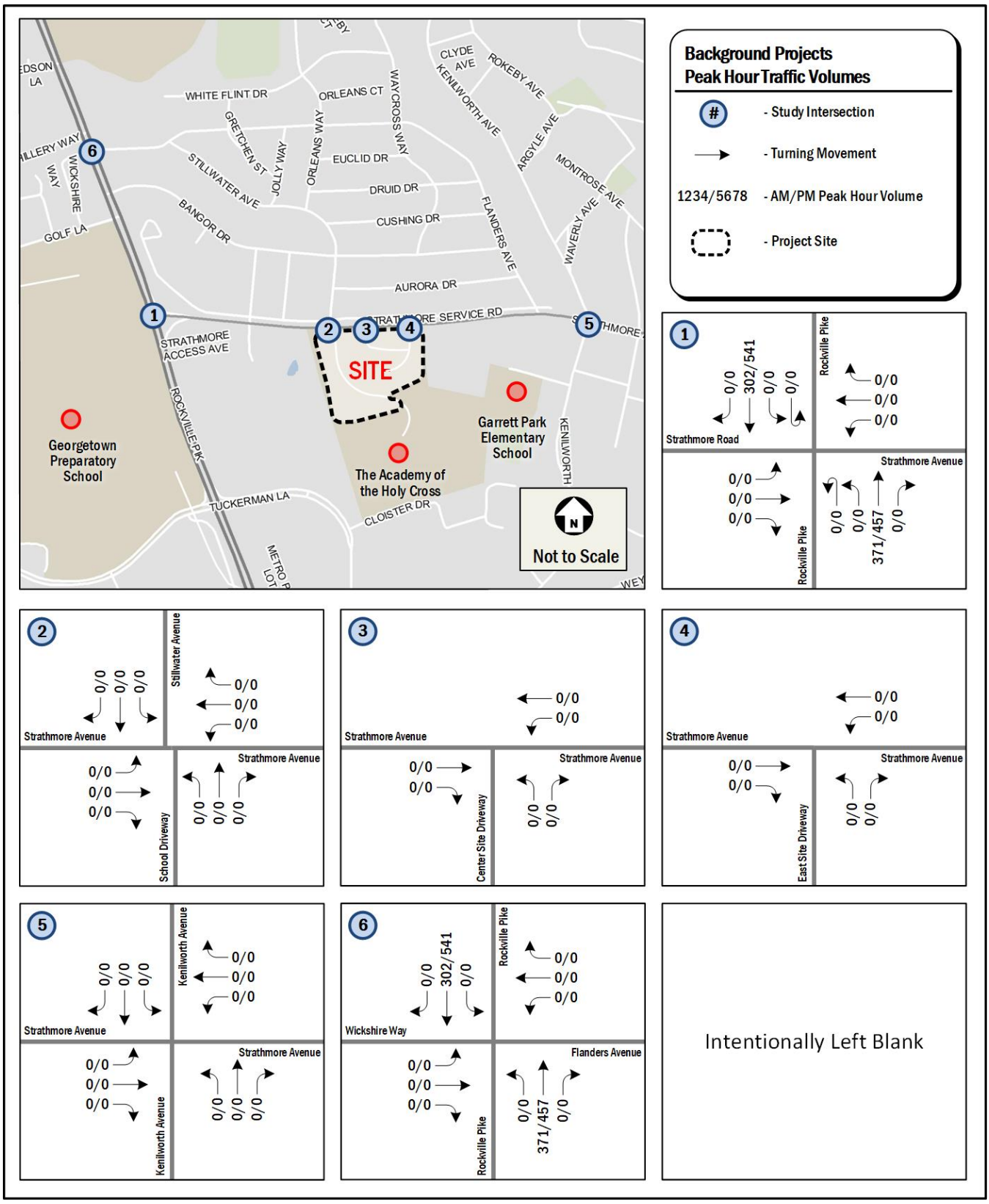


Figure 7: Background Projects Peak Hour Traffic Volumes

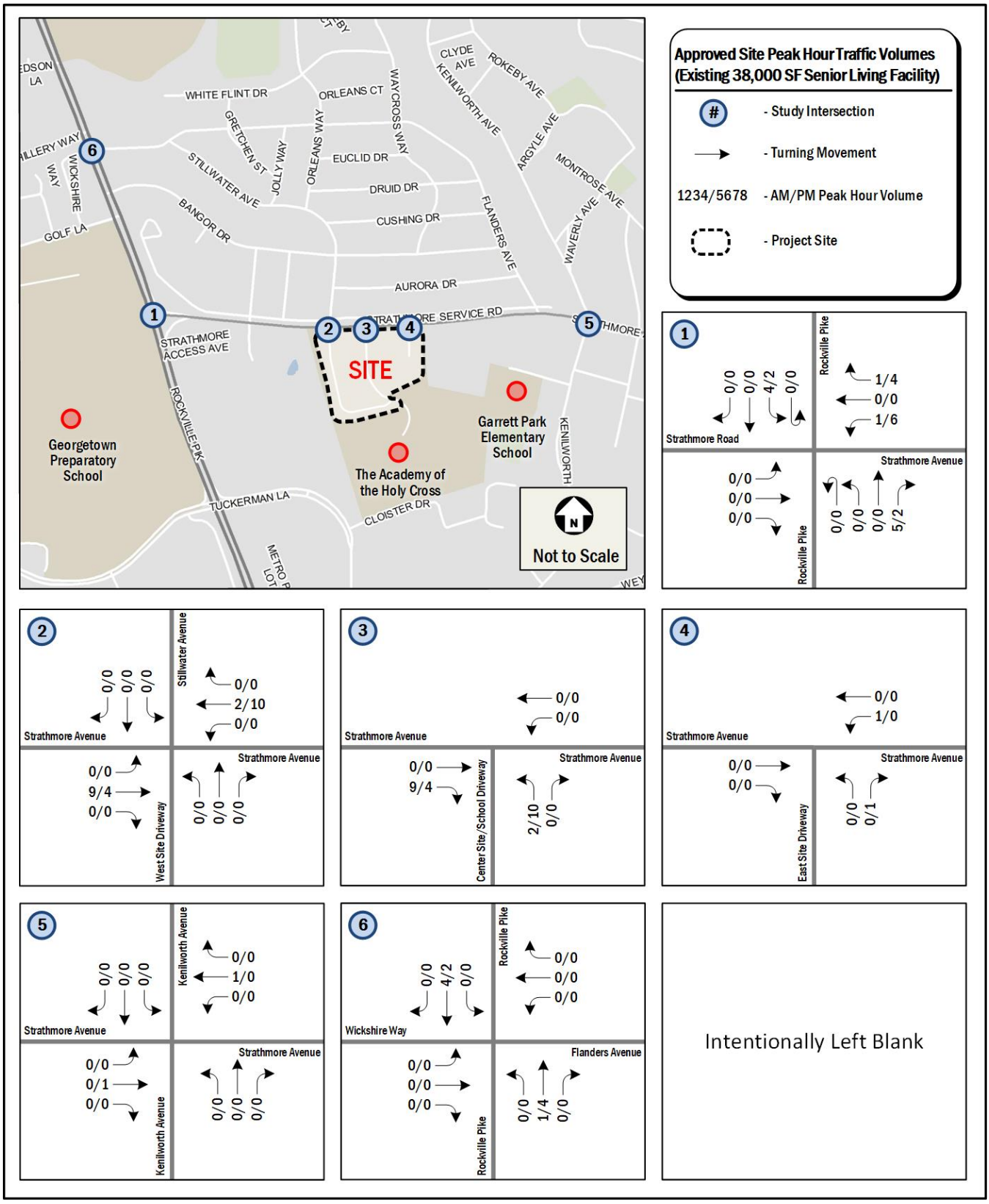


Figure 8: Approved Site Peak Hour Traffic Volumes (Existing 38,000 SF Senior Living Facility)

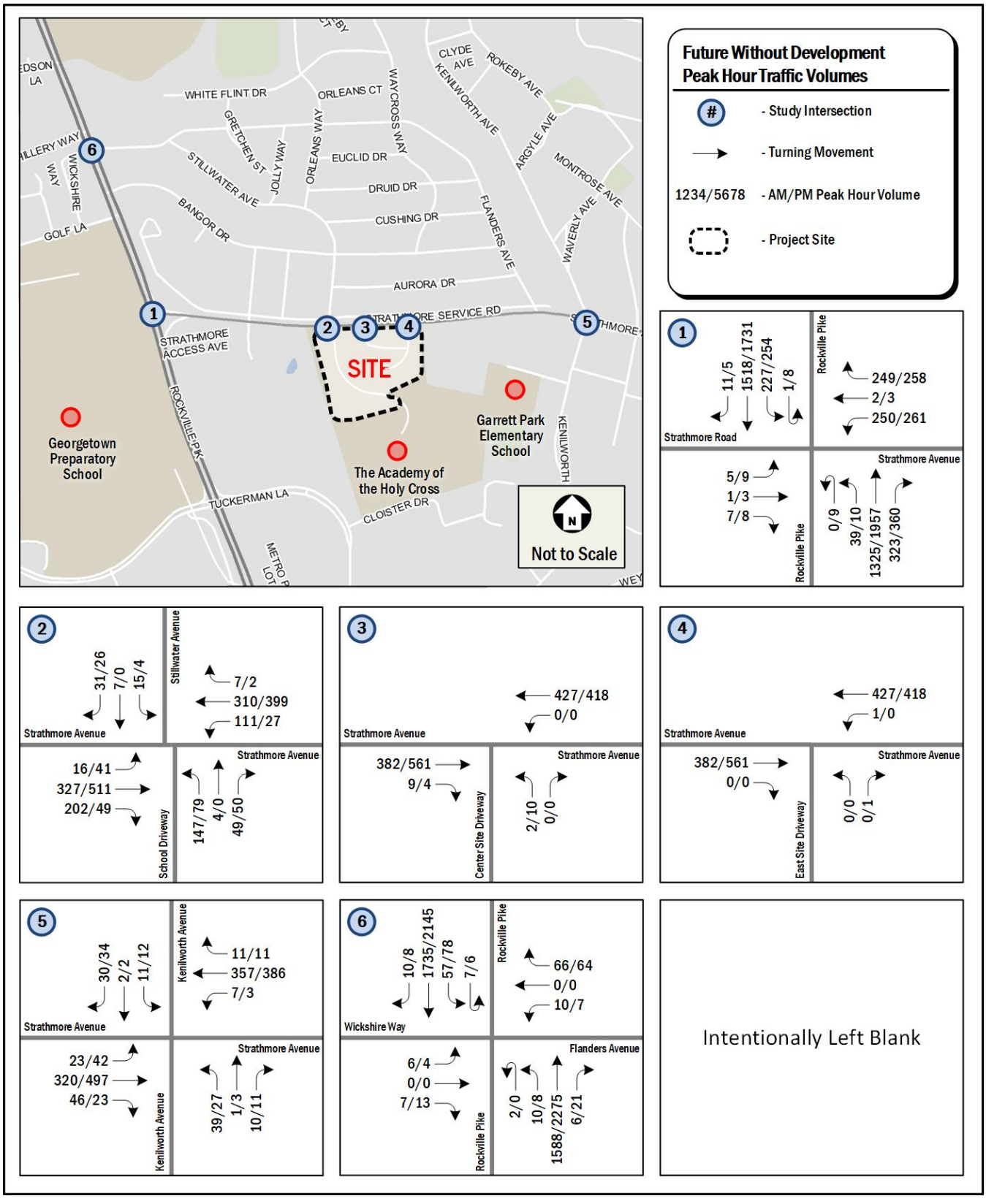


Figure 9: Future without Development Peak Hour Traffic Volumes

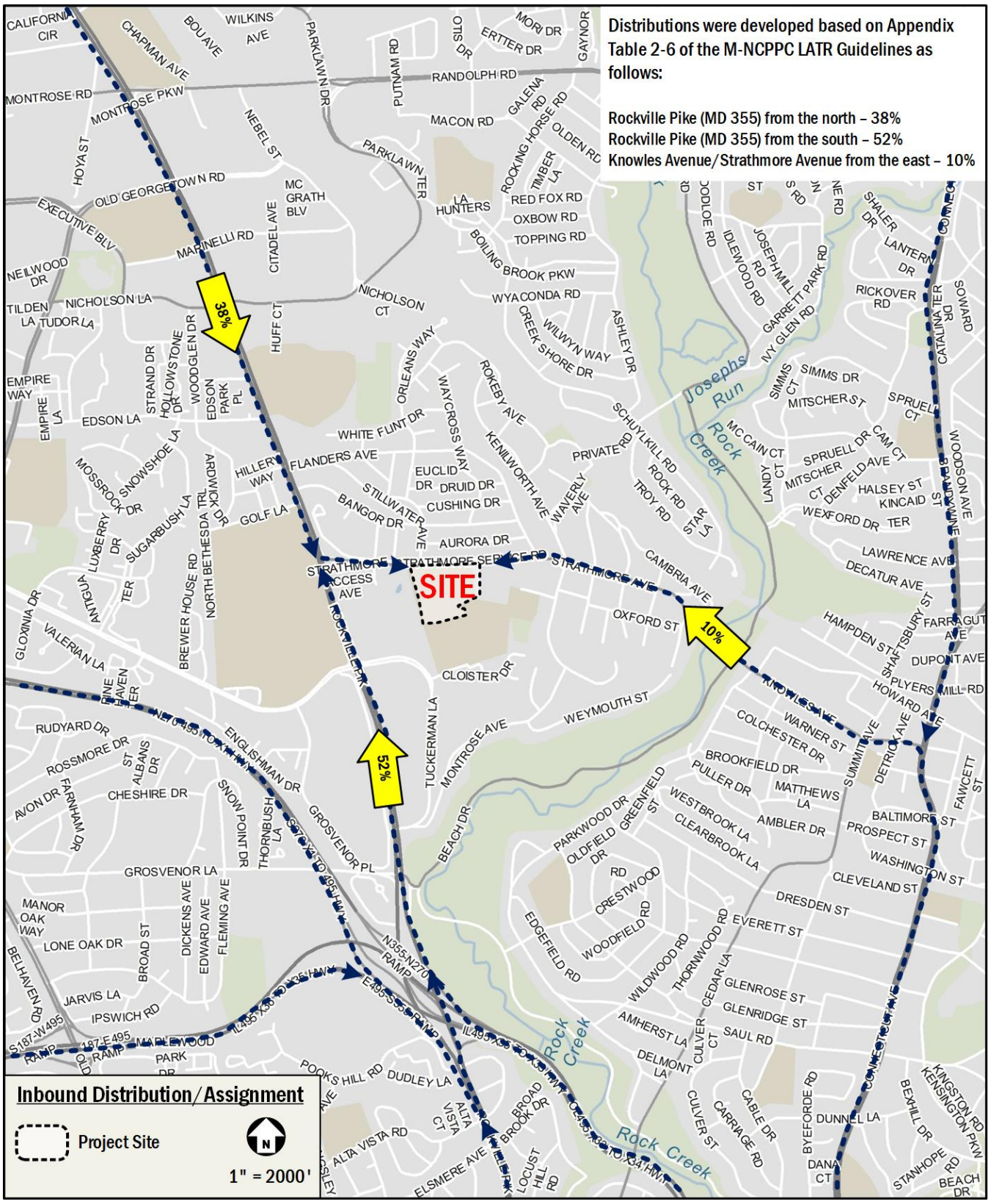


Figure 10: Inbound Trip Distribution and Assignment

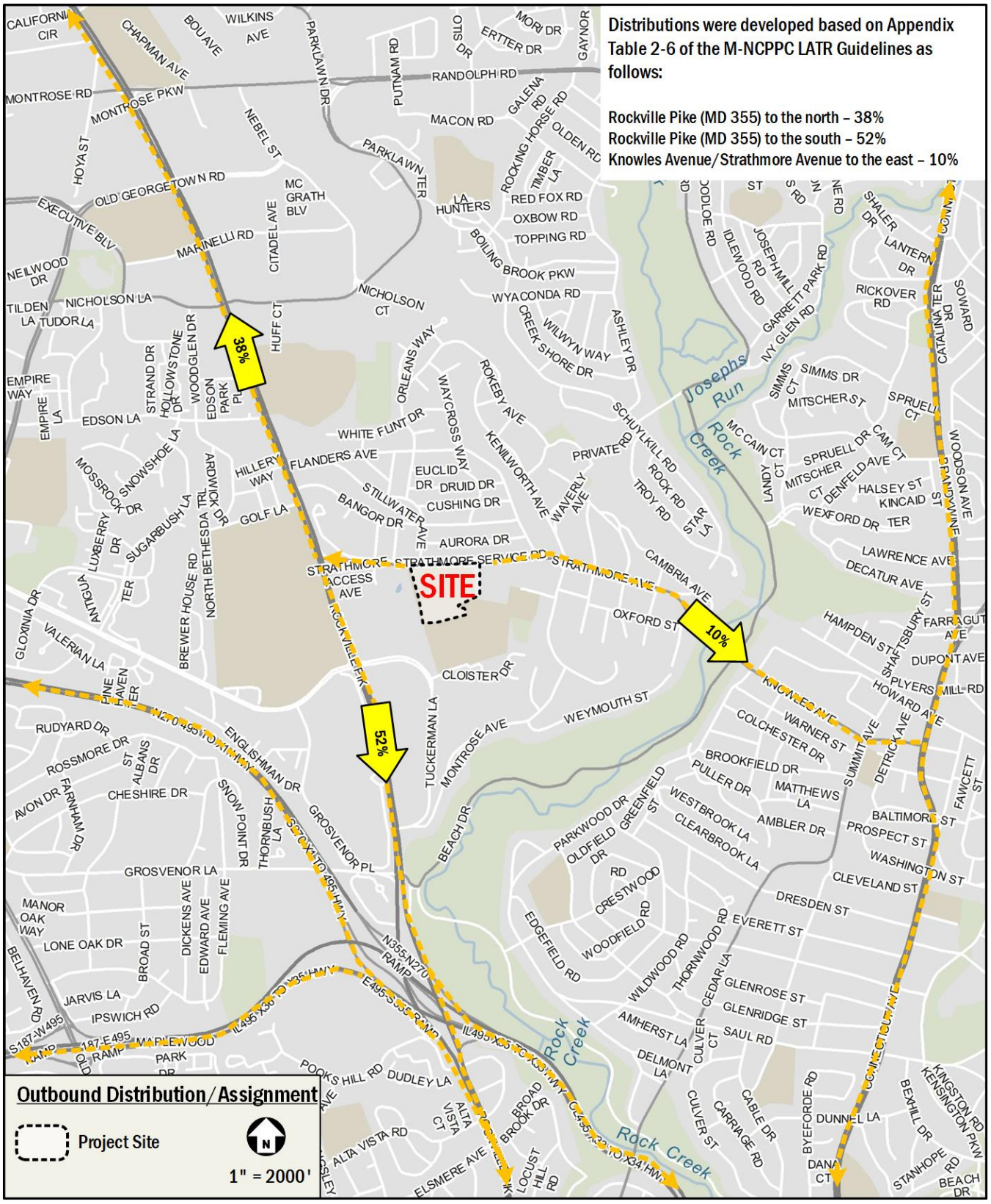


Figure 11: Outbound Trip Distribution and Assignment

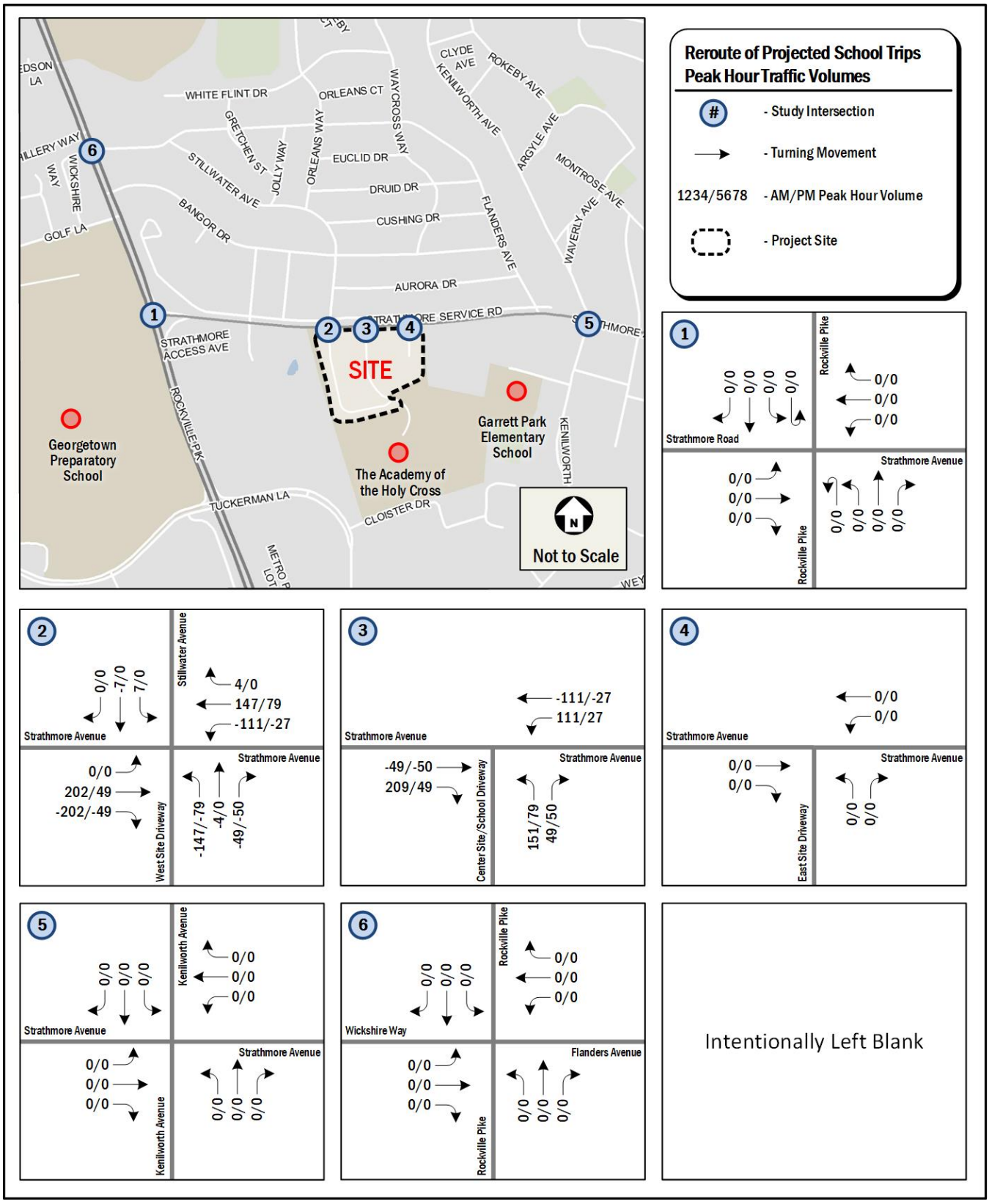


Figure 12: Reroute of Projected School Trips Peak Hour Traffic Volumes

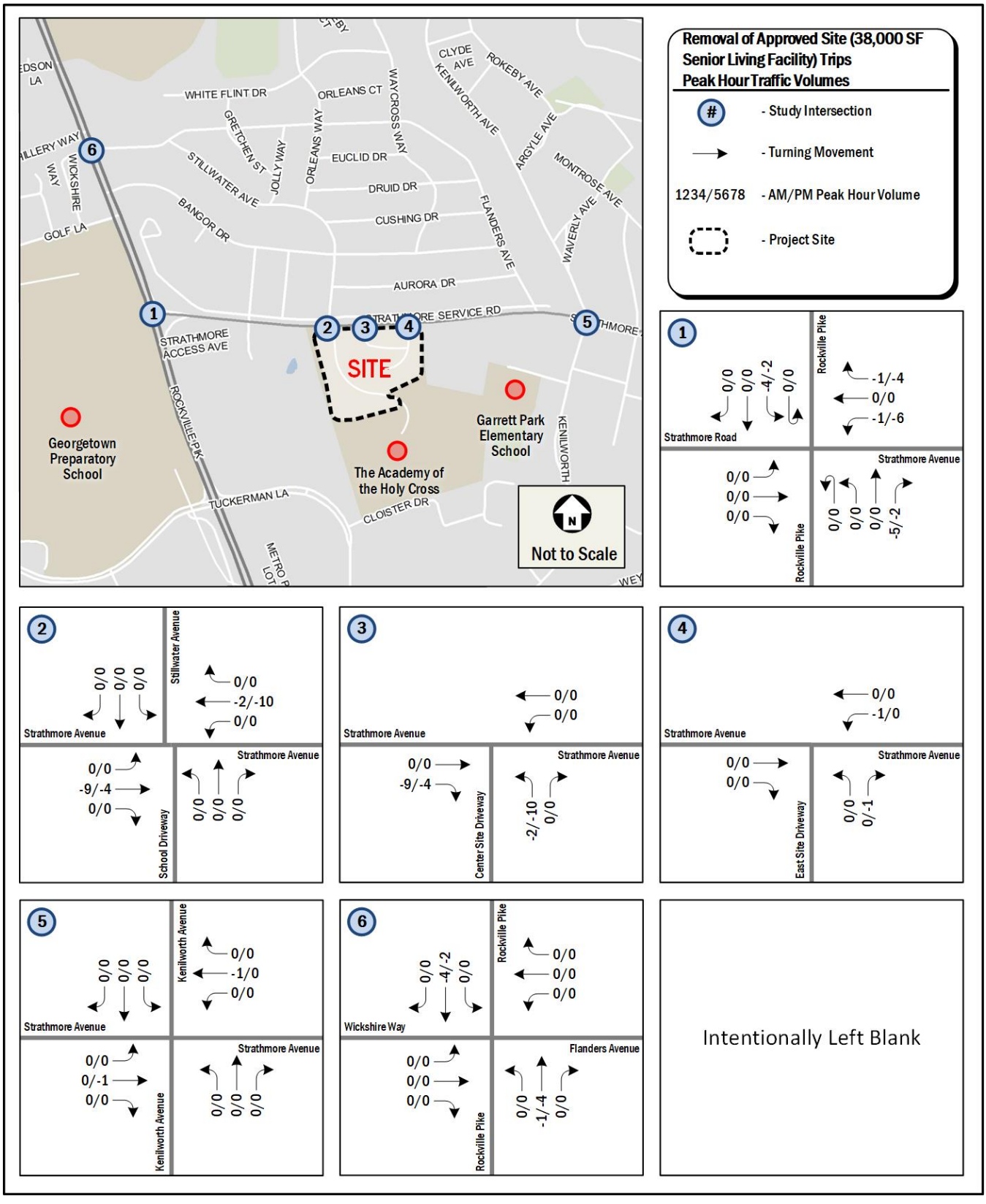


Figure 13: Removal of Approved Site (38,000 SF Senior Living Facility) Trips Peak Hour Traffic Volumes

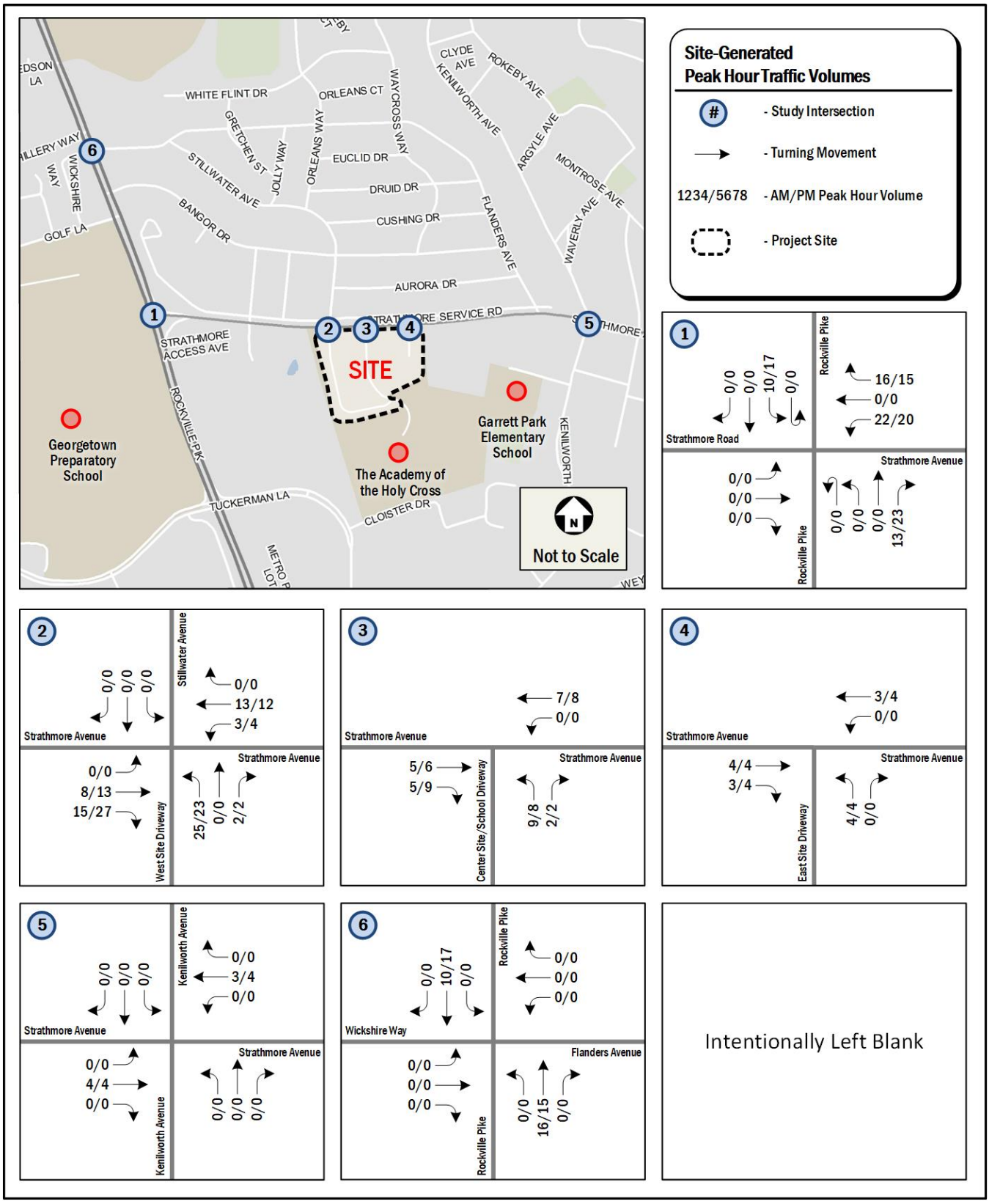


Figure 14: Site-Generated Peak Hour Traffic Volumes

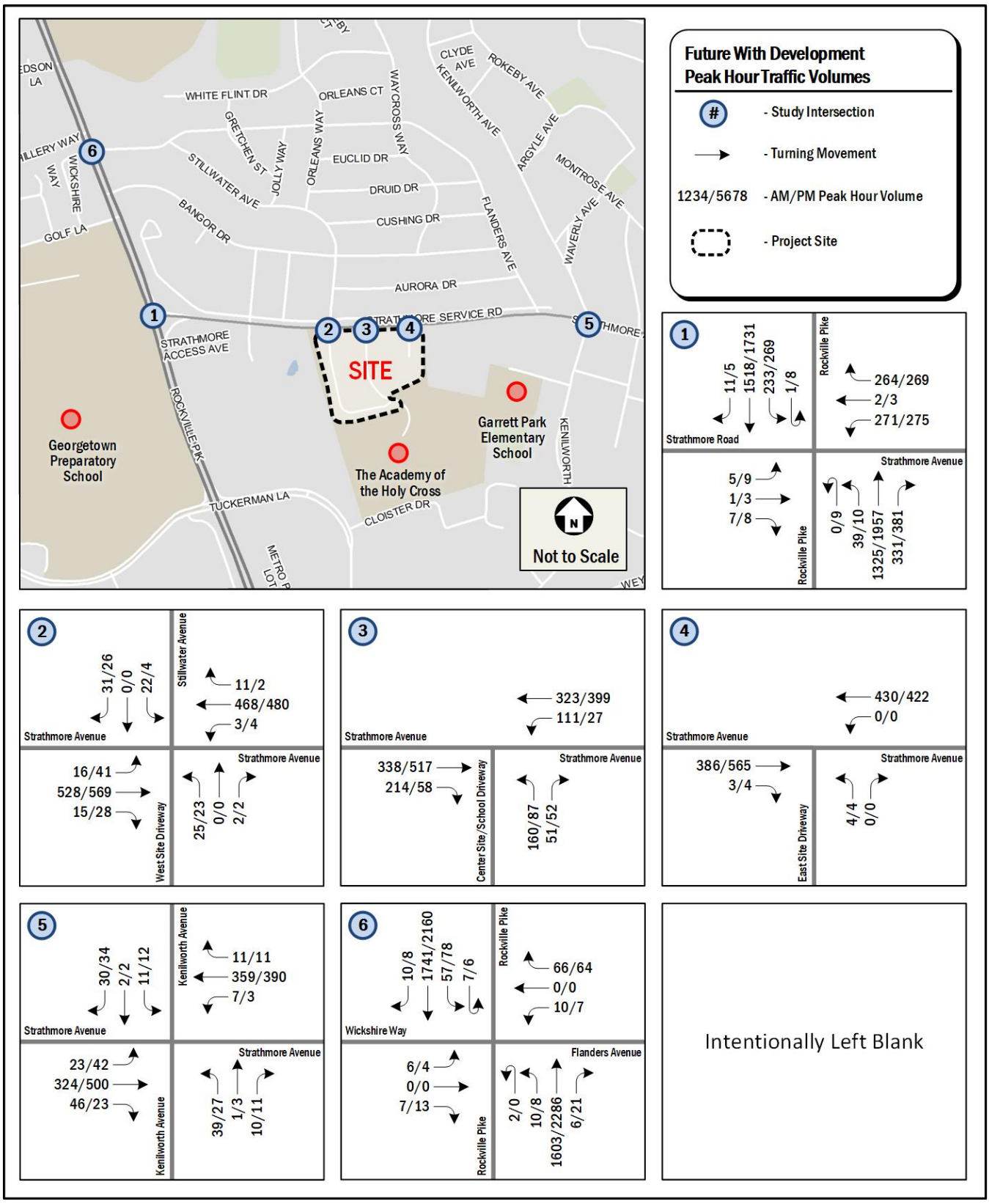


Figure 15: Future with Development Peak Hour Traffic Volumes

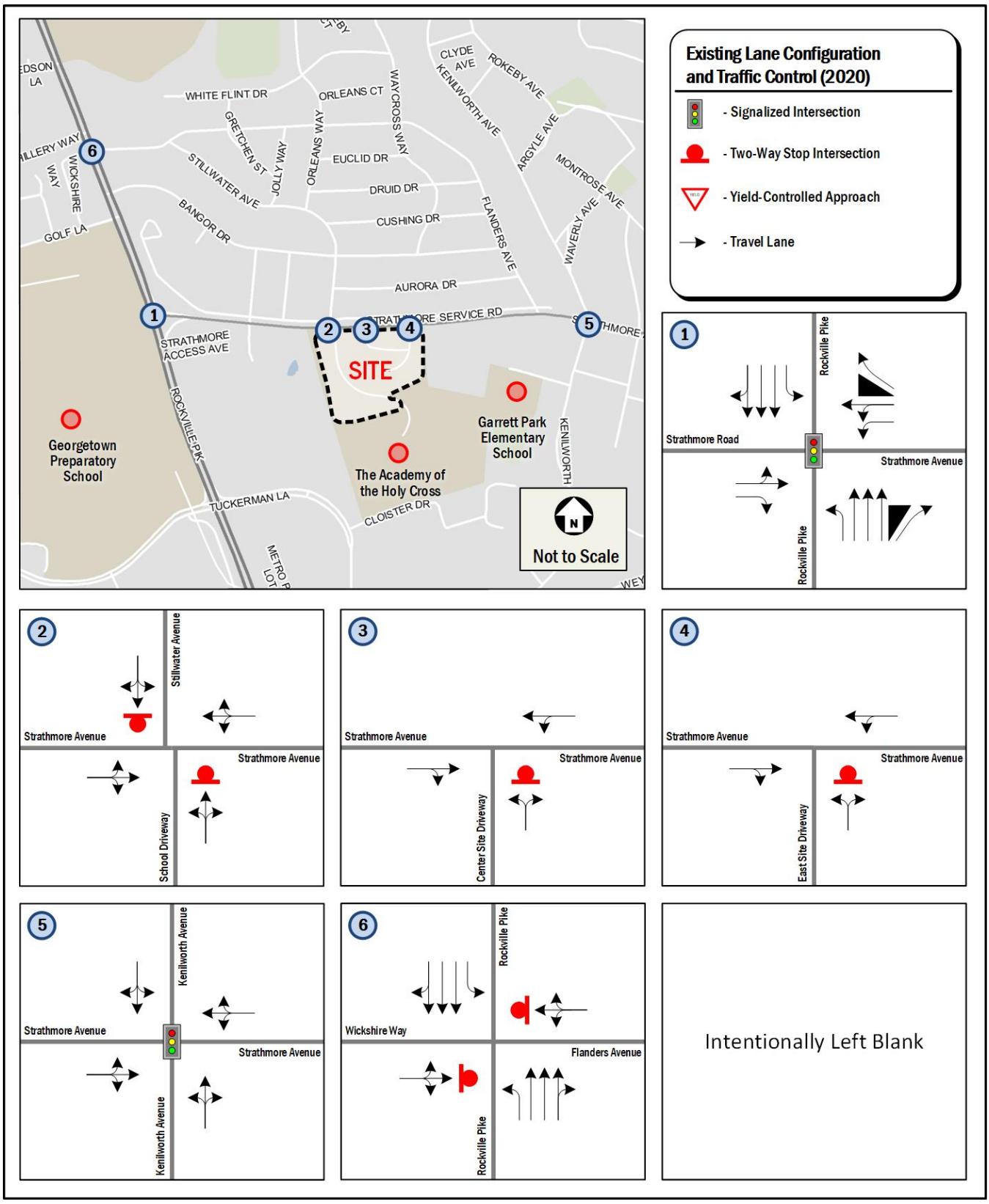


Figure 16: Existing Lane Configuration and Traffic Control

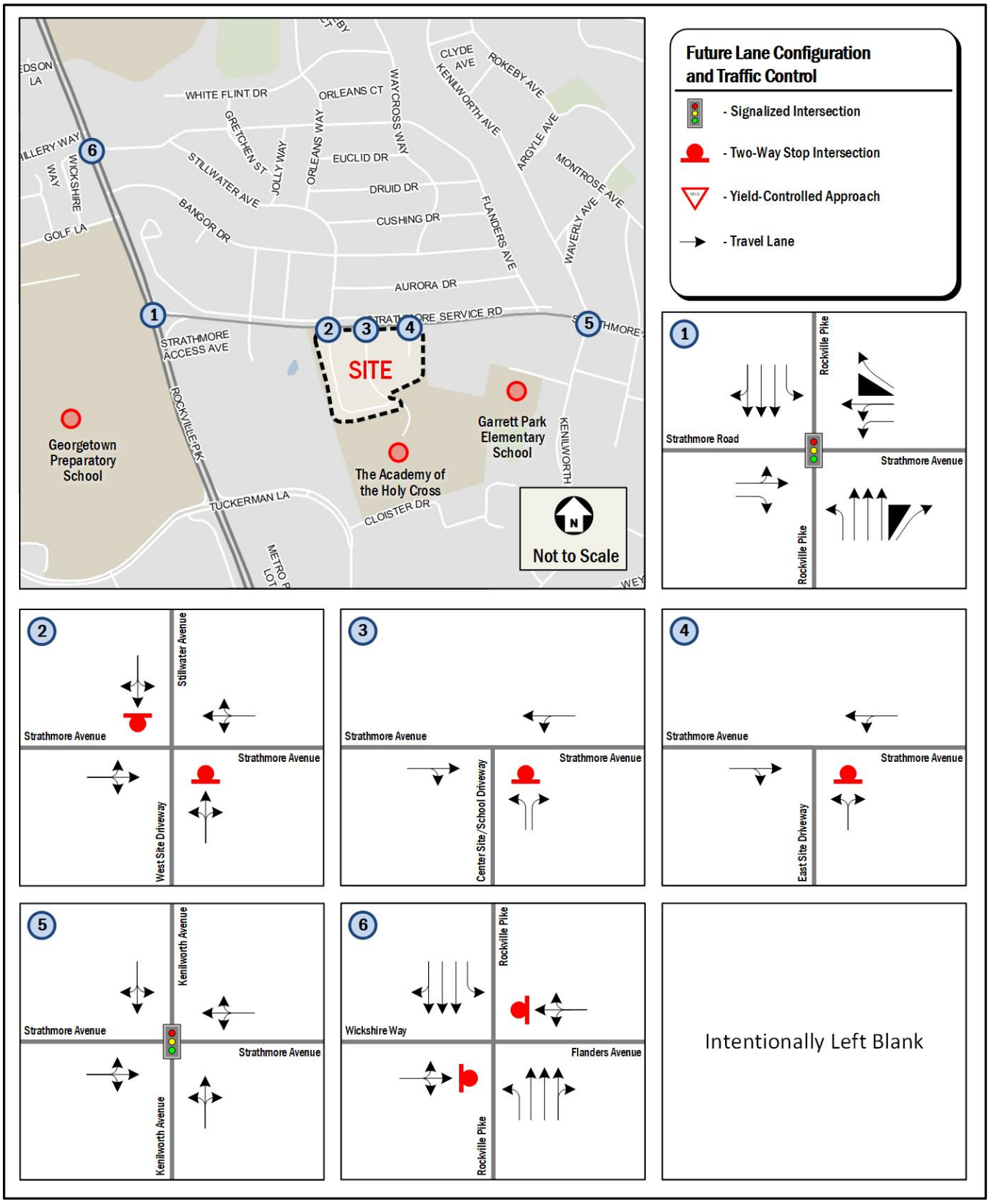


Figure 17: Future Lane Configuration and Traffic Control

Table 7: Intersection HCM Delay Results

Intersection	Congestion Standard (s)	Existing Conditions (2020)				Background Conditions				Total Future Conditions			
		AM Peak Hour		*PM Peak Hour*		*AM Peak Hour*		*PM Peak Hour*		*AM Peak Hour*		*PM Peak Hour*	
		Delay (s)	*LOS*	*Delay (s)*	*LOS*	*Delay (s)*	*LOS*	*Delay (s)*	*LOS*	*Delay (s)*	*LOS*	*Delay (s)*	*LOS*
Rockville Pike & Strathmore Avenue / Strathmore Road	71.0	16.8	B	23.3	C	20.4	C	27.9	C	21.4	C	29.1	C
Strathmore Avenue & Stillwater Avenue / Western Site Driveway (Unsignalized)	71.0	445.2	--	5.3	--	449.9	--	5.4	--	2.0	--	1.7	--
Strathmore Avenue & Center Site Driveway (Unsignalized)	71.0	0.0	--	0.0	--	0.1	--	0.2	--	10.7	--	3.4	--
Strathmore Avenue & Eastern Site Driveway (Unsignalized)	71.0	0.0	--	0.0	--	0.0	--	0.0	--	0.1	--	0.1	--
Strathmore Avenue & Kenilworth Avenue	71.0	11.7	B	10.8	B	11.7	B	10.8	B	11.6	B	10.8	B
Rockville Pike & Flanders Avenue / Wickshire Way (Unsignalized)	71.0	2.8	--	19.7	--	7.6	--	6.3	--	7.9	--	6.5	--

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 4910 and 4920 Strathmore Avenue project.

The following conclusions are reached within this chapter:

- The development site is located adjacent to Ride On bus stops, approximately 0.7 miles from the Grosvenor-Strathmore Metrorail station, and approximately 0.6 miles from the Garrett Park MARC train station, and is surrounded by several Ride On routes that travel along multiple primary corridors
- The site is expected to generate a minimal amount of transit trips, which will not have detrimental impacts to the surrounding transportation network

EXISTING TRANSIT SERVICE

The site is adequately served by regional and local transit services such as Metrorail, MARC, and Ride On-Montgomery County. The site is located adjacent to a Ride On bus stop on Strathmore Avenue, approximately 0.7 miles from the Grosvenor-Strathmore Metrorail station located to the south, and approximately 0.6 miles from the Garrett Park MARC train station located to the northeast. 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 18 identifies the major transit routes, stations, and stops in the study area.

The Grosvenor-Strathmore Metrorail station serves the Red Line which connects Rockville, MD with Glenmont, MD while providing access to the District core. Connections can be made at the Metro Center and Gallery Place-Chinatown stations to access the five other Metrorail lines, allowing access to destinations in Virginia and Prince George's County, Maryland. Under current operations, the Red line runs every five (5) minutes during the morning and afternoon peak periods and every 12 to 15 minutes during non-peak periods.

The Garrett Park MARC station is served by the Brunswick Line, which travels south from Martinsburg, West Virginia, through Washington County, Fredrick County, and Montgomery County and terminates at Union Station near the District core. Under current operations, Brunswick Line trains are running on a Limited-Service schedule servicing the Garrett Park MARC train station with four (4) trains in the morning and five (5) trains in the afternoon.

The site is also serviced by Ride On Montgomery County routes along multiple primary corridors. Two (2) Ride On-Montgomery County routes directly service the site, with five (5) buses scheduled during both the peak morning commute time and the peak afternoon commute time, providing a good connection to Metrorail and other destinations. Ride On stops are located adjacent to the site along Strathmore Avenue and additional routes can be accessed close to the site along Rockville Pike to the west and Tuckerman Lane to the south.

An inventory of the bus stop amenities is provided in Table 8.

FUTURE TRANSIT SERVICE

Bus Rapid Transit

As part of an initiative to bring Bus Rapid Transit (BRT) service to Montgomery County, the approved *Countywide Transit Corridors Functional Master Plan* prepared by M-NCPPC recommends implementing a 102-mile BRT system. One of the corridors selected is the MD 355 North (Rockville Pike) corridor, which will start from the Rockville Metrorail Station and continue north to Redgrave Place in Clarksburg. The BRT route will travel along dedicated lanes on Rockville Pike to the west of the project site. Potential BRT stations include Grosvenor-Strathmore Metrorail Station and Security Lane.

From 2015 to 2017, MCDOT conducted a first phase study to select options for the MD 355 North BRT, identifying alternatives based on the placement of the BRT lanes. The second phase of the study is currently underway to select a preferred alternative. As the BRT corridor is not expected to open by 2022, it was not included in the analysis.

SITE-GENERATED TRANSIT IMPACTS

Using LATR guidelines for transit trip adjustments, the development program associated with the project will generate approximately nine (9) transit trips in the morning peak hour and approximately 10 transit trips in the afternoon peak hour. As this is below the threshold of 50 transit peak hour trips, transit adequacy is not necessary.

Based on this information and the adequate Ride On service surrounding the site, it is not expected that site-generated transit trips will cause detrimental impacts to Ride On service. Although the development will be generating new transit trips on the network, the existing facilities have enough capacity to handle the new trips.

Additionally, the additional transit users generated by the proposed development will have ample options due to the project's proximity to Ride On stops adjacent to the site, and proximity to the Grosvenor-Strathmore Metrorail station and Garrett Park MARC train station, both less than a mile away from the project. Pedestrian facilities to and from the Ride On stops adjacent to the project site will be improved as part of the project's sidewalk improvement along the site frontage, thereby creating a more comfortable environment for pedestrians and transit-users alike in the area.

Table 8: Bus Stop Amenities Inventory

Location	Stop ID	Routes Served	Amenities								
			Bus stop flag	Route map & schedule	Landing pad	Sidewalk	Bench	Shelter	Dynamic info sign	Lighting	Trash Recp.
Strathmore Ave + Symphony Park Dr (EB)	26222	5,37	●	●	●	●	●	●			●
Strathmore Ave + Jolly Way (WB)	26256	5,37	●	●	●	●	●	●			●
Strathmore Ave + Stillwater Ave (EB)	26224	5,37	●		●	●					
Strathmore Ave + Stillwater Ave (WB)	26254	5,37	●		●	●					
Strathmore Ave + Center Site Driveway (EB)	26226	5,37	●		●	●					
Strathmore Ave + Center Site Driveway (WB)	26252	5,37	●		●	●				●	
Strathmore Ave + Eastern Site Driveway (EB)	26228	5,37	●		●	●					
Strathmore Ave + Eastern Site Driveway (WB)	26250	5,37	●		●	●				●	
Strathmore Ave + Flanders Ave (EB)	26230	5,37	●		●	●					
Strathmore Ave + Flanders Ave (WB)	26248	5,37	●		●	●					
Strathmore Ave + Kenilworth Ave (EB)	26232	5,37	●		●	●	●			●	●
Strathmore Ave + Kenilworth Ave (WB)	26246	5,37	●		●	●	●			●	●
Rockville Pike + Strathmore Ave North (NB)	25530	5,46	●		●	●				●	
Rockville Pike + Strathmore Ave (SB)	25624	37,46	●		●	●				●	
Rockville Pike + Flanders Ave (NB)	25532	5,46	●		●	●					
Rockville Pike + Flanders Ave (SB)	25622	5,46	●		●	●				●	
Rockville Pike + Strathmore Ave South (NB)	22528	37,46	●	●	●	●	●	●			●

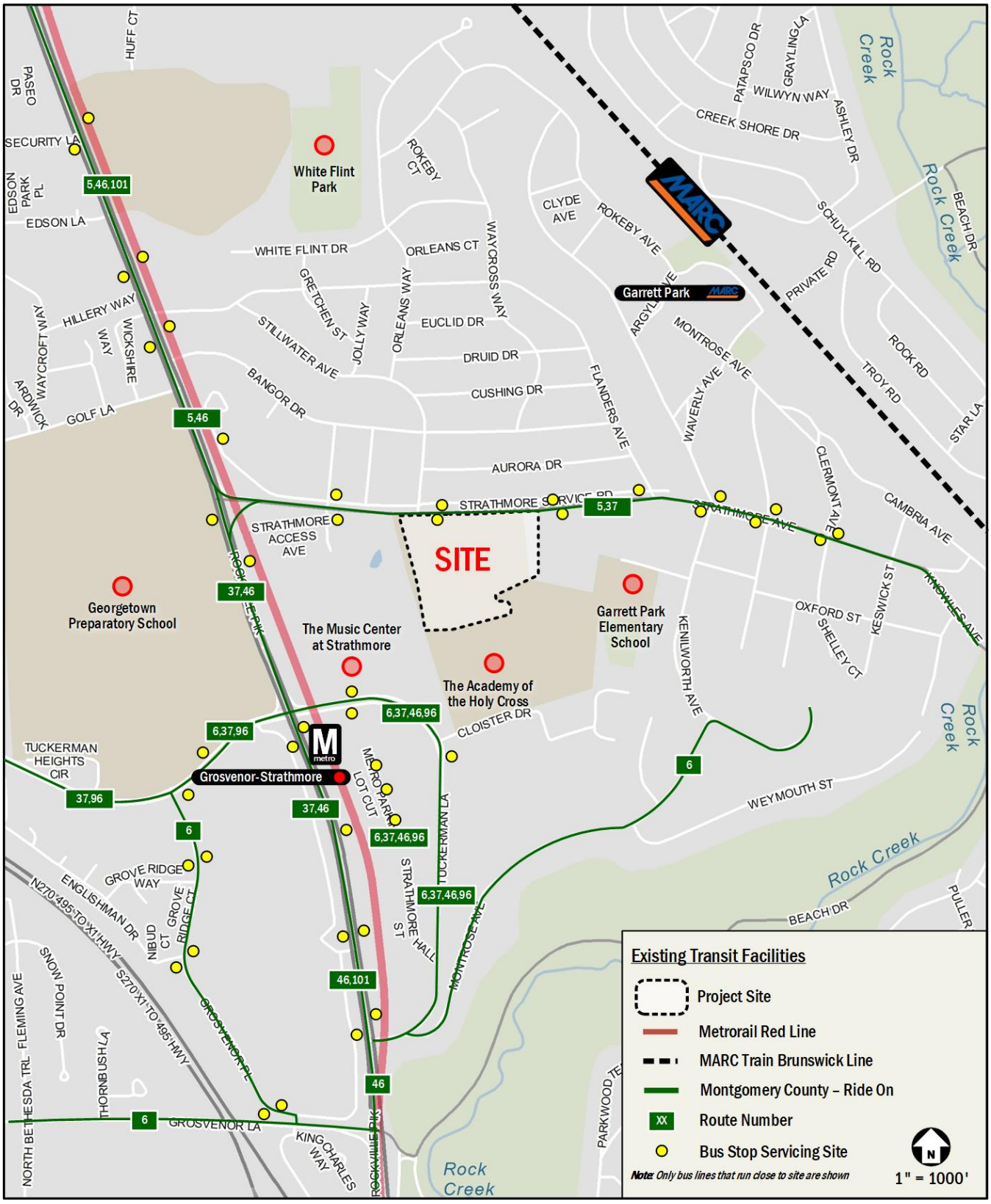


Figure 18: Existing Transit Facilities

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.
- The project includes improvements to pedestrian infrastructure surrounding the site and will enhance pedestrian comfort and connectivity.
- The Applicant will improve sidewalk conditions along the south side of Strathmore Avenue to meet Montgomery County and SHA standards.

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 Strathmore Avenue and Rockville Pike. 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, and incomplete or insufficient crossings at busy intersections.

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 meet County and SHA standards and provide an acceptable walking environment. Figure 19 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 SHA's *Bicycle and Pedestrian Design Guidelines* in addition to ADA standards. Sidewalk widths and requirements for Montgomery County are shown below in Table 9. Figure 21 shows the existing conditions at each study intersection with respect to crosswalks, including the presence of pedestrian automated push buttons. A streetlight inventory around the site between study intersections is presented on Figure 22.

Within the area shown, most roadways outside of Rockville Pike and Strathmore Avenue are low volume residential streets. Some of the sidewalks surrounding the site do not comply with SHA standards, particularly due to the lack of sidewalk and buffer space. Missing sidewalks are found along the site frontage on the south side of Strathmore Avenue. The paved off-road trail to the west of the site provides a quality walking environment that will link the site to Rockville Pike.

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 Figure 19, under existing conditions there are some issues with crosswalks and curb ramps near the site, with most of these occurring on the low-volume residential streets to the north of the site.

Pedestrian Crossing Distance Analysis

A pedestrian crossing distance analysis was conducted at study intersections to determine the existing crossing conditions and signal timing necessary to meet the required pedestrian crossing needs. Crosswalk measurements were taken using Montgomery County GIS (MCATLAS) to determine the pedestrian crossing distances, measured curb to curb at each intersection. Using these measurements, the required pedestrian crossing time was calculated by dividing the distance by an average walking speed of 3.5 feet per seconds. Pedestrian crossing times were provided by Montgomery County via signal timing sheets. Table 10 shows the results of

Table 9: Sidewalk Requirements

Street Type	Minimum Sidewalk Width	Minimum Buffer Width
Residential	5 ft - 6 ft	5 ft
Local/Collector	5 ft - 7 ft	5 ft
Arterial	6 ft - 8 ft	5 ft - 6 ft
Central Business District	10 ft	Correspond to Type of Street

the pedestrian crossing distance analysis. Based on the results of the analysis, there are no intersections where pedestrians are not provided sufficient time to cross.

Pedestrian Infrastructure Improvements

As a result of the development pedestrian facilities along the perimeter of the site will be improved. The development will improve sidewalks adjacent to the site such that they meet or exceed SHA and ADA requirements and provide an improved pedestrian environment. The installation of a shared use path along the site frontage on the south side of Strathmore Avenue will greatly improve the connectivity of the sidewalk network.

The site will be served by a new internal sidewalk network. These sidewalks will provide extensive pedestrian connections throughout the various uses within the development. A detailed inventory of the future pedestrian infrastructure is presented in Figure 20.

SITE IMPACTS

Using LATR guidelines for pedestrian trip adjustments, the development program associated with the project will generate approximately 22 and 26 peak hour pedestrian trips in the morning and afternoon, respectively. As this is below the threshold of 50 pedestrian peak hour trips, pedestrian adequacy is not necessary.

Table 10: Pedestrian Crossing Distance Analysis Results

Pedestrian Crossing	Leg	Crossing Distance (ft)	Required Crossing Time (sec)	Maximum Provided Crossing Time	
				AM (sec)	PM (sec)
Rockville Pike & Strathmore Avenue	North Leg	101	29	32	32
	East Leg	40	12	18	18
	West Leg	49	14	--	--
Strathmore Avenue & Kenilworth Avenue	North Leg	34	10	17	17
	South Leg	34	10	17	17
	West Leg	25	8	19	19

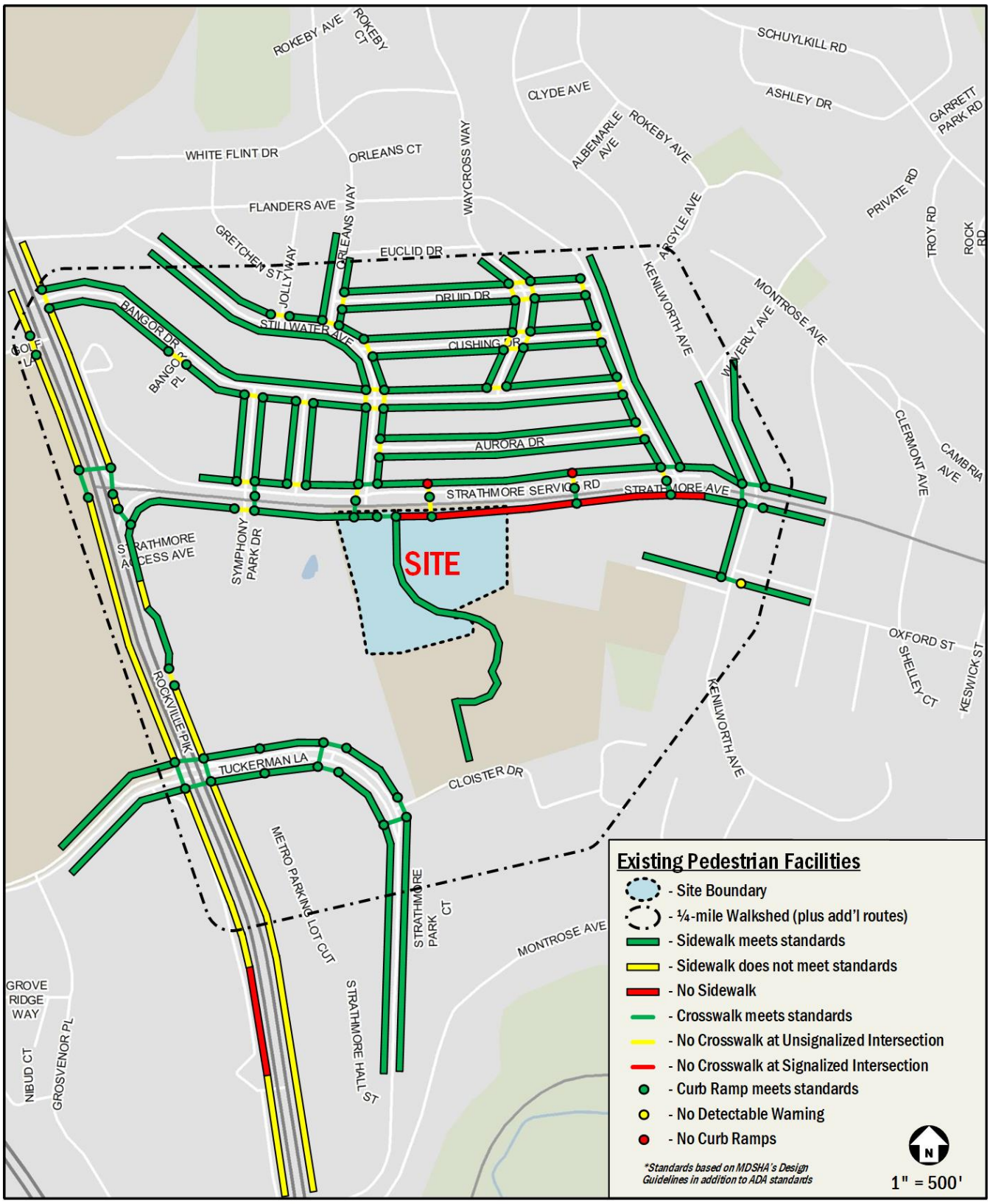


Figure 19: Existing Pedestrian Facilities

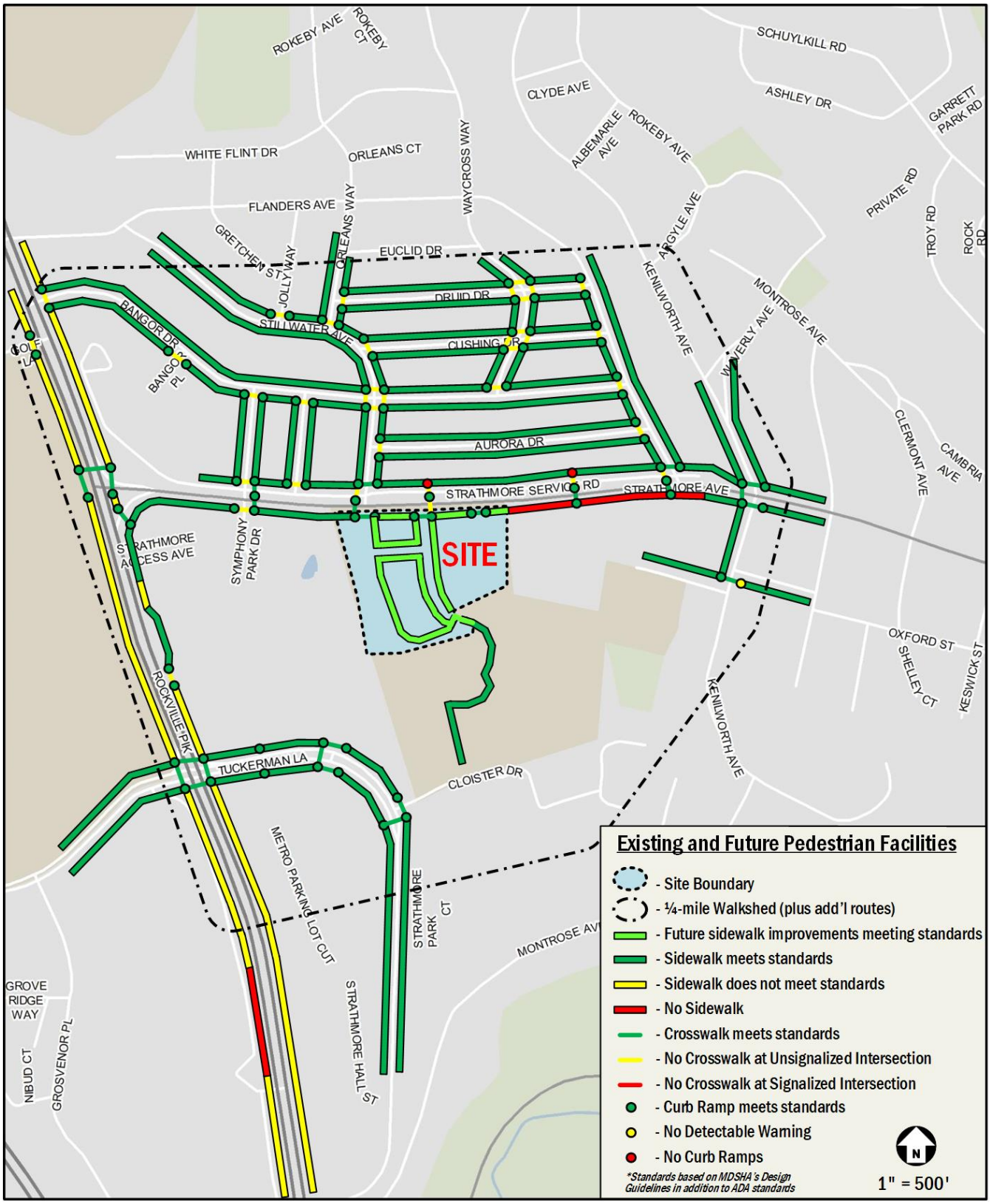


Figure 20: Future Pedestrian Facilities

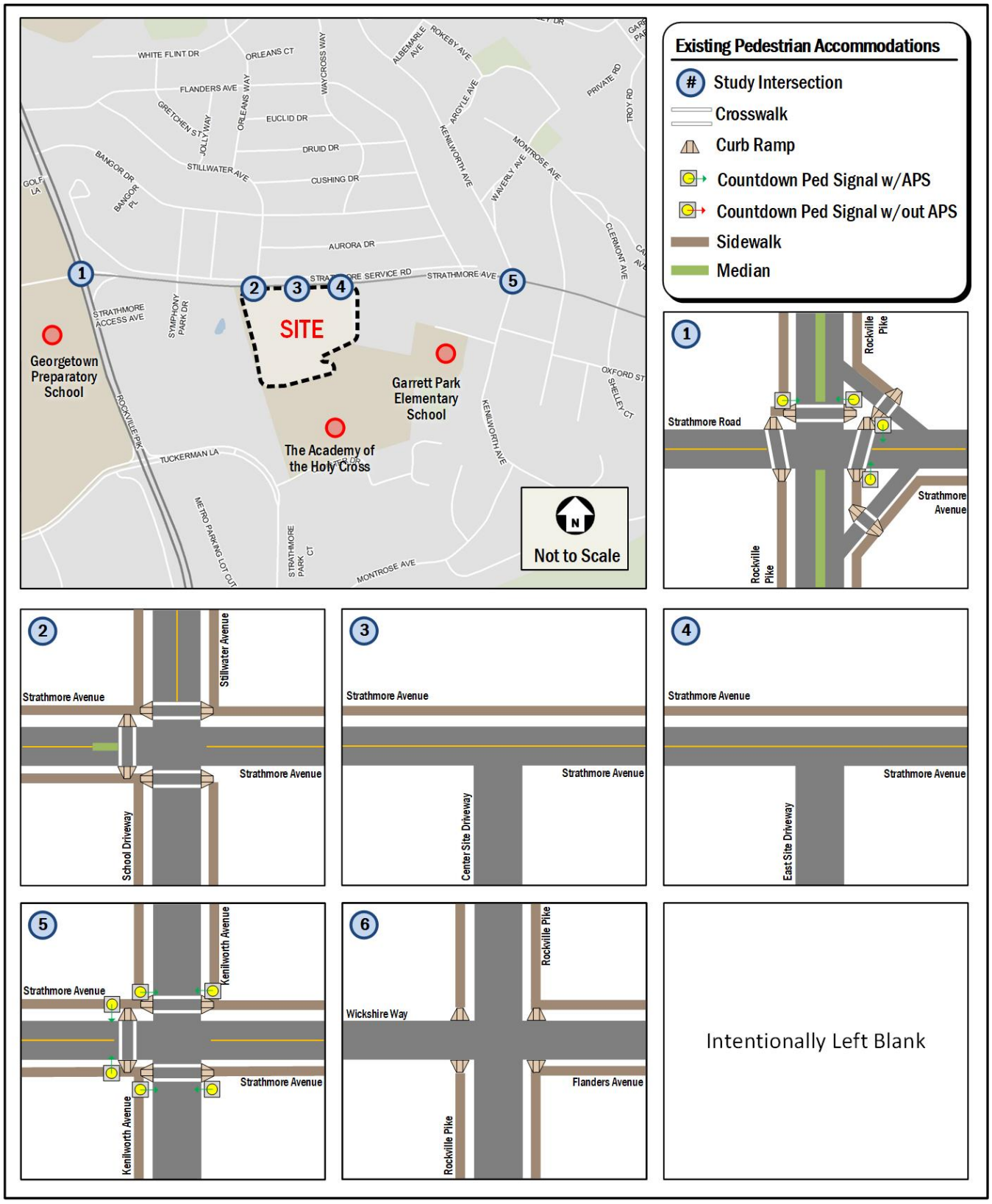


Figure 21: Existing Pedestrian Accommodations at Study Intersections

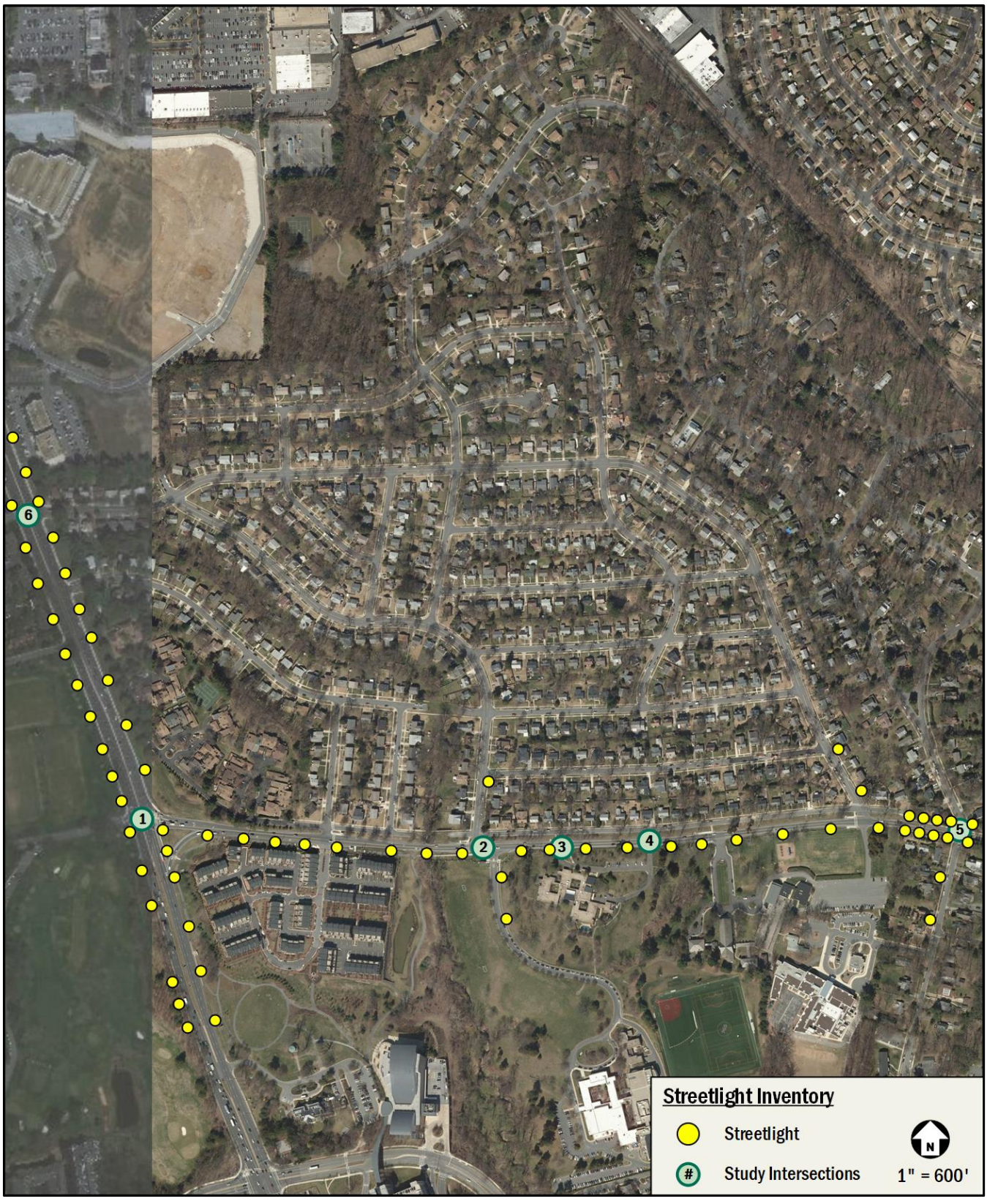


Figure 22: Streetlight Inventory

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 is adjacent to existing paved off-road trails that provide connectivity to Rockville Pike and Tuckerman Lane.
- The development will meet the zoning requirements for bicycle parking.
- Planned facilities along Rockville Pike, Strathmore Avenue, and Flanders Avenue will provide additional connectivity for bicyclists to and from the site.

EXISTING BICYCLE FACILITIES

The site does not fall within a Bicycle Pedestrian Priority Area. The site has access to existing on-street bicycle facilities. The site is adjacent to the Strathmore Path, a paved off-road trail connecting with Rockville Pike to the west and Tuckerman Lane to the south. North-south connectivity can also be made at Rockville Pike. These paths serve as bicycle connections to the Grosvenor-Strathmore Metrorail station. Figure 23 illustrates the existing bicycle facilities in the area.

PROPOSED BICYCLE FACILITIES

Proposed Bikeways

According to the proposed bicycle network from the 2017 Montgomery County Bicycle Master Plan, there are planned bikeways that will fill in connectivity gaps along Strathmore Avenue and Rockville Pike.

Consistent with the Master Plan, the project proposes a 10-foot sidepath along the site frontage. The path will facilitate bicycle circulation adjacent to the site and tie other the future facilities identified in the Master Plan.

Additional bikeways are planned along Strathmore Avenue and Rockville Pike to provide east-west and north-south connectivity and to provide a direct link to the Rock Creek Trail to the east. The planned facilities are presented in Figure 23. The additional bicycle facilities leading to and from the site will make using a bicycle a convenient and comfortable option for residents of the development.

On-Site Bicycle Elements

The project will provide amenities that cater to cyclists including long-term bicycle spaces and short-term bicycle racks.

According to the Zoning Text Amendment No. 19-08 for Montgomery County Zoning Code 59-6.2.4, for assisted living facility, a minimum of 0.1 bicycle spaces are required for each employee, up to a maximum of 25 spaces. Of these, 95% are required to be long-term. Bicycle parking is not required for single-unit residential development. This results in the following minimum bicycle parking spaces requirements:

- Assisted Living:
  - Five (5) long-term bicycle parking spaces
  - One (1) short-term bicycle parking space
- Long-term bicycle parking will be placed within the assisted living facility. Short-term bicycle parking will be placed near the main entrance of the assisted living building. Short-term bicycle parking will include inverted U-racks placed in high-visibility areas.

SITE IMPACTS

Using LATR guidelines for bicycle trip adjustments, the development program associated with the project will generate approximately 13 and 16 peak hour bicycle trips in the morning and afternoon, respectively. As this is below the threshold of 50 non-motorized (bicycle) peak hour trips, bicycle system adequacy is not necessary.

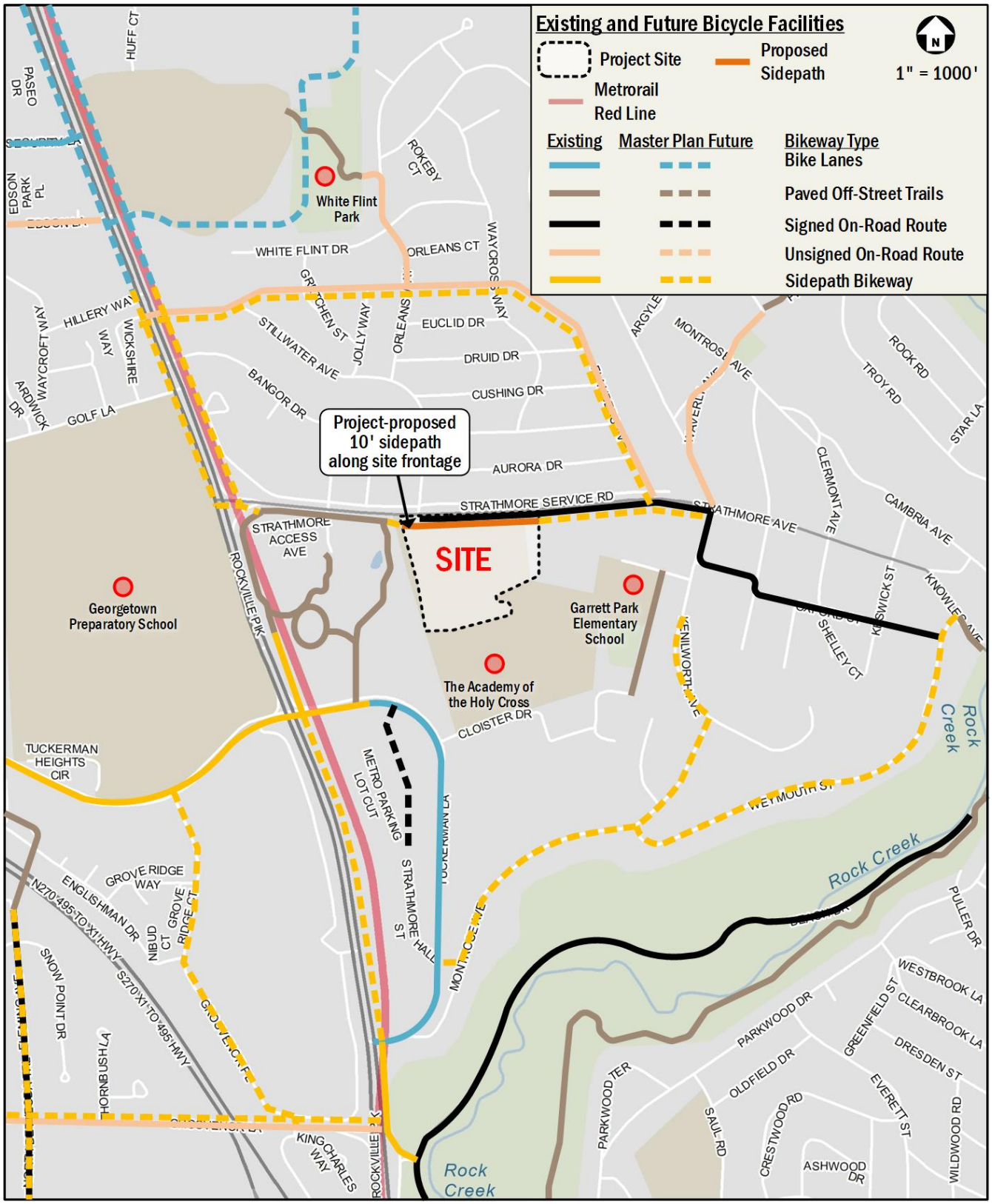


Figure 23: Existing and Future Bicycle Facilities

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

The site, which is currently occupied with a vacant single-story retirement home (St. Angela Hall), is generally bounded by Strathmore Avenue to the north, existing residential homes to the west, the existing Academy of the Holy Cross school to the south, and the Holy Cross School to the east in North Bethesda, Maryland. The property is proposed to be rezoned to Commercial Residential Neighborhood Floating (CRNF). The site lies within the North Bethesda Policy Area (Policy Area 22). As of January 1st, 2021, the Policy Area for the site will be changed to Grosvenor Policy Area per Montgomery County's 2020-2024 Growth and Infrastructure Policy.

The project will replace the existing building with a residential subdivision and a senior living facility, consisting of a maximum of 10 single-family detached homes, 115 townhomes, and an assisted living facility with a maximum of 150 beds.

Pedestrian facilities along the perimeter of the site on Strathmore Avenue will be improved to meet or exceed County, SHA, and ADA standards for sidewalks, crosswalks, and curb ramps. This includes sidewalks that meet or exceed the width requirements, crosswalks at all necessary locations, and curb ramps with detectable warnings. Pedestrian paths will connect the site to Rockville Pike to the west and the Academy of the Holy Cross to the south, encouraging non-auto travel.

Vehicular access to the site is expected to occur via the three (3) curb cuts. The existing western curb cut will be improved to provide primary access to a network of internal residential streets. The existing school driveway across from Stillwater Avenue will be reconstructed to align with Stillwater Avenue and will serve as an additional access to the residential subdivision. The central driveway will provide a connection to the Academy of the Holy Cross. It will bisect the western and eastern areas of development. The eastern curb cut will provide access to the employee parking lot and loading facilities to the senior housing facility.

Multi-Modal Impacts and Recommendations

Transit

The site is adequately served by regional and local transit services such as Metrorail, MARC, and Ride On-Montgomery County. The site is located approximately 0.7 miles from the Grosvenor-Strathmore Metrorail station and approximately 0.6 miles from the Garrett Park MARC train station. The nearest Ride On stop is located just in front of the site on Strathmore Avenue. Two (2) Ride On-Montgomery County routes directly service the site, with five (5) buses scheduled during both the peak morning commute time and the peak afternoon commute time, providing a good connection to Metrorail and other destinations. Additional Ride On stops are located along Rockville Pike which is approximately 0.3 miles from the site.

The proposed development will generate approximately nine (9) transit trips in the morning peak hour and approximately 10 transit trips in the afternoon peak hour, below the 50-trip threshold required for a transit adequacy test. Although the development will be generating new transit trips on the network, the existing facilities have enough capacity to handle the new trips.

Pedestrian

The site is surrounded by a pedestrian network providing good connectivity to nearby points of interests. Most 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 a lack of sidewalks along the existing site frontage and the Holy Cross School frontage on Strathmore Avenue between Stillwater Avenue and Flanders Avenue.

As a result of the development, pedestrian facilities along the perimeter of the site will be improved. The development will construct a shared use path along the site frontage on the southern side of Strathmore Avenue and the new sidewalks within the site will tie to the existing sidewalk for the Academy of the Holy Cross. The proposed sidewalks will meet or exceed SHA and ADA requirements and provide an improved pedestrian environment.

The site will be served by a new internal sidewalk network. These sidewalks will provide extensive pedestrian connections throughout the various uses within the development. The

proposed internal sidewalk network will connect the site with the Academy of the Holy Cross south of the site.

The proposed development will generate approximately 22 and 26 pedestrian trips in the morning and afternoon peak hours, respectively, below the 50-trip threshold required for a pedestrian adequacy test.

Bicycle

The site has access to existing bicycle facilities. A shared-use path exists along the south side of Strathmore Avenue, adjacent to the site on the west. According to the Montgomery County Bicycle Master plan, the sidewalk is signed as a separated bikeway route, allowing shared use for bicyclists and pedestrians. The shared-use path ends at the property line of the site, extending westward to Rockville Pike and connecting to the Strathmore Path. A system of trails is also adjacent to the western edge of the site, providing southern and western connectivity to residential subdivisions and Rockville Pike.

The planned development will meet zoning requirements for bicycle parking and provide a shared use path along the site frontage along the southern side of Strathmore Avenue.

The proposed development will generate approximately 13 and 16 bicycle trips in the morning and afternoon peak hours, respectively, below the 50-trip threshold required for a bicycle adequacy test.

Vehicular

The site has direct frontage on Strathmore Avenue (MD 547) and is well-connected to regional roadways such as Rockville Pike (MD 355). These roads provide connectivity to nearby I-270, which provides access to the Capital Beltway (I-495).

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 intersection capacity analyses using HCM methodology. These overall intersection delays are compared to the congestion standards set by LATR standards to determine if the site will negatively impact the study area. None of the study intersections were found to meet the mitigation criteria per LATR guidelines.

Summary and Recommendations

This report concludes that the proposed development will not have a detrimental impact to the surrounding transportation network assuming that all planned site design elements are implemented.

The development has several positive elements contained within its design that minimize potential transportation impacts, including:

- The site's proximity to the Metrorail Red Line, MARC Train Brunswick Line, and several local and regional bus lines.
- The inclusion of secure long-term bicycle parking spaces on-site that meet or exceed zoning requirements.
- The construction of pedestrian paths that will connect the site with the Academy of the Holy Cross to the south and the share-use paths to the west.
- The pedestrian facilities adjacent and within the site will be greatly improved. This includes the installation of new shared use path along eastbound Strathmore Avenue that will serve pedestrians and bicycles.
- The closure of the existing driveway to the Academy of the Holy Cross, reducing number of curb cuts along Strathmore Avenue and thus reducing vehicular-pedestrian interactions.
- The elimination of the existing offset condition at Stillwater Avenue, reducing vehicular movement conflicts due to the offset alignment.

TRANSPORTATION TECHNICAL ATTACHMENTS

4910 AND 4920 STRATHMORE AVENUE

LOCAL AREA TRANSPORTATION REVIEW

NORTH BETHESDA, MD

August 24, 2021

GOROVE SLADE
Transportation Planners and Engineers

Contents

(Note: Click on heading to navigate directly to each section of the Technical Attachments)

A: Scoping Information

B: Updated Trip Generation and Mode Split Reduction

C: Background Developments

D: Traffic Counts During COVID-19 Pandemic – Policy Update Memorandum

E: Existing Turning Movement Counts

F: Historical School Trips and School Trip Projection

G: Raw Existing Volumes and Adjustment Volumes

H: Signal Timing Information

I: Existing Conditions HCM Analysis Worksheets

J: Background Conditions HCM Analysis Worksheets

K: Total Future Conditions HCM Analysis Worksheets

L: Critical Lane Volume (CLV) Analysis

A: SCOPING INFORMATION

MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

Local Area Transportation Review

TRANSPORTATION IMPACT STUDY SCOPE OF WORK AGREEMENT

Updated July 2020

Scoping Approval - Prior to initiating a Local Area Transportation Review study or supplemental traffic study, scoping *must be approved* by relevant agencies, including the Planning Department, the Montgomery County Department of Transportation, and the State Highway Administration (where relevant). It is the responsibility of the Applicant to obtain approval, which is demonstrated below via signature or electronic signature of the relevant agency representatives. Generally, the Applicant should anticipate a turnaround time of ten (10) business days for form review. Substantially large projects may require additional time and/or may warrant a scoping meeting.

Montgomery County Planning Department
Name (print): Elwyn Gonzalez Signature: Elwyn D Date: 11-19-2020

Montgomery County Department of Transportation
Name (print): Deepak Somarajan Signature: Deepak Somarajan Date: 11-20-2020

State Highway Administration (where relevant)
Name (print): Kwesi Woodroffe Signature: Date: 11/23/2020

Applicant Contact Information	
Transportation Consultant (company, contact name, email, and phone number)	Katie Wagner, PE, PTOE Gorove/Slade Associates, Inc. klw@goroveslade.com 202-540-1927
Name of Applicant / Developer	J. Wyndham Robertson, EYA, LLC, 4800 Hampden Lane, Suite 300, Bethesda, MD, wyndhamr@eya.com

Project Information	*Include Tables/Graphics, As Needed*			
Project Name (include plan no. if known)	St Angela Hall			
Project Location (include address if known)	4910 Strathmore Avenue, Kensington, MD 20895			
Policy Area(s) (subdivision staging policy map)	North Bethesda	Master Plan(s) / Sector Plan Area(s)	North Bethesda/Garrett Park Master Plan (1992)	
Application Type(s)	■ Preliminary Plan	☐ Site Plan	☐ Sketch/Concept/Pre-Preliminary (Optional)	☐ Amendment
	☐ Conditional Use (formerly special exception)	☐ Local Map Amendment	☐ APF at Building Permit	☐ Other:

Project Description & Previous Approvals (proposed land uses, zoning, no. of units, square footage, construction phasing, prior approvals and proposals, existing uses, site operations, year built, status of Adequate Public Facilities [APF], other relevant info)	The applicant proposes redeveloping a vacant single-story retirement home (St. Angela Hall) with a residential subdivision and a senior living facility. The site is bounded by Strathmore Avenue to the north, existing residential homes to the west, and the existing Academy of the Holy Cross school to the east and south. The property is zoned for residential use. As part of the redevelopment, the following development program is proposed: • 10 single-family detached homes • 115 townhomes • Assisted living facility with 110 beds • Independent senior living facility with 45 units
1.Site Access (proposed access location(s), existing/adjacent/opposite curb cuts, interparcel connections, access configurations and restrictions, internal circulation, private roads, parking/loading areas, other relevant info)	The existing driveway to the Academy of the Holy Cross will be removed. A new driveway that aligns with Stillwater Avenue will be proposed and will provide connection to the Academy of the Holy Cross. The two existing curb cuts serving the surface parking lot of St. Angela Hall will be maintained. The eastern curb cut will provide access to the surface parking lot and loading facilities to the senior housing facility, while the western curb cut will provide access to a network of internal residential streets and a connection to the Academy of the Holy Cross.

2.Transportation Analysis Requirement	▣ Transportation Impact Study Generates 50 or more total weekday peak hour person trips (vehicular, transit, bicycle, and/or pedestrian) with no reductions other than a credit for existing developments over 12 years old, ***AND*** is outside of the White Flint and White Oak Policy Areas. Fill out remainder of this form and include in transportation impact study appendix.	☐ Transportation Study Exemption Statement Generates 49 or fewer total weekday peak hour person trips (vehicular, transit, bicycle, and/or pedestrian) with no reductions other than a credit for existing developments over 12 years old, ***OR*** within White Flint and White Oak Policy Areas.

3.Project-based Transportation Demand Management Plan Required (see Chapter 42, Articles I and II)	☐ No	▣ Yes (In Transportation Management District [TMD])	☐ Amend Existing TMAg
4.Established Transportation Management District (TMD)?	☐ No	▣ Yes TMD Name: North Bethesda	

Transportation Impact Study Assumptions	*Include Tables/Graphics, As Needed*	
5.Study Years / Phases	Existing Year: 2020	Phases / Build-out Year(s): 2022
6.Study Periods	▣ AM ▣ PM ☐ Mid-day ☐ Saturday ☐ Sunday ☐ Other: _____	

7.Study Intersections
(For projects generating 50 or more person trips, list all signalized & significant unsignalized intersections, and site driveways traffic counts **must be collected within 12-months of completed and accepted application**)

# of tiers of intersections to study (refer current LATR Guidelines): 1

For the purpose of determining the number of tiers of study intersections, trip calculation for the subject site should also include nearby unbuilt properties in common ownership. No trip reductions should be taken in this calculation other than a credit for existing developments over 12 years old.

1) Rockville Pike/Strathmore Avenue	7)
2) Strathmore Avenue/Stillwater Avenue/School Driveway	8)
3) Strathmore Avenue/Center Site Driveway	9)
4) Strathmore Avenue/East Site Driveway	10)
5) Strathmore Avenue/Kenilworth Avenue	11)
6) Rockville Pike/Flanders Avenue	attach more rows if necessary

8.Trip Generation

(clearly cite sources and methodology including use of average rates vs. equation; include trip generation for existing site, current approvals, proposed uses, and net changes)

Total Person Trips	Vehicle Trips* (Auto Driver)	Transit Trips*	Walking Trips* (non-motorized + transit)	Bicycling Trips* (non-motorized)
105 AM / 132 PM	56 AM /71 PM	8 AM /11 PM	22 AM /28 PM	14 AM /17 PM

** Only required if total peak hour person trips are 50 or more in either the AM or PM peak hour. Sum of all vehicle, transit, and non-motorized trips shall be the equivalent of total person trips. Use table at the end of the form to show all calculations and assumptions for mode breakout.*

9.Trip Reductions

(include justification and supporting documentation for internal capture, pass-by, diverted, Transportation Demand Management)

N/A

10.Trip Distribution %

(include a map of the proposed project in addition to a list or table)

Distributions for the development were developed based on Appendix Table 2-6 (Residential) of the M-NCPPC LATR Guidelines as follows and per the attached distribution figures:
Rockville Pike (MD 355) to/from the north – Inbound – 38% / Outbound – 38%
Rockville Pike (MD 355) to/from the south – Inbound – 52% /Outbound – 52%
Knowles Avenue/Strathmore Avenue to/from the east – Inbound – 10% / Outbound – 10%
The distribution worksheet is presented in the scoping attachments.

11.Pipeline Developments to be considered as background traffic

(include name, plan #, land uses, and sizes for approved but unbuilt developments or concurrently pending applications; info can be obtained from the M-NCPPC Pipeline website: - website is updated quarterly)

1. Strathmore Square (#1120190180)—1,309 single-family units and 317,537 SF of retail (approved 6/6/19)
2. North Bethesda Market II (#120120060)—470 apartment/condo units and 103,753 SF of retail (approved 1/15/15)
3. East Village at North Bethesda Gateway (#120140240)—567 apartment/condo units and 19,000 SF of ground-floor retail (approved 7/18/19)
4. Offutt Estates (#120150040)—5 residential units (approved 6/28/18)
5. VOB Development (#120190160)—1,000 multifamily units and 75,241 SF of retail (approved 5/30/19)
6. North Bethesda Town Center (#120040490)—1,350 apartment/condo units, 809,338 SF of office space, and 152,791 SF of retail (approved 7/24/17)
7. White Flint View (#120070380)—183 multifamily units and 10,964 SF of ground-floor retail (approved 7/12/07)
8. Mid Pike Plaza (#120120020)—734 multifamily units (unbuilt), 682,691 SF of office space (unbuilt), and 143,835 SF of retail (unbuilt) (approved 10/10/13)
9. Gables White Flint (#120150010)—476 apartment/condo units and 20,890 SF of retail (approved 4/30/15)
10. Saul Centers White Flint West (#120160080)—655 multifamily units and 136,950 SF of office space (approved 6/10/16)
11. Wilgus (#120200140)—107 single-family units, 638 multifamily units, and 11,880 SF of retail (approved 7/23/20)
12. Washington Science Center (#819730050)—141,429 SF of office space (approved 5/28/15)

NOTE: If any of the projects above contribute less than five trips to the study intersection closest to the project, they do not need to be included in the traffic analysis. If this is the case with any of the projects, will note that in the traffic study.

12.Pipeline Transportation Projects to be considered as background condition

(fully funded for construction in County Capital Improvement Program, State Consolidated Transportation Program, developer projects, etc. within the next 6 years)

No Montgomery County projects are programmed in the project study area.

Preliminary Mitigation Analysis		**Refer to the LATR Guidelines for details on how to mitigate*
14.Vehicular Analysis	■ Vehicular Analysis Anticipated (Vehicular mitigation to be determined after study)	• TEST: HCM Analysis is required to be provided for all intersections analyzed in studies for: 1) "Red & Orange" policy areas, and 2) intersections with a CLV of more than 1,350 in "Yellow & Green" policy areas. 3) **CLV analysis required for all intersections regardless of policy area. CLV assessment and signal timing worksheets are to be included in the study appendix.** • MITIGATION: Required if HCM delay analyses exceed policy area standard
15.Pedestrian Analysis	☐ Pedestrian Mitigation Anticipated	• TEST: If the plan generates 50 or more pedestrian peak hour trips, mitigation of surrounding pedestrian conditions is required • MITIGATION: Required if ADA non-compliance issues within 500 foot radius of site boundary and if pedestrian crosswalk delay at LATR intersections within 500 feet of site boundary is lower than Level of Service (LOS) D
16.Bicycle Analysis	☐ Bicycle Mitigation Anticipated	• TEST: If the plan generates 50 or more bicycle peak hour trips and is within 0.25 miles of an existing educational institution or existing/planned bikeshare station, mitigation of surrounding bicycle conditions is required • MITIGATION: Required to make improvements to provide a low Level of Traffic Stress to any existing similar facility within 750 feet of the site boundary; Alternatively, project may provide a master planned improvement that provides an equivalent improvement in the level of traffic stress for cyclists
17.Transit Analysis	☐ Transit Mitigation Anticipated	• TEST: If the plan generates 50 or more transit peak hour trips and the peak load of bus routes at bus stops within 1,000 feet of site boundary exceeds (or is worse than) peak load of LOS D (1.25 transit riders per seat during the peak period in the peak direction), mitigation of transit conditions is required • MITIGATION: Required to provide or fund improvements that would mitigate the trips exceeding the standard that are attributable to the development
Additional Analysis or Software Required	☐ Queuing Analysis ☐ Signal Warrant Analysis ☐ Weaving/Merge Analysis	☐ Accident Analysis ■ Synchro ☐ SIDRA ☐ VISSIM ☐ CORSIM ☐ Other _____

M-NCPPC Clarifications	**Additional Assumptions & Special Circumstances for Discussion**
• **Transportation impact study will comply** with all other requirements of the LATR Guidelines not listed on this form. • **If physical improvements are proposed as mitigation**, the transportation impact study will demonstrate feasibility with regards to right-of-way and utility relocation (at a minimum). • **If the development proposal significantly changes after this transportation impact study** scope has been agreed to, the Applicant will work with M-NCPPC staff to amend the scope to accurately reflect the new proposal. • **A receipt from MCDOT** showing that the transportation impact study review fee has been paid will be provided to M-NCPPC DARC at the time the development application is submitted. • **Minimum of seven paper copies** (more if near the County line or an incorporated City) and two PDF copies of the transportation impact study and appendices will be provided.	Consistent with the latest policy pertaining to traffic counts outlined in the Traffic Counts During COVID-19 Pandemic – Policy Update memorandum dated September 17, 2020, an adjustment factor of 1.07 will be applied to traffic volumes up to 4:30 PM from traffic counts collected in October 2020 at the following intersections: - Rockville Pike/Strathmore Avenue - Strathmore Avenue/Stillwater Avenue/School Driveway - Strathmore Avenue/Kenilworth Avenue

Site Trip Generation Estimate Worksheet				
Step 1: Vehicle Trips (Existing Assisted Living)				
ITE Land use Code	254			
Development Size	38 KSF			
ITE trip generation estimate formula/rate* AM	0.39*38 (Rate)	Total AM Vehicle Trips	15 Trips	
ITE Trip generation estimate formula/rate* PM	0.48*38 (Rate)	Total PM Vehicle Trips	18 Trips	
Step 2: Policy Area Conversion				
Policy Area # & Name	#22 North Bethesda	Trip Adjustment Factor	83% (Residential)	
Applied Policy Area Adjusted Value AM	12			
Applied Policy Area Adjusted Value PM	15			
Step 3: Mode Split			AM	PM
Auto Driver	53.8%	Results	12	15
Auto Passenger	25.9%	Results	6	7
Transit	8.0%	Results	2	2
Walking (transit + non-motorized)	20.3%	Results	5	6
Bicycling (non-motorized)	12.3%	Results	3	4

Complete one of these tables for EACH use included in the application. Enter results into "Transportation Impacts Analysis" section of the form.

Site Trip Generation Estimate Worksheet				
Step 1: Vehicle Trips (Proposed Townhomes and Affordable Townhomes)				
ITE Land use Code	221			
Development Size	115 DU			
ITE trip generation estimate formula/rate* AM	0.36*115 (Rate)	Total AM Vehicle Trips	41 Trips	
ITE Trip generation estimate formula/rate* PM	0.44*115 (Rate)	Total PM Vehicle Trips	51 Trips	
Step 2: Policy Area Conversion				
Policy Area # & Name	#22 North Bethesda	Trip Adjustment Factor	83% (Residential)	
Applied Policy Area Adjusted Value AM	34			
Applied Policy Area Adjusted Value PM	42			
Step 3: Mode Split			AM	PM
Auto Driver	53.8%	Results	34	42
Auto Passenger	25.9%	Results	16	20
Transit	8.0%	Results	5	6
Walking (transit + non-motorized)	20.3%	Results	13	17
Bicycling (non-motorized)	12.3%	Results	8	11

Complete one of these tables for EACH use included in the application. Enter results into "Transportation Impacts Analysis" section of the form.

Site Trip Generation Estimate Worksheet				
Step 1: Vehicle Trips (Proposed Single-Family Detached Homes)				
ITE Land use Code	210			
Development Size	10 DU			
ITE trip generation estimate formula/rate* AM	0.71*10+4.8 (Equation)	Total AM Vehicle Trips	12 Trips	
ITE Trip generation estimate formula/rate* PM	e^[0.96*Ln(10)+0.2] (Equation)	Total PM Vehicle Trips	11 Trips	
Step 2: Policy Area Conversion				
Policy Area # & Name	#22 North Bethesda	Trip Adjustment Factor	83% (Residential)	
Applied Policy Area Adjusted Value AM	10			
Applied Policy Area Adjusted Value PM	9			
Step 3: Mode Split			AM	PM
Auto Driver	53.8%	Results	10	9
Auto Passenger	25.9%	Results	5	4
Transit	8.0%	Results	1	1
Walking (transit + non-motorized)	20.3%	Results	4	4
Bicycling (non-motorized)	12.3%	Results	3	3

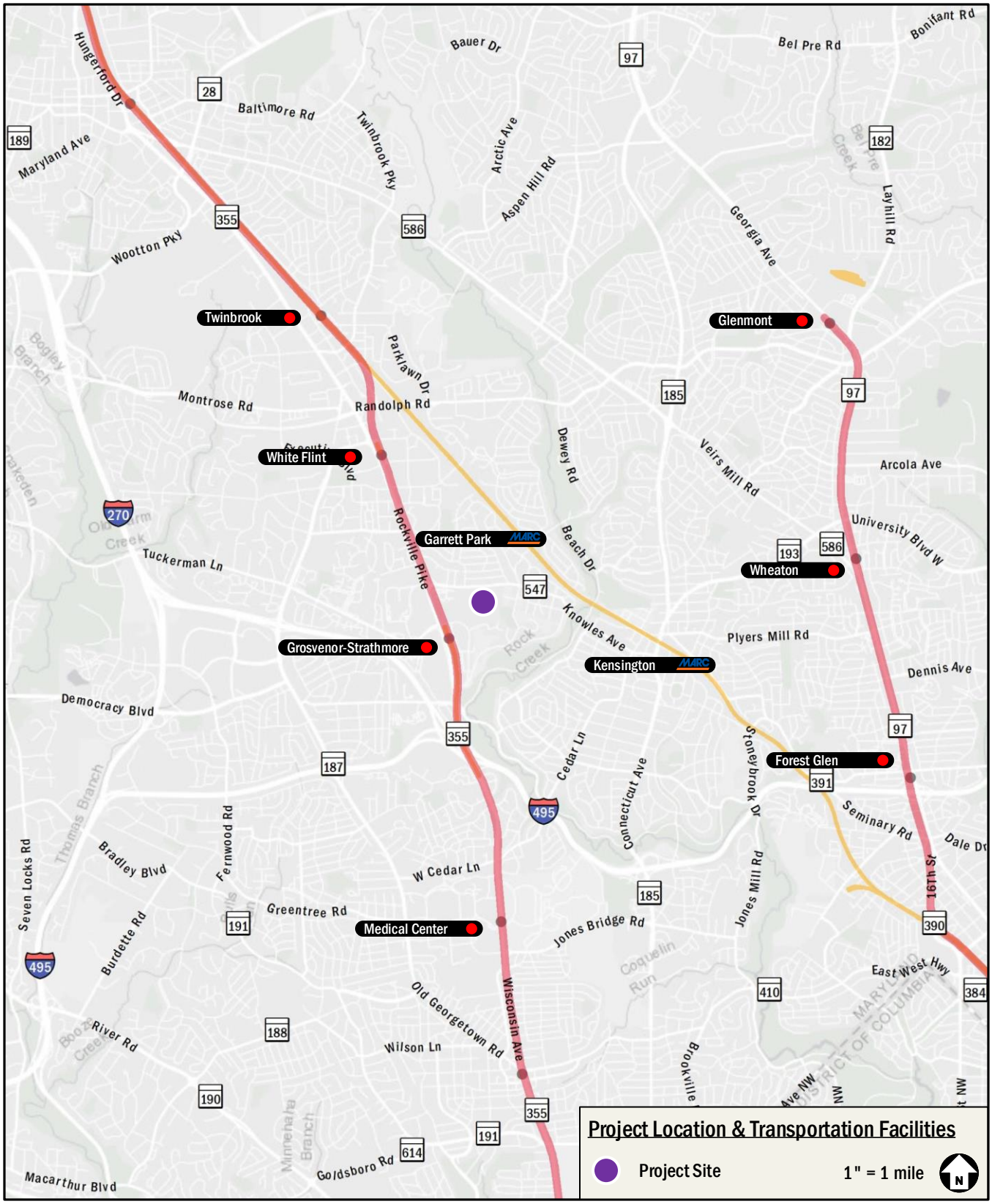
Complete one of these tables for EACH use included in the application. Enter results into "Transportation Impacts Analysis" section of the form.

Site Trip Generation Estimate Worksheet				
Step 1: Vehicle Trips (Proposed Assisted Living)				
ITE Land use Code	254			
Development Size	110 Beds			
ITE trip generation estimate formula/rate* AM	0.19*110 (Rate)	Total AM Vehicle Trips	21 Trips	
ITE Trip generation estimate formula/rate* PM	0.26*110 (Rate)	Total PM Vehicle Trips	29 Trips	
Step 2: Policy Area Conversion				
Policy Area # & Name	#22 North Bethesda	Trip Adjustment Factor	83% (Residential)	
Applied Policy Area Adjusted Value AM	17			
Applied Policy Area Adjusted Value PM	24			
Step 3: Mode Split			AM	PM
Auto Driver	53.8%	Results	17	24
Auto Passenger	25.9%	Results	8	12
Transit	8.0%	Results	3	4
Walking (transit + non-motorized)	20.3%	Results	7	9
Bicycling (non-motorized)	12.3%	Results	4	5

Complete one of these tables for EACH use included in the application. Enter results into "Transportation Impacts Analysis" section of the form.

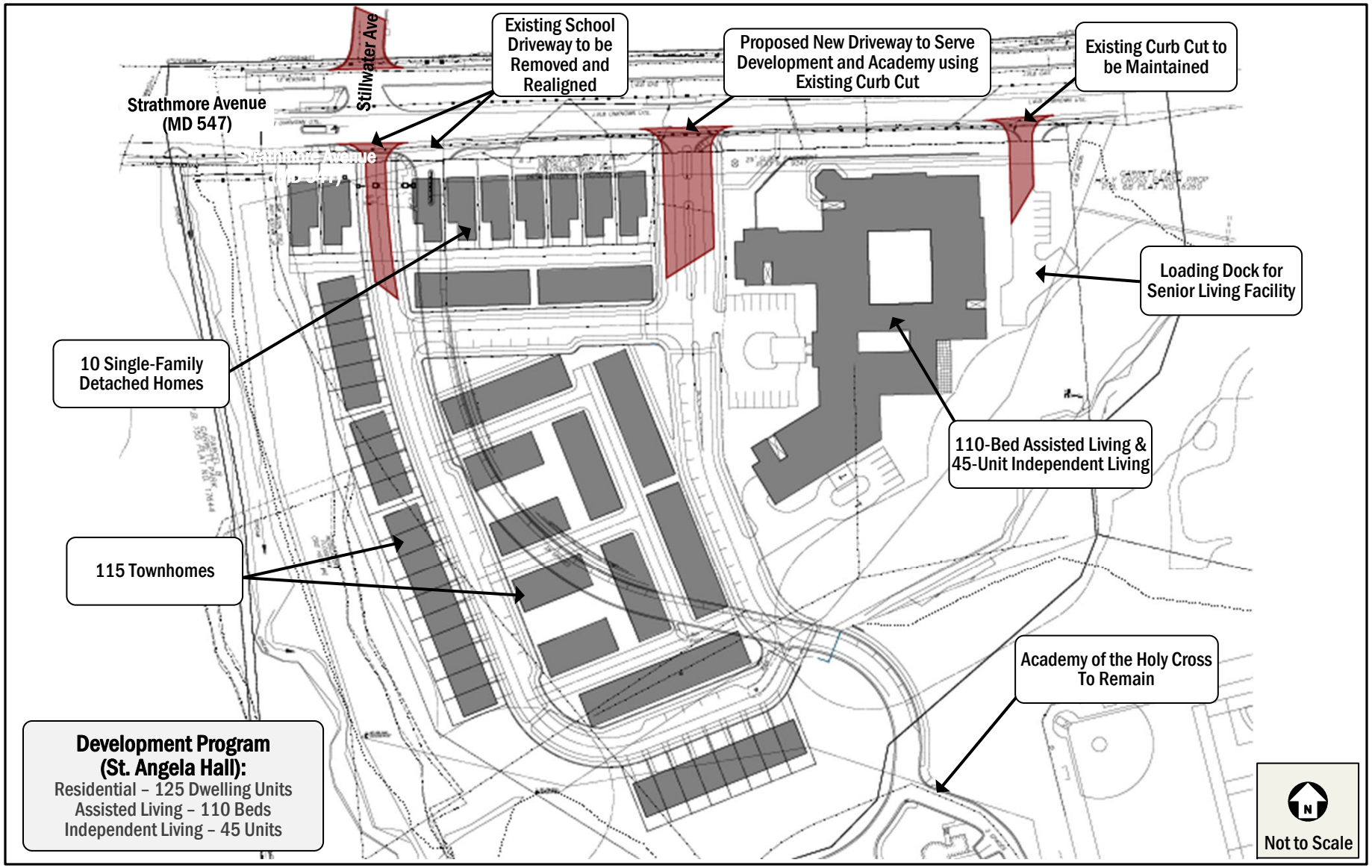
Site Trip Generation Estimate Worksheet				
Step 1: Vehicle Trips (Proposed Independent Living)				
ITE Land use Code	252			
Development Size	45 DU			
ITE trip generation estimate formula/rate* AM	0.2*45-0.18 (Equation)	Total AM Vehicle Trips	9 Trips	
ITE Trip generation estimate formula/rate* PM	0.24*45+2.26 (Equation)	Total PM Vehicle Trips	13 Trips	
Step 2: Policy Area Conversion				
Policy Area # & Name	#22 North Bethesda	Trip Adjustment Factor	83% (Residential)	
Applied Policy Area Adjusted Value AM	7			
Applied Policy Area Adjusted Value PM	11			
Step 3: Mode Split			AM	PM
Auto Driver	53.8%	Results	7	11
Auto Passenger	25.9%	Results	4	5
Transit	8.0%	Results	1	2
Walking (transit + non-motorized)	20.3%	Results	2	4
Bicycling (non-motorized)	12.3%	Results	1	2

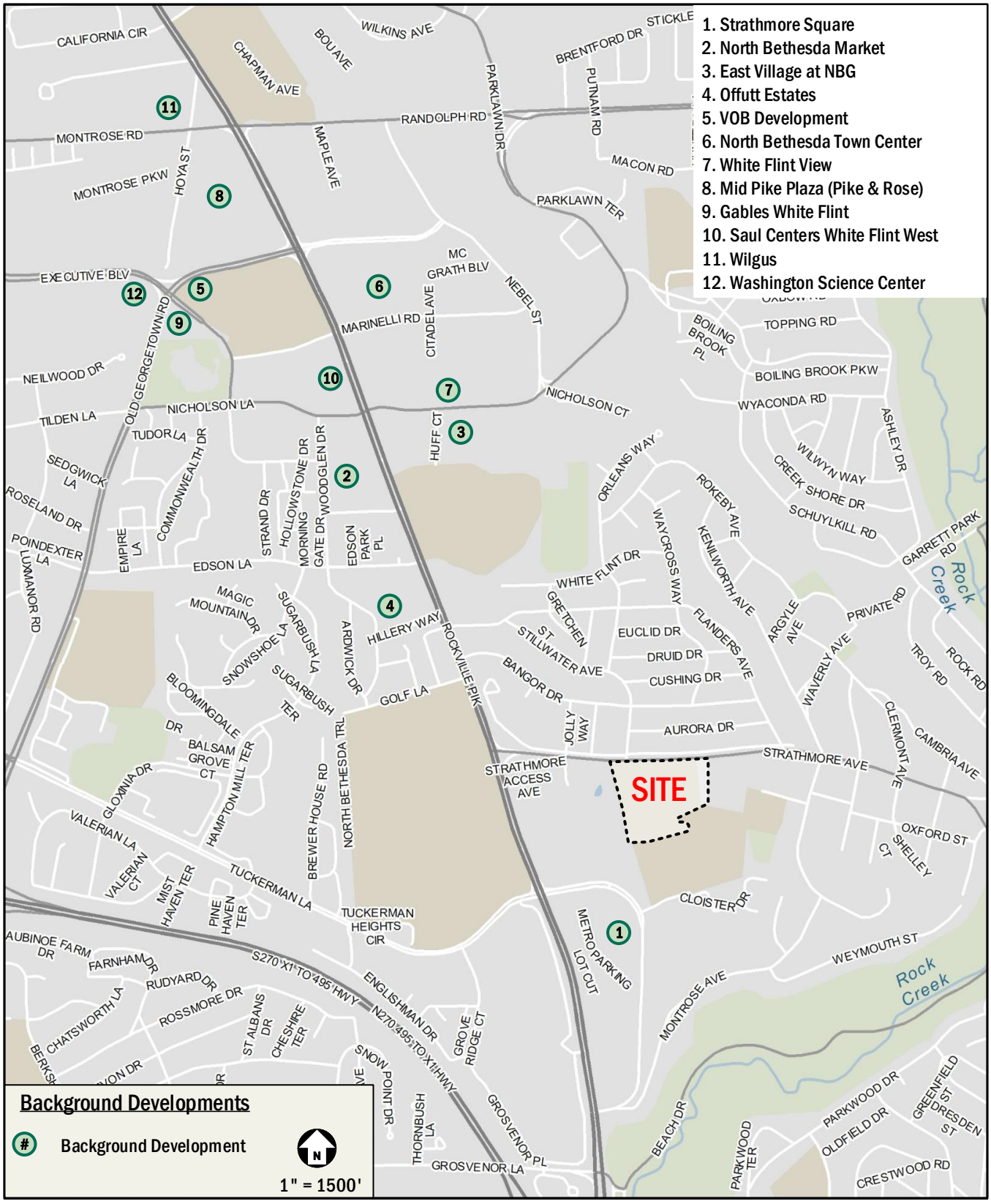
Complete one of these tables for EACH use included in the application. Enter results into "Transportation Impacts Analysis" section of the form.

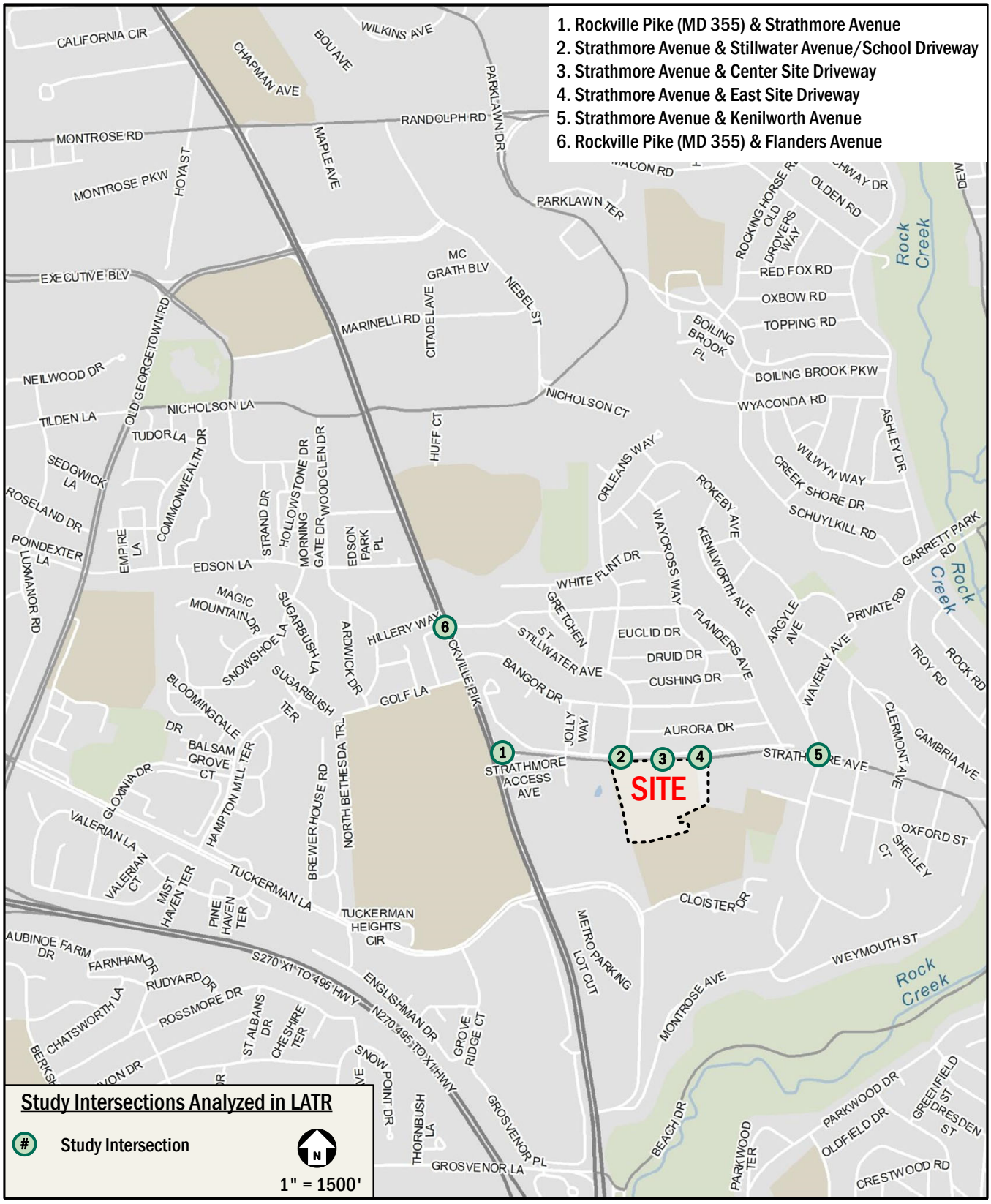

Project Location & Transportation Facilities
Project Site
1" = 1 mile
N
Twinbrook
White Flint
Garrett Park
Grosvenor-Strathmore
Medical Center
Wheaton
Glenmont
Kensington
Forest Glen
Hungerford Dr
Baltimore Rd
Bauer Dr
Bel Pre Rd
Bonifant Rd
Maryland Ave
Wootton Pky
Twinbrook Pky
Arctic Ave
Aspen Hill Rd
Georgia Ave
Layhill Rd
Montrose Rd
Randolph Rd
Parklawn Dr
Rockville Pike
Dewey Rd
Veirs Mill Rd
Arcola Ave
University Blvd W
Beach Dr
Knowles Ave
Plyers Mill Rd
Dennis Ave
Tuckerman Ln
Democracy Blvd
Cedar Ln
Connecticut Ave
Stoneybrook Dr
Seminary Rd
16th St
Dale Dr
Fernwood Rd
Bradley Blvd
Seven Locks Rd
Burdette Rd
W Cedar Ln
Greentree Rd
Jones Bridge Rd
Jones Mill Rd
East West Hwy
Old Georgetown Rd
Wisconsin Ave
River Rd
Wilson Ln
Brookville
Coquelin Run
Thomas Branch
Minnehaha Branch
Goldsboro Rd
Macarthur Blvd
MARYLAND
DISTRICT OF COLUMBIA
270
495
355
586
97
28
189
182
185
193
547
187
191
188
190
614
410
384
390
391

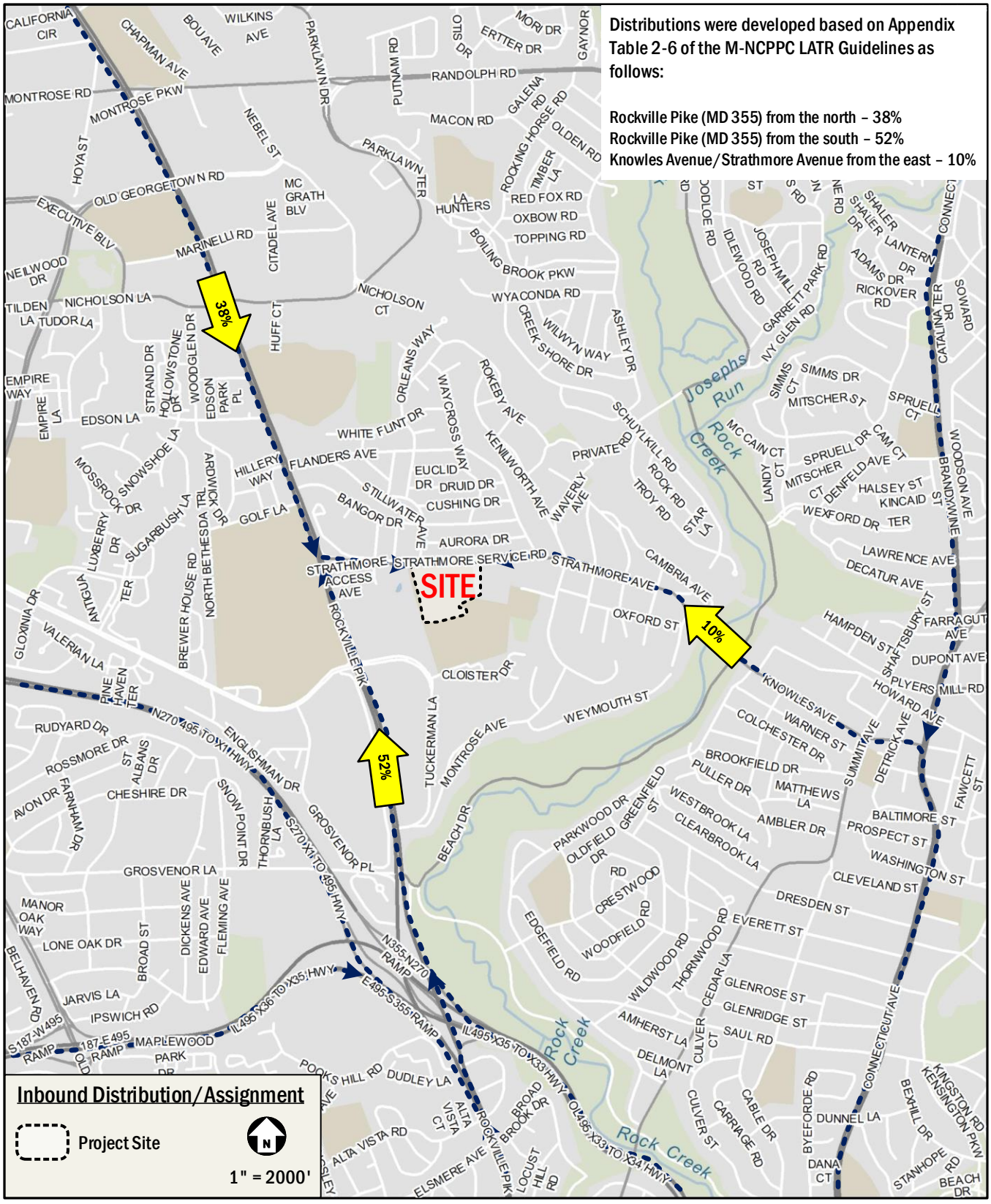

DRUID DR
CUSHING DR
WAYCROSS WAY
STILLWATER AVE
FLANDERS AVE
WAVERLY AVE
BANGOR DR
JOLLY WAY
ORLEANS WAY
AURORA DR
KENILWORTH AVE
STRATHMORE SERVICE RD
STRATHMORE AVE
MONTROSE AVE
SYMPHONY FOREST LA
SYMPHONY PARK DR
SITE
OXFORD ST
CLOISTER DR
KENILWORTH AVE
METRO PARKING LOT CUT
ROCKVILLE PIK
STRATHMORE PARK CT
MONTROSE AVE
WEYMOUTH ST
BEACH DR
Site Location
Project Site
N
1" = 500'

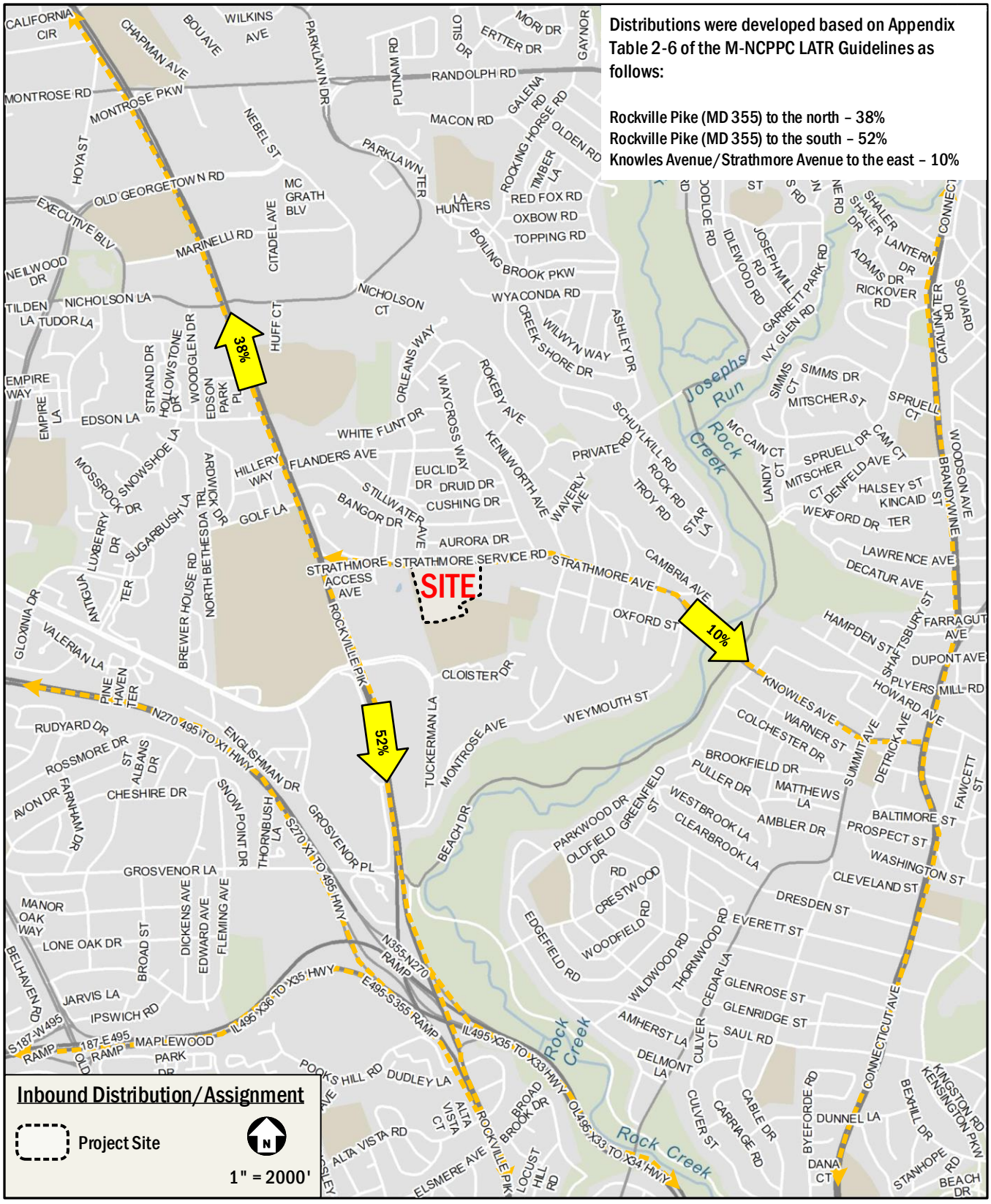

Bangor Dr
Aurora Dr
Jolly Way
Orleans Way
Stillwater Ave
Strathmore Ave
Strathmore Ave
Symphony Park Dr
SITE
Holy Cross Church and School
Garett Park Elementary School
The Music Center at Strathmore
P+R Grosvenor-Strathmore
The Academy of the Holy Cross
Tuckerman Ln
Cloister Dr
Site Aerial
Project Site
Shared Use Path
N
1" = 300'


Existing School Driveway to be Removed and Realigned
Proposed New Driveway to Serve Development and Academy using Existing Curb Cut
Existing Curb Cut to be Maintained
Strathmore Avenue (MD 547)
Stillwater Ave
Loading Dock for Senior Living Facility
10 Single-Family Detached Homes
110-Bed Assisted Living & 45-Unit Independent Living
115 Townhomes
Academy of the Holy Cross To Remain
Development Program (St. Angela Hall):
Residential – 125 Dwelling Units
Assisted Living – 110 Beds
Independent Living – 45 Units
N
Not to Scale


1. Strathmore Square
2. North Bethesda Market
3. East Village at NBG
4. Offutt Estates
5. VOB Development
6. North Bethesda Town Center
7. White Flint View
8. Mid Pike Plaza (Pike & Rose)
9. Gables White Flint
10. Saul Centers White Flint West
11. Wilgus
12. Washington Science Center
SITE
Background Developments
Background Development
1" = 1500'
CALIFORNIA CIR
WILKINS AVE
BOU AVE
CHAPMAN AVE
BRENTFORD DR
STICKLE
PARKLAWN DR
PUTNAM RD
RANDOLPH RD
MONTROSE RD
MACON RD
MONTROSE PKW
HOYA ST
MAPLE AVE
PARKLAWN TER
EXECUTIVE BLV
MC GRATH BLV
NEBEL ST
CITADEL AVE
MARINELLI RD
BOILING BROOK PL
TOPPING RD
BOILING BROOK PKW
NEILWOOD DR
OLD GEORGETOWN RD
NICHOLSON LA
NICHOLSON CT
WYACONDA RD
ASHLEY DR
TILDEN LA
TUDOR LA
HUFF CT
ORLEANS WAY
WILWYN WAY
CREEK SHORE DR
SCHUYLKILL RD
SEDGWICK LA
COMMONWEALTH DR
STRAND DR
HOLLOWSTONE DR
MORNING GATE DR
WOODGLEN DR
EDSON PARK PL
ROKEBY AVE
ROSELAND DR
POINDEXTER LA
EMPIRE LA
EDSON LA
WAYCROSS WAY
KENILWORTH AVE
GARRETT PARK RD
Rock Creek
LUXMANOR RD
MAGIC MOUNTAIN DR
SUGARBUSH LA
ARDWICK DR
HILLERY WAY
ROCKVILLE PIK
WHITE FLINT DR
GRETCHEN
ST STILLWATER AVE
EUCLID DR
DRUID DR
CUSHING DR
FLANDERS AVE
ARGYLE AVE
PRIVATE RD
WAVERLY AVE
TROY RD
ROCK RD
SNOWSHOE LA
SUGARBUSH TER
GOLF LA
BANGOR DR
JOLLY WAY
AURORA DR
CLERMONT AVE
CAMBRIA AVE
BLOOMINGDALE DR
BALSAM GROVE CT
HAMPTON MILL TER
BREWER HOUSE RD
NORTH BETHESDA TRL
STRATHMORE ACCESS AVE
STRATHMORE AVE
GLOXINIA DR
VALERIAN LA
VALERIAN CT
MIST HAVEN TER
PINE HAVEN TER
TUCKERMAN LA
TUCKERMAN HEIGHTS CIR
CLOISTER DR
OXFORD ST
CT SHELLEY
AUBINOE FARM DR
FARNHAM DR
RUDYARD DR
ROSSMORE DR
S270 X1 TO 495 HWY
N270 495 TO X1 HWY
ENGLISHMAN DR
METRO PARKING LOT CUT
WEYMOUTH ST
MONTROSE AVE
Rock Creek
CHATSWORTH LA
ST ALBANS DR
CHESHIRE TER
GROVE RIDGE CT
SNOW POINT DR
THORNBUSH LA
GROSVENOR PL
GROSVENOR LA
BEACH DR
PARKWOOD DR
OLDFIELD DR
GREENFIELD ST
DRESDEN ST
PARKWOOD TER
CRESTWOOD RD


1. Rockville Pike (MD 355) & Strathmore Avenue
2. Strathmore Avenue & Stillwater Avenue/School Driveway
3. Strathmore Avenue & Center Site Driveway
4. Strathmore Avenue & East Site Driveway
5. Strathmore Avenue & Kenilworth Avenue
6. Rockville Pike (MD 355) & Flanders Avenue
SITE
Study Intersections Analyzed in LATR
Study Intersection
N
1" = 1500'


Distributions were developed based on Appendix Table 2-6 of the M-NCPPC LATR Guidelines as follows:
Rockville Pike (MD 355) from the north – 38%
Rockville Pike (MD 355) from the south – 52%
Knowles Avenue/Strathmore Avenue from the east – 10%
38%
52%
10%
SITE
STRATHMORE ACCESS AVE
STRATHMORE SERVICE RD
STRATHMORE AVE
ROCKVILLE PIK
Josephs Run
Rock Creek
Inbound Distribution/Assignment
Project Site
1" = 2000'


Distributions were developed based on Appendix Table 2-6 of the M-NCPPC LATR Guidelines as follows:
Rockville Pike (MD 355) to the north – 38%
Rockville Pike (MD 355) to the south – 52%
Knowles Avenue/Strathmore Avenue to the east – 10%
SITE
38%
52%
10%
Inbound Distribution/Assignment
Project Site
1" = 2000'

Trip Generation - Existing Residential

38,000 SF Existing Senior Living Facility

Policy Area: 22. North Bethesda

Step 1: Base trip generation using ITEs' *Trip Generation* 10th Edition

Land Use	Land Use Code	Quantity	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Assisted Living	254	38,000 sf	12 veh/hr	3 veh/hr	15 veh/hr	5 veh/hr	13 veh/hr	18 veh/hr
		Calculation Details:	*78%*	*22%*	*=0.39(X/1000)*	*30%*	*70%*	*=0.48(X/1000)*

Step 2: Convert to policy area vehicle trips

Land Use	ITE Vehicle-Trip generation Rate Adjustment Factor (Appendix Table 1a)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Assisted Living	83%	10 veh/hr	2 veh/hr	12 veh/hr	4 veh/hr	11 veh/hr	15 veh/hr

Step 3: Convert to total person trips, before applying mode splits

Land Use	People/Car (Appendix Table 1b)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Assisted Living	53.8%	19 ppl/hr	5 ppl/hr	23 ppl/hr	8 ppl/hr	20 ppl/hr	28 ppl/hr

Step 4: Split between modes, per assumed Mode Splits by Policy Area

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Assisted Living	Auto Driver	53.8%	10 ppl/hr	2 ppl/hr	12 ppl/hr	4 ppl/hr	11 ppl/hr	15 ppl/hr
Assisted Living	Auto Passenger	25.9%	5 ppl/hr	1 ppl/hr	6 ppl/hr	2 ppl/hr	5 ppl/hr	7 ppl/hr
Assisted Living	Transit	8.0%	1 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr
Assisted Living	Non-Motorized	12.3%	3 ppl/hr	1 ppl/hr	3 ppl/hr	1 ppl/hr	3 ppl/hr	4 ppl/hr
	Total	100.0%						

Trip Gen Summary for Existing Residential

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto Driver	10 veh/hr	2 veh/hr	12 veh/hr	4 veh/hr	11 veh/hr	15 veh/hr
Auto Passenger	5 ppl/hr	1 ppl/hr	6 ppl/hr	2 ppl/hr	5 ppl/hr	7 ppl/hr
Transit	1 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr
Bicycle (Non-motorized)	3 ppl/hr	1 ppl/hr	3 ppl/hr	1 ppl/hr	3 ppl/hr	4 ppl/hr
Walk (Transit and other walk trips)	4 ppl/hr	2 ppl/hr	5 ppl/hr	2 ppl/hr	4 ppl/hr	6 ppl/hr

Trip Generation - Residential

115 Townhomes

Policy Area: 22. North Bethesda

Step 1: Base trip generation using ITEs' *Trip Generation* 10th Edition

Land Use	Land Use Code	Quantity	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Residential	221	115 du	11 veh/hr	30 veh/hr	41 veh/hr	31 veh/hr	20 veh/hr	51 veh/hr
		Calculation Details:	*26%*	*74%*	*=0.36X*	*61%*	*39%*	*=0.44X*

**Multifamily Housing (Mid-Rise) used to calcluate Townhome trip generation (Townhomes no longer featured in ITE Trip Gen, 10th Edition)*

Step 2: Convert to policy area vehicle trips

Land Use	ITE Vehicle-Trip generation Rate Adjustment Factor (Appendix Table 1a)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Residential	83%	9 veh/hr	25 veh/hr	34 veh/hr	26 veh/hr	17 veh/hr	42 veh/hr

Step 3: Convert to total person trips, before applying mode splits

Land Use	People/Car (Appendix Table 1b)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Residential	53.8%	17 ppl/hr	46 ppl/hr	63 ppl/hr	48 ppl/hr	31 ppl/hr	79 ppl/hr

Step 4: Split between modes, per assumed Mode Splits by Policy Area

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Residential	Auto Driver	53.8%	9 ppl/hr	25 ppl/hr	34 ppl/hr	26 ppl/hr	16 ppl/hr	42 ppl/hr
Residential	Auto Passenger	25.9%	4 ppl/hr	12 ppl/hr	16 ppl/hr	12 ppl/hr	8 ppl/hr	20 ppl/hr
Residential	Transit	8.0%	1 ppl/hr	4 ppl/hr	5 ppl/hr	4 ppl/hr	2 ppl/hr	6 ppl/hr
Residential	Non-Motorized	12.3%	3 ppl/hr	5 ppl/hr	8 ppl/hr	6 ppl/hr	5 ppl/hr	11 ppl/hr
	Total	100.0%						

Trip Gen Summary for Residential

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto Driver	9 veh/hr	25 veh/hr	34 veh/hr	26 veh/hr	16 veh/hr	42 veh/hr
Auto Passenger	4 ppl/hr	12 ppl/hr	16 ppl/hr	12 ppl/hr	8 ppl/hr	20 ppl/hr
Transit	1 ppl/hr	4 ppl/hr	5 ppl/hr	4 ppl/hr	2 ppl/hr	6 ppl/hr
Bicycle (Non-motorized)	3 ppl/hr	5 ppl/hr	8 ppl/hr	6 ppl/hr	5 ppl/hr	11 ppl/hr
Walk (Transit and other walk trips)	4 ppl/hr	9 ppl/hr	13 ppl/hr	10 ppl/hr	7 ppl/hr	17 ppl/hr

Trip Generation - Residential

10 Single-Family detached homes

Policy Area: 22. North Bethesda

Step 1: Base trip generation using ITEs' *Trip Generation* 10th Edition

Land Use	Land Use Code	Quantity	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Residential	210	10 du	3 veh/hr	9 veh/hr	12 veh/hr	7 veh/hr	4 veh/hr	11 veh/hr
		Calculation Details:	*25%*	*75%*	*=0.71X+4.8*	*63%*	*37%*	*Ln(T)=0.96Ln(X)+0.2*

Step 2: Convert to policy area vehicle trips

Land Use	ITE Vehicle-Trip generation Rate Adjustment Factor (Appendix Table 1a)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Residential	83%	2 veh/hr	7 veh/hr	10 veh/hr	6 veh/hr	3 veh/hr	9 veh/hr

Step 3: Convert to total person trips, before applying mode splits

Land Use	People/Car (Appendix Table 1b)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Residential	53.8%	5 ppl/hr	14 ppl/hr	19 ppl/hr	11 ppl/hr	6 ppl/hr	17 ppl/hr

Step 4: Split between modes, per assumed Mode Splits by Policy Area

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Residential	Auto Driver	53.8%	2 ppl/hr	8 ppl/hr	10 ppl/hr	6 ppl/hr	3 ppl/hr	9 ppl/hr
Residential	Auto Passenger	25.9%	1 ppl/hr	4 ppl/hr	5 ppl/hr	3 ppl/hr	1 ppl/hr	4 ppl/hr
Residential	Transit	8.0%	0 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr
Residential	Non-Motorized	12.3%	2 ppl/hr	1 ppl/hr	3 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr
	Total	100.0%						

Trip Gen Summary for Residential

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto Driver	2 veh/hr	8 veh/hr	10 veh/hr	6 veh/hr	3 veh/hr	9 veh/hr
Auto Passenger	1 ppl/hr	4 ppl/hr	5 ppl/hr	3 ppl/hr	1 ppl/hr	4 ppl/hr
Transit	0 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr
Bicycle (Non-motorized)	2 ppl/hr	1 ppl/hr	3 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr
Walk (Transit and other walk trips)	2 ppl/hr	2 ppl/hr	4 ppl/hr	2 ppl/hr	2 ppl/hr	4 ppl/hr

Trip Generation - Residential

110-bed Assisted Living

Policy Area: 22. North Bethesda

Step 1: Base trip generation using ITEs' *Trip Generation* 10th Edition

Land Use	Land Use Code	Quantity	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Assisted Living	254	110 beds	13 veh/hr	8 veh/hr	21 veh/hr	11 veh/hr	18 veh/hr	29 veh/hr
		Calculation Details:	*63%*	*37%*	*=0.19X*	*38%*	*62%*	*=0.26X*

Step 2: Convert to policy area vehicle trips

Land Use	ITE Vehicle-Trip generation Rate Adjustment Factor (Appendix Table 1a)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Assisted Living	83%	11 veh/hr	7 veh/hr	17 veh/hr	9 veh/hr	15 veh/hr	24 veh/hr

Step 3: Convert to total person trips, before applying mode splits

Land Use	People/Car (Appendix Table 1b)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Assisted Living	53.8%	20 ppl/hr	12 ppl/hr	32 ppl/hr	17 ppl/hr	28 ppl/hr	45 ppl/hr

Step 4: Split between modes, per assumed Mode Splits by Policy Area

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Assisted Living	Auto Driver	53.8%	11 ppl/hr	6 ppl/hr	17 ppl/hr	9 ppl/hr	15 ppl/hr	24 ppl/hr
Assisted Living	Auto Passenger	25.9%	5 ppl/hr	3 ppl/hr	8 ppl/hr	4 ppl/hr	8 ppl/hr	12 ppl/hr
Assisted Living	Transit	8.0%	2 ppl/hr	1 ppl/hr	3 ppl/hr	1 ppl/hr	3 ppl/hr	4 ppl/hr
Assisted Living	Non-Motorized	12.3%	2 ppl/hr	2 ppl/hr	4 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr
	Total	100.0%						

Trip Gen Summary for Residential

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto Driver	11 veh/hr	6 veh/hr	17 veh/hr	9 veh/hr	15 veh/hr	24 veh/hr
Auto Passenger	5 ppl/hr	3 ppl/hr	8 ppl/hr	4 ppl/hr	8 ppl/hr	12 ppl/hr
Transit	2 ppl/hr	1 ppl/hr	3 ppl/hr	1 ppl/hr	3 ppl/hr	4 ppl/hr
Bicycle (Non-motorized)	2 ppl/hr	2 ppl/hr	4 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr
Walk (Transit and other walk trips)	4 ppl/hr	3 ppl/hr	7 ppl/hr	4 ppl/hr	5 ppl/hr	9 ppl/hr

Trip Generation - Residential

45-unit Independent Living

Policy Area: 22. North Bethesda

Step 1: Base trip generation using ITEs' *Trip Generation* 10th Edition

Land Use	Land Use Code	Quantity	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Independent Living	252	45 du	3 veh/hr	6 veh/hr	9 veh/hr	7 veh/hr	6 veh/hr	13 veh/hr
		Calculation Details:	*35%*	*65%*	*=0.2X-0.18*	*55%*	*45%*	*=0.24X+2.26*

Step 2: Convert to policy area vehicle trips

Land Use	ITE Vehicle-Trip generation Rate Adjustment Factor (Appendix Table 1a)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Independent Living	83%	2 veh/hr	5 veh/hr	7 veh/hr	6 veh/hr	5 veh/hr	11 veh/hr

Step 3: Convert to total person trips, before applying mode splits

Land Use	People/Car (Appendix Table 1b)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Independent Living	53.8%	5 ppl/hr	9 ppl/hr	14 ppl/hr	11 ppl/hr	9 ppl/hr	20 ppl/hr

Step 4: Split between modes, per assumed Mode Splits by Policy Area

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Independent Living	Auto Driver	53.8%	2 ppl/hr	5 ppl/hr	7 ppl/hr	6 ppl/hr	5 ppl/hr	11 ppl/hr
Independent Living	Auto Passenger	25.9%	1 ppl/hr	3 ppl/hr	4 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr
Independent Living	Transit	8.0%	0 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr
Independent Living	Non-Motorized	12.3%	2 ppl/hr	0 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr
	Total	100.0%						

Trip Gen Summary for Residential

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto Driver	2 veh/hr	5 veh/hr	7 veh/hr	6 veh/hr	5 veh/hr	11 veh/hr
Auto Passenger	1 ppl/hr	3 ppl/hr	4 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr
Transit	0 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr
Bicycle (Non-motorized)	2 ppl/hr	0 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr
Walk (Transit and other walk trips)	2 ppl/hr	1 ppl/hr	3 ppl/hr	2 ppl/hr	2 ppl/hr	4 ppl/hr

Project Trip Generation								
Land Use	Size		AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Existing (Senior Living)								
Assisted Living	38 ksf	LATR Rate	10	2	12	4	11	15
		Existing Vehicle Trips	10	2	12	4	11	15
		Existing People Trips	19	4	23	8	20	28
Proposed (Residential and Senior Living)								
Townhomes	115 du	LATR Rate	9	25	34	26	16	42
Detached Homes	10 du	LATR Rate	2	8	10	6	3	9
Assisted Living	110 beds	LATR Rate	11	6	17	9	15	24
Independent Living	45 du	LATR Rate	2	5	7	6	5	11
		Total Proposed Vehicle Trips	24	44	68	47	39	86
		Total Proposed People Trips	46	82	128	86	74	160
		Net New Vehicle Trips	**14**	**42**	**56**	**43**	**28**	**71**
		Net New People Trips	**27**	**78**	**105**	**78**	**54**	**132**

St Angela Hall, Preliminary Site Distributions

**Derived from Appendix Table 2-6 of the M-NCPPC LATR Guidelines*

Trip Assignment for Super District (Development Located in Super District 4--Rockville/North Bethesda)

	Direction									Auto Driver
Super District	MD-355 (to/from the South)	MD-355 (to/from the North)	I-270 (to/from the North)	I-495 (to/from Southwest)	I-495 (to/from the East)	MD-185 (to/from the South)	MD-185/MD-97 (to/from the North)	MD-193 (to/from the East)	Montrose Rd (to/from the West)	Distribution-District 4 Residential
1 (Bethesda/Chevy Chase)	60%	0%	0%	0%	0%	40%	0%	0%	0%	**7.4%**
2 (Silver Spring/Takoma Park)	0%	0%	0%	0%	90%	0%	0%	10%	0%	**2.3%**
3 (Potomac/Darnestown/Travilah)	0%	0%	50%	0%	0%	0%	0%	0%	50%	**5.4%**
4 (Rockville/North Bethesda)	0%	90%	10%	0%	0%	0%	0%	0%	0%	**38.2%**
5 (Kensington/Wheaton)	0%	0%	0%	0%	0%	0%	0%	100%	0%	**4.1%**
6 (White Oak/Fairland/Cloverly)	0%	0%	0%	0%	90%	10%	0%	0%	0%	**1.6%**
7 (Gaithersburg/Shady Grove)	0%	10%	90%	0%	0%	0%	0%	0%	0%	**13.4%**
8 (Aspen Hill/Olney)	0%	0%	0%	0%	0%	0%	100%	0%	0%	**2.8%**
9 (Germantown/Clarksburg)	0%	0%	100%	0%	0%	0%	0%	0%	0%	**1.7%**
10 (Rural West of I-270)	0%	0%	100%	0%	0%	0%	0%	0%	0%	**0.1%**
11 (Rural East of I-270)	0%	0%	100%	0%	0%	0%	0%	0%	0%	**0.3%**
12 (Washington, DC)	20%	0%	0%	50%	30%	0%	0%	0%	0%	**11.0%**
13 (PG/AA/Cal/St. M/Chls Cos., MD)	0%	0%	0%	0%	100%	0%	0%	0%	0%	**4.4%**
14 (VA/WV)	0%	0%	0%	100%	0%	0%	0%	0%	0%	**6.5%**
15 (Frederick Co., MD)	0%	0%	100%	0%	0%	0%	0%	0%	0%	**0.3%**
16 (Howard Co./Carroll Co., MD)	0%	0%	0%	0%	100%	0%	0%	0%	0%	**0.5%**

Trip Assignment for Development Case

	Direction									Auto Driver
Super District	MD-355 (to/from the South)	MD-355 (to/from the North)	I-270 (to/from the North)	I-495 (to/from Southwest)	I-495 (to/from the East)	MD-185 (to/from the South)	MD-193/MD-97 (to/from the North)	MD-193 (to/from the East)	Montrose Rd (to/from the West)	Distribution-District 4 Residential
1 (Bethesda/Chevy Chase)	4.4%	0.0%	0.0%	0.0%	0.0%	3.0%	0.0%	0.0%	0.0%	**7.4%**
2 (Silver Spring/Takoma Park)	0.0%	0.0%	0.0%	0.0%	2.1%	0.0%	0.0%	0.2%	0.0%	**2.3%**
3 (Potomac/Darnestown/Travilah)	0.0%	0.0%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%	2.7%	**5.4%**
4 (Rockville/North Bethesda)	0.0%	34.4%	3.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**38.2%**
5 (Kensington/Wheaton)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.1%	0.0%	**4.1%**
6 (White Oak/Fairland/Cloverly)	0.0%	0.0%	0.0%	0.0%	1.4%	0.2%	0.0%	0.0%	0.0%	**1.6%**
7 (Gaithersburg/Shady Grove)	0.0%	1.3%	12.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**13.4%**
8 (Aspen Hill/Olney)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.8%	0.0%	0.0%	**2.8%**
9 (Germantown/Clarksburg)	0.0%	0.0%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**1.7%**
10 (Rural West of I-270)	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.1%**
11 (Rural East of I-270)	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.3%**
12 (Washington, DC)	2.2%	0.0%	0.0%	5.5%	3.3%	0.0%	0.0%	0.0%	0.0%	**11.0%**
13 (PG/AA/Cal/St. M/Chls Cos., MD)	0.0%	0.0%	0.0%	0.0%	4.4%	0.0%	0.0%	0.0%	0.0%	**4.4%**
14 (VA/WV)	0.0%	0.0%	0.0%	6.5%	0.0%	0.0%	0.0%	0.0%	0.0%	**6.5%**
15 (Frederick Co., MD)	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.3%**
16 (Howard Co./Carroll Co., MD)	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	**0.5%**
Distribution (Sum)	6.6%	35.7%	21.0%	12.0%	11.7%	3.1%	2.8%	4.3%	2.7%	**100.0%**
Distribution (Assumed)	7%	35%	21%	12%	12%	3%	3%	4%	3%	**100.0%**

B: UPDATED TRIP GENERATION AND MODE SPLIT REDUCTION

Trip Generation - Existing Residential

38,000 SF Existing Senior Living Facility

Policy Area: 22. North Bethesda

Step 1: Base trip generation using ITEs' *Trip Generation* 10th Edition

Land Use	Land Use Code	Quantity	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Assisted Living	254	38,000 sf	12 veh/hr	3 veh/hr	15 veh/hr	5 veh/hr	13 veh/hr	18 veh/hr
		Calculation Details:	*78%*	*22%*	*=0.39(X/1000)*	*30%*	*70%*	*=0.48(X/1000)*

Step 2: Convert to policy area vehicle trips

Land Use	ITE Vehicle-Trip generation Rate Adjustment Factor (Appendix Table 1a)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Assisted Living	83%	10 veh/hr	2 veh/hr	12 veh/hr	4 veh/hr	11 veh/hr	15 veh/hr

Step 3: Convert to total person trips, before applying mode splits

Land Use	People/Car (Appendix Table 1b)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Assisted Living	53.8%	19 ppl/hr	3 ppl/hr	22 ppl/hr	7 ppl/hr	21 ppl/hr	28 ppl/hr

Step 4: Split between modes, per assumed Mode Splits by Policy Area

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Assisted Living	Auto Driver	53.8%	10 ppl/hr	2 ppl/hr	12 ppl/hr	4 ppl/hr	11 ppl/hr	15 ppl/hr
Assisted Living	Auto Passenger	25.9%	5 ppl/hr	1 ppl/hr	6 ppl/hr	2 ppl/hr	5 ppl/hr	7 ppl/hr
Assisted Living	Transit	8.0%	2 ppl/hr	0 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr
Assisted Living	Non-Motorized	12.3%	2 ppl/hr	0 ppl/hr	2 ppl/hr	0 ppl/hr	4 ppl/hr	4 ppl/hr
	Total	100.0%						

Trip Gen Summary for Existing Residential

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto Driver	10 veh/hr	2 veh/hr	12 veh/hr	4 veh/hr	11 veh/hr	15 veh/hr
Auto Passenger	5 ppl/hr	1 ppl/hr	6 ppl/hr	2 ppl/hr	5 ppl/hr	7 ppl/hr
Transit	2 ppl/hr	0 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr
Bicycle (Non-motorized)	2 ppl/hr	0 ppl/hr	2 ppl/hr	0 ppl/hr	4 ppl/hr	4 ppl/hr
Walk (Transit and other walk trips)	4 ppl/hr	0 ppl/hr	4 ppl/hr	1 ppl/hr	5 ppl/hr	6 ppl/hr

Trip Generation - Residential

115 Townhomes

Policy Area: 22. North Bethesda

Step 1: Base trip generation using ITEs' *Trip Generation* 10th Edition

Land Use	Land Use Code	Quantity	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Residential	221	115 du	11 veh/hr	30 veh/hr	41 veh/hr	31 veh/hr	20 veh/hr	51 veh/hr
		Calculation Details:	*26%*	*74%*	*=0.36X*	*61%*	*39%*	*=0.44X*

**Multifamily Housing (Mid-Rise) used to calcluate Townhome trip generation (Townhomes no longer featured in ITE Trip Gen, 10th Edition)*

Step 2: Convert to policy area vehicle trips

Land Use	ITE Vehicle-Trip generation Rate Adjustment Factor (Appendix Table 1a)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Residential	83%	9 veh/hr	25 veh/hr	34 veh/hr	26 veh/hr	16 veh/hr	42 veh/hr

Step 3: Convert to total person trips, before applying mode splits

Land Use	People/Car (Appendix Table 1b)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Residential	53.8%	17 ppl/hr	46 ppl/hr	63 ppl/hr	48 ppl/hr	30 ppl/hr	78 ppl/hr

Step 4: Split between modes, per assumed Mode Splits by Policy Area

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Residential	Auto Driver	53.8%	9 ppl/hr	25 ppl/hr	34 ppl/hr	26 ppl/hr	16 ppl/hr	42 ppl/hr
Residential	Auto Passenger	25.9%	4 ppl/hr	12 ppl/hr	16 ppl/hr	12 ppl/hr	8 ppl/hr	20 ppl/hr
Residential	Transit	8.0%	1 ppl/hr	4 ppl/hr	5 ppl/hr	4 ppl/hr	2 ppl/hr	6 ppl/hr
Residential	Non-Motorized	12.3%	3 ppl/hr	5 ppl/hr	8 ppl/hr	6 ppl/hr	4 ppl/hr	10 ppl/hr
	Total	100.0%						

Trip Gen Summary for Residential

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto Driver	9 veh/hr	25 veh/hr	34 veh/hr	26 veh/hr	16 veh/hr	42 veh/hr
Auto Passenger	4 ppl/hr	12 ppl/hr	16 ppl/hr	12 ppl/hr	8 ppl/hr	20 ppl/hr
Transit	1 ppl/hr	4 ppl/hr	5 ppl/hr	4 ppl/hr	2 ppl/hr	6 ppl/hr
Bicycle (Non-motorized)	3 ppl/hr	5 ppl/hr	8 ppl/hr	6 ppl/hr	4 ppl/hr	10 ppl/hr
Walk (Transit and other walk trips)	4 ppl/hr	9 ppl/hr	13 ppl/hr	10 ppl/hr	6 ppl/hr	16 ppl/hr

Trip Generation - Residential

10 Single-Family detached homes

Policy Area: 22. North Bethesda

Step 1: Base trip generation using ITEs' *Trip Generation* 10th Edition

Land Use	Land Use Code	Quantity	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Residential	210	10 du	3 veh/hr	9 veh/hr	12 veh/hr	7 veh/hr	4 veh/hr	11 veh/hr
		Calculation Details:	*25%*	*75%*	*=0.71X+4.8*	*63%*	*37%*	*Ln(T)=0.96Ln(X)+0.2*

Step 2: Convert to policy area vehicle trips

Land Use	ITE Vehicle-Trip generation Rate Adjustment Factor (Appendix Table 1a)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Residential	83%	2 veh/hr	8 veh/hr	10 veh/hr	6 veh/hr	3 veh/hr	9 veh/hr

Step 3: Convert to total person trips, before applying mode splits

Land Use	People/Car (Appendix Table 1b)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Residential	53.8%	4 ppl/hr	15 ppl/hr	19 ppl/hr	11 ppl/hr	6 ppl/hr	17 ppl/hr

Step 4: Split between modes, per assumed Mode Splits by Policy Area

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Residential	Auto Driver	53.8%	2 ppl/hr	8 ppl/hr	10 ppl/hr	6 ppl/hr	3 ppl/hr	9 ppl/hr
Residential	Auto Passenger	25.9%	1 ppl/hr	4 ppl/hr	5 ppl/hr	3 ppl/hr	1 ppl/hr	4 ppl/hr
Residential	Transit	8.0%	0 ppl/hr	2 ppl/hr	2 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr
Residential	Non-Motorized	12.3%	1 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr
	Total	100.0%						

Trip Gen Summary for Residential

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto Driver	2 veh/hr	8 veh/hr	10 veh/hr	6 veh/hr	3 veh/hr	9 veh/hr
Auto Passenger	1 ppl/hr	4 ppl/hr	5 ppl/hr	3 ppl/hr	1 ppl/hr	4 ppl/hr
Transit	0 ppl/hr	2 ppl/hr	2 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr
Bicycle (Non-motorized)	1 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr
Walk (Transit and other walk trips)	1 ppl/hr	3 ppl/hr	4 ppl/hr	2 ppl/hr	2 ppl/hr	4 ppl/hr

Trip Generation - Residential

150-bed Assisted Living

Policy Area: 22. North Bethesda

Step 1: Base trip generation using ITEs' *Trip Generation* 10th Edition

Land Use	Land Use Code	Quantity	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Assisted Living	254	150 beds	18 veh/hr	11 veh/hr	29 veh/hr	15 veh/hr	24 veh/hr	39 veh/hr
		Calculation Details:	*63%*	*37%*	*=0.19X*	*38%*	*62%*	*=0.26X*

Step 2: Convert to policy area vehicle trips

Land Use	ITE Vehicle-Trip generation Rate Adjustment Factor (Appendix Table 1a)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Assisted Living	83%	15 veh/hr	9 veh/hr	24 veh/hr	12 veh/hr	20 veh/hr	32 veh/hr

Step 3: Convert to total person trips, before applying mode splits

Land Use	People/Car (Appendix Table 1b)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Assisted Living	53.8%	28 ppl/hr	17 ppl/hr	45 ppl/hr	22 ppl/hr	37 ppl/hr	59 ppl/hr

Step 4: Split between modes, per assumed Mode Splits by Policy Area

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Assisted Living	Auto Driver	53.8%	15 ppl/hr	9 ppl/hr	24 ppl/hr	12 ppl/hr	20 ppl/hr	32 ppl/hr
Assisted Living	Auto Passenger	25.9%	7 ppl/hr	5 ppl/hr	12 ppl/hr	6 ppl/hr	9 ppl/hr	15 ppl/hr
Assisted Living	Transit	8.0%	2 ppl/hr	2 ppl/hr	4 ppl/hr	2 ppl/hr	3 ppl/hr	5 ppl/hr
Assisted Living	Non-Motorized	12.3%	4 ppl/hr	1 ppl/hr	5 ppl/hr	2 ppl/hr	5 ppl/hr	7 ppl/hr
	Total	100.0%						

Trip Gen Summary for Residential

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto Driver	15 veh/hr	9 veh/hr	24 veh/hr	12 veh/hr	20 veh/hr	32 veh/hr
Auto Passenger	7 ppl/hr	5 ppl/hr	12 ppl/hr	6 ppl/hr	9 ppl/hr	15 ppl/hr
Transit	2 ppl/hr	2 ppl/hr	4 ppl/hr	2 ppl/hr	3 ppl/hr	5 ppl/hr
Bicycle (Non-motorized)	4 ppl/hr	1 ppl/hr	5 ppl/hr	2 ppl/hr	5 ppl/hr	7 ppl/hr
Walk (Transit and other walk trips)	6 ppl/hr	3 ppl/hr	9 ppl/hr	4 ppl/hr	8 ppl/hr	12 ppl/hr

Project Trip Generation								
Land Use	Size		AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Existing (Senior Living)								
Assisted Living	38 ksf	LATR Rate	10	2	12	4	11	15
	Existing Vehicle Trips		10	2	12	4	11	15
	Existing People Trips		19	3	22	7	21	28
Proposed (Residential and Senior Living)								
Townhomes	115 du	LATR Rate	9	25	34	26	16	42
Detached Homes	10 du	LATR Rate	2	8	10	6	3	9
Assisted Living	150 beds	LATR Rate	15	9	24	12	20	32
	Total Proposed Vehicle Trips		26	42	68	44	39	83
	Total Proposed People Trips		49	78	127	81	73	154
	Net New Vehicle Trips		**16**	**40**	**56**	**40**	**28**	**68**
	Net New People Trips		**30**	**75**	**105**	**74**	**52**	**126**

C: BACKGROUND DEVELOPMENTS

1140 Connecticut Avenue NW
Suite 600
Washington, DC 20036
202.296.8625

TECHNICAL MEMORANDUM

To:	Rob Eisinger	PROMARK Real Estate Services LLC
	Josh Etter	Foulger Pratt Development, LLC
From:	Jim Watson, PTP	
	Peter Kauffmann, E.I.T.	
	Erwin Andres, P.E.	
Date:	August 20, 2014	
Subject:	North Bethesda Gateway – Response to Montgomery County Department of Transportation Comments	

Introduction

This memorandum is intended to address comments made by the Montgomery County Department of Transportation (MCDOT) regarding the proposed North Bethesda Gateway development (Sketch Plan No. 320110020) in a memorandum dated January 4, 2011. Specifically, Comment 13 asked for a more in-depth review of the site's expected trip generation and impacts once the project's size, configuration, and development quantities had been established, stating:

13. *At the preliminary plan stage, submit the following traffic information (even if a Local Area Transportation Review/Policy Area Mobility Review Study is not required for this project):*
    - A. *projected peak hour inbound and outbound traffic volumes at each of the proposed site entrances*
    - B. *projected turning movement volumes and queuing analyses along Executive Boulevard Extended, Huff Court, and Nicholson Lane*
    - C. *signal warrant analyses at the proposed intersections of Executive Boulevard Extended with Huff Court and Proposed Private Street "A"*

In order to address MCDOT's comments, a forecast of the trips expected on the surrounding roadway network had to be prepared. As such, the sections that follow will give an overview of the assumptions used to calculate the traffic impacts of the North Bethesda Gateway development as well nearby background developments like the White Flint Mall redevelopment project. Responses to the above comments are featured at the end of the report based on preliminary plans and development quantities for Phases I and II prepared during April 2014 and provided by Foulger Pratt Development.

Preliminary Site Development Plan and Trip Generation

North Bethesda Gateway will be a mixed use development constructed in two phases containing residential dwelling units above ground floor retail space. The project is located in the block bounded by Nicholson Lane, Huff Court, the White Flint Mall Ring Road, and Private Street A as shown in Figure 1.



Figure 1: Site Location

Development Program

As mentioned above, the North Bethesda Gateway project will be a mixed use development constructed in two phases. Phase I will occupy the northern half of the lot and will consist of 414 residential units above 22,072 square feet (sf) of ground floor retail. Phase II will occupy the southeastern corner of the lot and will consist of 200 residential units above 8,500 sf of ground floor retail. When completed, the overall development will consist of 614 residential units and 30,572 sf of retail space. A summary of the preliminary development quantities at the time of this report's preparation are as follows:

Table 1: Preliminary Development Quantities

Development Component	**Phase I** (north building)	**Phase II** (south building)	**Total**
Residential Apartments	414 du	200 du	**614 du**
Ground-Floor Retail Space	22,072 sf	8,500 sf	**30,572 sf**

Site Layout and Access

As shown on Figure 2, Phase I will be located in the northern portion of this block and Phase II will be located in the southeastern corner. Each phase will have its own garage, with the Phase I garage being accessed from Nicholson Lane to the north and Huff Court to the west and Phase II being accessed from Executive Boulevard Extended (the existing White Flint Mall Ring Road) to the south. It should be noted that the parking garages for Phase I and Phase II will not be connected. As such, the access points for Phase I and Phase II will be designed to only serve the program for those phases. Pedestrian access will be primarily from a pedestrian plaza bisecting the block and connecting Huff Court with Private Street A. Additional pedestrian access will be available directly from Huff Court, Nicholson Lane, Private Street A, and Executive Boulevard Extended (the realigned existing White Flint Mall Ring Road). Loading access for Phase I and Phase II will be provided from Private Street A.

Projected Site Trip Generation

Trip generation calculations were developed based on Montgomery County Local Area Transportation Review (LATR) guidelines. Montgomery County LATR guidelines specify trip generation rates for retail and residential uses that should be used. As shown on Table 2, trips were generated for Phase I and Phase II retail and residential uses separately. Based on data included in the WMATA Development Related Ridership Survey (DRRS) and the site's proximity to the White Flint Metro Station (1/3 of a mile), a 20 percent non-auto reduction was applied to the development's retail trips and a 30 percent non-auto reduction was applied to the development's residential trips. Finally, given the internal synergy that residential and retail uses occupying the same development should generate, trips were then adjusted based on Institute of Transportation Engineers' (ITE) procedures to account for synergy between the retail and residential uses. The resulting peak-hour trip ends shown in Table 2 and indicate that the overall development will generate 160 trips (52 inbound and 108 outbound) during the morning peak hour and 275 trips (155 inbound and 120 outbound) during the evening peak hour.

Trip Distribution and Resulting Driveway Volumes

The trips shown on Table 2 and described above were distributed to the future roadway network based on Site Access plan shown on Figure 2 and the Trip Distribution Assignment Matrix in the Montgomery County LATR guidelines. The resulting site generated trips are shown on Figure 3.

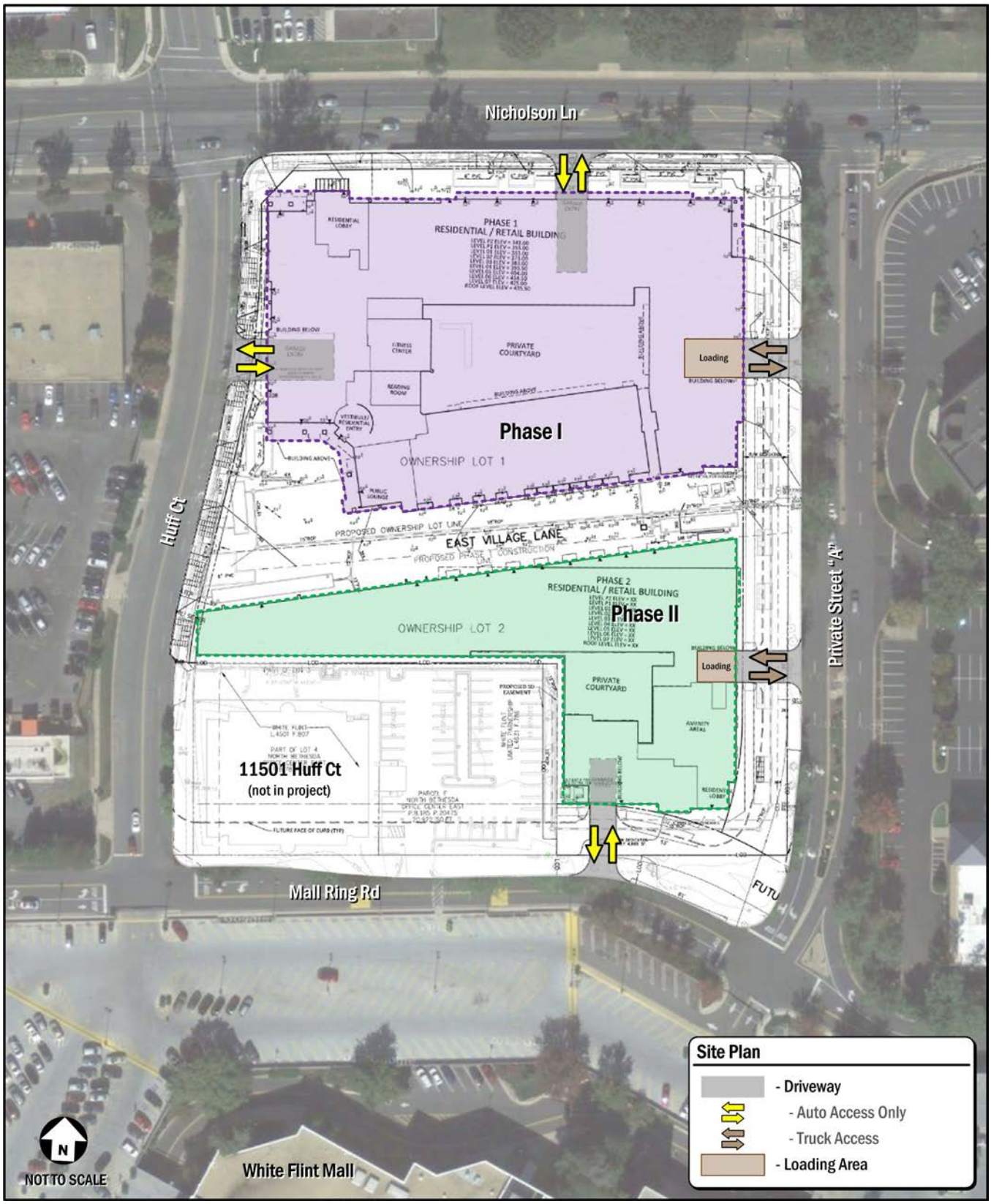


Figure 2: Preliminary Ground Floor Site Plan

Table 2: Projected Site Trip Generation

Development Component	Quantity	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
Phase I (North Building)							
Theoretical Retail Auto Trips (LATR rates, General Retail)	22,072 sf	21	20	41	84	78	162
Non-Auto Mode Share (WMATA 2005 DRRS, 60% of Silver Spring)	*-20%*	*-4*	*-4*	*-8*	*-17*	*-15*	*-32*
Retail Auto Trips		**17**	**16**	**33**	**67**	**63**	**130**
Theoretical Residential Auto Trips (LATR rates, High-Rise Apartments)	414 du	27	80	107	76	49	125
Non-Auto Mode Share (WMATA 2005 DRRS, 60% of Silver Spring)	*-30%*	*-8*	*-24*	*-32*	*-23*	*-15*	*-38*
Residential Auto Trips		**19**	**56**	**75**	**53**	**34**	**87**
Phase II (South Building)							
Theoretical Retail Auto Trips (LATR rates, General Retail)	8,500 sf	8	7	15	31	29	60
Non-Auto Mode Share (WMATA 2005 DRRS, 60% of Silver Spring)	*-20%*	*-2*	*-1*	*-3*	*-6*	*-6*	*-12*
Retail Auto Trips		**6**	**6**	**12**	**25**	**23**	**48**
Theoretical Residential Auto Trips (LATR rates, High-Rise Apartments)	200 du	14	43	57	40	26	66
Non-Auto Mode Share (WMATA 2005 DRRS, 60% of Silver Spring)	*-30%*	*-4*	*-13*	*-17*	*-12*	*-8*	*-20*
Residential Auto Trips		**10**	**30**	**40**	**28**	**18**	**46**
Entire North Bethesda Gateway Development							
Retail Auto Trips		23	22	45	92	86	178
Internal Capture with Residential		*0*	*0*	*0*	*-8*	*-10*	*-18*
New External Retail Auto Trips		**23**	**22**	**45**	**84**	**76**	**160**
External Retail Auto Trips to Phase I		*17*	*16*	*33*	*61*	*56*	*117*
External Retail Auto Trips to Phase II		*6*	*6*	*12*	*23*	*20*	*43*
Residential Auto Trips		29	86	115	81	52	133
Internal Capture with Retail		*0*	*0*	*0*	*-10*	*-8*	*-18*
New External Residential Auto Trips		**29**	**86**	**115**	**71**	**44**	**115**
External Residential Auto Trips to Phase I		*19*	*56*	*75*	*46*	*29*	*75*
External Residential Auto Trips to Phase II		*10*	*30*	*40*	*25*	*15*	*40*
Net External Auto Trips, Entire Development		**52**	**108**	**160**	**155**	**120**	**275**
External Auto Trips to Phase I		*36*	*72*	*108*	*107*	*85*	*192*
External Auto Trips to Phase II		*16*	*36*	*52*	*48*	*35*	*83*

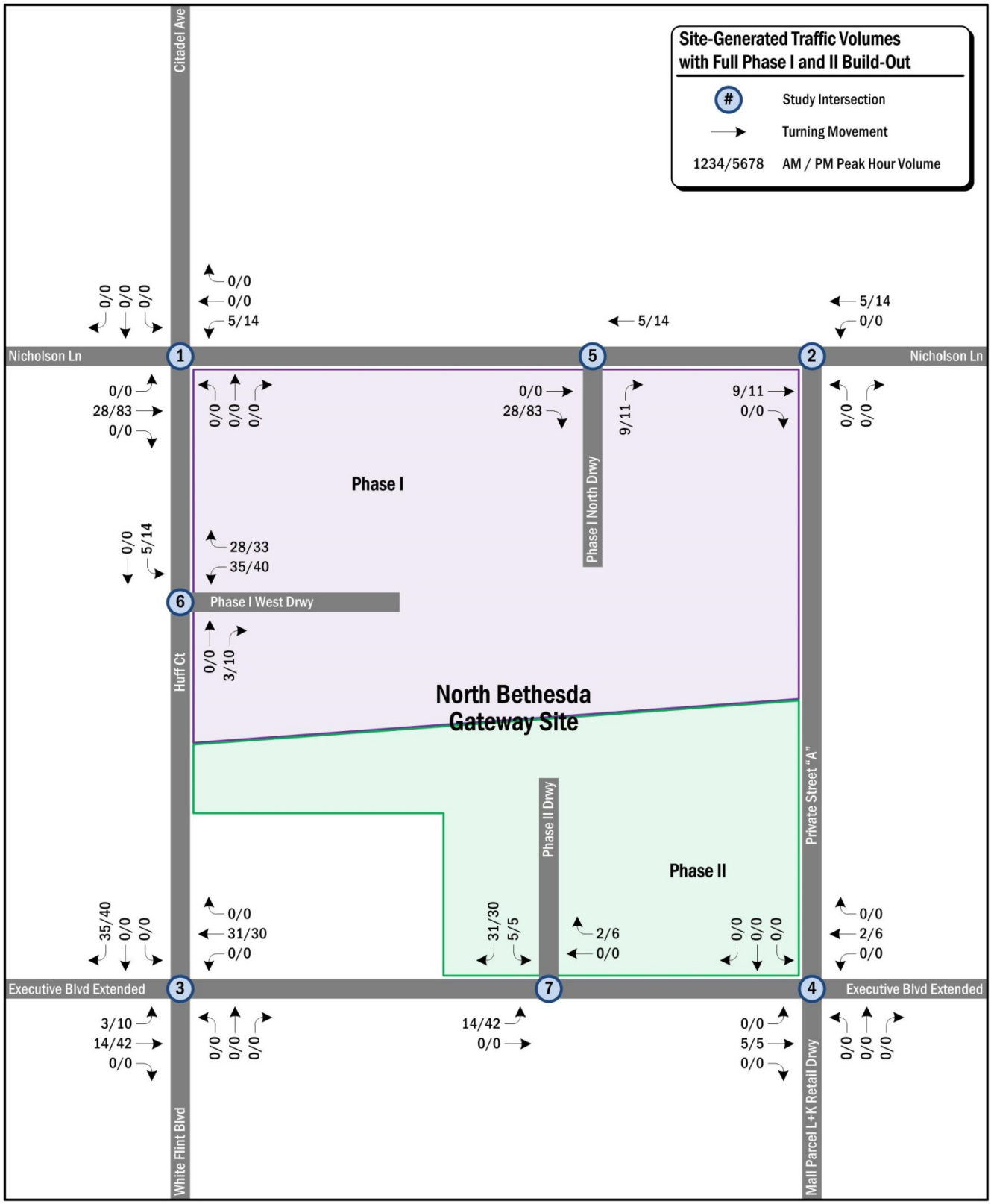


Figure 3: Projected Site-Generated Traffic Volumes



WELLS + ASSOCIATES

STRATHMORE SQUARE

LOCAL AREA TRANSPORTATION REVIEW
MONTGOMERY COUNTY, MARYLAND

December 21, 2018
Revised – March 15, 2019



STRATHMORE SQUARE

Local Area Transportation Review

Montgomery County, Maryland

December 21, 2018

Revised – March 15, 2019

Prepared by:

Wells + Associates

John J. Andrus

Kevin A. Berger, PTP

(703) 917-6620

www.WellsAndAssociates.com

@WellsAssoc @WellsandAssociates Wells + Associates

Table 1-1

Grosvenor-Strathmore

ITE Trip Generation, 10th Edition

Land Use	Ref	Size	Units	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
Residential (1)									
			Percent	24%	76%	100%	61%	39%	100%
Multifamily Housing (High-Rise)	222	2,218	D.U.	152	482	634	465	298	763
Total Residential		2,218	D.U.	152	482	634	465	298	763
Commercial (2)									
			Percent	60%	40%	100%	51%	49%	100%
Supermarket	850	12,000	SF	28	18	46	82	78	160
			Percent	55%	45%	100%	62%	38%	100%
Restaurant	932	12,500	SF	68	56	124	76	46	122
Total Retail Plus Restaurant		24,500	SF	96	74	170	158	124	282
			Percent	86%	14%	100%	16%	84%	100%
Office	710	134,000	SF	131	21	152	24	126	150
Total Commercial		158,500	SF	227	95	322	182	250	432

Table 1-2
Grosvenor-Strathmore
Trip Generation - LATR Methodology

		SSP 2016-2020 Trip Generation											
		AM Peak Hour						PM Peak Hour					
Land Use	**Policy Area Adjustment Factor**	**Auto Driver**	Auto Pass.	Transit	Non-Motorized	Peds.	Total Person Trips	**Auto Driver**	Auto Pass.	Transit	Non-Motorized	Peds.	Total Person Trips
Residential (1)													
Multifamily Housing (High-Rise)	81%	514	254	117	98	215	983	618	305	141	118	259	1,182
Residential with NADMS Adjustment to 52%		472	276	127	107	235	983	567	332	153	129	259	1,182
Commercial (2)													
Supermarket	75%	35	17	5	6	11	63	120	60	18	21	39	219
Restaurant	75%	93	47	14	16	30	170	92	46	14	16	30	167
Total Retail Plus Restaurant		128	64	20	22	42	233	212	106	32	37	69	387
Office	84%	128	33	27	14	41	202	126	33	26	14	40	199
Total Commercial		256	97	47	36	83	435	338	139	58	51	109	585
TOTAL TRIPS BY MODE		**727**	**373**	**174**	**143**	**317**	**1,418**	**905**	**472**	**212**	**179**	**368**	**1,767**

Notes: (1) At Staff Direction, Residential Non-Auto Driver Mode Share Adjusted to 52% per 2016 American Community Survey (ACS)

L:\PROJECTS\7001 - 7500\7463 - STRATHMORE SQUARE\GRAPHICS\7463 - NON-AUTO GRAPHICS.DWG

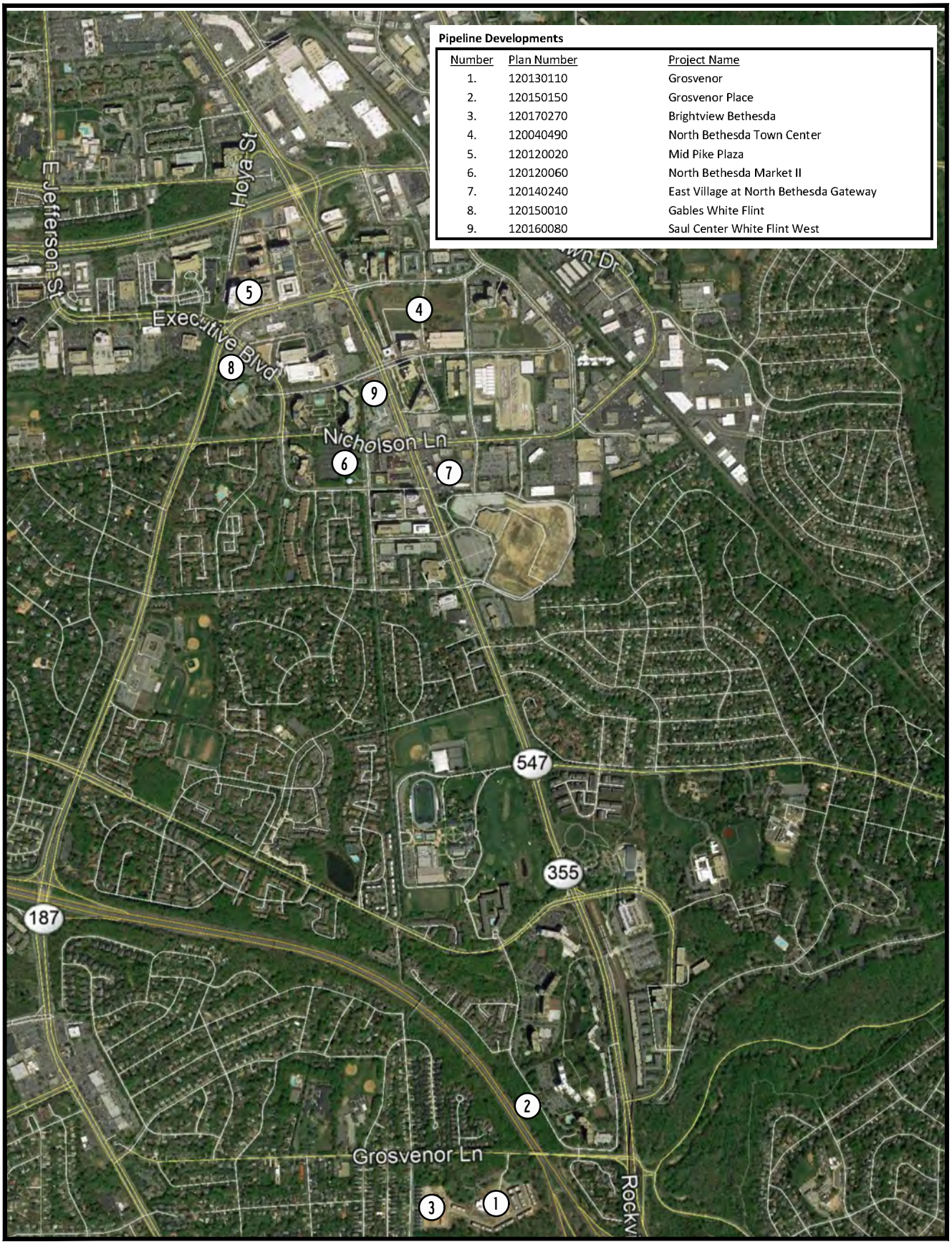


Figure 3-1
Pipeline Development Locations

NORTH

Strathmore Square
Montgomery County, Maryland

Table 3-2
Strathmore Square
Background Development Trip Generation

Development	Land Use	ITE Land Use Code	Amount	Unit	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
Grosvenor	Townhomes	220	46	DU's	**4**	**14**	**18**	**15**	**9**	**24**
Grosvenor Place	Townhomes	220	46	DU's	**4**	**14**	**18**	**15**	**9**	**24**
Brightview Bethesda	Assisted Living		104	Beds	**2**	**1**	**3**	**3**	**3**	**6**
North Bethesda Town Center	Apartments	220	697	DU's	69	233	302	209	123	332
	50% Reduction				(35)	(117)	(151)	(105)	(62)	(166)
	Apartment Trips Subtotal				34	116	151	104	61	166
	Office	710	809,338	SF	677	110	787	133	697	830
	50% Reduction				(339)	(55)	(394)	(67)	(349)	(415)
	Office Trips Subtotal				338	55	393	66	348	415
	Retail	820	152,790	SF	89	55	144	357	387	744
	50% Reduction				(45)	(28)	(72)	(179)	(194)	(372)
	Retail Trips Subtotal				44	27	72	178	193	372
	Hotel	310	314	Rooms	90	62	152	107	102	209
	50% Reduction				(45)	(31)	(76)	(54)	(51)	(105)
	Hotel Trips Subtotal				45	31	76	53	51	104
	North Bethesda Town Center Subtotal				**461**	**229**	**692**	**401**	**653**	**1,057**
Mid Pike Plaza	Apartments	220	734	DU's	73	244	317	219	129	348
	50% Reduction				(37)	(122)	(159)	(110)	(65)	(174)
	Apartment Trips Subtotal				36	122	158	109	64	174
	Office	710	682,691	SF	574	94	668	113	593	706
	50% Reduction				(287)	(47)	(334)	(57)	(297)	(353)
	Office Trips Subtotal				287	47	334	56	296	353
	Retail	820	143,835	SF	84	51	135	341	370	711
	50% Reduction				(42)	(26)	(68)	(171)	(185)	(356)
	Retail Trips Subtotal				42	25	67	170	185	355
	Mid Pike Plaza Subtotal				**365**	**194**	**559**	**335**	**545**	**882**
North Bethesda Market II	Apartments	220	470	DU's	48	159	207	147	87	234
	50% Reduction				(24)	(80)	(104)	(74)	(44)	(117)
	Apartment Trips Subtotal				24	79	103	73	43	117
	Retail	820	103,753	SF	61	37	98	268	290	558
	50% Reduction				(31)	(19)	(49)	(134)	(145)	(279)
	Retail Trips Subtotal				30	18	49	134	145	279
	North Bethesda Market II Subtotal				**54**	**97**	**152**	**207**	**188**	**396**
East Village at North Bethesda Gateway	Apartments	220	614	DU's	61	206	267	187	110	297
	50% Reduction				(31)	(103)	(134)	(94)	(55)	(149)
	Apartment Trips Subtotal				**30**	**103**	**133**	**93**	**55**	**148**
Gables White Flint	Apartments	220	475	DU's	48	162	210	149	87	236
	50% Reduction				(24)	(81)	(105)	(75)	(44)	(118)
	Apartment Trips Subtotal				24	81	105	74	43	118
	Retail	820	20,890	SF	12	8	20	82	89	171
	50% Reduction				(6)	(4)	(10)	(41)	(45)	(86)
	Retail Trips Subtotal				6	4	10	41	44	85
	Gables White Flint Subtotal				**30**	**85**	**115**	**115**	**87**	**203**
Saul Center White Flint	Apartments	220	655	DU's	65	219	284	198	117	315
	50% Reduction				(33)	(110)	(142)	(99)	(59)	(158)
	Apartment Trips Subtotal				32	109	142	99	58	157
	Office	710	136,950	SF	133	22	155	24	129	153
	50% Reduction				(67)	(11)	(78)	(12)	(65)	(77)
	Office Trips Subtotal				66	11	77	12	64	76
	Saul Center White Flint Subtotal				**98**	**120**	**219**	**111**	**122**	**233**
Total Background Development Trip Generation					**1,048**	**857**	**1,909**	**1,295**	**1,671**	**2,973**

Note: Trip generation is based on ITE's Trip Generation, 10th Edition

1: Rockville Pike/Strathmore Avenue 2018
AM Peak Hour

Traffic Component			Southbound Rockville Pike			Westbound Strathmore Avenue			Northbound Rockville Pike			Eastbound Strathmore Road		
			Right	Through	Left	Right	Through	Left	Right	Through	Left	Right	Through	Left
Existing Traffic Volume			35	1,825	253	223	19	533	322	969	29	17	4	27
Growth			-	-	-	-	-	-	-	-	-	-	-	-
Pipeline Developments	IN	OUT												
Grosvenor	4	14	-	1	-	-	-	-	-	3	-	-	-	-
Grosvenor Place	4	14	-	1	-	-	-	-	-	3	-	-	-	-
Brightview Bethesda	2	1	-	-	-	-	-	-	-	-	-	-	-	-
North Bethesda Town Center (Apartme	34	116	-	24	-	-	-	-	-	7	-	-	-	-
North Bethesda Town Center (Office)	338	55	-	15	-	-	-	-	-	95	-	-	-	-
North Bethesda Town Center (Retail)	44	27	-	8	-	-	-	-	-	12	-	-	-	-
North Bethesda Town Center (Hotel)	45	31	-	9	-	-	-	-	-	13	-	-	-	-
Mid Pike Plaza (Apartments)	36	122	-	26	-	-	-	-	-	8	-	-	-	-
Mid Pike Plaza (Office)	287	47	-	13	-	-	-	-	-	80	-	-	-	-
Mid Pike Plaza (Retail)	42	25	-	7	-	-	-	-	-	12	-	-	-	-
North Bethesda Market II (Apartments)	24	79	-	17	-	-	-	-	-	5	-	-	-	-
North Bethesda Market II (Retail)	30	18	-	5	-	-	-	-	-	8	-	-	-	-
East Village at North Bethesda Gateway	30	103	-	22	-	-	-	-	-	6	-	-	-	-
Gables White Flint (Apartments)	24	81	-	17	-	-	-	-	-	5	-	-	-	-
Gables White Flint (Retail)	6	4	-	1	-	-	-	-	-	2	-	-	-	-
Saul Center White Flint (Apartments)	32	109	-	23	-	-	-	-	-	7	-	-	-	-
Saul Center White Flint (Office)	66	11	-	3	-	-	-	-	-	18	-	-	-	-
Subtotal	1,048	857	-	192	-	-	-	-	-	284	-	-	-	-
Background			35	2,017	253	223	19	533	322	1,253	29	17	4	27
Site Assignment														
Building 1 (Residential	27	85	-	6	-	-	-	-	-	18	-	-	-	-
Building 2 (Residential)	22	69	-	5	-	-	-	-	-	14	-	-	-	-
Building 2 (Retail)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Building 2 (Office)	7	1	-	1	-	-	-	-	-	-	-	-	-	-
Building 3A (Residential)	7	23	-	1	-	-	-	-	-	5	-	-	-	-
Building 3A (Retail)	21	14	-	3	-	-	-	-	-	2	-	-	-	-
Building 3B (Residential)	8	26	-	2	-	-	-	-	-	5	-	-	-	-
Building 4 (Residential)	25	79	-	5	-	-	-	-	-	17	-	-	-	-
Building 4 (Retail)	17	13	-	3	-	-	-	-	-	2	-	-	-	-
Building 5 (Residential)	24	76	-	5	-	-	-	-	-	16	-	-	-	-
Building 5 (Retail)	25	20	-	4	-	-	-	-	-	3	-	-	-	-
Building 6 (Retail)	10	9	-	2	-	-	-	-	-	1	-	-	-	-
Building 6 (Office)	103	17	-	16	-	-	-	-	-	3	-	-	-	-
Site Total	**296**	**432**	-	**53**	-	-	-	-	-	**86**	-	-	-	-
Total Future			**35**	**2,070**	**253**	**223**	**19**	**533**	**322**	**1,339**	**29**	**17**	**4**	**27**
Diversions			-	-	-	-	-	-	-	-	-	-	-	-
Total Future After Diversions			**35**	**2,070**	**253**	**223**	**19**	**533**	**322**	**1,339**	**29**	**17**	**4**	**27**

1: Rockville Pike/Strathmore Avenue
PM Peak Hour

Traffic Component			Southbound None			Westbound Strathmore Avenue			Northbound Rockville Pike			Eastbound Strathmore Road		
			Right	Through	Left	Right	Through	Left	Right	Through	Left	Right	Through	Left
Existing Traffic Volume			49	1,470	361	316	8	324	538	1,954	37	40	14	48
Growth			-	-	-	-	-	-	-	-	-	-	-	-
Pipeline Developments	IN	OUT												
Grosvenor	15	9	-	3	-	-	-	-	-	2	-	-	-	-
Grosvenor Place	15	9	-	3	-	-	-	-	-	2	-	-	-	-
Brightview Bethesda	3	3	-	-	-	-	-	-	-	-	-	-	-	-
North Bethesda Town Center (Apartme	104	61	-	13	-	-	-	-	-	22	-	-	-	-
North Bethesda Town Center (Office)	66	348	-	97	-	-	-	-	-	18	-	-	-	-
North Bethesda Town Center (Retail)	178	193	-	54	-	-	-	-	-	50	-	-	-	-
North Bethesda Town Center (Hotel)	53	51	-	14	-	-	-	-	-	15	-	-	-	-
Mid Pike Plaza (Apartments)	109	64	-	13	-	-	-	-	-	23	-	-	-	-
Mid Pike Plaza (Office)	56	296	-	83	-	-	-	-	-	16	-	-	-	-
Mid Pike Plaza (Retail)	170	185	-	52	-	-	-	-	-	48	-	-	-	-
North Bethesda Market II (Apartments)	73	43	-	9	-	-	-	-	-	15	-	-	-	-
North Bethesda Market II (Retail)	134	145	-	41	-	-	-	-	-	38	-	-	-	-
East Village at North Bethesda Gateway	93	55	-	12	-	-	-	-	-	20	-	-	-	-
Gables White Flint (Apartments)	74	43	-	9	-	-	-	-	-	16	-	-	-	-
Gables White Flint (Retail)	41	44	-	12	-	-	-	-	-	11	-	-	-	-
Saul Center White Flint (Apartments)	99	58	-	12	-	-	-	-	-	21	-	-	-	-
Saul Center White Flint (Office)	12	64	-	18	-	-	-	-	-	3	-	-	-	-
Subtotal	1,295	1,671	-	445	-	-	-	-	-	320	-	-	-	-
Background			49	1,915	361	316	8	324	538	2,274	37	40	14	48
Site Assignment														
Building 1 (Residential	82	52	-	17	-	-	-	-	-	11	-	-	-	-
Building 2 (Residential)	67	43	-	14	-	-	-	-	-	9	-	-	-	-
Building 2 (Retail)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Building 2 (Office)	1	7	-	-	-	-	-	-	-	1	-	-	-	-
Building 3A (Residential)	22	14	-	5	-	-	-	-	-	3	-	-	-	-
Building 3A (Retail)	61	59	-	10	-	-	-	-	-	9	-	-	-	-
Building 3B (Residential)	25	16	-	5	-	-	-	-	-	3	-	-	-	-
Building 4 (Residential)	78	50	-	16	-	-	-	-	-	11	-	-	-	-
Building 4 (Retail)	18	11	-	3	-	-	-	-	-	2	-	-	-	-
Building 5 (Residential)	73	47	-	15	-	-	-	-	-	10	-	-	-	-
Building 5 (Retail)	27	17	-	4	-	-	-	-	-	3	-	-	-	-
Building 6 (Retail)	11	7	-	2	-	-	-	-	-	1	-	-	-	-
Building 6 (Office)	19	99	-	3	-	-	-	-	-	16	-	-	-	-
Site Total	**484**	**422**	-	**94**	-	-	-	-	-	**79**	-	-	-	-
Total Future			**49**	**2,009**	**361**	**316**	**8**	**324**	**538**	**2,353**	**37**	**40**	**14**	**48**
Diversions			-	-	-	-	-	-	-	-	-	-	-	-
Total Future After Diversions			**49**	**2,009**	**361**	**316**	**8**	**324**	**538**	**2,353**	**37**	**40**	**14**	**48**

L:\PROJECTS\7001 - 7500\7463 - STRATHMORE SQUARE\GRAPHICS\19.0315 - 7463 - GRAPHICS.DWG

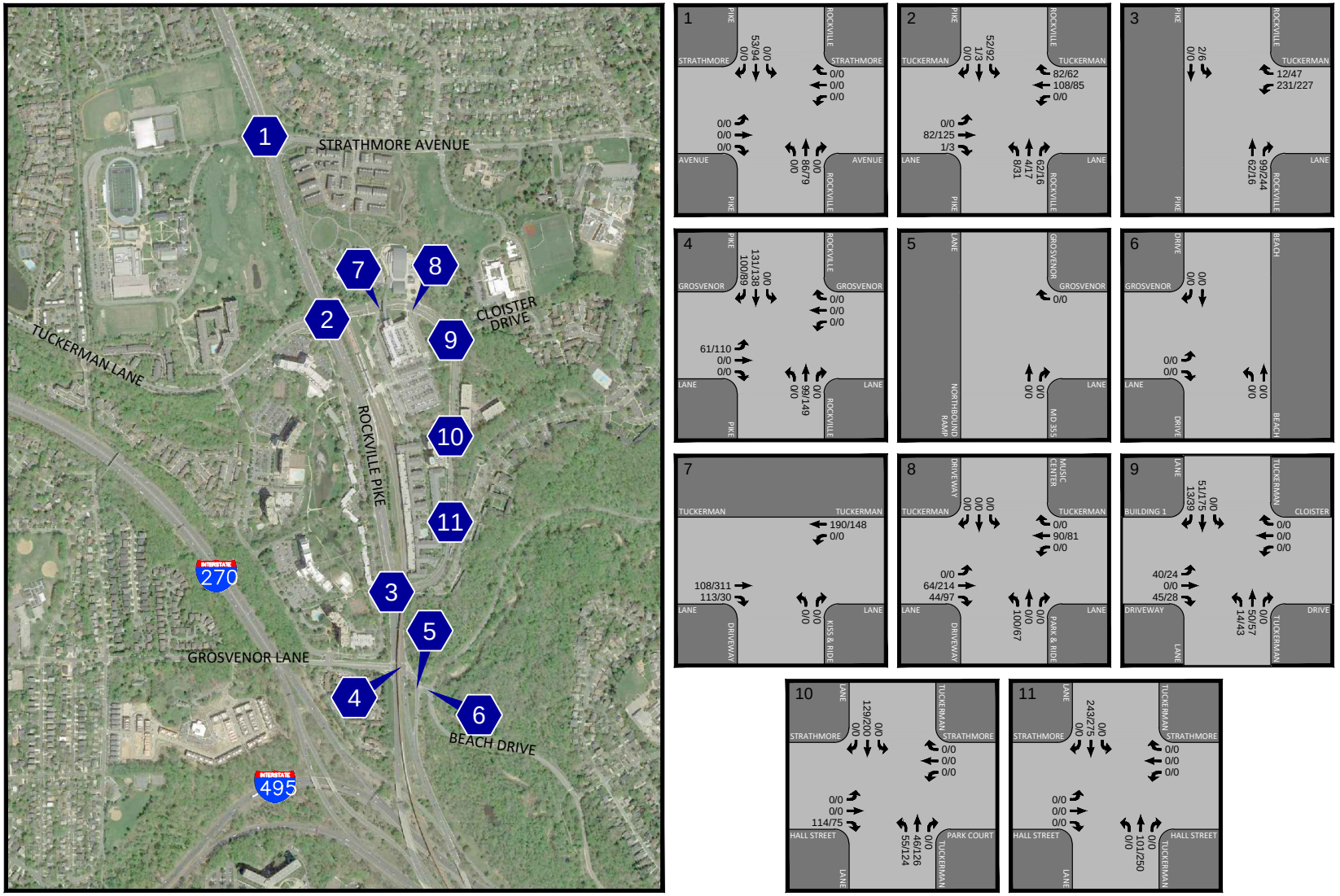


Figure 3-4A
Proposed Site Trip Assignments

Strathmore Square
Montgomery County, Maryland

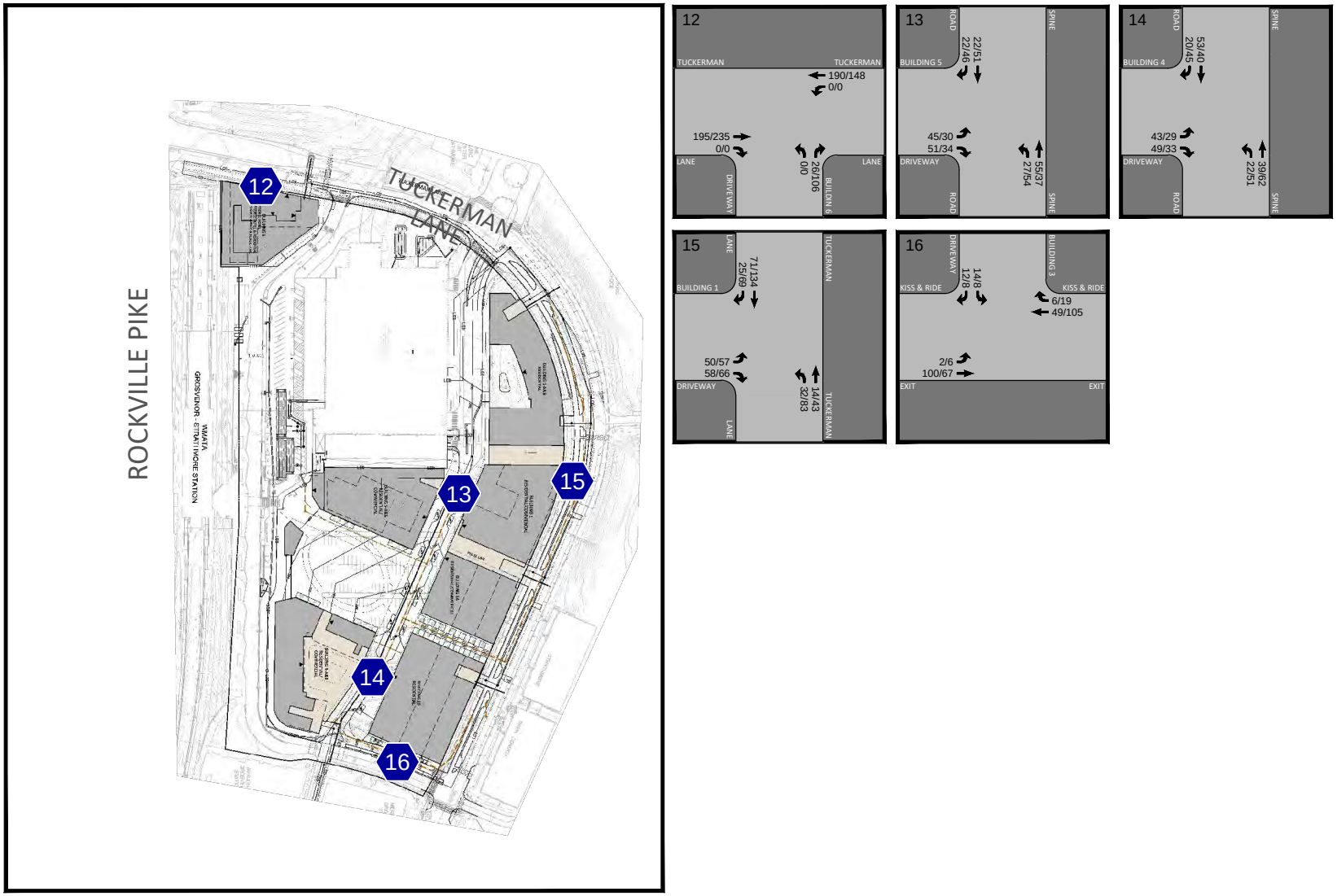


Figure 3-4B
Proposed Site Trip Assignments

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH
Strathmore Square
Montgomery County, Maryland

Table 3
Wilgus Property
Pipeline Trip Generation Summary

Land Use	Size	Units	AM Peak Hour			PM Peak Hour		
			IN	OUT	TOTAL	IN	OUT	TOTAL
1. Mid Pike Plaza (Pike & Rose)[3]								
Office	1,155,688	SF	1,193	163	1,356	233	1,140	1,373
Apartments	1,107	DU	109	437	546	408	219	627
Hotel	150	RM	47	33	80	46	44	90
Retail	264,633	SF	157	97	254	552	598	1,150
Mid Pike Plaza Subtotal			1,506	730	2,236	1,239	2,001	3,240
Less 50% Traffic Mitigation			*753*	*365*	*1,118*	*620*	*1,001*	*1,620*
2. North Bethesda Town Center / LCOR[5]								
Apartments	697	DU	71	284	355	281	151	432
Less 50% Traffic Mitigation - Residential			*36*	*142*	*178*	*141*	*76*	*216*
Office	795,378	SF	884	121	1,005	201	984	1,185
Retail	140,791	SF	82	53	135	361	392	753
Commercial subtotal			966	174	1,140	562	1,376	1,938
Less 50% Traffic Mitigation - Commercial			*483*	*87*	*570*	*281*	*688*	*969*
North Bethesda Town Center / LCOR subtotal			519	229	748	422	764	1,185
3. Gables at White Flint								
Apartment	476	DU	39	155	193	148	76	225
Less 50% Traffic Mitigation - Apartment			*20*	*78*	*97*	*74*	*38*	*113*
Retail	31,000	SF	50	46	96	199	184	383
Less 50% Traffic Mitigation - Retail			*25*	*23*	*48*	*100*	*92*	*192*
Gables at White Flint Subtotal			45	101	145	174	130	305
4. Saul Center White Flint West								
Mid-rise residential	655	DU	26	74	100	36	23	59
Less 50% Traffic Mitigation - Residential			*13*	*37*	*50*	*18*	*12*	*30*
Office	175,000	SF	126	19	145	23	113	136
Retail	29,000	SF	13	13	27	56	51	107
Commercial subtotal			139	32	172	79	164	243
Less 50% Traffic Mitigation - Commercial			*70*	*16*	*86*	*40*	*82*	*122*
Saul Center West Side Subtotal			83	53	136	58	94	152
5. Twinbrook Quarter								
Office	431,440	SF	352	48	400	62	303	365
High Rise Apartment	1,865	DU	91	273	364	259	166	425
Retail	472,950	SF	281	173	454	815	882	1697
Less Existing Retail	*246,000*	*SF*	98	61	159	285	309	594
Net Increase Retail	226,950	SF	183	112	295	350	378	728
Twinbrook Quarter Subtotal			626	433	1,059	722	855	1,577
6. 6000 Executive Boulevard & Washington Science Center								
Mid-rise apartments	364	DU	34	97	131	98	62	160
Office	418,480	SF	361	59	420	71	373	444
Retail	9,400	SF	6	3	9	45	49	94
6000 Executive Subtotal			401	159	560	214	484	698
Less 50% Traffic Mitigation			*201*	*80*	*280*	*107*	*242*	*349*
7. North Bethesda Market II								
Mid Rise Apartments	470	DU	44	125	169	126	81	207
Less 50% Traffic Mitigation - Residential			*22*	*63*	*85*	*63*	*41*	*104*
Retail	203,688	SF	119	73	191	442	478	920
Office	44,840	SF	59	10	69	9	45	53
Commercial subtotal			178	83	260	451	523	973
Less 50% Traffic Mitigation - Commercial			*89*	*42*	*130*	*226*	*262*	*487*
North Bethesda Market II Subtotal			111	105	215	289	303	591
8. Rock Terrace School/Tilden Middle School								
Tilden Middle School existing enrollment	797	Students	292	224	516	105	140	245
Tilden & Rock Terrace combined enrollment	1,600	Students	592	448	1,040	208	288	496
Existing site trips			28	23	51	20	9	29
Net new trips			272	201	473	83	139	222
9. Wilgus Property - White Flint[3]								
Low-rise residential	81	DU	9	30	39	31	18	49
Mid-rise residential	126	DU	12	33	45	34	21	55
High-rise residential	500	DU	37	116	153	109	70	179
Total residential	707	DU	58	179	237	174	109	283
Less 50% Traffic Mitigation			*29*	*90*	*119*	*87*	*55*	*142*
Total Pipeline Development Trips			**2,639**	**1,657**	**4,293**	**2,562**	**3,583**	**6,143**

Notes:
1. Trip generation based on previously approved traffic impact studies, statements, or staff reports.
2. Trip generation for projects located within the White Flint Sector Plan Area assumed to meet the 50% traffic mitigation goal.
3. The portion of the Wilgus Property inside the White Flint Sector Plan area boundary is excempt from traffic study, but is included as backgroun
for the western portion of the site in order to correctly account for the full future impact of the site.

Table 4
Wilgus Property
Trip Generation [1,2]

	Land Use	LUC	Amount	Unit	Auto Driver					
					AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Proposed Site Plan										
Townhomes	Low Rise Residential	220	68	DU	6	21	27	22	13	35

Notes:
1. Trip generation based on ITE Trip Generation Manual 10th Edition
2. North Bethesda Policy Area

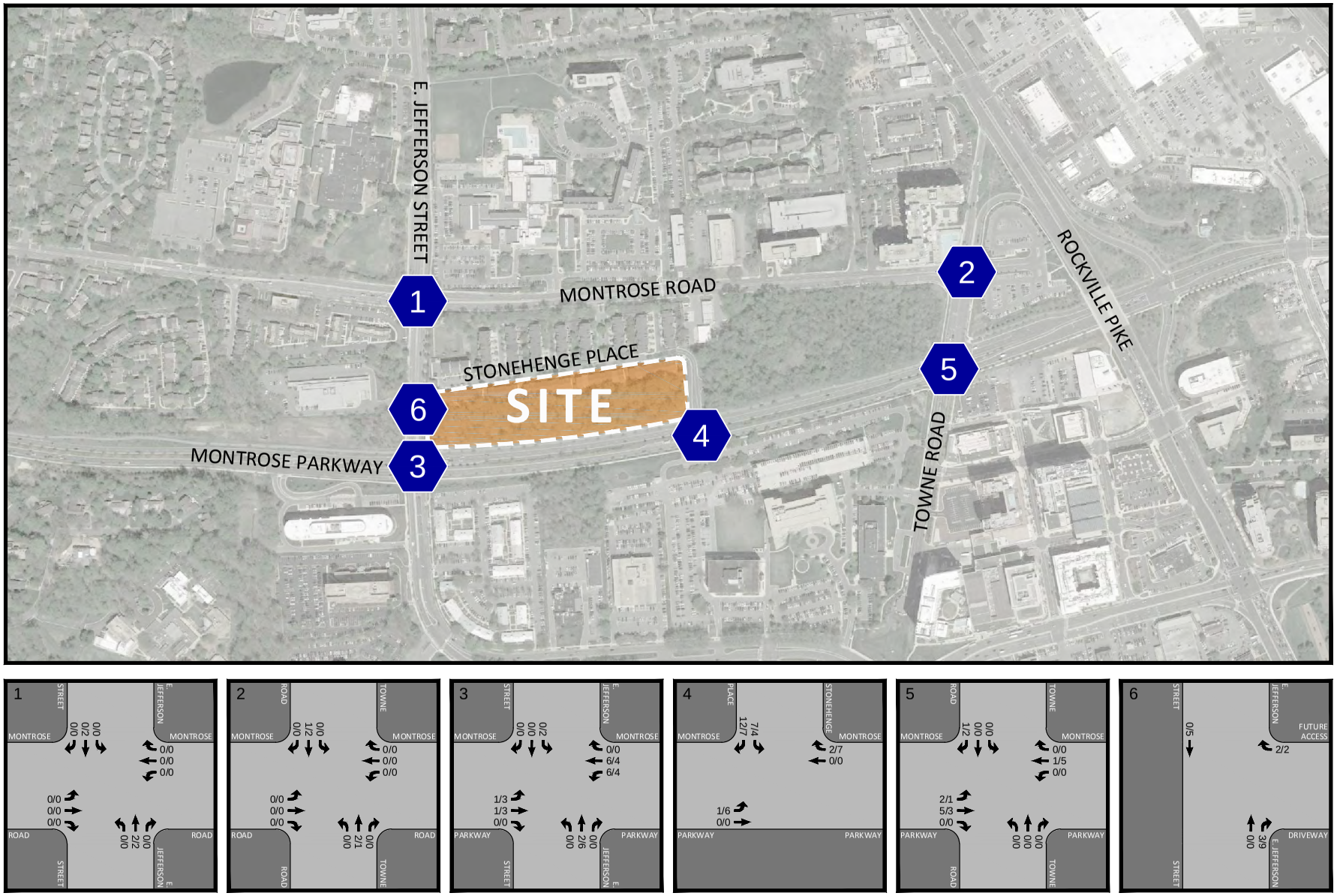


Figure 9
Site Assignments

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

Wilgus Property
North Bethesda, Maryland

WELLS + ASSOCIATES

September 3, 2015

Mr. Ed Axler,
Transportation Planning Division
M-NCPPC
8787 Georgia Avenue
Silver Spring, Maryland 20910

Re: Traffic Statement for LATR and TPAR Exemption for the Preliminary Plan submittal for Saul Centers West- White Flint

Dear Mr. Axler:

This letter serves as a traffic statement for the preliminary plan application for proposed Saul Centers development on the **west side** of MD 355 in White Flint. The development program includes 655 residential units, 175,000 SF of office space and 29,000 SF of retail development. As part of the preliminary plan submittal, I have attached Table 1, which provides a summary of the projected trip generation based on the development program noted above. The development program may change as the project proceeds through the site plan review process.

Based on the current LATR and PAMR guidelines, projects located within the White Flint Metro Station Policy Area are exempt from the LATR and TPAR requirements if the project/developers agree and provide substantial funds to new a development district or new impact tax district to finance master planned public improvements within in the Policy area. This application will be filed under this exemption.

Please use this letter as our formal LATR and TPAR Exemption submittal. If you require any additional information to facilitate you review and approval please call me at 301-448-1333 (Ext. # 1494) or email me at amrandall@mjwells.com

Sincerely,



Nancy Randall AICP, PTP
Principal Associate

Table 1
Saul Centers White Flint
West Side Site Trip Generation

	Land Use Code	Amount	Units	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Building A West - Residential	MNCPPC	330	DU	13	37	50	36	23	59
Building A West - Retail	MNCPPC	15,500	GLA	7	7	14	30	27	57
Building B West - Residential	MNCPPC	325	DU	13	37	50	0	0	0
Building B West - Retail	MNCPPC	7,000	GLA	3	3	7	14	12	26
Building C West - Retail	MNCPPC	6,500	GLA	3	3	6	12	12	24
Building C West - Office	MNCPPC	175,000	GSF	126	19	145	23	113	136
West Side Total				**165**	**106**	**272**	**115**	**187**	**302**

Notes: 1) Trip calculations based on M-NCPPC Trip Generation rates and includes 50% Reduction

WELLS + ASSOCIATES

October 3, 2018

Mr. Ed Axler,
Transportation Planning Division, M-NCPPC
8787 Georgia Avenue
Silver Spring, Maryland 20910

Re: VOB – 11575 Old Georgetown Road - Traffic Statement for LATR Exemption

Dear Mr. Axler:

This letter serves as a traffic statement for the sketch plan application for the proposed VOB Development site at 11575 Old Georgetown Road development in White Flint.

The development program includes up to 1,000 residential high-rise units and up to 110,169 SF of total commercial space over a three-phase project. The commercial space is planned to include a mix of general retail, restaurant, and office. It is located in the eastern corner of the existing intersection of Old Georgetown Road and Executive Boulevard. The site is currently composed of automobile sales and an unoccupied bank, as well as existing right of way for the intersection of Old Georgetown Road and Executive Boulevard.

With the realignment of the intersection of Old Georgetown Road/Executive Boulevard, this development will be located in the southeast corner of the new intersection, west of the planned extension of Grand Park Avenue, north of Market Street, east of relocated Old Georgetown Road, and south of Old Georgetown Road. Vehicular access to the site will be provided via an internal alley which will extend from relocated Old Georgetown Road on the west to Grand Park Avenue to the east.

A summary of the projected trip generation based on this development program is found on Table 1. The development program may change as the project proceeds through the site plan review process, but these quantities represent the maximum expected development density at this time, with a reasonable approximation of the likely division of commercial space between retail, restaurant, and office space. Based on the 2017 Local Area Transportation Review (LATR) guidelines, projects located within the White Flint Metro Station Policy Area are exempt from the LATR requirements if the project/developers agree to participate in the White Flint Special Taxing District for transportation infrastructure improvements in lieu of satisfying the Adequate Public Facility tests for LATR. This application will be filed under this exemption.

Please use this letter as our formal LATR Exemption submittal. If you require any additional information to facilitate you review and approval, please call me at 301-971-3425 or email me at bjmosier@wellsandassociates.com.

Sincerely,



Barbara Mosier, P.E., PTOE
Senior Associate

Table 1
VOB Development
Trip Generation [1]

Land Use	LUC	Quantity	Units	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Proposed Development									
Residential - High-Rise	222	1,000	DU	70	223	293	213	136	349
Office	710	22,034	SF	40	7	47	4	23	27
Retail	820	55,085	SF	111	68	179	168	182	350
High Turnover Restaurant	932	23,135	SF	127	103	230	140	86	226
Quality Restaturant[2]	931	9,915	SF	6	1	7	52	25	77
Total				**354**	**402**	**756**	**577**	**452**	**1029**
Total 50 % Reduction				**177**	**201**	**378**	**289**	**226**	**515**

Notes:
1. Trip generation based on ITE Trip Generation Manual 10th Edition
2. ITE 10th edition does not provide a directional distribution for the AM peak hour of the generator for LUC #931. AM Peak hour of the Generator directional distribution was applied.

WELLS + ASSOCIATES

April 3, 2015

Mr. Ed Axler
Transportation Planning Division, M-NCPPC
8787 Georgia Avenue
Silver Spring, MD 20910

RE: Traffic Exemption Statement for 6000 Executive Boulevard
Montgomery County, Maryland

Dear Mr. Axler:

This letter serves as a Traffic Exemption Statement for a proposed expansion of 6000 Executive Boulevard in North Bethesda, Maryland. The property known as 6000 Executive Boulevard, built in 1970, contains a 128,572 square foot office building. The proposed expansion will add 17,000 additional square feet of office space on the top of the existing structure resulting in a total of 145,572 square feet of office space,

The 6000 Executive Boulevard is eligible for an exemption of the LATR/TPAR requirements pursuant to page 17 of the LATR/TPAR guidelines. If the existing building/development is older than 12 years, and the addition results in no more than 30 peak hour vehicle trips and not more than a three (3) peak hour vehicle trips increase, over the existing trip generation, than the redevelopment would qualify for an exemption from both LATR and TPAR, respectively. Based on this, we have prepared a trip generation comparison for the subject property.

The proposed redevelopment of the site is expanding on the existing building with an additional 17,000 SF of general office. A trip generation comparison between the existing and the proposed total square footage was calculated using the M-NCPPC trip generation rates. As shown in the attached Table 1, the proposed increase in square footage will result in an increase of 28 AM peak hour trips and 25 PM peak hour trips.

Therefore, in accordance with the M-NCPPC LATR/TPAR guidelines this application is not subject to the LATR requirements, but will be subject to the TPAR requirements.

If you have any questions or require clarification during your review of the revised trip generation table, please call me at (301) 971-3415 or email me at amrandall@mjwells.com

Sincerely,



Nancy Randall AICP, PTP
Principal Associate

CC: Brian Lang
Joshua Sloan
Ian Duke

Table 1

6000 Executive Boulevard- Trip Generation

Land Use	Source	Amount	Unit	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
General Office									
Existing	M-NCPPC	128,572	SF	184	27	211	35	170	205
Proposed	M-NCPPC	145,572	SF	208	31	239	39	191	230
Net New Trips				**24**	**4**	**28**	**4**	**21**	**25**

Notes: Trip generation is based on MNCPPC Trip Generation Rates

Trip Generation - Residential

183 Residential Units

Policy Area: 37. White Flint

Step 1: Base trip generation using ITEs' *Trip Generation* 10th Edition

Land Use	Land Use Code	Quantity	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Residential	221	183 du	16 veh/hr	46 veh/hr	62 veh/hr	48 veh/hr	31 veh/hr	79 veh/hr
		Calculation Details:	*26%*	*74%*	*Ln(T)=0.98Ln(X)-0.98*	*61%*	*39%*	*Ln(T)=0.96Ln(X)-0.63*

Step 2: Convert to policy area vehicle trips

Land Use	ITE Vehicle-Trip generation Rate Adjustment Factor (Appendix Table 1a)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Residential	79%	13 veh/hr	36 veh/hr	49 veh/hr	38 veh/hr	24 veh/hr	62 veh/hr

Step 3: Convert to total person trips, before applying mode splits

Land Use	People/Car (Appendix Table 1b)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Residential	51.4%	25 ppl/hr	70 ppl/hr	95 ppl/hr	74 ppl/hr	47 ppl/hr	121 ppl/hr

Step 4: Split between modes, per assumed Mode Splits by Policy Area

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Residential	Auto Driver	51.4%	13 ppl/hr	36 ppl/hr	49 ppl/hr	38 ppl/hr	24 ppl/hr	62 ppl/hr
Residential	Auto Passenger	26.3%	7 ppl/hr	18 ppl/hr	25 ppl/hr	19 ppl/hr	13 ppl/hr	32 ppl/hr
Residential	Transit	10.7%	3 ppl/hr	7 ppl/hr	10 ppl/hr	8 ppl/hr	5 ppl/hr	13 ppl/hr
Residential	Non-Motorized	11.6%	2 ppl/hr	9 ppl/hr	11 ppl/hr	9 ppl/hr	5 ppl/hr	14 ppl/hr
	Total	100.0%						

Trip Gen Summary for Residential

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto Driver	13 veh/hr	36 veh/hr	49 veh/hr	38 veh/hr	24 veh/hr	62 veh/hr
Auto Passenger	7 ppl/hr	18 ppl/hr	25 ppl/hr	19 ppl/hr	13 ppl/hr	32 ppl/hr
Transit	3 ppl/hr	7 ppl/hr	10 ppl/hr	8 ppl/hr	5 ppl/hr	13 ppl/hr
Bicycle (Non-motorized)	2 ppl/hr	9 ppl/hr	11 ppl/hr	9 ppl/hr	5 ppl/hr	14 ppl/hr
Walk (Transit and other walk trips)	5 ppl/hr	16 ppl/hr	21 ppl/hr	17 ppl/hr	10 ppl/hr	27 ppl/hr

Trip Generation - Retail

10,964 SF Retail

Policy Area: 37. White Flint

Step 1: Base trip generation using ITEs' *Trip Generation* 10th Edition

Land Use	Land Use Code	Quantity	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Retail	820	10,964 sf	6 veh/hr	4 veh/hr	10 veh/hr	20 veh/hr	22 veh/hr	42 veh/hr
		Calculation Details:	*62%*	*38%*	*=0.94(X/1000)*	*48%*	*52%*	*=3.81(X/1000)*

Step 2: Convert to policy area vehicle trips

Land Use	ITE Vehicle-Trip generation Rate Adjustment Factor (Appendix Table 1a)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Retail	72%	4 veh/hr	3 veh/hr	7 veh/hr	14 veh/hr	16 veh/hr	30 veh/hr

Step 3: Convert to total person trips, before applying mode splits

Land Use	People/Car (Appendix Table 1b)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Retail	52.2%	8 ppl/hr	5 ppl/hr	13 ppl/hr	27 ppl/hr	30 ppl/hr	57 ppl/hr

Step 4: Split between modes, per assumed Mode Splits by Policy Area

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Retail	Auto Driver	52.2%	4 ppl/hr	3 ppl/hr	7 ppl/hr	14 ppl/hr	16 ppl/hr	30 ppl/hr
Retail	Auto Passenger	28.3%	2 ppl/hr	2 ppl/hr	4 ppl/hr	8 ppl/hr	8 ppl/hr	16 ppl/hr
Retail	Transit	8.2%	1 ppl/hr	0 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	5 ppl/hr
Retail	Non-Motorized	11.3%	1 ppl/hr	0 ppl/hr	1 ppl/hr	3 ppl/hr	3 ppl/hr	6 ppl/hr
	Total	100.0%						

Trip Gen Summary for Retail

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto Driver	4 veh/hr	3 veh/hr	7 veh/hr	14 veh/hr	16 veh/hr	30 veh/hr
Auto Passenger	2 ppl/hr	2 ppl/hr	4 ppl/hr	8 ppl/hr	8 ppl/hr	16 ppl/hr
Transit	1 ppl/hr	0 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	5 ppl/hr
Bicycle (Non-motorized)	1 ppl/hr	0 ppl/hr	1 ppl/hr	3 ppl/hr	3 ppl/hr	6 ppl/hr
Walk (Transit and other walk trips)	2 ppl/hr	0 ppl/hr	2 ppl/hr	5 ppl/hr	6 ppl/hr	11 ppl/hr

Project Trip Generation									
Land Use	Size		AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Proposed								
Residential	183 Residential Units	LATR Rate	13	36	49	38	24	62
Retail	10964 sf	LATR Rate	4	3	7	14	16	30
	34% Pass By Reduction		--	--	--	*-5*	*-5*	*-10*
	Total Trips, Without Reduction		*17*	*39*	*56*	*52*	*40*	*92*
	Total Pass By Trips		*0*	*0*	*0*	*-5*	*-5*	*-10*
	Vehicle Trips with Reductions		17	39	56	47	35	82
	Vehicle Trips without Reductions		17	39	56	52	40	92
	Vehicle Trips with 50% White Flint Reductions		9	20	28	24	18	41
	Person Trips		**33**	**75**	**108**	**101**	**77**	**178**

WELLS + ASSOCIATES

March 5, 2019

Mr. Patrick Reed
Transportation Planning Division
M-NCPPC
8787 Georgia Avenue
Silver Spring, Maryland 20910

Re: Wilgus Property - Traffic Statement for Sketch Plan No. 320190070

Dear Mr. Reed:

This letter serves as a traffic statement for the above-referenced sketch plan application for the proposed Wilgus Property development in White Flint ("Application"). It is located south of Montrose Road, north of Montrose Parkway and west of Towne Road. The site includes approximately 248,709 SF of retail space and up to 565 high-rise dwelling units, 104 mid-rise dwelling units, 34 low-rise dwelling units, and 110 townhouses.

Based on the 2017 LATR guidelines, projects located within the White Flint Metro Station Policy Area are exempt from the LATR requirements if the project/developers agree to participate in the White Flint Special Taxing District for transportation infrastructure improvements in lieu of satisfying the Adequate Public Facility tests for LATR. As per the White Flint 2 Sector Plan as approved by County Council Resolution 18-979, the White Flint Policy Area and Special Taxing District has been expanded to include the portions of the Wilgus property generally east of Stonehenge Place. The Application is filed pursuant to participation in the District for these areas. The western portion of the property, consisting of up to 69 townhomes and zoned CRN, is outside of the White Flint Policy Area, and is subject to LATR. As more fully explained below, an extension of an existing APFO has been filed for the site, as well as an LATR study related to this request has been filed with Staff to address the western portion of the site.

As part of the sketch plan submittal, the attached Table 1 provides a summary of the projected trip generation based on the above development program for the eastern and western portions of the site. The development quantities may change as the project proceeds through the site plan review process, but these quantities represent the maximum expected development density. Consistent with the White Flint Sector Plan NADMS goals, trip generation for the eastern portion of the site is shown with a 50 percent overall reduction.

As noted above and in the previously submitted LATR for the western portion of the site, there is a previously approved Preliminary Plan No. 199029A (the "Preliminary Plan") for this site. We understand that an extension of the APFO approval for the Preliminary Plan has been

applied for and was pending as of the time of the LATR submittal, but the applicant has agreed to review how the project would conform to the 2017 LATR Guidelines and Subdivision Staging Policy without prejudice to the extension request. This LATR study is currently undergoing revision to respond to Staff comments. If approved trips from Preliminary Plan are not applied to these townhomes, the Project would generate 50 or more peak hour person trips, as shown in Table 1.

If you require any additional information to facilitate your review and approval, please call me at 301-971-3425 or email me at bjmosier@wellsandassociates.com.

Sincerely,



Barbara Mosier, P.E., PTOE
Senior Associate

Attachment

Table 1
Wilgus Property
Trip Generation[1]

Land Use	LUC	Amount	Unit	ITE Trip Generation						SSP 2016-2020 Trip Generation											
				AM Peak Hour			PM Peak Hour			AM Peak Hour						PM Peak Hour					
				In	Out	Total	In	Out	Total	Auto Driver	Auto Passenger	Transit	Non-Motorized	Pedestrian	Person Trips	Auto Driver	Auto Passenger	Transit	Non-Motorized	Pedestrian	Person Trips
Proposed West Wilgus Property[2]																					
Townhomes	220	69	DU	8	26	34	26	16	42	28	13	4	6	10	52	35	16	5	8	13	65
Proposed East Wilgus Property[3]																					
Tower A																					
High-Rise Residential	222	312	DU	24	76	100	70	45	115												
Retail	820	165,806	SF	97	59	156	379	411	790												
Tower B																					
High-Rise Residential	222	138	DU	12	39	52	34	22	55												
Tower C																					
High-Rise Residential	222	115	DU	11	34	45	29	19	48												
Retail	820	82,903	SF	48	30	78	227	246	473												
Mid-Rise Residential	221	104	DU	10	28	37	28	18	46												
Low-Rise Residential	220	34	DU	4	13	17	14	9	23												
Townhomes	220	41	DU	5	15	20	17	10	27												
Subtotal East Property Trips				211	294	505	798	780	1,577												
Less 50% Traffic Mitigation				*-106*	*-147*	*-253*	*-399*	*-390*	*-789*												
Total East Property Trips				106	147	253	399	390	789												

Note:
1. Trip generation based on ITE Trip Generation Manual 10th Edition
2. North Bethesda Policy Area
3. White Flint Policy Area



WELLS + ASSOCIATES

WILGUS PROPERTY – WEST

LOCAL AREA TRANSPORTATION REVIEW

October 19, 2018





WELLS + ASSOCIATES

WILGUS PROPERTY – WEST

LOCAL AREA TRANSPORTATION REVIEW

October 19, 2018



WILGUS PROPERTY
LOCAL AREA TRANSPORTATION REVIEW
MONTGOMERY COUNTY, MARYLAND

TABLE OF CONTENTS

	Page
INTRODUCTION	1
BACKGROUND DATA	6
Overview	6
Planned Site Development	6
Vehicular Access	6
Study Area Definition	6
Public Road Network	8
Programmed Improvements	8
Existing Traffic Counts	10
LOCAL AREA TRANSPORTATION REVIEW (LATR)	14
Overview	14
Congestion Standard	14
Existing Conditions	15
Background Future Conditions	15
Pipeline Developments	15
Pipeline Development Trip Generation	18
Pipeline Development Trip Assignment	18
Background Traffic Forecasts	18
Operational Analysis	18
Total Future Conditions	21
Site Trip Generation	21
Site Trip Assignments	21
Total Future Traffic Forecasts	21
Operational Analysis	21
Pedestrian and Bicycle Impact Statement	26
Sidewalks	26
Transit Facilities	26
Pedestrian Crossings	28
Streetlight Inventory	28
Bicycle Facilities	29
CONCLUSIONS	33

WILGUS PROPERTY
LOCAL AREA TRANSPORTATION REVIEW
MONTGOMERY COUNTY, MARYLAND

LIST OF FIGURES

Figure	Title	Page
1	Site Location Map	4
2	Conceptual Site Plan	7
3	Existing Lane Use and Traffic Control	9
4	Bicycle Peak Hour Volumes	11
5	Pedestrian Peak Hour Volumes	12
6	Existing Peak Hour Traffic Volumes	13
7	Background Peak Hour Traffic Volumes	20
8	Total Future Lane Use and Traffic Controls	22
9	Site Assignments	24
10	Total Future Peak Hour Traffic Volumes	25
11	Pedestrian Infrastructure	31
12	Non-Auto Transportation Facilities	32

LIST OF TABLES

Table	Title	Page
1	Site Trip Generation with Mode Split Summary	5
2	Intersection Delay Summary	16
3	Pipeline Trip Generation	19
4	Auto Driver Vehicle Trip Generation	23
5	Pedestrian Phasing and Timing	30

APPENDICES

A	Scoping Letter Agreement
B	Vehicle, Pedestrian, & Bicycle Count Data
C	Highway Capacity Manual (HCM) 2000 Reports – Existing Conditions
D	Traffic Forecast Worksheets
E	Highway Capacity Manual (HCM) 2000 Reports – Background Conditions
F	Highway Capacity Manual (HCM) 2000 Reports – Total Future Conditions
G	Bus Route Information

INTRODUCTION

This report presents the results of a Local Area Transportation Review (LATR) for the Sketch Plan application for that portion of the Wilgus Property – West (area of Wilgus not within the White Flint Special Taxing District) located in the North Bethesda Policy Area of Montgomery County, Maryland. The Wilgus Property - West site is located south of Montrose Road, east of East Jefferson Street and north of Montrose Parkway. Figure 1 shows the site location with respect to the local and regional road network.

The proposed development includes 68 townhomes (the "Project"). There is a previously approved Preliminary Plan No. 199029A (the "Preliminary Plan") for this site. We understand that an extension of the APFO approval for the Preliminary Plan has been applied for and is pending, but the applicant has agreed to review how the project would conform to the 2017 LATR Guidelines and Subdivision Staging Policy without prejudice to the extension request at this time. If approved trips from Preliminary Plan are not applied to these townhomes, the Project would generate 50 or more peak hour person trips, as shown in Table 1. This study was prepared in accordance with the Maryland-National Capital Park and Planning Commission (M-NCPPC) Local Area Transportation Review Guidelines, Fall 2017. The scope of this LATR traffic study was established in consultation with M-NCPPC staff. The Scope of Work Agreement is included in Appendix A.

Following is a description of the various multi-modal tests for determining transportation adequacy per the Fall 2017 LATR guidelines and the Subdivision Staging Policy:

Motor vehicle adequacy analysis is required if the proposed development generates 50 or more peak hour person trips. Sites located within Orange policy areas such as North Bethesda evaluate intersection capacity based on Highway Capacity Manual methodology. The congestion standard for signalized study intersections in the North Bethesda policy area is an overall average vehicle delay of 71 seconds per vehicle.

Pedestrian system adequacy analysis is required for projects that generate 50 peak hour pedestrian trips or more. This analysis first requires checking if the ADA non-compliance issues identified within 500 feet of the site are met. Restoration or funding of the ADA non-compliance issues shall be conducted if necessary. It is required to establish an LOS D or better for crosswalk pedestrian delay at the study intersections within 500 feet of the site area or within a Road Code Urban Area/Bicycle Pedestrian Priority Area. These measures can be met by reducing the crosswalk distances and utilizing efficient signal timing methodology. The Project does not exceed 50 pedestrian trips and therefore is not subject to the pedestrian system adequacy test.

Bicycle System adequacy analysis is required if 50 peak hour non-motorized trips or more are generated by proposed development and it is within a quarter mile of educational institution or existing or planned bikeshare station. Adequacy is measured by the LTS (Level of Traffic Stress).

The stress is determined on the comfort or skill level of a bicyclist in reference to a roadway. The appropriate adequacy for a bicycle system provides a LTS – 2. Mitigation involves the applicant providing necessary adjustments to promote low level of traffic stress that facilitates LTS – 2 conditions within 750 feet of a development site boundary. The Project does not exceed 50 non-motorized trips and therefore this analysis is not required.

In general, transit system adequacy analysis is required if 50 peak hour transit trips or more are generated by proposed development. Development sites that are within 1,000 feet from a Metrorail station entrance are exempt from the transit system adequacy analysis. Should the proposed development exceed the 50 transit trips threshold, an inventory of transit stations and stops within 1000 feet of the site and the peak load for each route should be identified. The subject site is greater than 1,000 feet from the White Flint Metro station; however, the Project will generate fewer than 50 peak hour transit trips. Therefore, the transit system adequacy analysis is not required.

Based on the criteria in the Subdivision Staging Policy and the LATR Guidelines and the number of peak hour trips by each mode shown in Table 1, an evaluation of only motor vehicle adequacy is required by this LATR.

Tasks undertaken in this study included the following:

- Coordination with M-NCPPC staff to identify the necessary scope and analyses to be included in the LATR study.
- Performed a field reconnaissance of existing roadways and pedestrian infrastructure, intersection geometrics, traffic controls and speed limits.
- Collection of vehicle turning movement counts at the study intersections on a typical weekday during both the AM and PM peak periods based on the M-NCPPC LATR Guidelines, and input from M-NCPPC staff.
- Collection of pedestrian and bicycle counts at the study intersections concurrent with the vehicle turning movement counts.
- Identification of the AM and PM peak hours to be analyzed in the study.
- Forecast background future traffic volumes by adding the existing peak hour traffic volumes and the traffic forecasted to be added to study intersections by nine (9) area pipeline projects that are currently approved and planned for development.
- Estimation of the number of weekday AM and PM peak hour vehicle trips that will be generated by the proposed site using Institute of Transportation Engineers Trip Generation, 10th Edition, and the LATR Guidelines.
- Forecast total future traffic volumes by combining the projected traffic that will be added by the proposed site with the background traffic forecasts.

- Preparation of a pedestrian and bicycle impact statement in accordance with M-NCPPC's LATR Guidelines.

Sources of data for this study include: Montgomery County, the M-NCPPC, the Institute of Transportation Engineers (ITE), the Maryland State Highway Administration, Array Architects, VIKA Maryland, Kaiser Permanente, and the files of Wells + Associates, Inc.

The conclusions of this study are as follows:

1. All study intersections currently operate within their respective Policy Area congestion standard delay threshold during AM and PM peak hours.

2. Nine (9) background projects will generate 4,293 new AM peak hour trips and 6,143 new PM peak hour trips. However, not all of these trips will use each of the study intersections.

3. With the addition of traffic generated by the background developments, all of the study intersections would operate within their respective congestion standard during the AM and PM peak hours, with the exception of Montrose Parkway/E. Jefferson Street.

4. This study considers the development of 68 townhomes. Based on ITE trip generation rates and the LATR Guidelines, the Project would generate 50 AM peak hour person trips, and 65 PM peak hour person trips. The Project would add 27 AM peak hour vehicular trips and 35 PM peak hour vehicular trips to the adjacent road network.

5. With the proposed project all of the study intersections would continue to operate within their respective Policy Area congestion standard delay threshold during the AM and PM peak hours with the exception of Montrose Parkway/E. Jefferson Street while maintaining the existing signal timing. If signal timing is optimized to reflect the future shifts in traffic patterns this intersection would also operate within the North Bethesda Policy Area standard.

6. The Project passes the Motor Vehicle System Adequacy test.

V:\PROJECTS\10690 WILGUS PROPERTY\GRAPHICS\10690 - GRAPHICS - UPDATED.DWG



Figure 1
Site Map

NORTH

Wilgus Property
North Bethesda, Maryland

Table 1
Wilgus Property
Trip Generation [1,2]

				ITE Trip Generation						SSP 2016-2020 Trip Generation											
				AM Peak Hour			PM Peak Hour			AM Peak Hour						PM Peak Hour					
Land Use	LUC	Amount	Unit	In	Out	Total	In	Out	Total	Auto Driver	Auto Passenger	Transit	Non-Motorized	Pedestrian	Person Trips	Auto Driver	Auto Passenger	Transit	Non-Motorized	Pedestrian	Person Trips
Proposed																					
Townhomes	220	68	DU	8	25	33	26	16	42	27	12	4	6	10	50	35	16	5	8	13	65

Note:
1. Trip generation based on ITE Trip Generation Manual 10th Edition
2. North Bethesda Policy Area

BACKGROUND DATA

OVERVIEW

This section presents the following background information for the LATR:

- Description of the planned development.
- Description of the proposed vehicular access.
- Definition of the study area.
- Description of the study area public road network and transportation facilities.
- Existing vehicular, pedestrian and bicycle traffic counts.

PLANNED SITE DEVELOPMENT

This study considers the development of 68 townhomes. The full site includes the development of 145 townhomes, a 126 dwelling-unit mid-rise apartment building, and two 250 dwelling-unit high-rise apartment buildings. However, the parcels of the site east of Stonehenge Place are located in the White Flint Special Taxing District and are, therefore, exempt from LATR requirements. The potential development on the exempt portion of the site within the White Flint Policy Area has been considered as background development for this report.

VEHICULAR ACCESS

The Wilgus Property – West is located within the North Bethesda Policy Area. Site access will be provided along East Jefferson Street and Stonehenge Place. A copy of the proposed site plan is shown in Figure 2.

STUDY AREA DEFINITION

The study area for this LATR study was established through consultation with M-NCPPC Staff and is outlined in the scoping agreement contained in Appendix A. Based on this scoping agreement the following study intersections were included in the analysis.

1. Montrose Road/East Jefferson Street
2. Montrose Road/Towne Road
3. Montrose Parkway/East Jefferson Street
4. Montrose Parkway/Stonehenge Place
5. Montrose Parkway/Towne Road
6. East Jefferson Street/New Access Drive

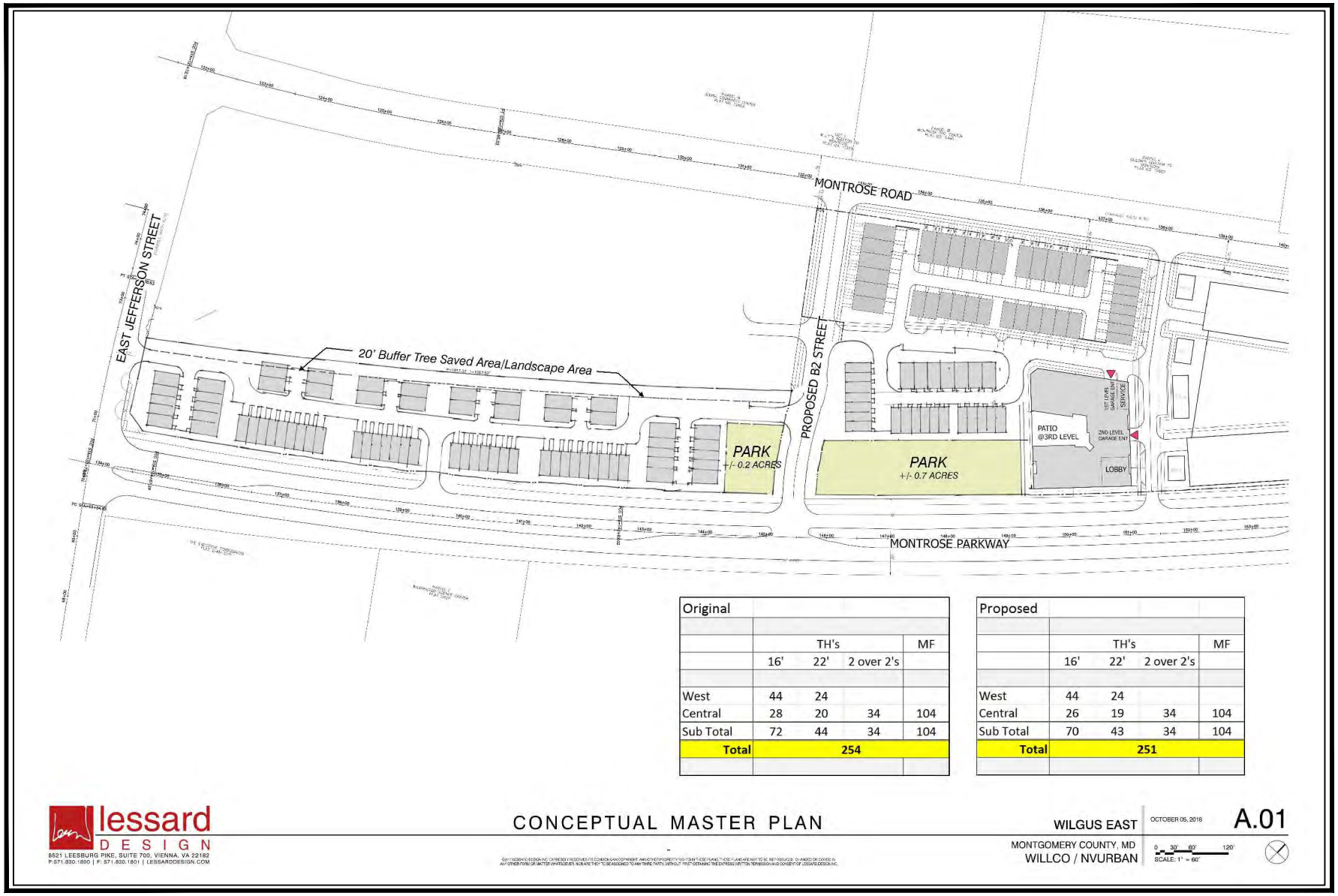


Figure 2
Conceptual Site Plan

NORTH

Wilgus Property
North Bethesda, Maryland

PUBLIC ROAD NETWORK

Regional access to the site is provided by MD 187 (Old Georgetown Road) and MD 355 (Rockville Pike), and Montrose Road/Parkway. Local access is provided by East Jefferson Street/Executive Boulevard, and Towne Road.

Montrose Road is a four-lane divided arterial roadway that extends from Montrose Parkway to Towne Road. Within the study area, traffic signals are provided at the intersection of Montrose Road and East Jefferson Street, and at the intersection of Montrose Road and Towne Road. The posted speed limit is 40 mph.

Montrose Parkway is a four-lane divided arterial roadway that extends from the I-270 interchange to Randolph Road towards the east. It provides direct access to the site via Stonehenge Place. Within the study area, traffic signals are provided at the intersection of Montrose Parkway and East Jefferson Street, and at the intersection of Montrose Parkway and Towne Road. The posted speed limit is 40 mph.

East Jefferson Street/Executive Boulevard extends from the City of Rockville to Rockville Pike. The southern section starting from the 90 degree curve below Montrose Parkway is Executive Boulevard, a four-lane divided business roadway. The northern section is East Jefferson Street, a four-lane undivided business roadway with a center two-way left-turn lane. This road provides access to predominantly office use from East Jefferson Street to where Executive Boulevard intersects with Old Georgetown Road. The posted speed limit is 30 mph. The existing Executive Boulevard intersection with Old Georgetown Road is planned to be reconfigured with the further construction of Towne Road as described later in this report.

Towne Road is a business roadway that varies between a three to seven-lane section. It extends from Rockville Pike to a cul-de-sac just north of Old Georgetown Road. Traffic signals are provided at the intersections of Towne Road and Montrose Road, and Towne Road and Montrose Parkway. The posted speed limit is 25 mph within the study area.

Figure 3 shows the existing lane use and traffic control at each of the study intersections.

PROGRAMMED IMPROVEMENTS

An intersection improvement project is planned for the intersection of Executive Boulevard/Old Georgetown Road and Towne Road (the extension of Hoya Street). This realigned intersection will replace what exists today as Executive Boulevard and Old Georgetown Road. It will connect Towne Road to Old Georgetown Road to create a newly aligned intersection. The objective is to improve vehicular, bike and pedestrian linkage to Executive Boulevard and other properties to the north. This capital improvements program is known as “The Western Workaround” per the 2010 *White Flint Sector Plan* which is in the first phase under construction.

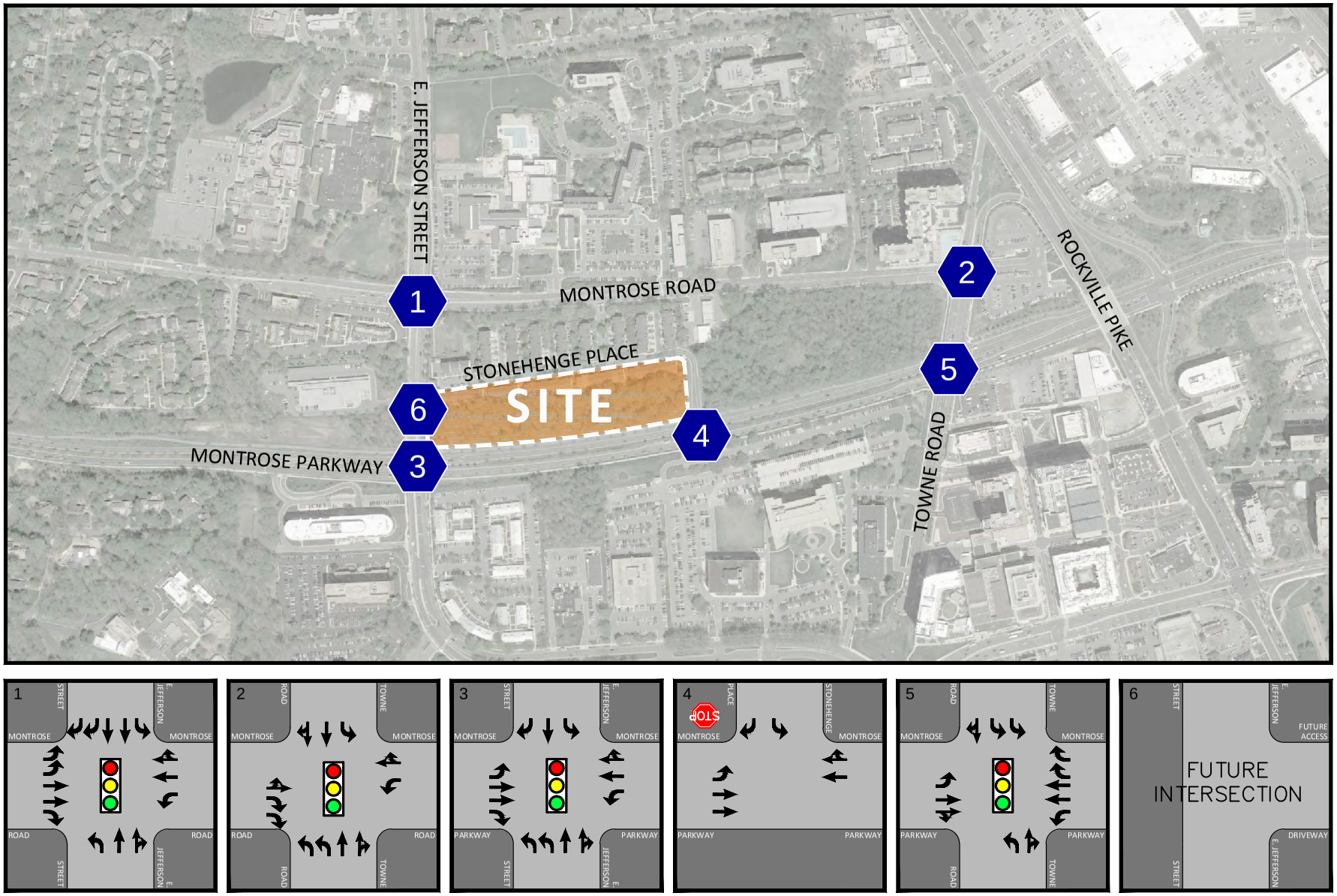


Figure 3
Existing Lane Use and Traffic Control

Represents One Travel Lane
Signalized Intersection
Stop Sign

NORTH

Wilgus Property
North Bethesda, Maryland

EXISTING TRAFFIC COUNTS

Existing AM and PM peak hour bicycle, pedestrian, and vehicular traffic counts were conducted by Wells + Associates at each of the study intersections on a typical weekday from 6:30 AM to 9:30 AM and from 4:00 PM to 7:00 PM. The counts were collected on Thursday, May 17, 2018, a non-holiday weekday when Montgomery County public schools were in session. The peak hour bicycle, pedestrian, and vehicular peak hour volumes are summarized on Figures 4, 5 and 6, respectively. The detailed count data is provided in Appendix B.

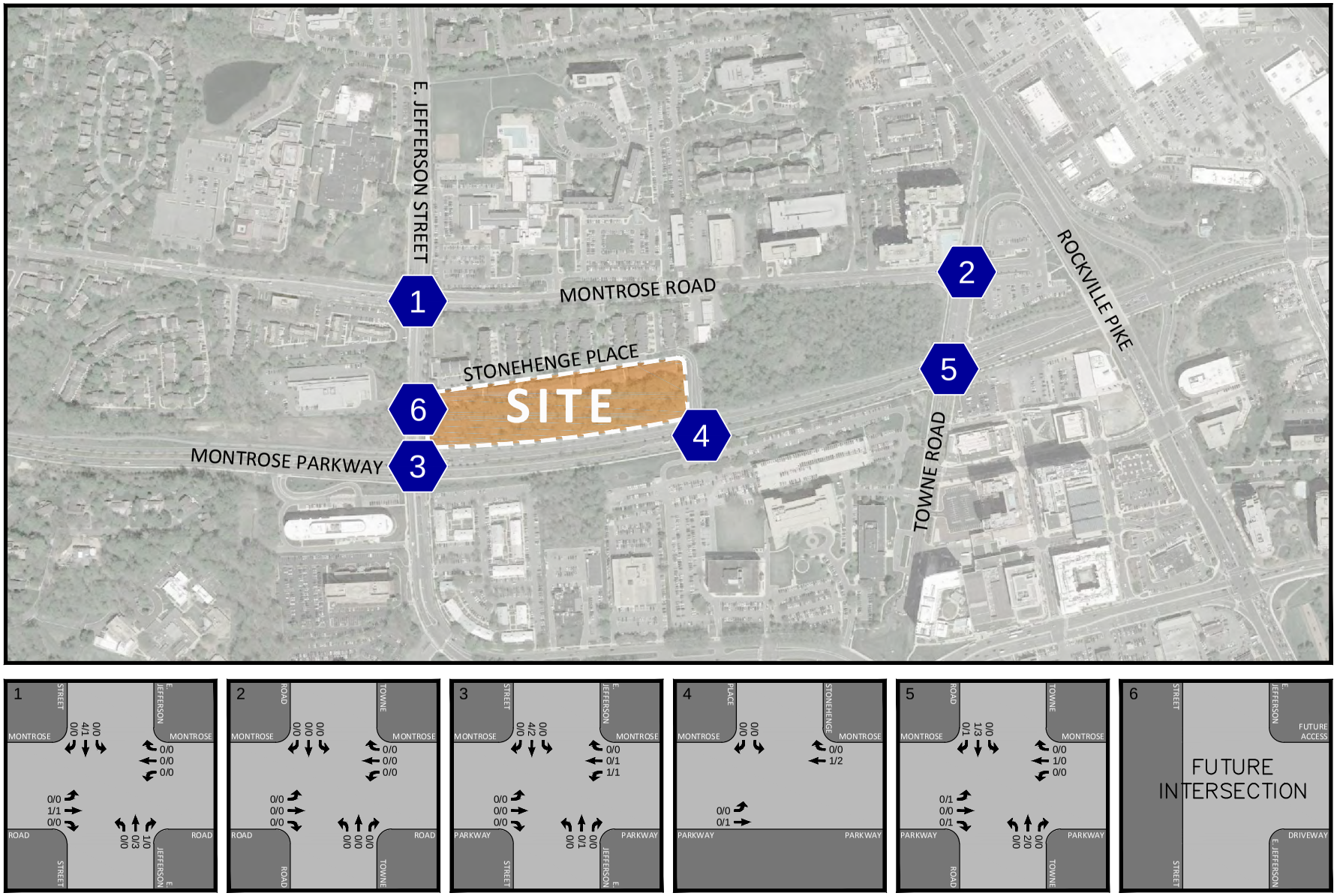
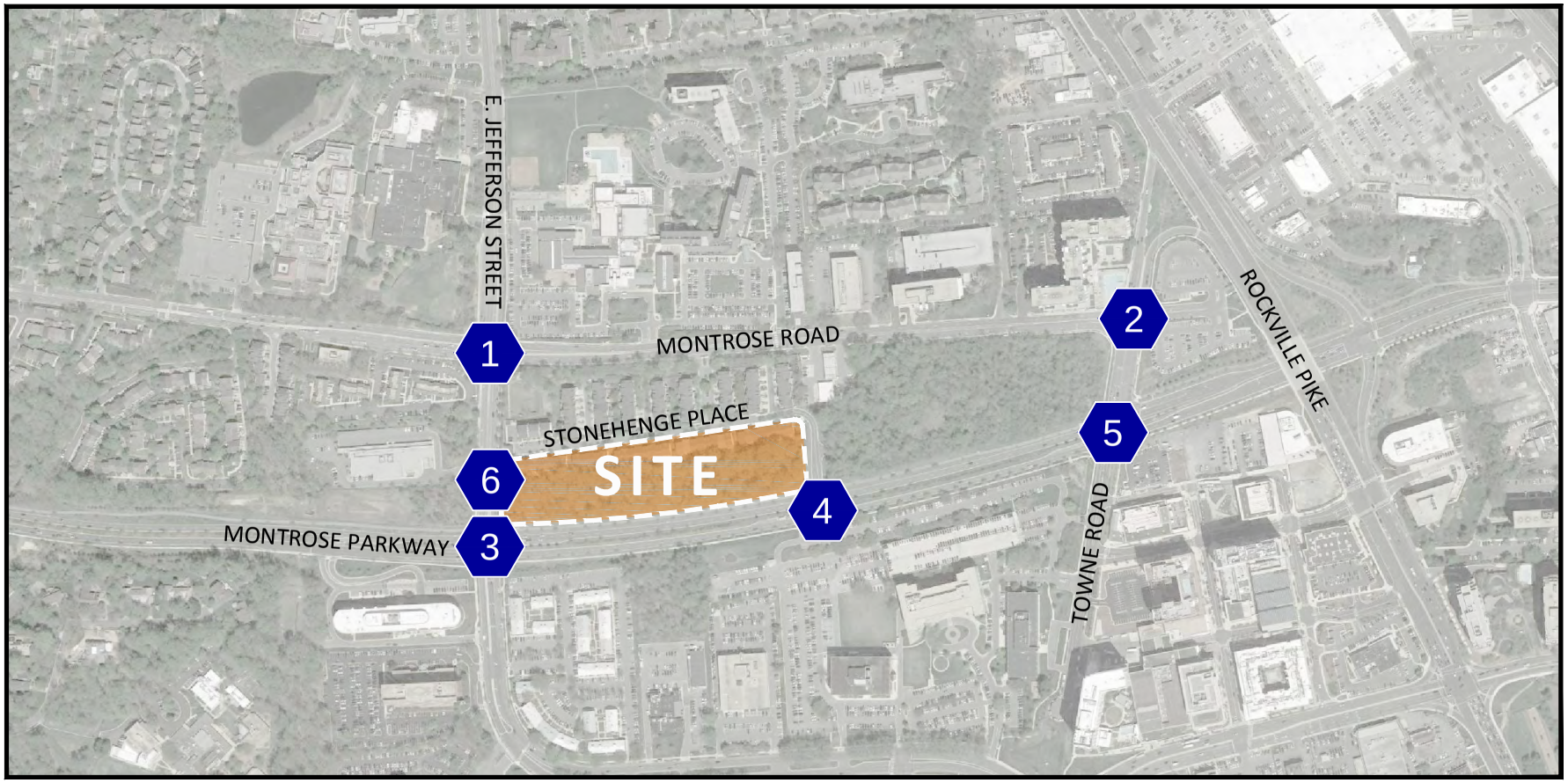


Figure 4
Bicycle Peak Hour Volumes

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

Wilgus Property
North Bethesda, Maryland



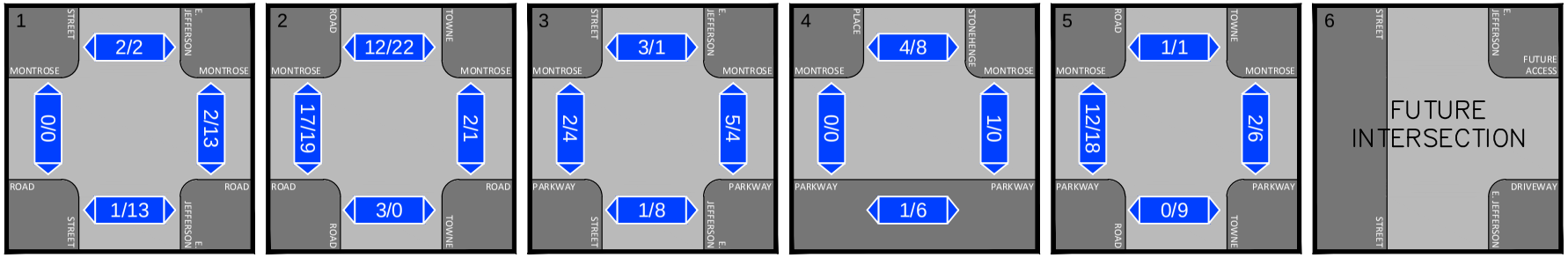
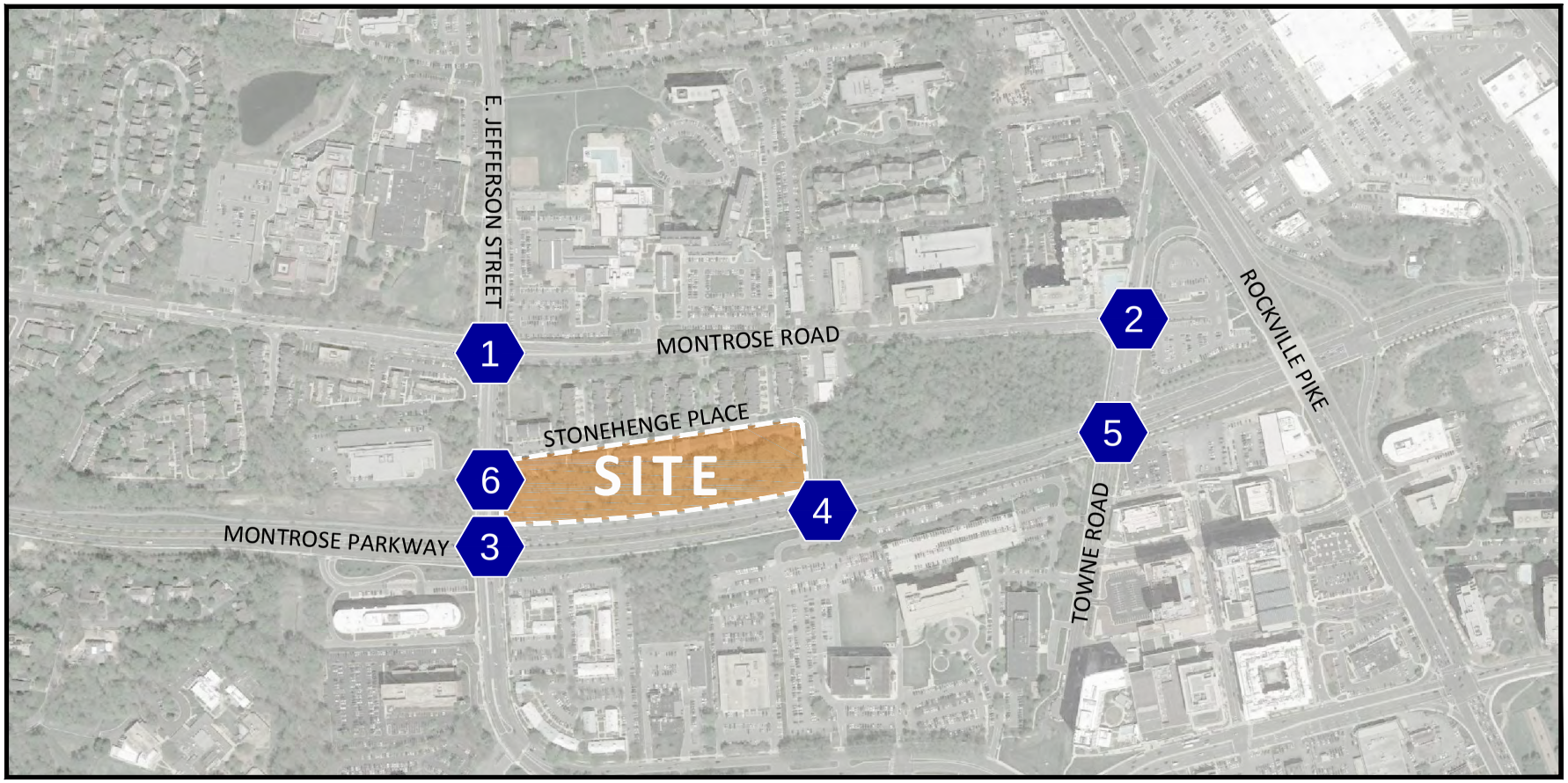


Figure 5
Pedestrian Peak Hour Volumes

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

Wilgus Property
North Bethesda, Maryland



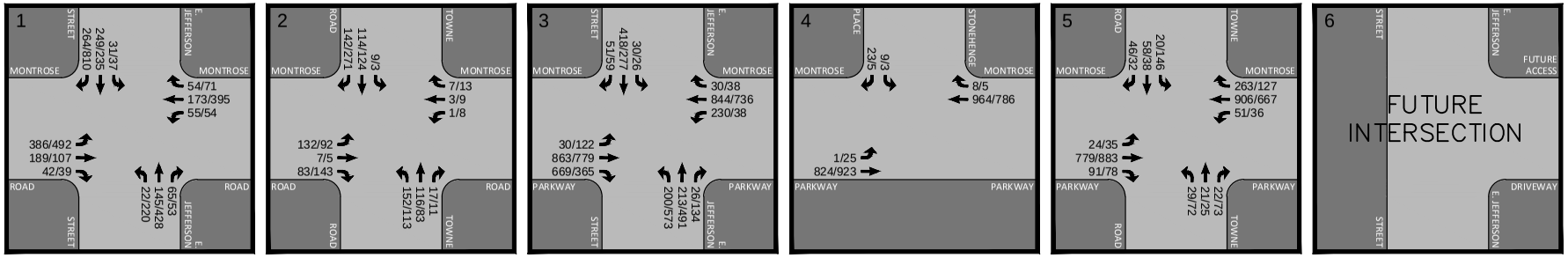


Figure 6
Existing Peak Hour Traffic Volumes

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

Wilgus Property
North Bethesda, Maryland

LOCAL AREA TRANSPORTATION REVIEW (LATR)

OVERVIEW

The LATR analysis has been conducted in accordance with the 2017 LATR Guidelines. It includes: a listing of applicable congestion standards; method of analysis based on policy area; adjustment factors for trip generation; and mode split assumptions associated with the North Bethesda policy area. There is requirement for adequacy tests on the different modes which include motor vehicle, pedestrian, bicycle, and transit. Analysis is required for the corresponding mode should it exceed the threshold of 50 trips. As shown in Table 1, trips with each mode are below 50 with the exception of person trips. Therefore, only motor vehicle adequacy analysis is required. The site is within an orange policy area that requires analysis using the Highway Capacity Manual (HCM) methodology.

CONGESTION STANDARD

As detailed in M-NCPPC's LATR Guidelines, the adequacy of each intersection analyzed in a LATR study is assessed based on the congestion standard established for the Montgomery County Policy Area in which the intersection is located.

The subject site and 2 of the 5 study intersections are located within the North Bethesda Policy Area. The remaining intersections are in the White Flint Policy Area. The policy area and congestion standard for each study intersection is listed below:

Study Intersection	Montgomery County Policy Area	Congestion Standard (Delay)
1) Montrose Road/East Jefferson Street	North Bethesda	71 s
2) Montrose Road/Towne Road	White Flint	120 s
3) Montrose Parkway/East Jefferson Street	North Bethesda	71 s
4) Montrose Parkway/Stonehenge Place	White Flint	120 s
5) Montrose Parkway/Towne Road	White Flint	120 s
6) East Jefferson Street/New Access Drive	North Bethesda	71 s

EXISTING CONDITIONS

Operational Analysis

Existing peak hour delays were estimated at the study intersections based on: the existing lane use and traffic control shown on Figure 3; existing traffic signal phasing/timing obtained from Montgomery County Department of Transportation (MCDOT); the existing bicycle, pedestrian, and vehicular peak hour traffic volumes shown on Figures 4, 5, and 6; and the Highway Capacity Manual (HCM) 2000 methodologies, using Synchro 9. The existing results are presented in Appendix C and summarized in Table 2, respectively.

As shown in Table 2, based on the criteria established for the North Bethesda policy area, the study intersections currently operate below their respective congestion standard during the AM and PM, peak hours.

BACKGROUND FUTURE CONDITIONS

Pipeline Developments

The following nine (9) pipeline developments (currently approved and/or pending approval within the area surrounding the site) were identified by the M-NCPPC during the scoping process for inclusion in this LATR study:

1. Mid Pike Plaza (Pike & Rose)
    - Preliminary Plan No. 120120020
    - Located west of MD 355 (Rockville Pike), north of Old Georgetown Road
    - 264,633 SF Retail
    - 1,155,688 SF Office
    - 1,107 DU Apartments
2. North Bethesda Town Center/LCOR
    - Pre-Preliminary Plan No. 720040010
    - Located west of Citadel Avenue and north of Marinelli Road
    - 697 DU Apartments
    - 795,378 SF Office
    - 140,791 SF Retail
3. Gables at White Flint
    - Preliminary Plan No. 120150010
    - Located on south section, intersection of existing Old Georgetown Road and existing Executive Boulevard
    - 476 DU Apartments
    - 31,000 SF Retail

Table 2
Wilgus Property
Intersection Delays Summary

Intersection	Intersection Control	Movement	Congestion Standard	Existing		Background		Total Future	
				AM	PM	AM	PM	AM	PM
1: Montrose Road/E. Jefferson Street	Signalized	Overall	71s	44.9	50.7	43.6	54.3	43.7	54.3
2: Montrose Road/Towne Road	Signalized	Overall	120s	28.4	26.7	28.2	27.9	28.2	27.9
3: Montrose Parkway/E. Jefferson Street w/ Signal Optimization	Signalized	Overall	71s	42.2	43.5	53.1	76.0	54.3	77.3 57.6
4: Montrose Parkway/Stonehenge Drive	Stop Control	SB EBL	120s	10.5 9.8	11.1 9.1	10.8 10.3	14.3 10.9	10.9 10.3	14.9 11.0
5: Montrose Parkway/Towne Road	Signalized	Overall	120s	18.8	29.4	31.8	100.5	32.1	100.3
6: E. Jefferson Street/Future Access Driveway	Stop	WB	71s	N/A	N/A	N/A	N/A	8.5	9.0

Notes:
(1) Delay is presented in units of seconds.
(2) Synchro 9 (build 909, rev 20) was used to determine vehicle delays.

4. Saul Center White Flint
    - Preliminary Plan No. 120160080
    - Located on the SW quadrant of the intersection of Rockville Pike and Marinelli Road
    - 655 DU Apartments
    - 175,000 SF Office
    - 29,000 SF Retail
5. Twinbrook Quarter
    - Located on the NE quadrant of the intersection of Rockville Pike and Halpine Road
    - 1,865 DU Apartments
    - 431,440 SF Office
    - 472,950 SF Retail
6. 6000 Executive Boulevard & Washington Science Center
    - Site Plan Nos. 320180140 and 81973005C
    - Located on the SW quadrant, intersection of existing Old Georgetown Road and existing Executive Boulevard
    - 324 DU Apartments
    - 418,480 SF Office
    - 9,400 SF Retail
7. North Bethesda Market II
    - Preliminary Plan No. 12012006A
    - Located on the SW quadrant of the intersection of Rockville Pike and Nicholson Lane
    - 470 DU Apartments
    - 44,840 SF Office
    - 190,188 SF Retail
    - 13,500 SF Restaurants
8. Rock Terrace School/Tilden Middle School
    - Mandatory Referral No. 2017014
    - Located on the SW quadrant of the intersection of Marcliff Road and Tilden Lane
    - Expansion from 797 to 1,600 Students
9. Wilgus Property - White Flint
    - Site Plan No. Pending
    - 81 DU Townhouses
    - 626 DU Apartments

Pipeline Development Trip Generation

Trip generation for the nine (9) pipeline developments was determined based on M-NCPPC and ITE trip generation rates. The nine (9) pipeline developments are forecast to add 4,293 AM peak hour trips and 6,143 PM peak hour trips to the area road network at full build-out and occupancy. A summary of the trip generation totals for each pipeline development is provided on Table 3. Consistent with the White Flint Sector Plan, trip generation for all background developments within the White Flint boundary was reduced by fifty percent.

Pipeline Development Trip Assignments

The peak hour trip distributions for each of the nine (9) pipeline developments were developed based on the trip distribution for residential and commercial uses from previously approved studies. The trips anticipated to be generated by the individual development projects were then assigned to the roadway network based on these distributions. The individual traffic assignments for each of the above listed approved development projects are shown in the traffic forecasting worksheets and graphics contained in Appendix D.

Background Traffic Forecasts

Background traffic forecasts represent future conditions without the development of the proposed site. Background traffic forecasts were calculated by adding the combined pipeline traffic assignments to the existing peak hour traffic counts shown on Figure 6. The resulting background future traffic forecasts are summarized on Figure 7.

Operational Analysis

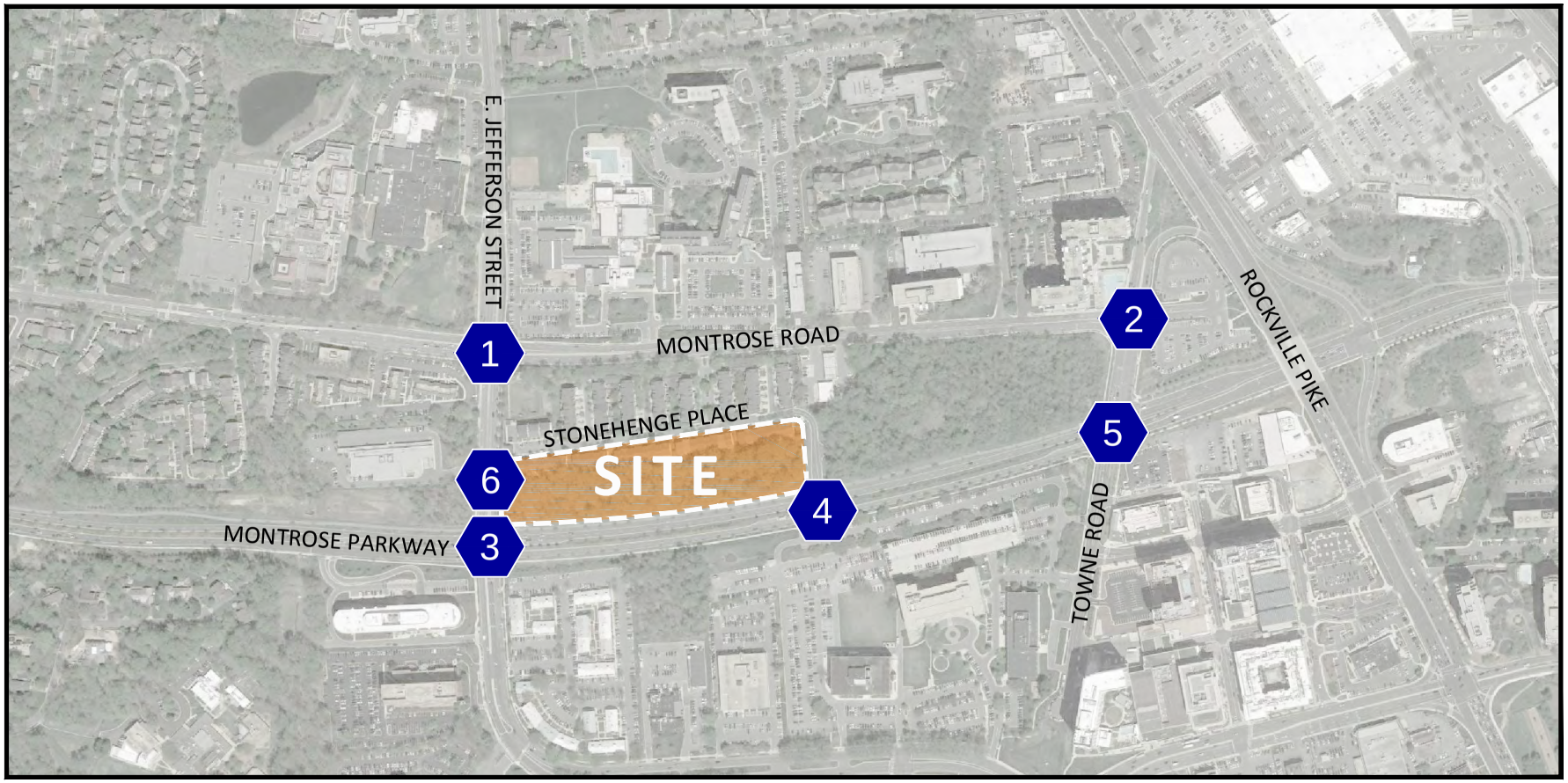
The background peak hour delays without the proposed development were estimated at the study intersections based on: the background traffic forecasts without the proposed development; the future lane use and traffic controls as shown on Figure 8; and existing traffic signal phasing/timings obtained from MCDOT; and the Highway Capacity Manual (HCM) 2000 methodologies, using Synchro 9. The future peak hour delays without the proposed development are presented in Appendix E and summarized in Table 2.

As shown in Table 2, with the addition of pipeline development, the study intersections would operate within their respective congestion standards, during the AM and PM peak hours with the exception of Montrose Parkway/E. Jefferson Street which will operate with 77.3 seconds of delay during the PM peak hour, in excess of the North Bethesda Policy area standard of 71 seconds, using existing signal timing and phasing.

Table 3
Wilgus Property
Pipeline Trip Generation Summary

Land Use	Size	Units	AM Peak Hour			PM Peak Hour		
			IN	OUT	TOTAL	IN	OUT	TOTAL
1. Mid Pike Plaza (Pike & Rose)[3]								
Office	1,155,688	SF	1,193	163	1,356	233	1,140	1,373
Apartments	1,107	DU	109	437	546	408	219	627
Hotel	150	RM	47	33	80	46	44	90
Retail	264,633	SF	157	97	254	552	598	1,150
Mid Pike Plaza Subtotal			1,506	730	2,236	1,239	2,001	3,240
Less 50% Traffic Mitigation			*753*	*365*	*1,118*	*620*	*1,001*	*1,620*
2. North Bethesda Town Center / LCOR[5]								
Apartments	697	DU	71	284	355	281	151	432
Less 50% Traffic Mitigation - Residential			*36*	*142*	*178*	*141*	*76*	*216*
Office	795,378	SF	884	121	1,005	201	984	1,185
Retail	140,791	SF	82	53	135	361	392	753
Commercial subtotal			966	174	1,140	562	1,376	1,938
Less 50% Traffic Mitigation - Commercial			*483*	*87*	*570*	*281*	*688*	*969*
North Bethesda Town Center / LCOR subtotal			519	229	748	422	764	1,185
3. Gables at White Flint								
Apartment	476	DU	39	155	193	148	76	225
Less 50% Traffic Mitigation - Apartment			*20*	*78*	*97*	*74*	*38*	*113*
Retail	31,000	SF	50	46	96	199	184	383
Less 50% Traffic Mitigation - Retail			*25*	*23*	*48*	*100*	*92*	*192*
Gables at White Flint Subtotal			45	101	145	174	130	305
4. Saul Center White Flint West								
Mid-rise residential	655	DU	26	74	100	36	23	59
Less 50% Traffic Mitigation - Residential			*13*	*37*	*50*	*18*	*12*	*30*
Office	175,000	SF	126	19	145	23	113	136
Retail	29,000	SF	13	13	27	56	51	107
Commercial subtotal			139	32	172	79	164	243
Less 50% Traffic Mitigation - Commercial			*70*	*16*	*86*	*40*	*82*	*122*
Saul Center West Side Subtotal			83	53	136	58	94	152
5. Twinbrook Quarter								
Office	431,440	SF	352	48	400	62	303	365
High Rise Apartment	1,865	DU	91	273	364	259	166	425
Retail	472,950	SF	281	173	454	815	882	1697
Less Existing Retail	*246,000*	*SF*	98	61	159	285	309	594
Net Increase Retail	226,950	SF	183	112	295	350	378	728
Twinbrook Quarter Subtotal			626	433	1,059	722	855	1,577
6. 6000 Executive Boulevard & Washington Science Center								
Mid-rise apartments	364	DU	34	97	131	98	62	160
Office	418,480	SF	361	59	420	71	373	444
Retail	9,400	SF	6	3	9	45	49	94
6000 Executive Subtotal			401	159	560	214	484	698
Less 50% Traffic Mitigation			*201*	*80*	*280*	*107*	*242*	*349*
7. North Bethesda Market II								
Mid Rise Apartments	470	DU	44	125	169	126	81	207
Less 50% Traffic Mitigation - Residential			*22*	*63*	*85*	*63*	*41*	*104*
Retail	203,688	SF	119	73	191	442	478	920
Office	44,840	SF	59	10	69	9	45	53
Commercial subtotal			178	83	260	451	523	973
Less 50% Traffic Mitigation - Commercial			*89*	*42*	*130*	*226*	*262*	*487*
North Bethesda Market II Subtotal			111	105	215	289	303	591
8. Rock Terrace School/Tilden Middle School								
Tilden Middle School existing enrollment	797	Students	292	224	516	105	140	245
Tilden & Rock Terrace combined enrollment	1,600	Students	592	448	1,040	208	288	496
Existing site trips			28	23	51	20	9	29
Net new trips			272	201	473	83	139	222
9. Wilgus Property - White Flint[3]								
Low-rise residential	81	DU	9	30	39	31	18	49
Mid-rise residential	126	DU	12	33	45	34	21	55
High-rise residential	500	DU	37	116	153	109	70	179
Total residential	707	DU	58	179	237	174	109	283
Less 50% Traffic Mitigation			*29*	*90*	*119*	*87*	*55*	*142*
Total Pipeline Development Trips			**2,639**	**1,657**	**4,293**	**2,562**	**3,583**	**6,143**

Notes:
1. Trip generation based on previously approved traffic impact studies, statements, or staff reports.
2. Trip generation for projects located within the White Flint Sector Plan Area assumed to meet the 50% traffic mitigation goal.
3. The portion of the Wilgus Property inside the White Flint Sector Plan area boundary is excempt from traffic study, but is included as backgroun
for the western portion of the site in order to correctly account for the full future impact of the site.



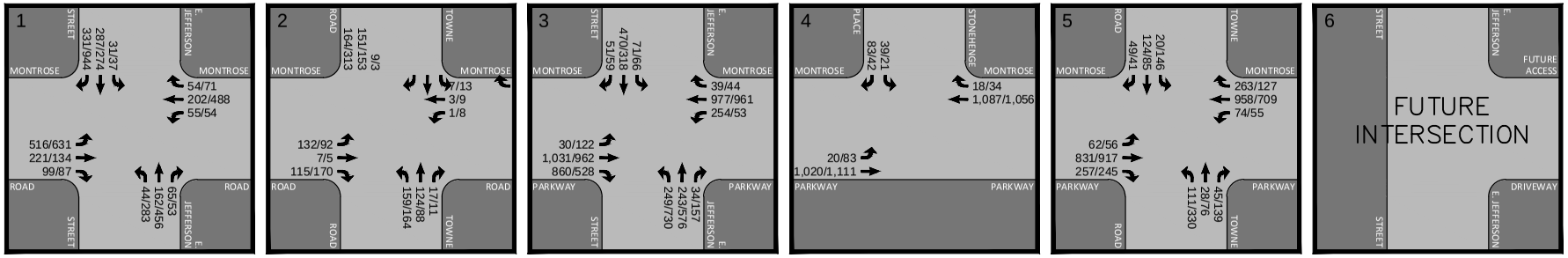


Figure 7
Background Peak Hour Traffic Volumes

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

Wilgus Property
North Bethesda, Maryland

TOTAL FUTURE CONDITIONS

Site Trip Generation

The development of the planned 68 townhomes on this site will generate 27 AM peak hour vehicular trips and 35 PM peak hour vehicular trips based on ITE trip generation rates and the LATR guidelines, as shown in Table 4.

Site Trip Assignments

The peak hour distribution of the site auto driver vehicle trips was developed based on the LATR trip distribution tables for office development, and through consultation with M-NCPPC staff. Peak hour trip assignments at each of the study intersections are shown on Figure 9. The trips anticipated to be generated by the site were distributed to the roadway network based on the following percentages:

To/From	Percent
North via East Jefferson Street/MD 355	20%
South via Old Georgetown Road/MD 355	36%
East via Montrose Parkway/Randolph Rd	14%
West via Montrose Parkway/Montrose Road	30%
Total	100%

Total Future Traffic Forecasts

The total future traffic forecasts were derived from the background traffic forecasts shown on Figure 7 and the site trip assignments (construction of 68 townhomes) shown on Figure 9. The resultant total future traffic forecasts are shown on Figure 10.

Operational Analysis

The future peak hour levels of service delays with the proposed development were estimated at the study intersections based on: the total future traffic forecasts; the future lane use and traffic controls; and existing traffic signal phasing/timing obtained from MCDOT; and the Highway Capacity Manual (HCM) 2000 methodologies, using Synchro 9. The future peak hour delays with the proposed development are presented in Appendix F and summarized in Table 2.

As shown in Table 2, with the proposed development, all study intersections would continue to operate with an overall delay within their respective congestion standard during the AM and PM peak hours with the exception of Montrose Parkway/E Jefferson Street. However, with adjustments to optimize the signal timings to accommodate the projected volumes, the intersection of Montrose Parkway/E. Jeffers will operate with 57.6 seconds of delay during the PM peak hour, which is within the North Bethesda congestion standard. Since all intersections are projected to operate with acceptable delay, the Site Plan for the expansion of the Wilgus Property passes the Motor Vehicle System Adequacy test.

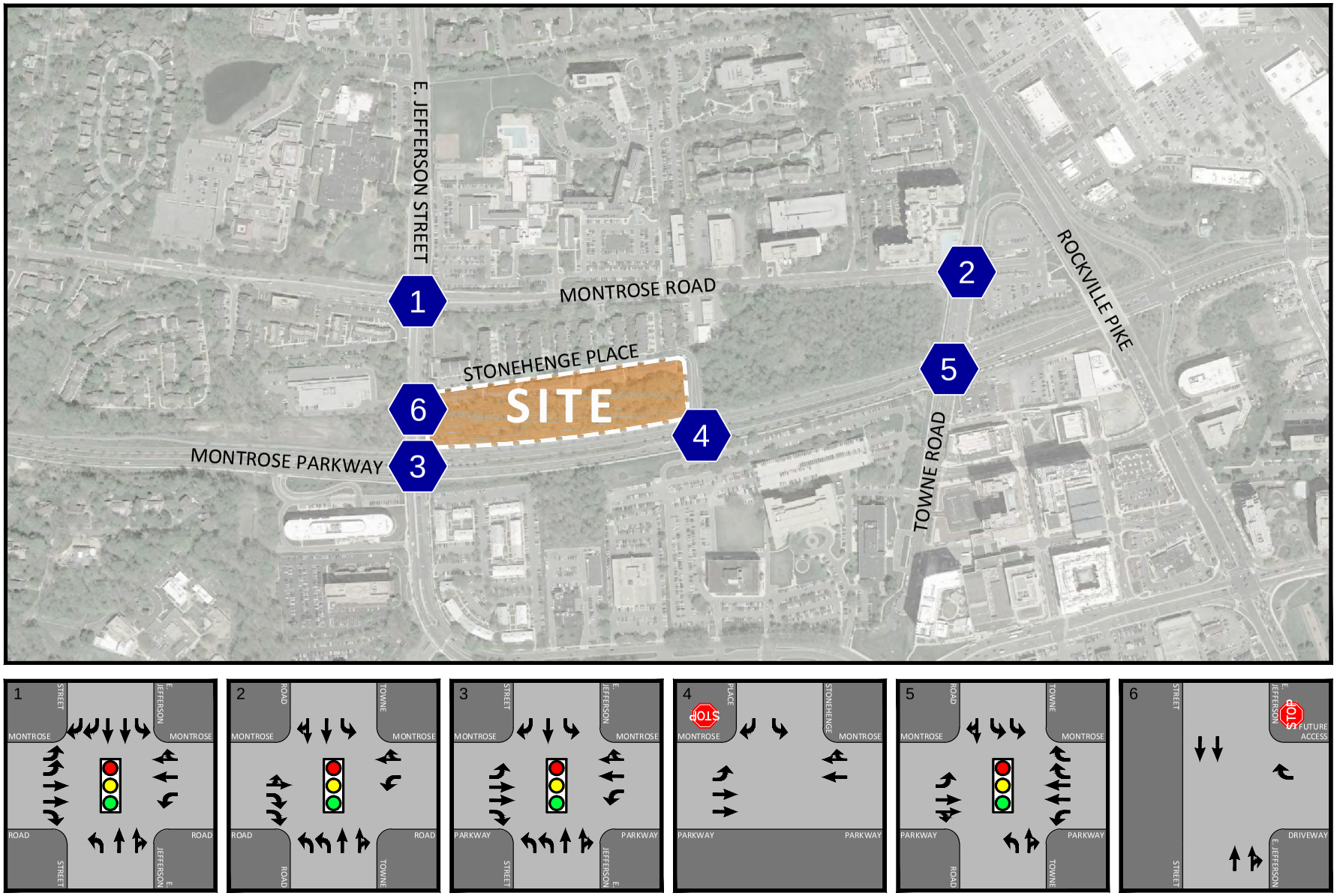


Figure 8
Total Future Lane Use and Traffic Control

Wilgus Property
North Bethesda, Maryland

Table 4
Wilgus Property
Trip Generation [1,2]

	Land Use	LUC	Amount	Unit	Auto Driver					
					AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Proposed Site Plan										
Townhomes	Low Rise Residential	220	68	DU	6	21	27	22	13	35

Notes:
1. Trip generation based on ITE Trip Generation Manual 10th Edition
2. North Bethesda Policy Area

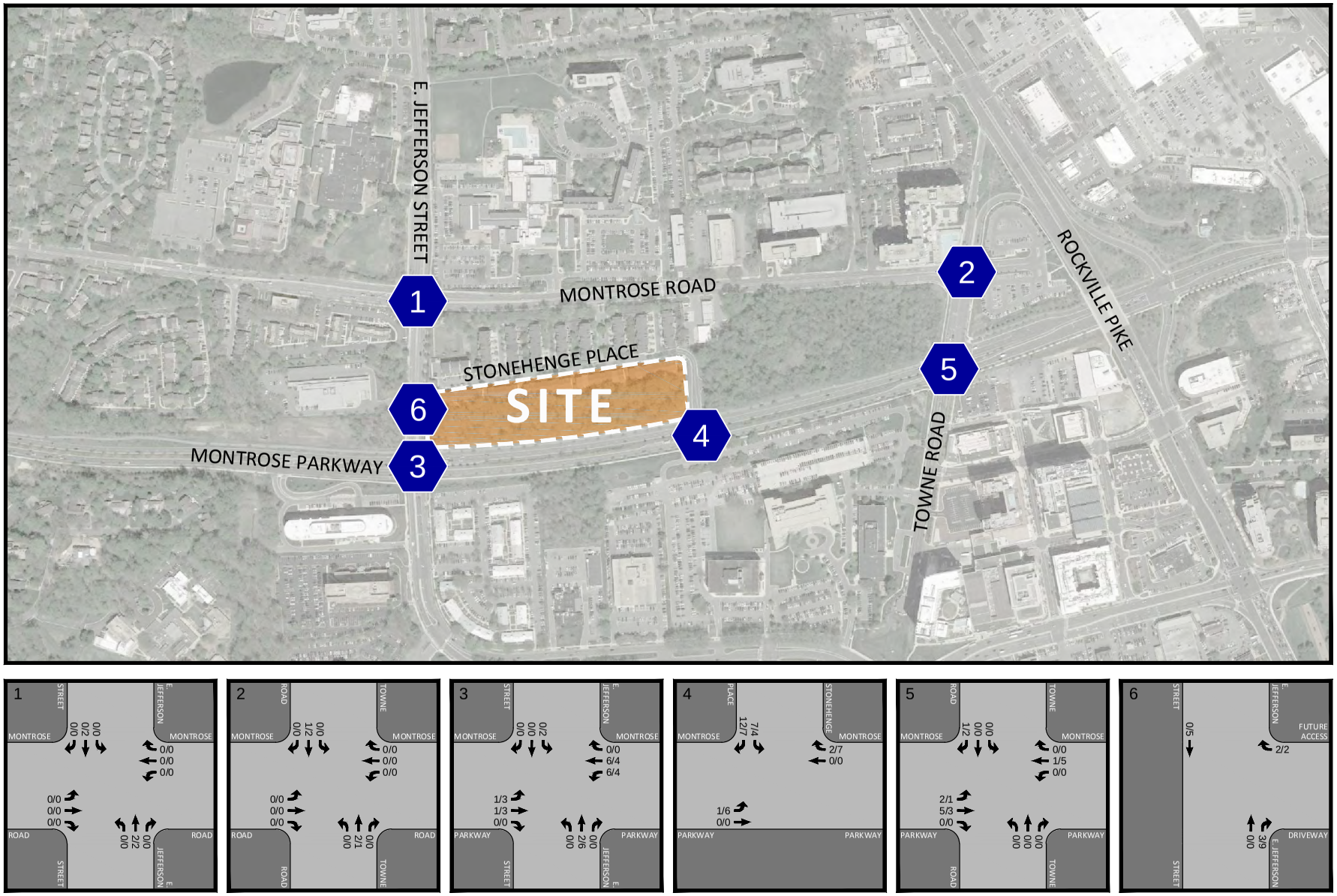
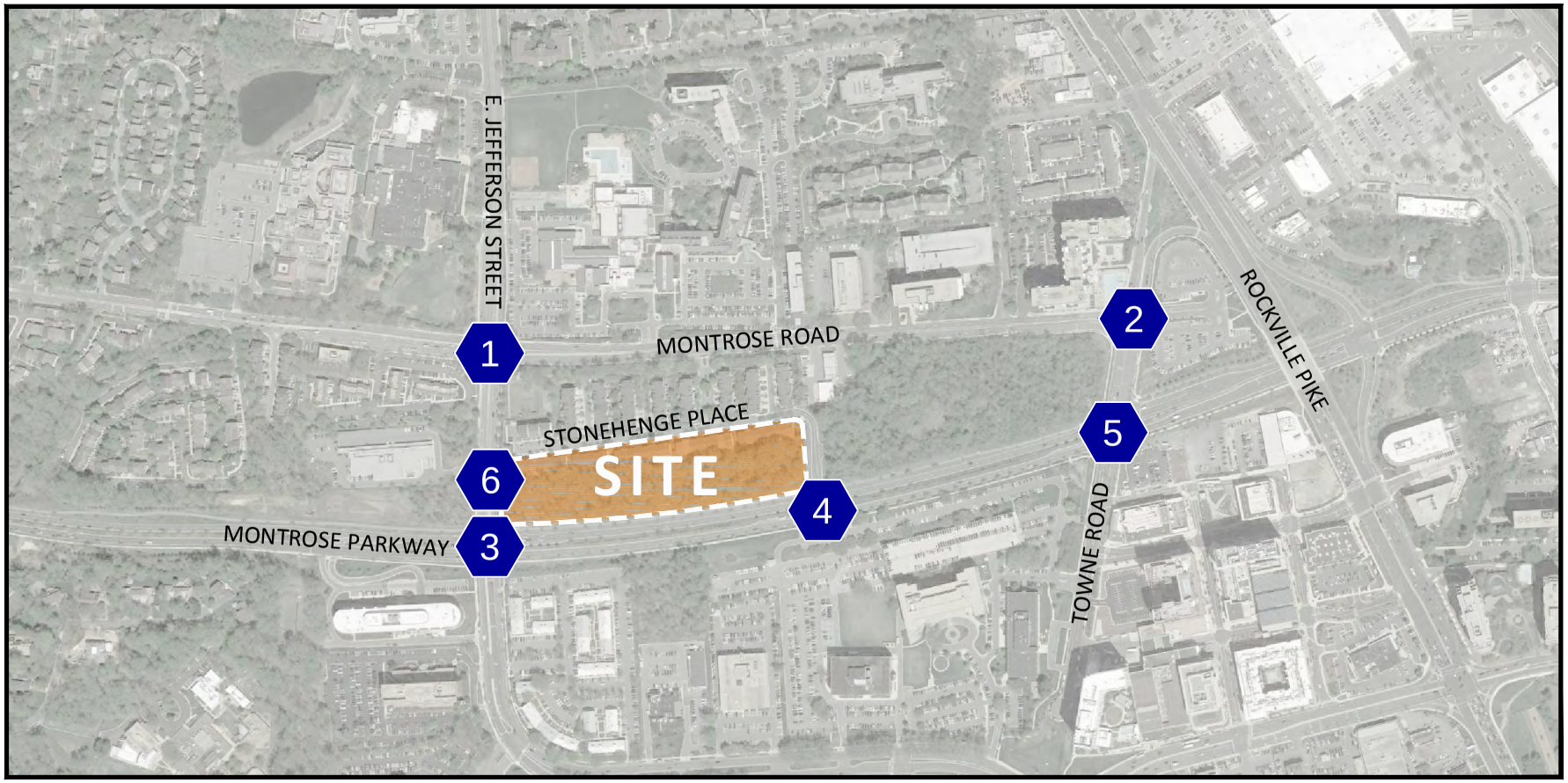


Figure 9
Site Assignments

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

Wilgus Property
North Bethesda, Maryland



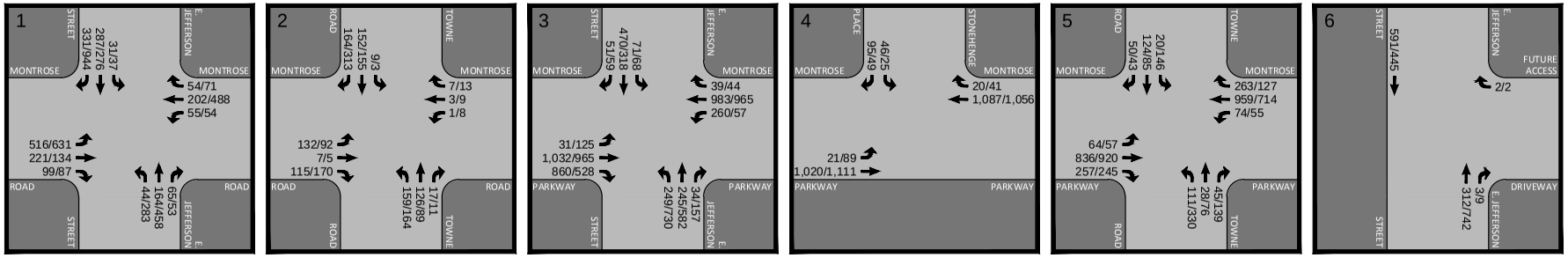


Figure 10
Total Future Peak Hour Traffic Volumes

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

Wilgus Property
North Bethesda, Maryland

PEDESTRIAN AND BICYCLE IMPACT STATEMENT

This pedestrian and bicycle statement provides information on the pedestrian, bicycle access, and transit options in the study area. An inventory of Pedestrian, Bicycle, and Transit facilities is discussed below. Figure 11 shows the location of sidewalks, pedestrian signal heads, accessible ramps, and bus stops, within the study area.

Sidewalks

Within the study area, sidewalks exist on both sides of E. Jefferson Street, Executive Boulevard, Montrose Parkway, and Towne Road. Sidewalks also exist on both sides of Montrose Road, until past the intersection with Towne Road. Sidewalks on the east side of East Jefferson Street are approximately six (6) feet wide, sidewalks on the west side of East Jefferson are approximately seven (7) feet wide and both are constructed with concrete. The sidewalks are generally provided with a landscape buffer between the sidewalk and roadway.

Montrose Parkway has a shared use path on the north side of the street and a sidewalk on the south side. The shared use path is approximately 10 feet in width and the sidewalk is approximately five (5) feet in width. They both have landscape buffers.

Transit Facilities

In the immediate vicinity of the site, bus service is provided along East Jefferson Street and Montrose Road via “Ride On” Bus Route 5, 26, 42, and 81. The schedules can be found in Appendix G. There is also a park-and-ride lot near the intersection of Montrose and Towne Road with access to a Ride On 46 Bus stop.

Ride-On Bus Route 5

- Service between Twinbrook Metro Station & Silver Spring Station.
- From Twinbrook to Silver Spring
  - Monday through Friday - 5:40 AM to 1:05 AM
  - Saturday – 6:14 AM to 1:05 AM
  - Sunday – 6:14 AM to 1:05 AM
- From Silver Spring to Twinbrook
  - Monday through Friday – 5:00 AM to 12:20 AM
  - Saturday – 5:30 AM to 12:20 AM
  - Sunday – 5:30 AM to 12:20 AM

Ride-On Bus Route 26

- Service between Glenmont (Metrorail Station) & Montgomery Mall Transit Center.
- From Glenmont to Montgomery Mall Transit Center
  - Monday through Friday – 4:56AM to 12:10 AM
  - Saturday – 5:12 AM to 12:08 AM
  - Sunday – 5:12 AM to 12:09 AM
- From Montgomery Mall Transit Center to Glenmont
  - Monday through Friday – 4:27 AM to 1:16 AM
  - Saturday – 6:15 AM to 1:15 AM
  - Sunday – 6:15 AM to 1:15 AM

Ride-On Bus Route 42

- Service between White Flint (Metrorail Station) & Montgomery Mall Transit Center.
- From Glenmont to Montgomery Mall Transit Center
  - Monday through Friday – 5:42 AM to 8:13 PM
  - Saturday – 8:12 AM to 7:13 PM
- From Montgomery Mall Transit Center to Glenmont
  - Monday through Friday – 5:36 AM to 8:52 PM
  - Saturday – 8:37 AM to 7:52 PM

Ride-On Bus Route 46

- Service between Montgomery College & Medical Center (Metrorail Station).
- From Montgomery College to Medical Center
  - Monday through Friday – 4:59 AM to 1:09 AM
  - Saturday – 5:15 AM to 12:26 AM
  - Sunday – 5:11 AM to 12:07 AM
- From Medical Center to Montgomery College
  - Monday through Friday – 5:41 AM to 1:41 AM
  - Saturday – 5:59 AM to 1:08 AM
  - Sunday – 6:00 AM to 12:42 AM

Ride-On Bus Route 81

- Service between Rockville (Metrorail Station) & White Flint (Metrorail Station).
- From Rockville to White Flint
  - Monday through Friday – 6:00 AM to 7:08 PM

- From White Flint to Rockville
  - Monday through Friday – 6:05 AM to 7:36 PM

Pedestrian Crossings

Of the six (6) study intersections, four (4) are signalized. Evaluations of the pedestrian crossing times at the signalized study intersections with crosswalks were undertaken based on the existing intersection geometry and traffic signal timing information provided by MCDOT. A summary of the results of the evaluation is discussed below.

Montrose Road/East Jefferson Street - Pedestrian crossings are provided on all legs of this intersection. Pedestrian refuge islands are provided between channelized right turn lanes for the eastbound and southbound right turning movements. All crosswalk markings are visible and pedestrian signals are provided in each direction. There are ADA ramps located at each sidewalk access point.

Montrose Road/Towne Road - Pedestrian crossings are provided on all legs of this intersection. Pedestrian refuge islands are provided between channelized right turn lanes for the eastbound and southbound right turning movements. All crosswalk markings are visible and pedestrian signals and push buttons are provided. There are ADA ramps located at each sidewalk access point.

Montrose Parkway/East Jefferson Street - Pedestrian crossings are provided on all legs of this intersection. Pedestrian refuge islands are provided between channelized right turn lanes for the eastbound and southbound right turning movements. All crosswalk markings are visible and pedestrian push buttons are provided. There are ADA ramps located at each sidewalk access point.

Montrose Parkway/Towne Road - Pedestrian crossings are provided on all legs of this intersection. Pedestrian refuge islands are provided between channelized right turn lanes for the eastbound and southbound right turning movements. All crosswalk markings are visible and pedestrian signals and push buttons are provided. There are ADA ramps located at each sidewalk access point.

The crossing times were reviewed for the “walk” and “flashing don’t walk” indicators. The “don’t walk” indicator illuminates when the respective green cycle changes to amber. The pedestrian then has the amber phase of the cycle to complete the crossing (an additional 5.5 to 7 seconds.)

As shown in Table 5, sufficient time is provided to cross all legs within the marked crosswalks at based on existing pedestrian timings and a walking speed of 3.5 feet per second for the four (4) signalized intersections.

Streetlight Inventory

Street lights are provided at several locations along the local roads extending to close proximity of study site area. East Jefferson Street, Montrose Road and Montrose Parkway both have

street lights along the roads. Street lighting will be provided throughout the proposed development in accordance with the current Montgomery County lighting standards.

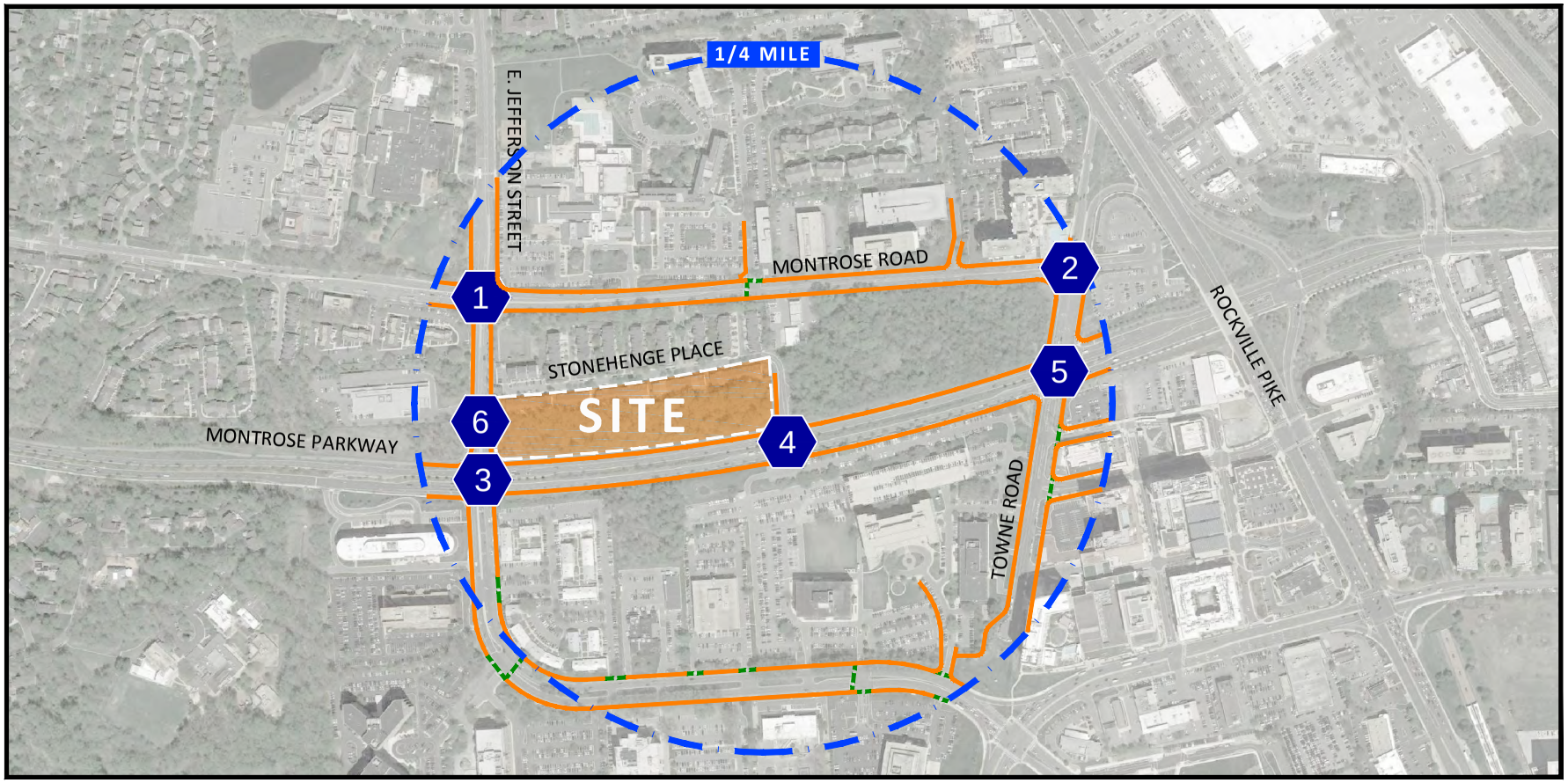
Bicycle Facilities

Based on information obtained from the M-NCPPC website, the Montgomery Countywide Bikeways Master Plan designates several existing bikeway facilities within the vicinity of the site. A paved off-road trail exists westbound along Montrose Parkway and a separated bikeway exists along Montrose Parkway from Tildenwood Drive to past Randolph Road, on Bou Avenue, and on an exit ramp from Rockville Pike to Montrose Parkway. Separated bikeways are planned on Montrose Road, East Jefferson Street, Executive Boulevard, Towne Road, Rockville Pike, Old Georgetown Road, Marinelli Road, and a connection between Marinelli Road and Old Georgetown Road. See Figure 12 for approximate locations of existing bikeway facilities.

Table 5
Wilgus Property
Pedestrian Crossing Time Evaluation (1)

Pedestrian Crossing	Leg of Intersection	Distance of Pedestrian Crossing[2] (feet)	Time needed for 3.5 feet/second	Clearance Time Reduction (seconds)	Net Crossing Time Required[3] (seconds)	Walk (second)	Flash Don't Walk (seconds)	Total Walk Time[4] (seconds)	Adequate time provided at rate of 3.5 feet/second? With respect to Walk + Flash Don't Walk	Adequate time provided at rate of 3.5 feet/second? With respect to Flash Don't Walk
1: Montrose Road/East Jefferson Street										
	North	105	30.0	6	24.0	7	29	36	**Yes**	**Yes**
	South	60	17.0	6	11.0	7	29	36	**Yes**	**Yes**
	East	70	20.0	6	14.0	7	17	24	**Yes**	**Yes**
2: Montrose Road/Towne Road										
	North	80	23.0	7	16.0	7	15	22	**Yes**	**No**
	South	75	21.0	7	14.0	7	15	22	**Yes**	**Yes**
	East	50	14.0	6	8.0	7	24	31	**Yes**	**Yes**
	West	45	13.0	6	7.0	7	24	31	**Yes**	**Yes**
3: Montrose Parkway/East Jefferson Street										
	North	65	19.0	6	13.0	7	16	23	**Yes**	**Yes**
	South	75	21.0	6	15.0	7	16	23	**Yes**	**Yes**
	East	80	23.0	6.5	16.5	7	18	25	**Yes**	**Yes**
	West	80	23.0	6.5	16.5	7	18	25	**Yes**	**Yes**
5: Montrose Parkway/Towne Road										
	North	105	30.0	6.5	23.5	7	24	31	**Yes**	**Yes**
	South	60	17.0	6.5	10.5	7	12	19	**Yes**	**Yes**
	West	105	30.0	8	22.0	7	24	31	**Yes**	**Yes**

Notes:
1. Based on existing signal timings obtained from the State Highway Administration or field observations
2. Distance from curb to far edge of traveled lane.
3. Net Crossing Time Required = Time needed for Crossing - Clearance Time
4. Total Walk = Walk + Flash Do Not Walk Time
5. No pedestrian timing in the data provided by Montgomery County DOT
6. Crosswalk distance measured in reference to the median refuge



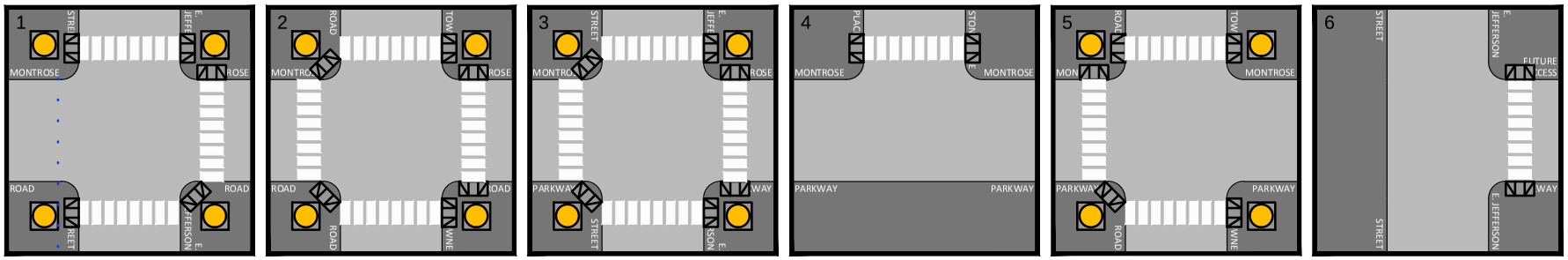


Figure 11
Pedestrian Infrastructure

PEDESTRIAN CROSSWALK
SIDEWALK
PEDESTRIAN CROSSWALK
ADA RAMP
PEDESTRIAN SIGNAL HEAD
PEDESTRIAN SIGNAL HEAD W/ PUSH BUTTON

NORTH

Wilgus Property
North Bethesda, Maryland

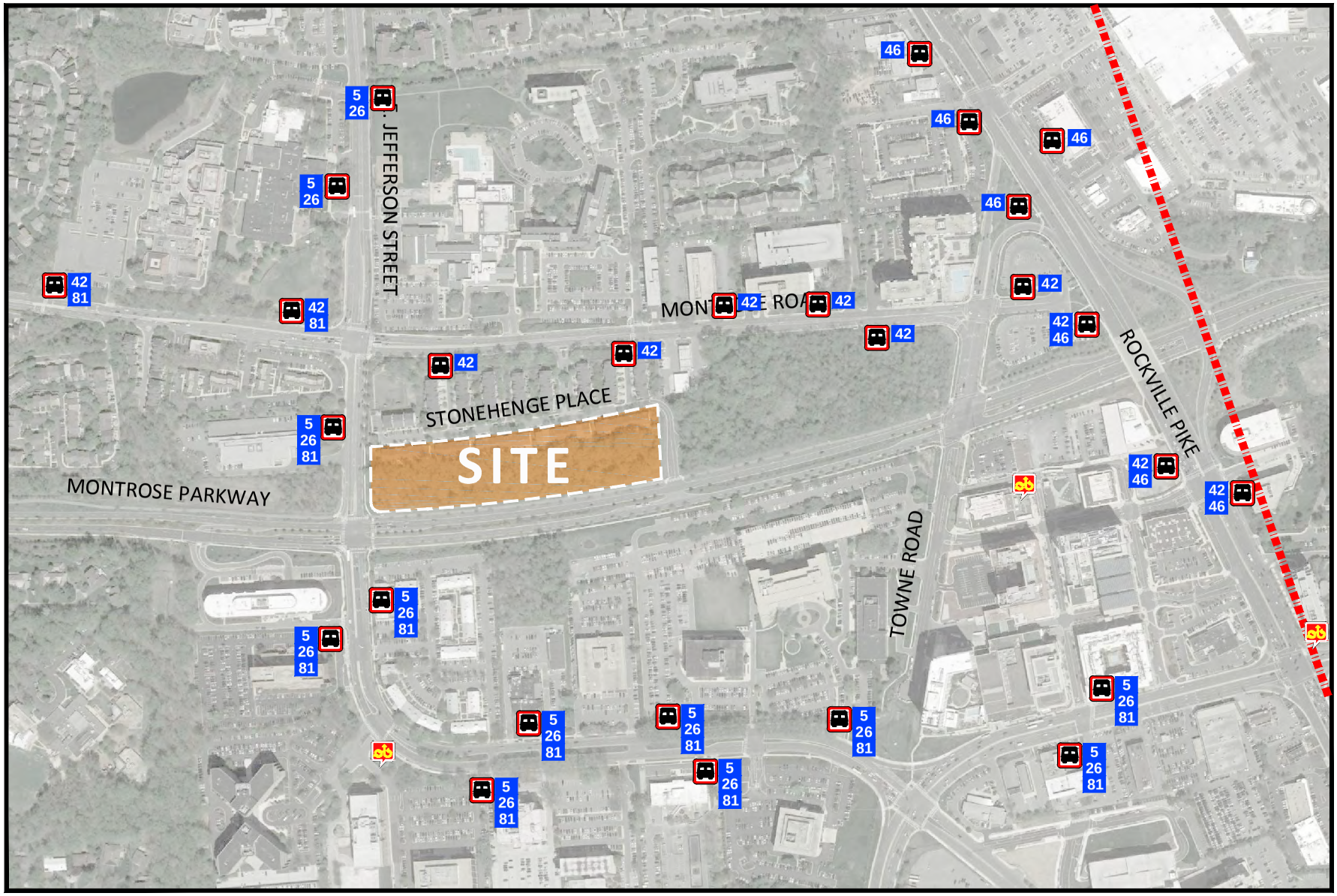


Figure 12
Non-Auto Transportation Facilities

Wilgus Property
North Bethesda, Maryland

CONCLUSIONS

The conclusions of this study are as follows:

1. All study intersections currently operate within their respective Policy Area congestion standard delay threshold during AM and PM peak hours.

2. Nine (9) background projects will generate 4,293 new AM peak hour trips and 6,143 new PM peak hour trips. However, not all of these trips will use each of the study intersections.

3. With the addition of traffic generated by the background developments, all of the study intersections would operate within their respective congestion standard during the AM and PM peak hours with the exception of Montrose Parkway/E. Jefferson Street, which will exceed the policy area standard with existing signal timings.

4. This study considers the development of 68 townhomes. Based on ITE trip generation rates and the LATR Guidelines, the Project would add 27 AM peak hour vehicular trips and 35 PM peak hour vehicular trips to the adjacent road network.

5. With the Project all of the study intersections would continue to operate within their respective Policy Area congestion standard delay threshold during the AM and PM peak hours with the exception of Montrose Parkway/E. Jefferson Street. With adjustment of the signal timings to reflect the shifts in future traffic patterns this intersection will operate within the Policy Area standard.

6. The proposed Project passes the Motor Vehicle System Adequacy test.

Trip Generation - Residential

69 Residential Units (Wilgus West)

Policy Area: 22. North Bethesda

Step 1: Base trip generation using ITEs' *Trip Generation* 10th Edition

Land Use	Land Use Code	Quantity	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Residential	221	69 du	6 veh/hr	18 veh/hr	24 veh/hr	19 veh/hr	12 veh/hr	31 veh/hr
		Calculation Details:	*26%*	*74%*	*Ln(T)=0.98Ln(X)-0.98*	*61%*	*39%*	*Ln(T)=0.96Ln(X)-0.63*

Step 2: Convert to policy area vehicle trips

Land Use	ITE Vehicle-Trip generation Rate Adjustment Factor (Appendix Table 1a)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Residential	83%	5 veh/hr	15 veh/hr	20 veh/hr	16 veh/hr	10 veh/hr	26 veh/hr

Step 3: Convert to total person trips, before applying mode splits

Land Use	People/Car (Appendix Table 1b)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Residential	53.8%	9 ppl/hr	28 ppl/hr	37 ppl/hr	30 ppl/hr	18 ppl/hr	48 ppl/hr

Step 4: Split between modes, per assumed Mode Splits by Policy Area

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Residential	Auto Driver	53.8%	5 ppl/hr	15 ppl/hr	20 ppl/hr	16 ppl/hr	10 ppl/hr	26 ppl/hr
Residential	Auto Passenger	25.9%	2 ppl/hr	8 ppl/hr	10 ppl/hr	8 ppl/hr	4 ppl/hr	12 ppl/hr
Residential	Transit	8.0%	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	2 ppl/hr	4 ppl/hr
Residential	Non-Motorized	12.3%	1 ppl/hr	3 ppl/hr	4 ppl/hr	4 ppl/hr	2 ppl/hr	6 ppl/hr
	Total	100.0%						

Trip Gen Summary for Residential

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto Driver	5 veh/hr	15 veh/hr	20 veh/hr	16 veh/hr	10 veh/hr	26 veh/hr
Auto Passenger	2 ppl/hr	8 ppl/hr	10 ppl/hr	8 ppl/hr	4 ppl/hr	12 ppl/hr
Transit	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	2 ppl/hr	4 ppl/hr
Bicycle (Non-motorized)	1 ppl/hr	3 ppl/hr	4 ppl/hr	4 ppl/hr	2 ppl/hr	6 ppl/hr
Walk (Transit and other walk trips)	2 ppl/hr	5 ppl/hr	7 ppl/hr	6 ppl/hr	4 ppl/hr	10 ppl/hr

Trip Generation - Residential

676 Residential Units (Wilgus East, total)

Policy Area: 37. White Flint

Step 1: Base trip generation using ITEs' *Trip Generation* 10th Edition

Land Use	Land Use Code	Quantity	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Residential	221	676 du	58 veh/hr	165 veh/hr	223 veh/hr	169 veh/hr	108 veh/hr	277 veh/hr
		Calculation Details:	*26%*	*74%*	*Ln(T)=0.98Ln(X)-0.98*	*61%*	*39%*	*Ln(T)=0.96Ln(X)-0.63*

Step 2: Convert to policy area vehicle trips

Land Use	ITE Vehicle-Trip generation Rate Adjustment Factor (Appendix Table 1a)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Residential	79%	46 veh/hr	130 veh/hr	176 veh/hr	134 veh/hr	85 veh/hr	219 veh/hr

Step 3: Convert to total person trips, before applying mode splits

Land Use	People/Car (Appendix Table 1b)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Residential	51.4%	89 ppl/hr	253 ppl/hr	342 ppl/hr	261 ppl/hr	165 ppl/hr	426 ppl/hr

Step 4: Split between modes, per assumed Mode Splits by Policy Area

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Residential	Auto Driver	51.4%	46 ppl/hr	130 ppl/hr	176 ppl/hr	134 ppl/hr	85 ppl/hr	219 ppl/hr
Residential	Auto Passenger	26.3%	23 ppl/hr	67 ppl/hr	90 ppl/hr	69 ppl/hr	43 ppl/hr	112 ppl/hr
Residential	Transit	10.7%	10 ppl/hr	27 ppl/hr	37 ppl/hr	28 ppl/hr	18 ppl/hr	46 ppl/hr
Residential	Non-Motorized	11.6%	10 ppl/hr	29 ppl/hr	39 ppl/hr	30 ppl/hr	19 ppl/hr	49 ppl/hr
	Total	100.0%						

Trip Gen Summary for Residential

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto Driver	46 veh/hr	130 veh/hr	176 veh/hr	134 veh/hr	85 veh/hr	219 veh/hr
Auto Passenger	23 ppl/hr	67 ppl/hr	90 ppl/hr	69 ppl/hr	43 ppl/hr	112 ppl/hr
Transit	10 ppl/hr	27 ppl/hr	37 ppl/hr	28 ppl/hr	18 ppl/hr	46 ppl/hr
Bicycle (Non-motorized)	10 ppl/hr	29 ppl/hr	39 ppl/hr	30 ppl/hr	19 ppl/hr	49 ppl/hr
Walk (Transit and other walk trips)	20 ppl/hr	56 ppl/hr	76 ppl/hr	58 ppl/hr	37 ppl/hr	95 ppl/hr

Trip Generation - Retail

11,880 SF Retail

Policy Area: 37. White Flint

Step 1: Base trip generation using ITEs' *Trip Generation* 10th Edition

Land Use	Land Use Code	Quantity	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Retail	820	11,880 sf	7 veh/hr	4 veh/hr	11 veh/hr	22 veh/hr	23 veh/hr	45 veh/hr
		Calculation Details:	*62%*	*38%*	*=0.94(X/1000)*	*48%*	*52%*	*=3.81(X/1000)*

Step 2: Convert to policy area vehicle trips

Land Use	ITE Vehicle-Trip generation Rate Adjustment Factor (Appendix Table 1a)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Retail	72%	5 veh/hr	3 veh/hr	8 veh/hr	16 veh/hr	16 veh/hr	32 veh/hr

Step 3: Convert to total person trips, before applying mode splits

Land Use	People/Car (Appendix Table 1b)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Retail	52.2%	10 ppl/hr	5 ppl/hr	15 ppl/hr	31 ppl/hr	30 ppl/hr	61 ppl/hr

Step 4: Split between modes, per assumed Mode Splits by Policy Area

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Retail	Auto Driver	52.2%	5 ppl/hr	3 ppl/hr	8 ppl/hr	16 ppl/hr	16 ppl/hr	32 ppl/hr
Retail	Auto Passenger	28.3%	3 ppl/hr	1 ppl/hr	4 ppl/hr	9 ppl/hr	8 ppl/hr	17 ppl/hr
Retail	Transit	8.2%	1 ppl/hr	0 ppl/hr	1 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr
Retail	Non-Motorized	11.3%	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	4 ppl/hr	7 ppl/hr
	Total	100.0%						

Trip Gen Summary for Retail

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto Driver	5 veh/hr	3 veh/hr	8 veh/hr	16 veh/hr	16 veh/hr	32 veh/hr
Auto Passenger	3 ppl/hr	1 ppl/hr	4 ppl/hr	9 ppl/hr	8 ppl/hr	17 ppl/hr
Transit	1 ppl/hr	0 ppl/hr	1 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr
Bicycle (Non-motorized)	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	4 ppl/hr	7 ppl/hr
Walk (Transit and other walk trips)	2 ppl/hr	1 ppl/hr	3 ppl/hr	6 ppl/hr	6 ppl/hr	12 ppl/hr

Project Trip Generation								
Land Use	Size		AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Wilgus West								
Residential (North Bethesda PA)	69 du	LATR Rate	5	15	20	16	10	26
Wilgus East								
Residential (White Flint PA)	676 du	LATR Rate	46	130	176	134	85	219
Retail (White Flint PA)	11880 sf	LATR Rate	5	3	8	16	16	32
		34% Pass By Reduction	--	--	--	*-5*	*-5*	*-10*
		Total Trips, Without Reduction	*56*	*148*	*204*	*166*	*111*	*277*
		Total Pass By Trips	*0*	*0*	*0*	*-5*	*-5*	*-10*
		Vehicle Trips with Reductions	56	148	204	161	106	267
		Vehicle Trips with 50% White Flint Reductions	28	74	102	81	53	134
		Person Trips	**33**	**89**	**122**	**97**	**63**	**160**

D: Traffic Counts During COVID-19 Pandemic – Policy Update Memorandum

MCPB
Item No. 10
Date: 09/24/20

Item Name: Briefing on Updated Traffic Count Data Collection Policy During COVID-19 Pandemic

Eric Graye, Planning Supervisor, Countywide Planning and Policy Division, eric.graye@montgomeryplanning.org, 301-495-4632
Jason Sartori, Chief, Countywide Planning and Policy Division, jason.sartori@montgomeryplanning.org, 301-495-2172

Completed: 09/17/20

Description

On March 14, 2020, the Montgomery County Planning Department initiated an interim policy to not accept transportation impact studies using traffic counts taken during COVID-19 pandemic. The policy was updated on May 7, 2020 to reflect changing conditions and to allow the use of existing counts taken prior to the pandemic, with potential modifications.

The COVID-19 pandemic continues to add uncertainty into traffic analysis in Montgomery County. The impact on business, public offices, schools, other facilities, transit, coupled with the expansion of telework, has substantially reduced the total amount of motor vehicle and other traffic in the county. Nevertheless, Planning staff believes current conditions represent a new normal and that as the pandemic conditions subside, it will take quite a while for traffic volumes to slowly return to pre-pandemic levels.

The Planning Board will be briefed on Planning Department plans to move forward with the collection of traffic counts and the acceptance of transportation impact studies during the pandemic.

Attachment: Planning Staff Memorandum – Traffic Counts During COVID-19 Pandemic – Policy Update

ATTACHMENT

September 17, 2020

MEMORANDUM

TO: Gwen Wright, Planning Director

VIA: Jason Sartori, Chief, Countywide Planning & Policy Division

FROM: Eric Graye, Planning Supervisor, Countywide Planning & Policy Division

SUBJECT: Traffic Counts During COVID-19 Pandemic -Policy Update

Background

On March 13, 2020, as the State of Maryland and Montgomery County entered a state of emergency and increased restrictions due to the COVID-19 pandemic, Montgomery Planning informed transportation consultants that the Department would not accept any transportation impact studies (TIS) based on traffic counts conducted on March 14, or later. On May 7, 2020, the Department initiated an updated temporary policy pertaining to traffic counts to provide opportunities for transportation studies to move forward using historical traffic counts. This temporary policy also provided time to observe how the effect of increased teleworking in the region is manifested in observed traffic conditions. While it is unclear when (or if) traffic will return to pre-March 2020 levels, it appears likely that traffic growth will increase gradually over time.

Recent data obtained from the Maryland State Highway Administration show that current statewide daily traffic volumes have leveled off at approximately 83% of traffic compared with 2019 levels. These volumes, while lower than the pre-March 2020 volumes, reflect the existing new normal daily traffic conditions. While there is limited comparable data available to assess peak-hour traffic conditions, it appears reasonable that existing peak-hour volumes would reflect new normal traffic conditions as well.

Recommendation

The current interim traffic count data collection policy will end on September 30, 2020. A new interim traffic count data collection and TIS acceptance policy with the following options shall apply as of October 1, 2020:

- **Option A. New Counts.**
    - As long as the county remains in Phase 2 (or advances to Phase 3) of the COVID-19 recovery plan, a TIS may use traffic counts collected on or after October 1, 2020 with the application of an adjustment factor to account for the Montgomery County

Public School building closure and remote learning status. Should county public schools re-open for full in-person instruction, new traffic counts may be used without an adjustment factor and in accordance with the *2017 Local Area Transportation Review Guidelines.*
    - The applicable adjustment factor will be determined by Montgomery Planning staff in advance of October 1.
    - This traffic count option will immediately cease to be available for transportation impact studies should the county revert to Phase 1 of the COVID-19 recovery plan.
    - Should the county fully reopen, new traffic counts may be used without an adjustment factor and in accordance with the *2017 Local Area Transportation Review Guidelines*, effective three months after the declaration of the county's open status.

- **Option B. Historical Counts.** Transportation Impact Studies based on traffic counts collected before March 14, will be accepted as follows:
    - Existing counts collected within a year of the application's 65-day deadline can be used in a TIS without adjustment.
    - Existing counts collected between one and three years prior to the application's 65-day deadline may only be used if modified by a growth factor. The growth factor must be developed based on the past ten-year historical traffic volume data for the nearest SHA roadway. This growth rate should be approved by the Planning Department in coordination with the Development Review Committee prior to acceptance of the TIS.
    - Traffic counts collected more than three years earlier than the application's 65-day deadline will not be accepted and may not be used to assess the finding of Adequate Public Facilities.

Combinations of the two options will be accepted as each is allowed, but under no circumstance will traffic counts collected between March 14 and September 30, 2020 be accepted.

This policy will be re-evaluated during the summer of 2021, or earlier if deemed necessary.

Maribel Wong

From: Katie Wagner
Sent: Wednesday, September 30, 2020 3:52 PM
To: Maribel Wong; Brandon Zhang
Subject: FW: Montgomery Planning Policy on Traffic Counts during COVID-19 pandemic

FYI

Katie Wagner, PE, PTOE
GOROVE SLADE
T 202.296.8625x235 / **D** 202.540.1927 / **C** 503.789.6917

From: Sartori, Jason <Jason.Sartori@montgomeryplanning.org>
Sent: Wednesday, September 30, 2020 3:44 PM
To: Sartori, Jason <Jason.Sartori@montgomeryplanning.org>
Cc: Graye, Eric <eric.graye@montgomeryplanning.org>; Anspacher, David <david.anspacher@montgomeryplanning.org>; Sanders, Carrie <carrie.sanders@montgomeryplanning.org>; Hisel-McCoy, Elza <elza.hisel-mccoy@montgomeryplanning.org>; Broullire, Bridget <Bridget.Broullire@montgomeryplanning.org>; Stern, Tanya <tanya.stern@montgomeryplanning.org>; Provost, Russell <Russell.Provost@montgomeryplanning.org>; Wright, Gwen <gwen.wright@montgomeryplanning.org>; Kronenberg, Robert <robert.kronenberg@montgomeryplanning.org>; Pereira, Sandra <sandra.pereira@montgomeryplanning.org>; Dickel, Stephanie <Stephanie.Dickel@montgomeryplanning.org>; Butler, Patrick <patrick.butler@montgomeryplanning.org>; Reed, Patrick <patrick.reed@montgomeryplanning.org>; Freer, Walker <Walker.Freer@montgomeryplanning.org>; Thompson, Iftin <iftin.thompson@montgomeryplanning.org>; Mencarini, Katherine <katherine.mencarini@montgomeryplanning.org>; Van Alstyne, Chris <chris.vanalstyne@montgomeryplanning.org>; Campbell, Lauren <lauren.campbell@montgomeryplanning.org>; Gonzalez, Elwyn <Elwyn.Gonzalez@montgomeryplanning.org>; Andy Smith <andy.smith@kimley-horn.com>; Anne M. Randall <amrandall@wellsandassociates.com>; Carl Starkey <cstarkey@streettrafficstudies.com>; Carl Wilson <cwilson@trafficgroup.com>; Cherian Eapen <cherian@temoss.com>; Chris L. Kabatt <clkabatt@wellsandassociates.com>; Christopher Turnbull <cturnbull@wellsandassociates.com>; David Nelson <dnelson@streettrafficstudies.com>; David Samba <david.samba@kimley-horn.com>; Ed Papazian <Ed.Papazian@kimley-horn.com>; Erwin N. Andres <erwin.andres@goroveslade.com>; Glenn Cook <gcook@trafficgroup.com>; Joe Caloggero <jcaloggero@trafficgroup.com>; Joe Mehra <jmehra@mcvainc.com>; Katie Wagner <klw@goroveslade.com>; Michael J. Workosky <mjworkosky@mjwells.com>; Mike Lenhart <mlenhart@LENHARTTRAFFIC.COM>; Mike Nalepa <nalepa@streettrafficstudies.com>; Paquilla Jones <pjones@wellsandassociates.com>; Shahriar Etemadi <etemadi.sts@gmail.com>; Wes Guckert <wguckert@trafficgroup.com>; William L. Zeid <wlzeid@mjwells.com>
Subject: Montgomery Planning Policy on Traffic Counts during COVID-19 pandemic

Good afternoon,
Montgomery Planning would like to share an update on our policy pertaining to traffic counts used for Transportation Impact Studies. Planning staff briefed the Planning Board on the updated policy last Thursday. The details of the policy are outlined in this September 17 memo. Below is a summary of the options available regarding traffic counts, including additional information not in the aforementioned memo (namely, the adjustment factor to be used for new counts and its specific application):

1. **New Counts.**
    a. We will begin accepting new counts taken on or after October 1, as long as the county remains in Phase 2 or 3 of the COVID-19 recovery plan.

b. The new counts must be adjusted by a factor to account for Montgomery County Public Schools not being in session in-person. The calculated adjustment factor of **1.07** must be applied as follows:
    i. AM peak period – Apply the 1.07 adjustment factor to all AM peak hour traffic counts.
    ii. PM peak period – Apply the 1.07 adjustment factor to any PM peak hour traffic counts captured before 4:30 pm. No adjustment factor is required for counts captured after 4:30 pm.
c. Adjustment factor requirements will be lifted under certain conditions pertaining to the county and/or county schools reopening.

2. Historical Counts.

a. We will continue to accept historical counts generally taken within the last three years.
b. Certain other restrictions apply, and an adjustment factor is required under certain conditions.
c. This option is a continuation of the interim policy that we have had in place since May. The details of that policy can be found in this April 30 memo.

For any given project, an applicant can use a combination of the above options, as applicable, to ensure all critical intersections are evaluated.

Please let us know if you have any questions.

Thank you,
Jason

Jason K. Sartori
Chief, Countywide Planning & Policy Division

Montgomery County Planning Department
2425 Reedie Drive, 13th Floor | Wheaton, MD 20902
jason.sartori@montgomeryplanning.org
c: 240.877.9388 | o: 301.495.2172



WE'VE MOVED!
THE NEW PARK AND PLANNING HEADQUARTERS IS NOW LOCATED AT
2425 REEDIE DRIVE, WHEATON, MD 20902

E: EXISTING TURNING MOVEMENT COUNTS

GOROVE / SLADE
Transportation Planners and Engineers

Multimodal Turning Movement Count Report

PROJECT_SHORT_NAME | STUDY_PERIOD

Project Information

Project Name:	St Angela Hall				
Location:	Montgomery County, MD			Project Number:	2592-008
Analysis Period:	STUDY_PERIOD	6:30 AM	to 9:30 AM	System Peak Hour:	8:00 AM to 9:00 AM
Notes:					

Study Intersections

Intersection ID	Southbound	Westbound	Northbound	Eastbound	Count Date	Intersection Peak Hour
1	MD 355	Strathmore Avenue	MD 355	Strathmore Road	10/6/2020	8:00 AM to 9:00 AM
2	Stillwater Avenue	Strathmore Avenue	School Driveway	Strathmore Avenue	10/6/2020	8:00 AM to 9:00 AM
3	Kenilworth Avenue	Strathmore Avenue	Kenilworth Avenue	Strathmore Avenue	10/6/2020	8:00 AM to 9:00 AM
4	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
5	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
6	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
7	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
8	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
9	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
10	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
11	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
12	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
13	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
14	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
15	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
16	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
17	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
18	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
19	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
20	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
21	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
22	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
23	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
24	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
25	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
26	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
27	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
28	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
29	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
30	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
31	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
32	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
33	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
34	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : St Angela Hall
Project # : 2592-008
Location Montgomery County, MD
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, October 6, 2020
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 08:00 AM to 09:00 AM
System Peak Hour (all vehicles): 08:00 AM to 09:00 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. MD 355 & Strathmore Avenue/Strathmore Road

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	MD 355					Strathmore Avenue					MD 355					Strathmore Road				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM to 06:45 AM	0	9	184	2	0	0	20	1	17	1	0	4	134	7	0	0	1	1	0	0
06:45 AM to 07:00 AM	0	15	177	3	0	0	30	3	14	1	0	4	168	18	0	0	1	0	1	0
07:00 AM to 07:15 AM	1	21	229	4	0	0	24	2	14	0	0	5	141	14	0	0	2	0	0	0
07:15 AM to 07:30 AM	2	16	249	6	0	0	39	4	21	1	0	8	173	21	0	0	0	0	0	2
07:30 AM to 07:45 AM	0	16	254	10	0	0	43	2	22	0	0	18	191	28	0	0	1	0	1	0
07:45 AM to 08:00 AM	2	27	271	15	0	0	45	7	33	0	0	52	193	40	0	0	1	0	0	2
08:00 AM to 08:15 AM	0	37	287	5	0	0	39	2	40	1	0	25	182	51	0	0	2	1	2	0
08:15 AM to 08:30 AM	0	29	282	0	0	0	47	0	42	2	0	5	238	51	0	0	2	0	3	0
08:30 AM to 08:45 AM	1	37	299	5	1	0	37	0	37	4	0	5	222	41	0	0	1	0	1	0
08:45 AM to 09:00 AM	0	33	268	0	1	0	42	0	45	0	0	1	250	50	0	0	0	0	1	4
09:00 AM to 09:15 AM	4	34	262	2	1	0	40	0	38	2	0	1	223	29	0	0	0	1	2	1
09:15 AM to 09:30 AM	2	36	247	1	0	0	27	1	34	1	0	4	236	37	0	0	3	0	5	0
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
SYSTEM PEAK HR (VEH.)	1283				2	331				7	1121				0	13				4
08:00 AM to 09:00 AM	1	136	1136	10		0	165	2	164		0	36	892	193		0	5	1	7	
Peak Hour Factor (PHF) Overall	**0.98**				**SB**					**WB**					**NB**					**EB**
		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
		0.25	0.92	0.95	0.50	**0.94**	n/a	0.88	0.25	0.91	**0.93**	n/a	0.36	0.89	0.95	**0.93**	n/a	0.63	0.25	0.58	**0.65**

HEAVY VEHICLES (FHWA 4+)

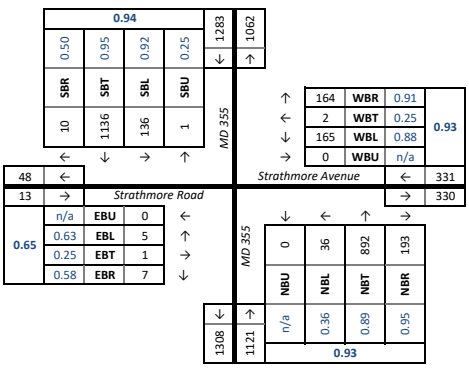
Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	MD 355				Strathmore Avenue				MD 355				Strathmore Road			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	1	12	0	0	0	0	1	0	0	6	1	0	1	1	0
06:45 AM to 07:00 AM	0	1	11	0	0	0	0	0	0	0	8	1	0	0	0	0
07:00 AM to 07:15 AM	0	3	19	0	0	3	0	6	0	0	8	1	0	0	0	0
07:15 AM to 07:30 AM	0	1	19	0	0	0	0	1	0	0	9	4	0	0	0	0
07:30 AM to 07:45 AM	0	0	18	0	0	0	0	1	0	0	7	1	0	0	0	0
07:45 AM to 08:00 AM	0	2	27	0	0	2	0	3	0	0	9	1	0	0	0	0
08:00 AM to 08:15 AM	0	2	19	0	0	1	0	2	0	0	10	2	0	0	0	0
08:15 AM to 08:30 AM	0	3	22	0	0	2	0	2	0	1	16	2	0	0	0	0
08:30 AM to 08:45 AM	0	1	20	0	0	1	0	3	0	0	7	0	0	1	0	0
08:45 AM to 09:00 AM	0	2	17	0	0	2	0	2	0	0	10	4	0	0	0	0
09:00 AM to 09:15 AM	0	2	21	1	0	0	0	1	0	0	21	4	0	0	0	0
09:15 AM to 09:30 AM	0	1	9	0	0	2	0	3	0	0	16	0	0	0	0	1
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
SYSTEM PEAK HR (VEH.)	86				15				52				1			
08:00 AM to 09:00 AM	0	8	78	0	0	6	0	9	0	1	43	8	0	1	0	0
Heavy Vehicle % (PHV):	0.0%	5.9%	6.9%	0.0% **6.7%**	0.0%	3.6%	0.0%	5.5% **4.5%**	0.0%	2.8%	4.8%	4.1% **4.6%**	0.0%	20.0%	0.0%	0.0% **7.7%**
INT. PEAK HR (HV ONLY)	89				13				65				1			
08:15 AM to 09:15 AM	0	8	80	1	0	5	0	8	0	1	54	10	0	1	0	0
Heavy Vehicle % (PHV):	0.0%	6.0%	7.2%	14.3% **7.1%**	0.0%	3.0%	0.0%	4.9% **4.0%**	0.0%	8.3%	5.8%	5.8% **5.8%**	0.0%	33.3%	0.0%	0.0% **9.1%**

BICYCLES

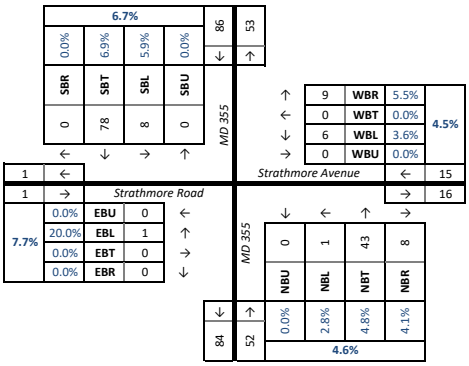
Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	MD 355				Strathmore Avenue				MD 355				Strathmore Road			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM to 09:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
SYSTEM PEAK HR (VEH.)	0				0				3				1			
08:00 AM to 09:00 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	0
INT. PEAK HR (BIKES)	0				0				3				1			
08:00 AM to 09:00 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	0

DATA COLLECTION NOTES :

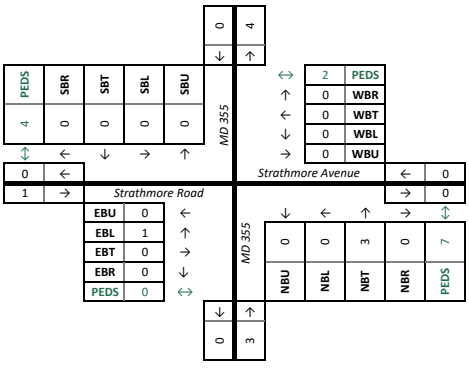
VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : St Angela Hall
Project # : 2592-008
Location Montgomery County, MD
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, October 6, 2020
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 08:00 AM to 09:00 AM
System Peak Hour (all vehicles): 08:00 AM to 09:00 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. Stillwater Avenue/School Driveway & Strathmore Avenue

ALL VEHICLES

	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	Stillwater Avenue					Strathmore Avenue					School Driveway					Strathmore Avenue				
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM	to 06:45 AM	0	0	0	0	0	0	0	34	0	0	0	0	0	0	0	0	0	16	0	1
06:45 AM	to 07:00 AM	0	0	0	6	0	0	0	38	0	0	0	0	0	0	0	0	0	30	0	4
07:00 AM	to 07:15 AM	0	1	0	4	0	0	0	42	0	0	0	0	0	0	1	0	0	31	0	2
07:15 AM	to 07:30 AM	0	1	0	10	2	0	1	48	0	0	0	0	0	0	1	0	3	33	2	2
07:30 AM	to 07:45 AM	0	2	0	11	0	0	2	48	0	0	0	0	0	0	0	0	2	39	0	1
07:45 AM	to 08:00 AM	0	2	0	9	2	0	1	73	0	0	0	0	0	0	0	0	2	59	3	3
08:00 AM	to 08:15 AM	0	2	0	11	1	0	2	68	1	0	0	0	0	0	1	0	2	80	2	1
08:15 AM	to 08:30 AM	0	2	0	5	1	0	1	78	1	0	0	1	0	0	2	0	5	71	3	2
08:30 AM	to 08:45 AM	0	5	0	6	0	0	3	70	4	0	0	0	0	0	0	0	4	70	0	1
08:45 AM	to 09:00 AM	0	5	0	7	0	0	2	72	1	0	0	0	0	0	1	0	4	76	7	2
09:00 AM	to 09:15 AM	0	5	0	7	2	0	0	65	3	0	0	0	0	0	3	0	2	57	3	4
09:15 AM	to 09:30 AM	0	0	1	7	0	0	3	58	1	0	0	0	0	0	5	0	0	66	2	0
09:30 AM	to 09:45 AM																				
09:45 AM	to 10:00 AM																				
10:00 AM	to 10:15 AM																				
10:15 AM	to 10:30 AM																				
10:30 AM	to 10:45 AM																				
10:45 AM	to 11:00 AM																				
11:00 AM	to 11:15 AM																				
11:15 AM	to 11:30 AM																				
SYSTEM PEAK HR (VEH.)		43				2	303				0	1				4	324				6
08:00 AM	to 09:00 AM	0	14	0	29		0	8	288	7		0	1	0	0		0	15	297	12	
Peak Hour	Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF)	**0.96**	n/a	0.70	n/a	0.66	**0.83**	n/a	0.67	0.92	0.44	**0.95**	n/a	0.25	n/a	n/a	**0.25**	n/a	0.75	0.93	0.43	**0.93**

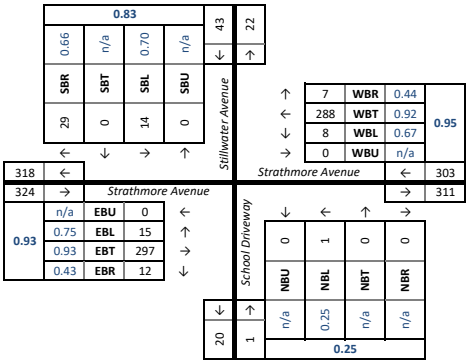
HEAVY VEHICLES (FHWA 4+)

	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:	Stillwater Avenue				Strathmore Avenue				School Driveway				Strathmore Avenue			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM	to 06:45 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0
06:45 AM	to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
07:00 AM	to 07:15 AM	0	0	0	0	0	0	6	0	0	0	0	0	0	0	3	0
07:15 AM	to 07:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0
07:30 AM	to 07:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
07:45 AM	to 08:00 AM	0	0	0	1	0	0	3	0	0	0	0	0	0	0	3	0
08:00 AM	to 08:15 AM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	4	0
08:15 AM	to 08:30 AM	0	0	0	0	0	0	5	0	0	0	0	0	0	0	3	0
08:30 AM	to 08:45 AM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3	0
08:45 AM	to 09:00 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	2	5	0
09:00 AM	to 09:15 AM	0	2	0	0	0	0	1	0	0	0	0	0	0	0	2	0
09:15 AM	to 09:30 AM	0	0	0	1	0	0	3	0	0	0	0	0	0	0	4	0
09:30 AM	to 09:45 AM																
09:45 AM	to 10:00 AM																
10:00 AM	to 10:15 AM																
10:15 AM	to 10:30 AM																
10:30 AM	to 10:45 AM																
10:45 AM	to 11:00 AM																
11:00 AM	to 11:15 AM																
11:15 AM	to 11:30 AM																
SYSTEM PEAK HR (VEH.)		0				13				0				17			
08:00 AM	to 09:00 AM	0	0	0	0	0	0	13	0	0	0	0	0	0	2	15	0
Heavy Vehicle % (PHV):		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.5%	0.0%	4.3%	0.0%	0.0%	0.0%	0.0%	0.0%	13.3%	5.1%	0.0%	5.2%
INT. PEAK HR (HV ONLY)		0				13				0				17			
08:00 AM	to 09:00 AM	0	0	0	0	0	0	13	0	0	0	0	0	0	2	15	0
Heavy Vehicle % (PHV):		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.5%	0.0%	4.3%	0.0%	0.0%	0.0%	0.0%	0.0%	13.3%	5.1%	0.0%	5.2%

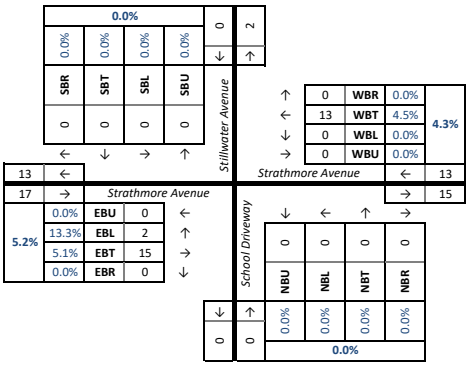
BICYCLES

	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:	Stillwater Avenue				Strathmore Avenue				School Driveway				Strathmore Avenue			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM	to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	to 08:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM	to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	to 09:45 AM																
09:45 AM	to 10:00 AM																
10:00 AM	to 10:15 AM																
10:15 AM	to 10:30 AM																
10:30 AM	to 10:45 AM																
10:45 AM	to 11:00 AM																
11:00 AM	to 11:15 AM																
11:15 AM	to 11:30 AM																
SYSTEM PEAK HR (VEH.)		0				0				0				0			
08:00 AM	to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INT. PEAK HR (BIKES)		1				0				0				0			
07:00 AM	to 08:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0

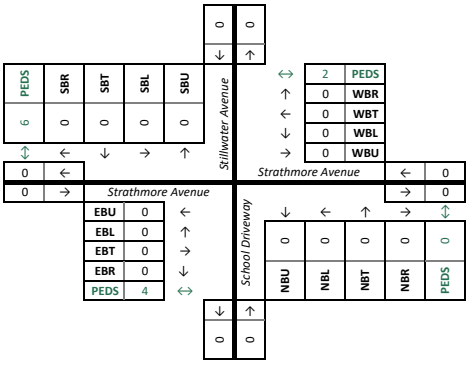
VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : St Angela Hall
Project # : 2592-008
Location Montgomery County, MD
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, October 6, 2020
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 08:00 AM to 09:00 AM
System Peak Hour (all vehicles): 08:00 AM to 09:00 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. Kenilworth Avenue & Strathmore Avenue

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	Kenilworth Avenue					Strathmore Avenue					Kenilworth Avenue					Strathmore Avenue				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM to 06:45 AM	0	0	0	3	0	0	0	29	0	0	0	0	0	0	0	0	1	15	1	2
06:45 AM to 07:00 AM	0	1	0	1	2	0	0	34	2	0	0	0	0	0	1	0	1	29	3	2
07:00 AM to 07:15 AM	0	1	0	2	1	0	0	32	2	0	0	0	0	0	0	0	1	28	0	1
07:15 AM to 07:30 AM	0	0	0	2	4	0	0	45	2	3	0	2	0	0	3	0	0	31	1	10
07:30 AM to 07:45 AM	0	0	0	3	0	0	0	46	1	0	0	3	0	0	3	0	2	36	0	8
07:45 AM to 08:00 AM	0	1	0	5	2	0	1	78	2	0	0	2	0	0	1	0	2	58	2	12
08:00 AM to 08:15 AM	0	2	0	6	3	0	2	63	0	0	0	2	0	2	1	0	6	77	6	2
08:15 AM to 08:30 AM	0	3	0	5	0	0	2	70	3	0	0	2	0	2	2	0	1	55	9	2
08:30 AM to 08:45 AM	0	2	2	7	3	0	1	50	5	0	0	16	0	2	4	0	7	55	13	8
08:45 AM to 09:00 AM	0	3	0	3	2	0	2	70	2	0	0	8	1	3	2	0	6	74	9	3
09:00 AM to 09:15 AM	0	1	1	6	0	0	2	51	1	0	0	2	0	1	3	0	5	54	3	2
09:15 AM to 09:30 AM	0	1	0	3	1	0	0	59	1	0	0	0	0	0	0	0	8	50	4	3
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
SYSTEM PEAK HR (VEH.)	33				8	270				0	38				9	318				15
08:00 AM to 09:00 AM	0	10	2	21		0	7	253	10		0	28	1	9		0	20	261	37	
Peak Hour Factor (PHF) Overall **0.91**	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
	n/a	0.83	0.25	0.75	**0.75**	n/a	0.88	0.90	0.50	**0.90**	n/a	0.44	0.25	0.75	**0.53**	n/a	0.71	0.85	0.71	**0.89**

HEAVY VEHICLES (FHWA 4+)

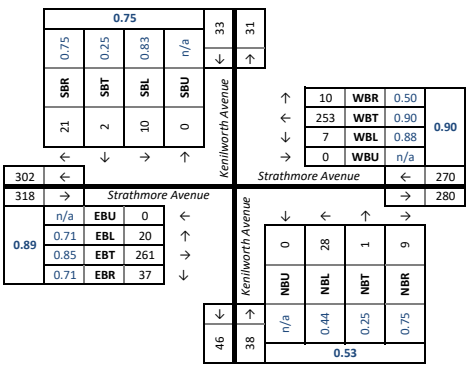
Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	Kenilworth Avenue					Strathmore Avenue					Kenilworth Avenue					Strathmore Avenue				
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
06:30 AM to 06:45 AM	0	0	0	1		0	0	2	0		0	0	0	0		0	0	1	0	
06:45 AM to 07:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	3	0	
07:00 AM to 07:15 AM	0	0	0	1		0	0	8	0		0	0	0	0		0	0	4	0	
07:15 AM to 07:30 AM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	2	0	
07:30 AM to 07:45 AM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	1	0	
07:45 AM to 08:00 AM	0	0	0	0		0	0	6	0		0	0	0	0		0	1	1	0	
08:00 AM to 08:15 AM	0	0	0	0		0	0	5	0		0	0	0	0		0	1	2	1	
08:15 AM to 08:30 AM	0	1	0	0		0	0	4	0		0	0	0	0		0	0	1	0	
08:30 AM to 08:45 AM	0	0	0	1		0	0	5	0		0	0	0	0		0	0	3	0	
08:45 AM to 09:00 AM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	4	0	
09:00 AM to 09:15 AM	0	0	0	0		0	0	1	0		0	0	0	0		0	1	6	0	
09:15 AM to 09:30 AM	0	0	0	1		0	0	5	0		0	0	0	0		0	0	1	0	
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
SYSTEM PEAK HR (VEH.)	2					15					0					12				
08:00 AM to 09:00 AM	0	1	0	1		0	0	15	0		0	0	0	0		0	1	10	1	
Heavy Vehicle % (PHV):	0.0%	10.0%	0.0%	4.8%	**6.1%**	0.0%	0.0%	5.9%	0.0%	**5.6%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	5.0%	3.8%	2.7%	**3.8%**
INT. PEAK HR (HV ONLY)	2					20					0					10				
07:45 AM to 08:45 AM	0	1	0	1		0	0	20	0		0	0	0	0		0	2	7	1	
Heavy Vehicle % (PHV):	0.0%	12.5%	0.0%	4.3%	**6.1%**	0.0%	0.0%	7.7%	0.0%	**7.2%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	12.5%	2.9%	3.3%	**3.4%**

BICYCLES

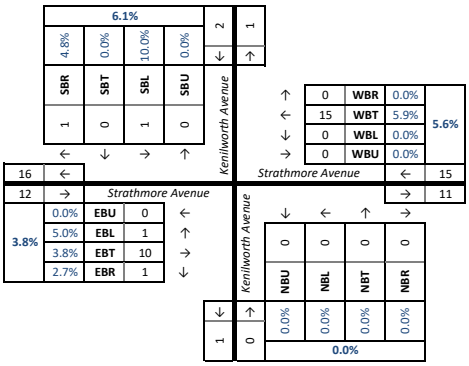
Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	Kenilworth Avenue				Strathmore Avenue				Kenilworth Avenue				Strathmore Avenue			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM to 09:00 AM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
SYSTEM PEAK HR (VEH.)	1				1				1				0			
08:00 AM to 09:00 AM	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0
INT. PEAK HR (BIKES)	1				1				1				0			
08:00 AM to 09:00 AM	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0

DATA COLLECTION NOTES :

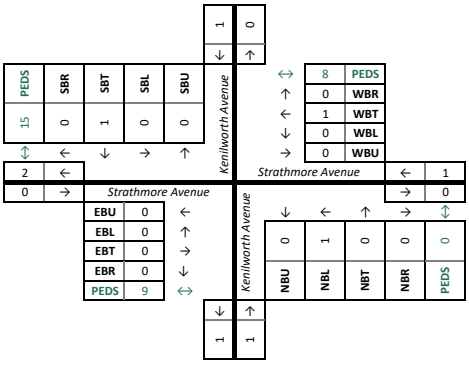
VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



GOROVE / SLADE
Transportation Planners and Engineers

Multimodal Turning Movement Count Report

PROJECT_SHORT_NAME | STUDY_PERIOD

Project Information

Project Name:	St Angela Hall				
Location:	Montgomery County, MD			Project Number:	2592-008
Analysis Period:	STUDY_PERIOD	6:30 AM	to 9:30 AM	System Peak Hour:	8:30 AM to 9:30 AM
Notes:					

Study Intersections

Intersection ID	Southbound	Westbound	Northbound	Eastbound	Count Date	Intersection Peak Hour
1	MD 355	Flanders Avenue	MD 355	Wickshire Way	11/18/2020	8:30 AM to 9:30 AM
2	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
3	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
4	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
5	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
6	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
7	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
8	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
9	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
10	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
11	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
12	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
13	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
14	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
15	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
16	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
17	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
18	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
19	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
20	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
21	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
22	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
23	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
24	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
25	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
26	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
27	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
28	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
29	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
30	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
31	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
32	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
33	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM
34	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	6:30 AM to 7:30 AM

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : St Angela Hall
Project # : 2592-008
Location Montgomery County, MD
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Wednesday, November 18, 2020
Weather: Partly Cloudy

Volumes Displayed as: 3. User-Defined
Intersection Peak Hour (all vehicles): 08:30 AM to 09:30 AM
System Peak Hour (all vehicles): 08:30 AM to 09:30 AM
User-Defined Peak Hour: 08:00 AM to 09:00 AM

Intersection: 1. MD 355 & Flanders Avenue/Wickshire Way

ALL VEHICLES

	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	MD 355					Flanders Avenue					MD 355					Wickshire Way				
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM	to 06:45 AM	0	1	212	0	0	0	2	0	3	0	0	0	152	0	0	0	2	0	1	0
06:45 AM	to 07:00 AM	0	1	228	0	0	0	1	0	3	0	0	1	195	0	0	0	0	0	2	0
07:00 AM	to 07:15 AM	1	4	263	0	0	0	2	0	6	0	0	0	175	1	0	0	1	0	0	0
07:15 AM	to 07:30 AM	0	7	268	0	0	0	3	0	4	1	0	0	184	1	0	0	0	0	0	0
07:30 AM	to 07:45 AM	2	5	332	0	0	0	2	0	7	1	0	0	216	2	0	0	2	0	2	2
07:45 AM	to 08:00 AM	0	13	333	1	0	0	2	0	15	0	0	4	231	6	1	0	1	0	3	1
08:00 AM	to 08:15 AM	2	11	294	0	0	0	3	0	15	0	0	2	249	0	0	0	4	0	3	0
08:15 AM	to 08:30 AM	0	12	331	1	0	0	2	0	13	0	1	3	265	3	0	0	0	0	2	3
08:30 AM	to 08:45 AM	3	13	299	3	0	0	3	0	15	1	0	1	281	2	0	0	0	0	1	0
08:45 AM	to 09:00 AM	2	11	339	5	0	0	1	0	15	1	1	3	273	1	0	0	2	0	1	0
09:00 AM	to 09:15 AM	1	10	320	1	0	0	0	0	5	1	0	4	295	5	0	0	1	0	5	1
09:15 AM	to 09:30 AM	2	8	284	1	0	0	2	0	15	1	0	4	340	3	0	0	1	0	6	0
09:30 AM	to 09:45 AM																				
09:45 AM	to 10:00 AM																				
10:00 AM	to 10:15 AM																				
10:15 AM	to 10:30 AM																				
10:30 AM	to 10:45 AM																				
10:45 AM	to 11:00 AM																				
11:00 AM	to 11:15 AM																				
11:15 AM	to 11:30 AM																				
USER-DEFINED PEAK HR		1326				0	67				2	1085				0	13				3
08:00 AM	to 09:00 AM	7	47	1263	9		0	9	0	58		2	9	1068	6		0	6	0	7	
Peak Hour	Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF)	**0.95**	0.58	0.90	0.93	0.45	**0.93**	n/a	0.75	n/a	0.97	**0.93**	0.50	0.75	0.95	0.50	**0.96**	n/a	0.38	n/a	0.58	**0.46**

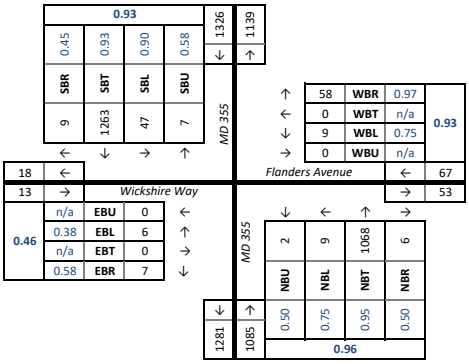
HEAVY VEHICLES (FHWA 4)

	Roadway:	MD 355				Flanders Avenue				MD 355				Wickshire Way			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM	to 06:45 AM	0	0	20	0	0	0	0	0	0	0	6	0	0	0	0	0
06:45 AM	to 07:00 AM	0	0	10	0	0	0	0	0	0	0	13	0	0	0	0	0
07:00 AM	to 07:15 AM	0	0	18	0	0	0	0	0	0	0	8	0	0	0	0	0
07:15 AM	to 07:30 AM	0	0	27	0	0	0	0	0	0	0	12	0	0	0	0	0
07:30 AM	to 07:45 AM	0	0	24	0	0	0	0	0	0	0	9	0	0	0	0	0
07:45 AM	to 08:00 AM	0	0	23	0	0	0	0	0	0	0	8	1	0	0	0	0
08:00 AM	to 08:15 AM	0	1	19	0	0	0	0	0	0	0	15	0	0	0	0	0
08:15 AM	to 08:30 AM	0	0	13	0	0	0	0	0	0	0	13	0	0	0	0	0
08:30 AM	to 08:45 AM	0	0	18	0	0	0	0	0	0	0	10	0	0	0	0	0
08:45 AM	to 09:00 AM	0	1	20	0	0	0	0	1	0	0	13	0	0	0	0	0
09:00 AM	to 09:15 AM	0	0	23	0	0	0	0	0	0	0	20	0	0	0	0	0
09:15 AM	to 09:30 AM	0	0	15	0	0	0	0	1	0	0	21	0	0	0	0	1
09:30 AM	to 09:45 AM																
09:45 AM	to 10:00 AM																
10:00 AM	to 10:15 AM																
10:15 AM	to 10:30 AM																
10:30 AM	to 10:45 AM																
10:45 AM	to 11:00 AM																
11:00 AM	to 11:15 AM																
11:15 AM	to 11:30 AM																
USER-DEFINED PEAK HR		72				1				51				0			
08:00 AM	to 09:00 AM	0	2	70	0	0	0	0	1	0	0	51	0	0	0	0	0
Heavy Vehicle % (PHV):		0.0%	4.3%	5.5%	0.0%	**5.4%**	0.0%	0.0%	0.0%	1.7%	**1.5%**	0.0%	0.0%	4.8%	0.0%	**4.7%**	0.0%	0.0%	0.0%	0.0%	**0.0%**
INT. PEAK HR (HV ONLY)		77				2				64				1			
08:30 AM	to 09:30 AM	0	1	76	0	0	0	0	2	0	0	64	0	0	0	0	1
Heavy Vehicle % (PHV):		0.0%	2.4%	6.1%	0.0%	**5.9%**	0.0%	0.0%	0.0%	4.0%	**3.6%**	0.0%	0.0%	5.4%	0.0%	**5.3%**	0.0%	0.0%	0.0%	7.7%	**5.9%**

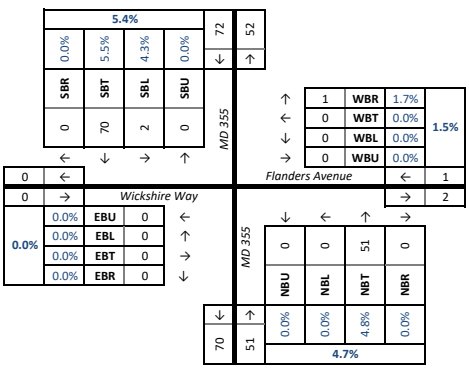
BICYCLES

	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:	MD 355				Flanders Avenue				MD 355				Wickshire Way			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM	to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	to 07:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM	to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	to 09:45 AM																
09:45 AM	to 10:00 AM																
10:00 AM	to 10:15 AM																
10:15 AM	to 10:30 AM																
10:30 AM	to 10:45 AM																
10:45 AM	to 11:00 AM																
11:00 AM	to 11:15 AM																
11:15 AM	to 11:30 AM																
USER-DEFINED PEAK HR		0				0				0				0			
08:00 AM	to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INT. PEAK HR (BIKES)		1				0				0				0			
06:45 AM	to 07:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0

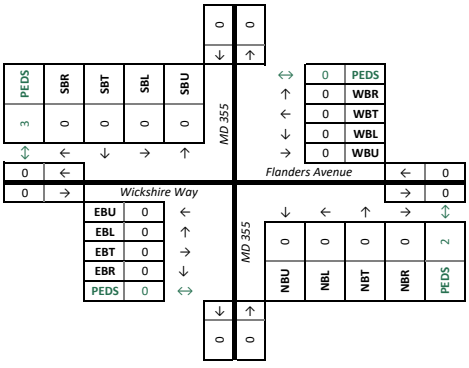
VEHICLE PEAK HOUR VOLS AND PHF: User-Defined (08:00 AM-09:00 AM)



HEAVY VEH PEAK HOUR VOLS AND PHV: User-Defined (08:00 AM-09:00 AM)



PED AND BIKE PEAK HOUR VOLUMES: User-Defined (08:00 AM-09:00 AM)



DATA COLLECTION NOTES :

GOROVE / SLADE
Transportation Planners and Engineers

Multimodal Turning Movement Count Report

PROJECT_SHORT_NAME | STUDY_PERIOD

Project Information

Project Name:	St Angela Hall				
Location:	Montgomery County, MD			Project Number:	2592-008
Analysis Period:	STUDY_PERIOD	4:00 PM	to 7:00 PM	System Peak Hour:	5:00 PM to 6:00 PM
Notes:					

Study Intersections

Intersection ID	Southbound	Westbound	Northbound	Eastbound	Count Date	Intersection Peak Hour
1	MD 355	Strathmore Avenue	MD 355	Strathmore Road	10/6/2020	5:00 PM to 6:00 PM
2	Stillwater Avenue	Strathmore Avenue	School Driveway	Strathmore Avenue	10/6/2020	5:00 PM to 6:00 PM
3	Kenilworth Avenue	Strathmore Avenue	Kenilworth Avenue	Strathmore Avenue	10/6/2020	5:00 PM to 6:00 PM
4	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
5	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
6	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
7	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
8	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
9	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
10	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
11	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
12	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
13	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
14	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
15	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
16	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
17	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
18	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
19	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
20	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
21	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
22	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
23	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
24	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
25	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
26	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
27	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
28	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
29	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
30	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
31	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
32	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
33	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
34	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : St Angela Hall
Project # : 2592-008
Location Montgomery County, MD
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, October 6, 2020
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 05:00 PM to 06:00 PM
System Peak Hour (all vehicles): 05:00 PM to 06:00 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. MD 355 & Strathmore Avenue/Strathmore Road

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	MD 355					Strathmore Avenue					MD 355					Strathmore Road				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM	5	64	271	2	0	0	42	0	73	0	0	3	355	79	0	0	3	2	8	1
04:15 PM to 04:30 PM	1	53	248	1	1	0	50	0	49	1	0	1	382	71	0	0	1	3	8	1
04:30 PM to 04:45 PM	3	71	296	0	3	0	50	0	48	3	0	1	346	69	0	0	2	0	2	1
04:45 PM to 05:00 PM	2	53	271	6	4	0	48	2	57	2	1	10	332	71	0	0	1	0	1	1
05:00 PM to 05:15 PM	2	69	330	1	2	0	56	1	64	0	3	0	392	102	0	0	4	0	5	2
05:15 PM to 05:30 PM	5	59	297	0	0	0	65	0	49	5	0	1	375	106	0	0	3	0	1	0
05:30 PM to 05:45 PM	0	63	291	0	0	0	55	0	75	2	4	1	389	84	0	0	0	2	1	2
05:45 PM to 06:00 PM	1	59	272	4	0	0	66	2	55	2	2	8	344	63	0	0	2	1	1	2
06:00 PM to 06:15 PM	2	64	292	2	0	0	41	1	55	3	2	4	336	67	0	0	7	3	19	3
06:15 PM to 06:30 PM	1	54	335	4	0	0	52	0	33	2	3	2	276	59	0	0	2	1	3	5
06:30 PM to 06:45 PM	1	55	286	0	0	0	38	0	45	0	0	1	335	61	0	0	1	0	3	5
06:45 PM to 07:00 PM	0	53	280	2	2	0	21	0	45	3	0	12	273	47	0	0	0	0	1	5
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
SYSTEM PEAK HR (VEH.)	1453				2	488				9	1874				0	20				6
05:00 PM to 06:00 PM	8	250	1190	5		0	242	3	243		9	10	1500	355		0	9	3	8	
Peak Hour Factor (PHF)	Overall 0.93	U 0.40	Left 0.91	Thru 0.90	Right 0.31	**SB 0.90**	U n/a	Left 0.92	Thru 0.38	Right 0.81	**WB 0.94**	U 0.56	Left 0.31	Thru 0.96	Right 0.84	**NB 0.94**	U n/a	Left 0.56	Thru 0.38	Right 0.40	**EB 0.56**

HEAVY VEHICLES (FHWA 4+)

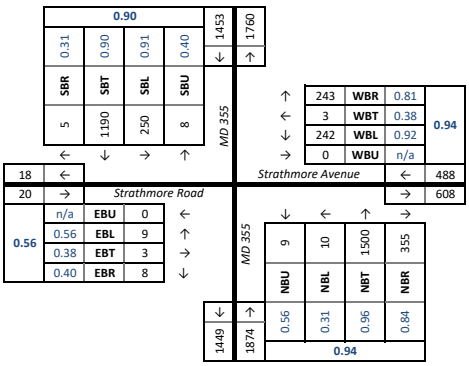
Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	MD 355				Strathmore Avenue				MD 355				Strathmore Road			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	1	4	0	0	0	0	1	0	0	8	2	0	0	0	0
04:15 PM to 04:30 PM	0	0	9	0	0	0	0	1	0	0	7	0	0	0	0	0
04:30 PM to 04:45 PM	0	1	5	0	0	1	0	0	0	0	7	0	0	0	0	0
04:45 PM to 05:00 PM	0	1	9	0	0	1	0	1	0	0	10	1	0	0	0	0
05:00 PM to 05:15 PM	0	1	6	0	0	1	0	2	0	0	8	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	3	0	0	1	0	1	0	0	9	0	0	0	0	0
05:30 PM to 05:45 PM	0	1	3	0	0	0	0	1	0	0	10	2	0	0	0	0
05:45 PM to 06:00 PM	0	0	4	0	0	0	0	0	0	0	8	1	0	0	0	0
06:00 PM to 06:15 PM	0	1	5	0	0	0	0	1	0	1	10	2	0	0	0	0
06:15 PM to 06:30 PM	0	1	6	0	0	2	0	2	0	0	10	1	0	1	0	0
06:30 PM to 06:45 PM	0	0	5	0	0	0	0	2	0	0	16	2	0	0	0	0
06:45 PM to 07:00 PM	0	1	3	0	0	1	0	2	0	0	12	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
SYSTEM PEAK HR (VEH.)	18				6				38				0			
05:00 PM to 06:00 PM	0	2	16	0	0	2	0	4	0	0	35	3	0	0	0	0
Heavy Vehicle % (PHV):	0.0%	0.8%	1.3%	0.0%	**1.2%**	0.0%	0.8%	0.0%	1.6%	**1.2%**	0.0%	0.0%	2.3%	0.8%	**2.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**
INT. PEAK HR (HV ONLY)	22				10				54				1			
06:00 PM to 07:00 PM	0	3	19	0	0	3	0	7	0	1	48	5	0	1	0	0
Heavy Vehicle % (PHV):	0.0%	1.3%	1.6%	0.0%	**1.5%**	0.0%	2.0%	0.0%	3.9%	**3.0%**	0.0%	5.3%	3.9%	2.1%	**3.7%**	0.0%	10.0%	0.0%	0.0%	**2.5%**

BICYCLES

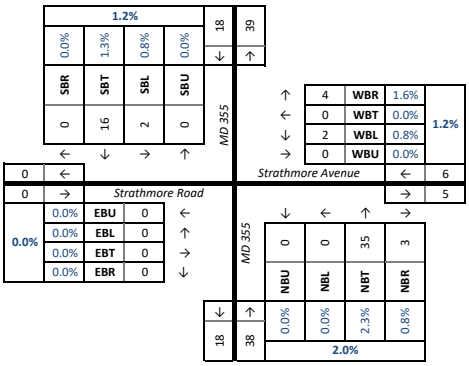
Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	MD 355				Strathmore Avenue				MD 355				Strathmore Road			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1
05:00 PM to 05:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	2	1	0	0	0	0	0	1	0	0	0	0	0	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
SYSTEM PEAK HR (VEH.)	4				0				3				0			
05:00 PM to 06:00 PM	0	1	2	1	0	0	0	0	0	1	2	0	0	0	0	0
INT. PEAK HR (BIKES)	4				0				3				1			
04:30 PM to 05:30 PM	0	1	2	1	0	0	0	0	0	1	2	0	0	0	0	1

DATA COLLECTION NOTES :

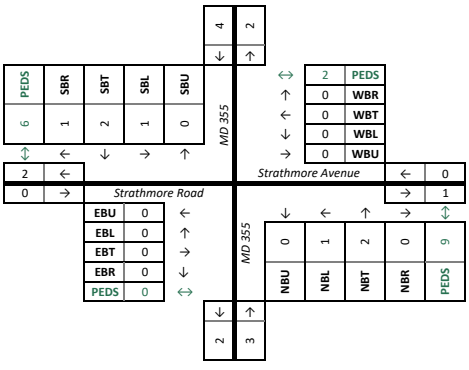
VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : St Angela Hall
Project # : 2592-008
Location Montgomery County, MD
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, October 6, 2020
Weather: Partly Cloudy

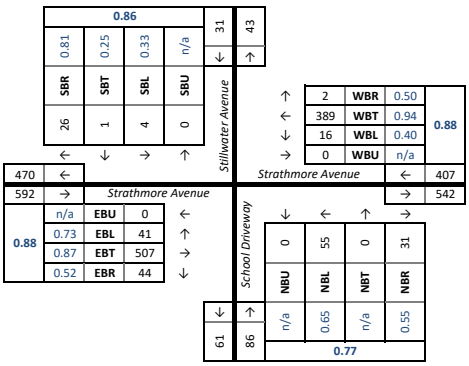
Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 05:00 PM to 06:00 PM
System Peak Hour (all vehicles): 05:00 PM to 06:00 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. Stillwater Avenue/School Driveway & Strathmore Avenue

ALL VEHICLES

	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	Stillwater Avenue					Strathmore Avenue					School Driveway					Strathmore Avenue				
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM	to 04:15 PM	0	4	0	5	1	0	3	83	3	0	0	14	2	9	0	0	6	121	13	3
04:15 PM	to 04:30 PM	0	2	0	5	3	0	3	91	2	0	0	9	0	4	0	0	3	118	10	2
04:30 PM	to 04:45 PM	0	1	0	7	7	0	1	85	4	0	0	3	0	1	3	0	6	111	7	3
04:45 PM	to 05:00 PM	0	3	0	9	5	0	2	86	2	1	0	3	0	2	3	0	7	117	2	8
05:00 PM	to 05:15 PM	0	3	0	5	4	0	1	95	1	0	0	10	0	2	0	0	11	145	3	4
05:15 PM	to 05:30 PM	0	1	0	8	1	0	10	104	1	0	0	14	0	8	2	0	14	133	21	1
05:30 PM	to 05:45 PM	0	0	1	7	2	0	4	98	0	0	0	21	0	7	2	0	9	115	15	10
05:45 PM	to 06:00 PM	0	0	0	6	6	0	1	92	0	0	0	10	0	14	0	0	7	114	5	6
06:00 PM	to 06:15 PM	0	2	1	2	5	0	1	87	1	0	0	9	2	4	7	0	7	113	2	9
06:15 PM	to 06:30 PM	0	1	0	10	0	0	0	66	2	0	0	10	0	3	6	0	7	92	3	14
06:30 PM	to 06:45 PM	0	0	0	3	5	0	0	68	2	0	0	2	0	2	2	0	3	96	4	12
06:45 PM	to 07:00 PM	0	2	0	4	2	0	3	58	0	0	0	3	0	2	3	0	8	89	8	11
07:00 PM	to 07:15 PM																				
07:15 PM	to 07:30 PM																				
07:30 PM	to 07:45 PM																				
07:45 PM	to 08:00 PM																				
08:00 PM	to 08:15 PM																				
08:15 PM	to 08:30 PM																				
08:30 PM	to 08:45 PM																				
08:45 PM	to 09:00 PM																				
SYSTEM PEAK HR (VEH.)		31				13	407				0	86				4	592				21
05:00 PM	to 06:00 PM	0	4	1	26		0	16	389	2		0	55	0	31		0	41	507	44	
Peak Hour	Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF)	**0.89**	n/a	0.33	0.25	0.81	**0.86**	n/a	0.40	0.94	0.50	**0.88**	n/a	0.65	n/a	0.55	**0.77**	n/a	0.73	0.87	0.52	**0.88**

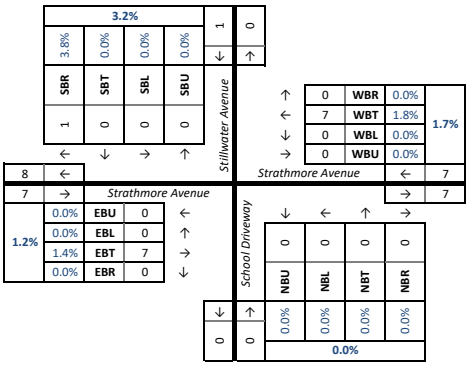
VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



HEAVY VEHICLES (FHWA 4+)

	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:	Stillwater Avenue				Strathmore Avenue				School Driveway				Strathmore Avenue			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM	to 04:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2	0
04:15 PM	to 04:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	to 04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
04:45 PM	to 05:00 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0
05:00 PM	to 05:15 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
05:15 PM	to 05:30 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0
05:30 PM	to 05:45 PM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	3	0
05:45 PM	to 06:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0
06:00 PM	to 06:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0
06:15 PM	to 06:30 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	1	0
06:30 PM	to 06:45 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0
06:45 PM	to 07:00 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0
07:00 PM	to 07:15 PM																
07:15 PM	to 07:30 PM																
07:30 PM	to 07:45 PM																
07:45 PM	to 08:00 PM																
08:00 PM	to 08:15 PM																
08:15 PM	to 08:30 PM																
08:30 PM	to 08:45 PM																
08:45 PM	to 09:00 PM																
SYSTEM PEAK HR (VEH.)		1				7				0				7			
05:00 PM	to 06:00 PM	0	0	0	1	0	0	7	0	0	0	0	0	0	0	7	0
Heavy Vehicle % (PHV):		0.0%	0.0%	0.0%	3.8%	**3.2%**	0.0%	0.0%	1.8%	0.0%	**1.7%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.4%	0.0%	**1.2%**
INT. PEAK HR (HV ONLY)		1				8				0				7			
04:45 PM	to 05:45 PM	0	0	0	1	0	0	8	0	0	0	0	0	0	0	7	0
Heavy Vehicle % (PHV):		0.0%	0.0%	0.0%	3.4%	**2.7%**	0.0%	0.0%	2.1%	0.0%	**2.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.4%	0.0%	**1.2%**

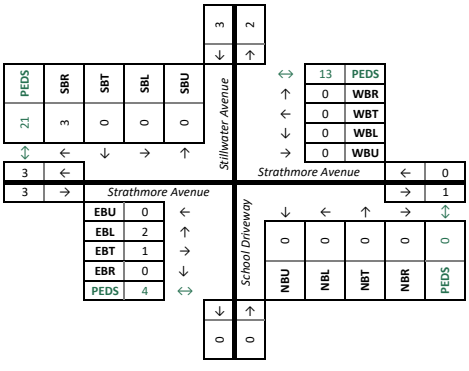
HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



BICYCLES

	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:	Stillwater Avenue				Strathmore Avenue				School Driveway				Strathmore Avenue			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM	to 04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	to 04:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
04:30 PM	to 04:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
04:45 PM	to 05:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0
05:00 PM	to 05:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
05:15 PM	to 05:30 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
05:45 PM	to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM	to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM	to 06:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM	to 06:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
06:45 PM	to 07:00 PM	0	0	0	1	0	0	0	0	0	0	1	0	0	2	0	0
07:00 PM	to 07:15 PM																
07:15 PM	to 07:30 PM																
07:30 PM	to 07:45 PM																
07:45 PM	to 08:00 PM																
08:00 PM	to 08:15 PM																
08:15 PM	to 08:30 PM																
08:30 PM	to 08:45 PM																
08:45 PM	to 09:00 PM																
SYSTEM PEAK HR (VEH.)		3				0				0				3			
05:00 PM	to 06:00 PM	0	0	0	3	0	0	0	0	0	0	0	0	0	2	1	0
INT. PEAK HR (BIKES)		3				1				0				5			
04:15 PM	to 05:15 PM	0	0	1	2	0	0	1	0	0	0	0	0	0	2	3	0

PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : St Angela Hall
Project # : 2592-008
Location Montgomery County, MD
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, October 6, 2020
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 05:00 PM to 06:00 PM
System Peak Hour (all vehicles): 05:00 PM to 06:00 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. Kenilworth Avenue & Strathmore Avenue

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	Kenilworth Avenue					Strathmore Avenue					Kenilworth Avenue					Strathmore Avenue				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM	0	5	0	7	3	0	2	88	2	0	0	4	1	2	3	0	12	109	3	10
04:15 PM to 04:30 PM	0	7	2	7	2	0	2	84	3	0	0	2	1	1	4	0	9	121	4	6
04:30 PM to 04:45 PM	0	4	0	5	2	0	1	85	3	0	0	3	0	0	3	0	5	114	2	4
04:45 PM to 05:00 PM	0	4	0	10	4	0	5	94	1	0	0	5	0	2	0	0	5	101	10	1
05:00 PM to 05:15 PM	0	3	0	7	3	0	1	100	2	0	0	15	0	4	8	0	9	124	10	7
05:15 PM to 05:30 PM	0	4	2	14	2	0	1	80	3	0	0	4	1	2	4	0	7	118	5	8
05:30 PM to 05:45 PM	0	3	0	6	2	0	1	102	4	1	0	6	1	4	5	0	9	120	3	6
05:45 PM to 06:00 PM	0	2	0	5	3	0	0	95	2	0	0	2	1	1	1	0	13	121	3	0
06:00 PM to 06:15 PM	0	6	0	7	1	0	0	92	4	0	0	4	0	1	2	0	9	114	2	18
06:15 PM to 06:30 PM	0	2	0	2	2	0	0	69	2	0	0	0	0	0	0	0	3	91	2	10
06:30 PM to 06:45 PM	0	3	2	6	5	0	1	63	3	0	0	5	0	1	4	0	11	87	3	10
06:45 PM to 07:00 PM	0	4	1	5	2	0	1	53	3	0	0	0	0	0	3	0	6	87	0	6
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
SYSTEM PEAK HR (VEH.)	46				10	391				1	41				18	542				21
05:00 PM to 06:00 PM	0	12	2	32		0	3	377	11		0	27	3	11		0	38	483	21	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) **0.93**	n/a	0.75	0.25	0.57	**0.58**	n/a	0.75	0.92	0.69	**0.91**	n/a	0.45	0.75	0.69	**0.54**	n/a	0.73	0.97	0.53	**0.95**

HEAVY VEHICLES (FHWA 4+)

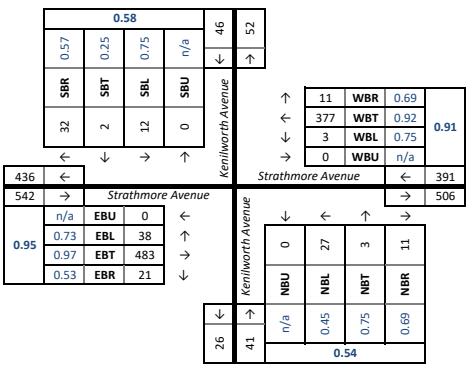
Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	Kenilworth Avenue				Strathmore Avenue				Kenilworth Avenue				Strathmore Avenue			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0
05:00 PM to 05:15 PM	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	1	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0
06:00 PM to 06:15 PM	0	0	0	1	0	0	1	1	0	0	0	0	0	0	1	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
SYSTEM PEAK HR (VEH.)	1				6				0				7			
05:00 PM to 06:00 PM	0	0	0	1	0	0	6	0	0	0	0	0	0	1	6	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	3.1% **2.2%**	0.0%	0.0%	1.6%	0.0% **1.5%**	0.0%	0.0%	0.0%	0.0% **0.0%**	0.0%	2.6%	1.2%	0.0% **1.3%**
INT. PEAK HR (HV ONLY)	1				9				0				7			
06:00 PM to 07:00 PM	0	0	0	1	0	0	8	1	0	0	0	0	0	0	7	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	5.0% **2.6%**	0.0%	0.0%	2.9%	8.3% **3.1%**	0.0%	0.0%	0.0%	0.0% **0.0%**	0.0%	0.0%	1.8%	0.0% **1.7%**

BICYCLES

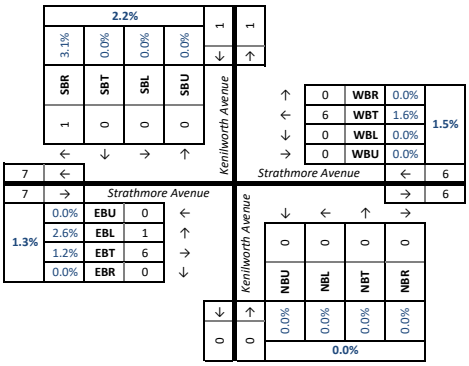
Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	Kenilworth Avenue				Strathmore Avenue				Kenilworth Avenue				Strathmore Avenue			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	6	0	0	0	1	0	0	0	0	0	0	0	1	0
04:30 PM to 04:45 PM	0	0	3	0	0	1	2	0	0	0	15	0	0	1	2	5
04:45 PM to 05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
05:00 PM to 05:15 PM	0	1	1	0	0	0	1	0	0	2	0	0	0	1	0	1
05:15 PM to 05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0
05:30 PM to 05:45 PM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
06:15 PM to 06:30 PM	0	0	0	0	0	0	2	0	0	0	2	0	0	1	2	0
06:30 PM to 06:45 PM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0
06:45 PM to 07:00 PM	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
SYSTEM PEAK HR (VEH.)	5				1				3				5			
05:00 PM to 06:00 PM	0	1	3	1	0	0	1	0	0	2	1	0	0	2	2	1
INT. PEAK HR (BIKES)	11				5				17				12			
04:15 PM to 05:15 PM	0	1	10	0	0	1	4	0	0	2	15	0	0	2	4	6

DATA COLLECTION NOTES :

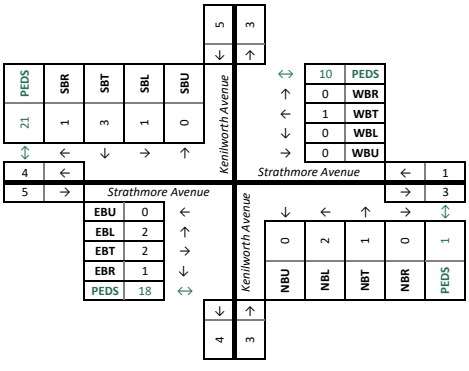
VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



GOROVE / SLADE
Transportation Planners and Engineers

Multimodal Turning Movement Count Report

PROJECT_SHORT_NAME | STUDY_PERIOD

Project Information

Project Name:	St Angela Hall				
Location:	Montgomery County, MD			Project Number:	2592-008
Analysis Period:	STUDY_PERIOD	4:00 PM	to 7:00 PM	System Peak Hour:	4:45 PM to 5:45 PM
Notes:					

Study Intersections

Intersection ID	Southbound	Westbound	Northbound	Eastbound	Count Date	Intersection Peak Hour
1	MD 355	Flanders Avenue	MD 355	Wickshire Way	11/18/2020	4:45 PM to 5:45 PM
2	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
3	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
4	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
5	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
6	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
7	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
8	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
9	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
10	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
11	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
12	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
13	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
14	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
15	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
16	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
17	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
18	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
19	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
20	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
21	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
22	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
23	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
24	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
25	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
26	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
27	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
28	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
29	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
30	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
31	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
32	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
33	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM
34	SB Street	WB Ave	NB Street	EB Ave	1/1/1999	4:00 PM to 5:00 PM

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : St Angela Hall
Project # : 2592-008
Location Montgomery County, MD
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Wednesday, November 18, 2020
Weather: Partly Cloudy

Volumes Displayed as: 3. User-Defined
Intersection Peak Hour (all vehicles): 04:45 PM to 05:45 PM
System Peak Hour (all vehicles): 04:45 PM to 05:45 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. MD 355 & Flanders Avenue/Wickshire Way

ALL VEHICLES

	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	MD 355					Flanders Avenue					MD 355					Wickshire Way				
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM	to 04:15 PM	4	28	274	1	0	0	1	0	12	1	0	2	351	2	0	0	1	0	0	2
04:15 PM	to 04:30 PM	2	15	296	3	0	0	3	0	15	1	1	2	402	7	0	0	0	0	2	1
04:30 PM	to 04:45 PM	0	14	312	2	0	0	2	0	21	1	0	3	439	3	0	0	3	0	2	3
04:45 PM	to 05:00 PM	1	22	384	1	0	0	0	0	21	0	1	2	442	5	0	0	1	0	4	1
05:00 PM	to 05:15 PM	3	23	415	3	0	0	0	0	10	0	0	2	442	3	0	0	0	0	4	1
05:15 PM	to 05:30 PM	0	19	422	0	0	0	2	0	21	0	0	1	445	7	0	0	1	0	1	0
05:30 PM	to 05:45 PM	2	16	422	2	0	0	4	0	19	1	0	4	495	7	0	0	0	0	6	0
05:45 PM	to 06:00 PM	1	21	341	3	0	0	1	0	14	0	0	1	393	4	0	0	3	0	2	0
06:00 PM	to 06:15 PM	2	17	387	1	0	0	1	0	12	1	1	3	345	2	0	0	2	0	2	0
06:15 PM	to 06:30 PM	0	17	316	5	0	0	1	0	15	1	0	2	355	4	0	0	2	0	4	0
06:30 PM	to 06:45 PM	1	18	291	2	0	0	0	0	7	0	0	0	296	3	0	0	2	0	1	0
06:45 PM	to 07:00 PM	0	17	304	1	0	0	1	0	10	1	0	2	290	3	0	0	1	0	0	0
07:00 PM	to 07:15 PM																				
07:15 PM	to 07:30 PM																				
07:30 PM	to 07:45 PM																				
07:45 PM	to 08:00 PM																				
08:00 PM	to 08:15 PM																				
08:15 PM	to 08:30 PM																				
08:30 PM	to 08:45 PM																				
08:45 PM	to 09:00 PM																				
USER-DEFINED PEAK HR		1693				0	71				1	1804				0	17				1
05:00 PM	to 06:00 PM	6	79	1600	8		0	7	0	64		0	8	1775	21		0	4	0	13	
Peak Hour Factor (PHF)	Overall	**0.92**	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
			0.50	0.86	0.95	0.67	**0.95**	n/a	0.44	n/a	0.76	**0.77**	n/a	0.50	0.90	0.75	**0.89**	n/a	0.33	n/a	0.54	**0.71**

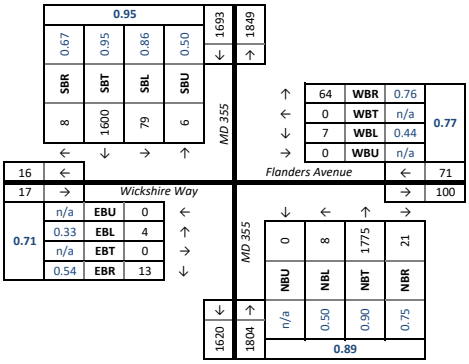
HEAVY VEHICLES (FHWA 4+)

	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	MD 355					Flanders Avenue					MD 355					Wickshire Way				
	Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM	to 04:15 PM	0	0	4	0		0	0	0	0		0	0	8	0		0	0	0	0	
04:15 PM	to 04:30 PM	0	0	6	0		0	0	0	0		0	0	13	0		0	0	0	0	
04:30 PM	to 04:45 PM	0	0	5	0		0	0	0	0		0	0	4	0		0	0	0	0	
04:45 PM	to 05:00 PM	0	0	10	0		0	0	0	0		0	0	6	0		0	0	0	0	
05:00 PM	to 05:15 PM	0	0	7	0		0	0	0	0		0	0	7	0		0	0	0	0	
05:15 PM	to 05:30 PM	0	0	5	0		0	0	0	0		0	0	10	0		0	0	0	0	
05:30 PM	to 05:45 PM	0	1	4	0		0	0	0	0		0	0	13	0		0	0	0	0	
05:45 PM	to 06:00 PM	0	0	6	1		0	0	0	0		0	0	9	0		0	0	0	1	
06:00 PM	to 06:15 PM	0	0	4	0		0	0	0	0		0	0	13	0		0	0	0	0	
06:15 PM	to 06:30 PM	0	0	1	0		0	0	0	0		0	0	9	0		0	0	0	0	
06:30 PM	to 06:45 PM	0	0	4	0		0	0	0	0		0	0	13	0		0	0	0	0	
06:45 PM	to 07:00 PM	0	0	3	0		0	0	0	0		0	0	12	0		0	0	0	0	
07:00 PM	to 07:15 PM																				
07:15 PM	to 07:30 PM																				
07:30 PM	to 07:45 PM																				
07:45 PM	to 08:00 PM																				
08:00 PM	to 08:15 PM																				
08:15 PM	to 08:30 PM																				
08:30 PM	to 08:45 PM																				
08:45 PM	to 09:00 PM																				
USER-DEFINED PEAK HR		24					0					39					1				
05:00 PM	to 06:00 PM	0	1	22	1		0	0	0	0		0	0	39	0		0	0	0	1	
	Heavy Vehicle % (PHV):	0.0%	1.3%	1.4%	12.5%	**1.4%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.2%	0.0%	**2.2%**	0.0%	0.0%	0.0%	7.7%	**5.9%**
INT. PEAK HR (HV ONLY)		21					0					45					1				
05:15 PM	to 06:15 PM	0	1	19	1		0	0	0	0		0	0	45	0		0	0	0	1	
	Heavy Vehicle % (PHV):	0.0%	1.4%	1.2%	16.7%	**1.3%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.7%	0.0%	**2.6%**	0.0%	0.0%	0.0%	9.1%	**5.9%**

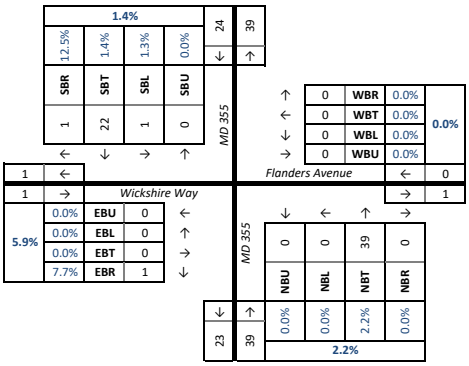
BICYCLES

	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:	MD 355				Flanders Avenue				MD 355				Wickshire Way			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM	to 04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	to 04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	to 05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	to 05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	to 05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM	to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM	to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM	to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM	to 07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM	to 07:15 PM																
07:15 PM	to 07:30 PM																
07:30 PM	to 07:45 PM																
07:45 PM	to 08:00 PM																
08:00 PM	to 08:15 PM																
08:15 PM	to 08:30 PM																
08:30 PM	to 08:45 PM																
08:45 PM	to 09:00 PM																
USER-DEFINED PEAK HR		0				0				0				0			
05:00 PM	to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INT. PEAK HR (BIKES)		0				0				0				0			
04:00 PM	to 05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

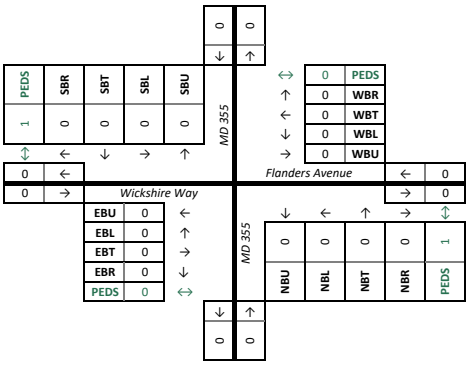
VEHICLE PEAK HOUR VOLS AND PHF: User-Defined (05:00 PM-06:00 PM)



HEAVY VEH PEAK HOUR VOLS AND PHV: User-Defined (05:00 PM-06:00 PM)



PED AND BIKE PEAK HOUR VOLUMES: User-Defined (05:00 PM-06:00 PM)



DATA COLLECTION NOTES :

F: HISTORICAL SCHOOL TRIPS AND SCHOOL TRIP PROJECTION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

Maryland Department of Transportation
State Highway Administration
Data Services Division
Turning Movement Summary Report

Station ID: S1997150076
County: Montgomery
Comments: LOS AM:D PM:C

Date: 9/13/2005 6:00:00 AM
Town: none

Location: MD 547 at Stillwater Ave/Entrance to Holy Cross Academy
Weather:

Interval: 15 Min

PEAK	AM PERIOD	Start	End	Volume	LOS	V/C	PM PERIOD	Start	End	Volume	LOS	V/C
Hours	6:00AM-12:00PM	08:00	08:45	1855	N/A	N/A	12:00PM-19:00PM	17:15	18:00	1608	N/A	N/A

	Stillwater Ave					Holy Cross Academy					MD 547					MD 547					
	From North					From South					From East					From West					
Begin Hour	**U.Turn**	**Left**	**Through**	**Right**	**TOTAL**	**U.Turn**	**Left**	**Through**	**Right**	**TOTAL**	**U.Turn**	**Left**	**Through**	**Right**	**TOTAL**	**U.Turn**	**Left**	**Through**	**Right**	**TOTAL**	**GrandTotal**
06:00	0	2	0	3	5	0	0	0	0	0	0	0	29	0	29	0	0	17	0	17	51
06:15	0	1	0	4	5	0	0	0	0	0	0	2	42	0	44	0	0	23	3	26	75
06:30	0	3	0	16	19	0	3	0	1	4	0	1	57	0	58	0	0	50	1	51	132
06:45	0	0	0	16	16	0	5	0	1	6	0	1	90	0	91	0	6	52	6	64	177
07:00	0	4	0	22	26	0	6	0	2	8	0	6	139	1	146	0	6	85	5	96	276
07:15	0	0	0	20	20	0	7	0	2	9	0	6	160	3	169	0	3	101	16	120	318
07:30	0	1	0	25	26	0	8	0	4	12	0	5	158	0	163	0	4	72	11	87	288
07:45	0	4	0	28	32	0	6	0	2	8	0	8	198	2	208	0	3	122	8	133	381
08:00	0	4	0	18	22	0	11	0	7	18	0	10	229	3	242	0	11	133	28	172	454
08:15	0	2	0	31	33	0	30	0	13	43	0	45	183	1	229	0	5	125	53	183	488
08:30	0	5	2	20	27	0	39	0	17	56	0	50	120	0	170	0	4	136	85	225	478
08:45	0	1	0	13	14	0	43	0	22	65	0	15	205	3	223	0	1	110	22	133	435
09:00	0	1	0	11	12	0	2	0	1	3	0	4	254	3	261	0	5	96	3	104	380
09:15	0	3	0	15	18	0	1	0	1	2	0	2	166	1	169	0	6	80	3	89	278
09:30	0	2	0	14	16	0	0	0	1	1	0	1	149	3	153	0	2	87	1	90	260
09:45	0	3	18	11	32	0	2	0	0	2	0	1	139	2	142	0	3	59	0	62	238
10:00	0	5	2	6	13	0	1	0	0	1	0	0	112	1	113	0	6	94	4	104	231
10:15	0	3	0	4	7	0	3	0	0	3	0	0	116	1	117	0	2	91	3	96	223
10:30	0	1	0	6	7	0	1	0	0	1	0	1	104	4	109	0	8	99	6	113	230
10:45	0	1	0	10	11	0	1	0	1	2	0	0	106	1	107	0	3	98	5	106	226
11:00	0	1	0	4	5	0	5	0	1	6	0	0	97	3	100	0	6	84	6	96	207
11:15	0	4	0	11	15	0	1	0	0	1	0	1	100	0	101	0	3	89	1	93	210
11:30	0	1	0	5	6	0	3	0	2	5	0	1	90	4	95	0	8	84	1	93	199
11:45	0	1	0	4	5	0	0	0	2	2	0	2	110	4	116	0	3	108	2	113	236
12:00	0	1	0	6	7	0	2	0	2	4	0	1	101	2	104	0	5	110	0	115	230
12:15	0	2	0	4	6	0	4	0	1	5	0	1	95	3	99	0	9	96	1	106	216
12:30	0	1	0	6	7	0	3	0	0	3	0	0	110	1	111	2	5	108	1	116	237

Maryland Department of Transportation
State Highway Administration
Data Services Division

Turning Movement Summary Report

Station ID: S1997150076 County: Montgomery Comments: LOS AM:D PM:C

Date: 9/13/2005 6:00:00 AM Town: none

Location: MD 547 at Stillwater Ave/Entrance to Holy Cross Academy Weather:

Interval: 15 Min

PEAK	AM PERIOD	Start	End	Volume	LOS	V/C	PM PERIOD	Start	End	Volume	LOS	V/C
Hours	6:00AM-12:00PM	08:00	08:45	1855	N/A	N/A	12:00PM-19:00PM	17:15	18:00	1608	N/A	N/A

	Stillwater Ave					Holy Cross Academy					MD 547					MD 547					
	From North					From South					From East					From West					
12:45	0	4	0	2	6	0	2	0	2	4	0	1	94	6	101	0	2	108	5	115	226
13:00	0	1	0	7	8	0	7	0	1	8	0	2	103	0	105	0	3	94	4	101	222
13:15	0	0	0	6	6	0	6	0	0	6	0	0	93	0	93	0	2	100	4	106	211
13:30	0	2	0	3	5	0	4	0	1	5	0	2	88	1	91	0	3	96	5	104	205
13:45	0	2	0	6	8	0	0	0	2	2	0	2	106	1	109	0	5	116	3	124	243
14:00	0	1	0	8	9	0	5	0	3	8	0	7	104	2	113	0	9	114	18	141	271
14:15	0	5	0	7	12	0	3	0	0	3	0	8	87	0	95	0	6	117	21	144	254
14:30	0	3	0	7	10	0	59	1	38	98	0	11	116	3	130	0	5	126	11	142	380
14:45	0	4	0	5	9	0	28	0	21	49	0	9	101	1	111	0	4	130	18	152	321
15:00	0	4	0	5	9	0	22	0	5	27	0	6	129	2	137	0	5	159	11	175	348
15:15	0	5	0	5	10	0	13	0	9	22	0	12	136	3	151	0	6	143	24	173	356
15:30	0	1	0	9	10	0	13	0	12	25	0	7	100	0	107	0	10	168	19	197	339
15:45	0	1	0	4	5	0	12	0	8	20	0	5	97	2	104	0	11	146	22	179	308
16:00	0	2	0	2	4	0	10	0	4	14	0	2	94	3	99	0	6	176	22	204	321
16:15	0	2	0	3	5	0	6	0	6	12	0	3	107	2	112	0	8	175	18	201	330
16:30	0	3	0	4	7	0	13	0	10	23	0	6	106	2	114	0	10	173	15	198	342
16:45	0	2	0	4	6	0	3	0	9	12	0	3	97	5	105	0	10	191	23	224	347
17:00	0	0	0	3	3	0	6	0	6	12	0	3	113	0	116	0	14	209	15	238	369
17:15	0	1	0	8	9	0	9	0	8	17	0	6	116	2	124	0	18	204	17	239	389
17:30	0	1	0	4	5	0	30	0	18	48	0	4	116	5	125	0	16	198	12	226	404
17:45	0	4	0	7	11	0	29	0	16	45	0	6	114	1	121	0	17	215	11	243	420
18:00	0	2	0	7	9	0	24	0	15	39	0	4	114	2	120	0	15	202	10	227	395
18:15	0	0	0	12	12	0	17	0	12	29	0	4	106	1	111	0	13	181	7	201	353
18:30	0	1	0	14	15	0	21	0	7	28	0	4	108	1	113	0	14	159	1	174	330
18:45	0	2	0	9	11	0	29	0	9	38	0	2	90	4	96	0	14	170	6	190	335
TOTAL	**0**	**110**	**22**	**484**	**616**	**0**	**558**	**1**	**305**	**864**	**0**	**283**	**6094**	**95**	**6472**	**2**	**343**	**6279**	**597**	**7221**	**15173**
AMPEAK	**0**	**12**	**2**	**82**	**96**	**0**	**123**	**0**	**59**	**182**	**0**	**120**	**737**	**7**	**864**	**0**	**21**	**504**	**188**	**713**	**1855**
PMPEAK	**0**	**8**	**0**	**26**	**34**	**0**	**92**	**0**	**57**	**149**	**0**	**20**	**460**	**10**	**490**	**0**	**66**	**819**	**50**	**935**	**1608**

Maryland Department of Transportation
State Highway Administration
Data Services Division
Turning Movement Summary Report

Station ID: S1997150076 County: Montgomery Comments: LOS AM:D PM:C

Date: 9/13/2005 6:00:00 AM Town: none

Location: MD 547 at Stillwater Ave/Entrance to Holy Cross Academy Weather:

Interval: 15 Min

PEAK	AM PERIOD	Start	End	Volume	LOS	V/C	PM PERIOD	Start	End	Volume	LOS	V/C
Hours	6:00AM-12:00PM	08:00	08:45	1855	N/A	N/A	12:00PM-19:00PM	17:15	18:00	1608	N/A	N/A

	Stillwater Ave			Holy Cross Academy			MD 547			MD 547		
	From North			From South			From East			From West		
Begin Hour	**School Children**	**Pedestrians**	**Bicycles**	**School Childer**	**Pedestrians**	**Bicycles**	**School Children**	**Pedestrians**	**Bicycles**	**School Children**	**Pedestrians**	**Bicycles**
06:00	0	1		0	0		0	0		0	1	
06:15	0	0		0	0		0	0		0	0	
06:30	0	3		0	2		0	1		0	2	
06:45	0	5		0	1		0	0		0	8	
07:00	0	8		0	0		0	0		0	3	
07:15	0	1		0	1		0	0		0	8	
07:30	0	4		0	0		0	0		0	6	
07:45	0	2		0	2		0	0		0	9	
08:00	0	1		0	2		0	0		0	5	
08:15	0	0		0	1		0	0		0	4	
08:30	0	1		0	1		0	0		0	2	
08:45	0	2		0	1		0	0		0	3	
09:00	0	2		0	0		0	0		0	1	
09:15	0	3		0	1		0	0		0	2	
09:30	0	0		0	0		0	0		0	0	
09:45	0	0		0	0		0	0		0	1	
10:00	0	0		0	0		0	0		0	1	
10:15	0	0		0	2		0	0		0	1	
10:30	0	1		0	0		0	0		0	1	
10:45	0	0		0	0		0	0		0	1	
11:00	0	2		0	1		0	0		0	3	
11:15	0	4		0	0		0	0		0	0	
11:30	0	0		0	1		0	0		0	3	
11:45	0	0		0	0		0	0		0	0	
12:00	0	0		0	1		0	0		0	0	
12:15	0	2		0	3		0	0		0	3	
12:30	0	0		0	0		0	0		0	0	

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

Maryland Department of Transportation
State Highway Administration
Data Services Division
Turning Movement Summary Report

Station ID: S1997150076
County: Montgomery
Comments: LOS AM:D PM:C

Date: 9/13/2005 6:00:00 AM
Town: none

Location: MD 547 at Stillwater Ave/Entrance to Holy Cross Academy
Weather:

Interval: 15 Min

PEAK	AM PERIOD	Start	End	Volume	LOS	V/C	PM PERIOD	Start	End	Volume	LOS	V/C
Hours	6:00AM-12:00PM	08:00	08:45	1855	N/A	N/A	12:00PM-19:00PM	17:15	18:00	1608	N/A	N/A

	Stillwater Ave			Holy Cross Academy			MD 547			MD 547		
	From North			From South			From East			From West		
Begin Hour	**School Children**	**Pedestrians**	**Bicycles**	**School Childer**	**Pedestrians**	**Bicycles**	**School Children**	**Pedestrians**	**Bicycles**	**School Children**	**Pedestrians**	**Bicycles**
12:45	0	0		0	0		0	0		0	0	
13:00	0	1		0	0		0	0		0	1	
13:15	0	1		0	0		0	0		0	1	
13:30	0	0		0	0		0	1		0	0	
13:45	0	0		0	0		0	0		0	2	
14:00	0	3		0	0		0	0		0	2	
14:15	0	2		0	0		0	0		0	0	
14:30	0	1		0	0		0	0		0	2	
14:45	0	2		0	0		0	0		0	5	
15:00	0	2		0	0		0	0		0	2	
15:15	0	0		0	0		0	1		0	1	
15:30	0	4		0	0		0	0		0	4	
15:45	0	2		0	0		0	0		0	4	
16:00	0	1		0	0		0	0		0	4	
16:15	0	0		0	0		0	0		0	0	
16:30	0	1		0	0		0	2		0	2	
16:45	0	1		0	0		0	0		0	2	
17:00	0	0		0	0		0	1		0	0	
17:15	0	2		0	0		0	0		0	6	
17:30	0	0		0	0		0	0		0	5	
17:45	0	2		0	1		0	0		0	3	
18:00	0	4		0	0		0	0		0	5	
18:15	0	2		0	0		0	0		0	6	
18:30	0	1		0	0		0	4		0	6	
18:45	0	2		0	0		0	0		0	6	
TOTAL	**0**	**76**		**0**	**21**		**0**	**10**		**0**	**137**	
AMPEAK	**0**	**4**		**0**	**5**		**0**	**0**		**0**	**14**	

Maryland Department of Transportation
State Highway Administration
Data Services Division

Turning Movement Summary Report

Station ID: S1997150076 County: Montgomery Comments: LOS AM:D PM:C

Date: 9/13/2005 6:00:00 AM Town: none

Location: MD 547 at Stillwater Ave/Entrance to Holy Cross Academy Weather:

Interval: 15 Min

PEAK	AM PERIOD	Start	End	Volume	LOS	V/C	PM PERIOD	Start	End	Volume	LOS	V/C
Hours	6:00AM-12:00PM	08:00	08:45	1855	N/A	N/A	12:00PM-19:00PM	17:15	18:00	1608	N/A	N/A

	Stillwater Ave			Holy Cross Academy			MD 547			MD 547		
	From North			From South			From East			From West		
Begin Hour	**School Children**	**Pedestrians**	**Bicycles**	**School Childer**	**Pedestrians**	**Bicycles**	**School Children**	**Pedestrians**	**Bicycles**	**School Children**	**Pedestrians**	**Bicycles**
PMPEAK	**0**	**8**		**0**	**1**		**0**	**0**		**0**	**19**	

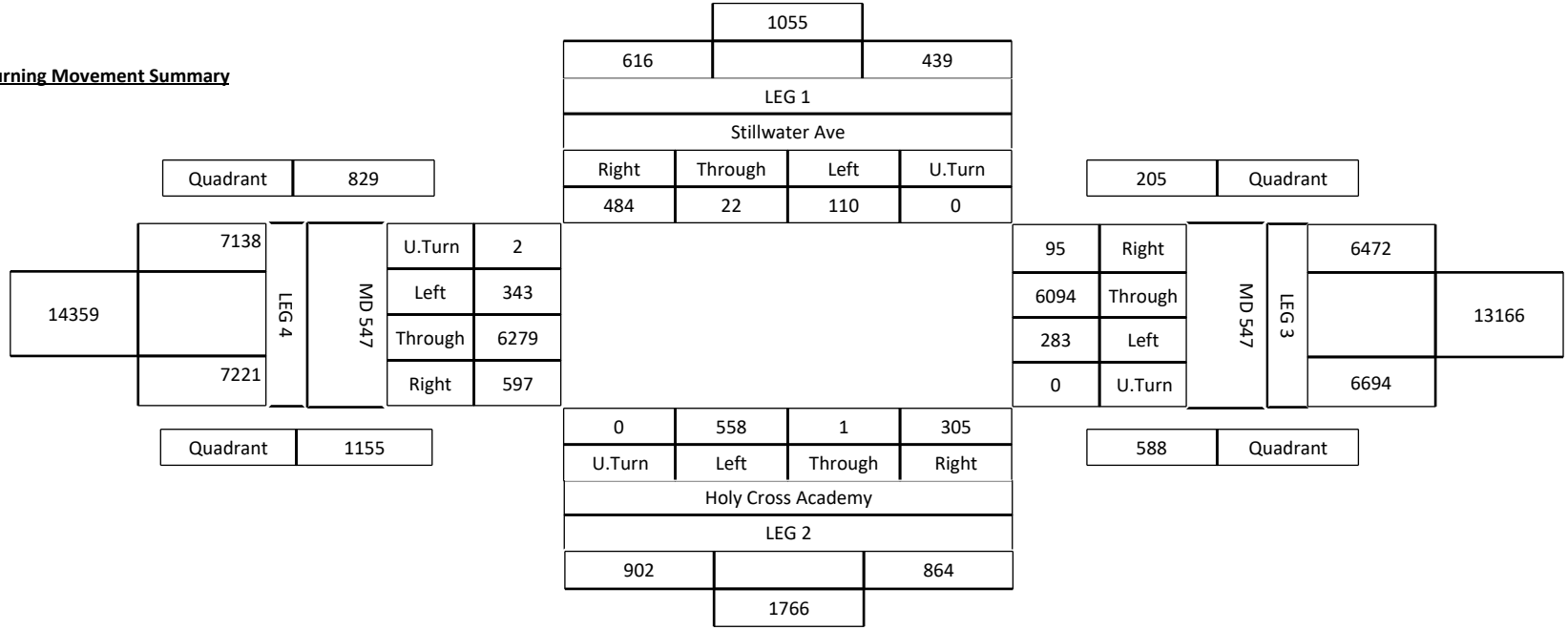
Maryland Department of Transportation
State Highway Administration
Data Services Division
Turning Movement Summary Report

Station ID:	S1997150076	County:	Montgomery	Comments:	LOS AM:D PM:C
Date:	9/13/2005 6:00:00 AM	Town:	none		
Location:	MD 547 at Stillwater Ave/Entrance to Holy Cross Academy	Weather:			
Interval:	15 Min				

PEAK	AM PERIOD	Start	End	Volume	LOS	V/C	PM PERIOD	Start	End	Volume	LOS	V/C
Hours	6:00AM-12:00PM	08:00	08:45	1855	N/A	N/A	12:00PM-19:00PM	17:15	18:00	1608	N/A	N/A

Stillwater Ave	Holy Cross Academy	MD 547	MD 547
From North	From South	From East	From West

Turning Movement Summary



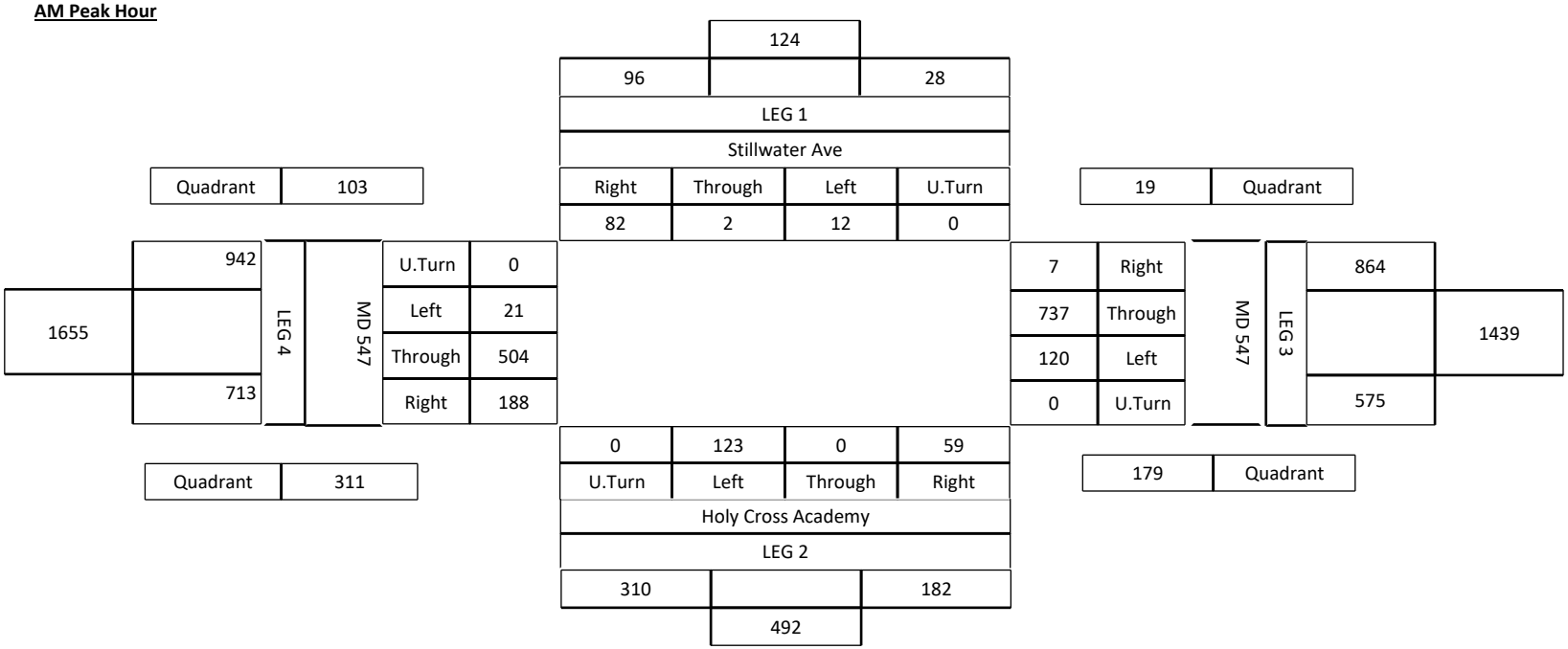
Maryland Department of Transportation
State Highway Administration
Data Services Division
Turning Movement Summary Report

Station ID:	S1997150076	County:	Montgomery	Comments:	LOS AM:D PM:C
Date:	9/13/2005 6:00:00 AM	Town:	none		
Location:	MD 547 at Stillwater Ave/Entrance to Holy Cross Academy	Weather:			
Interval:	15 Min				

PEAK	AM PERIOD	Start	End	Volume	LOS	V/C	PM PERIOD	Start	End	Volume	LOS	V/C
Hours	6:00AM-12:00PM	08:00	08:45	1855	N/A	N/A	12:00PM-19:00PM	17:15	18:00	1608	N/A	N/A

Stillwater Ave	Holy Cross Academy	MD 547	MD 547
From North	From South	From East	From West

AM Peak Hour



Maryland Department of Transportation
State Highway Administration
Data Services Division
Turning Movement Summary Report

Station ID: S1997150076 County: Montgomery Comments: LOS AM:D PM:C

Date: 9/13/2005 6:00:00 AM Town: none

Location: MD 547 at Stillwater Ave/Entrance to Holy Cross Academy Weather:

Interval: 15 Min

PEAK	AM PERIOD	Start	End	Volume	LOS	V/C	PM PERIOD	Start	End	Volume	LOS	V/C
Hours	6:00AM-12:00PM	08:00	08:45	1855	N/A	N/A	12:00PM-19:00PM	17:15	18:00	1608	N/A	N/A

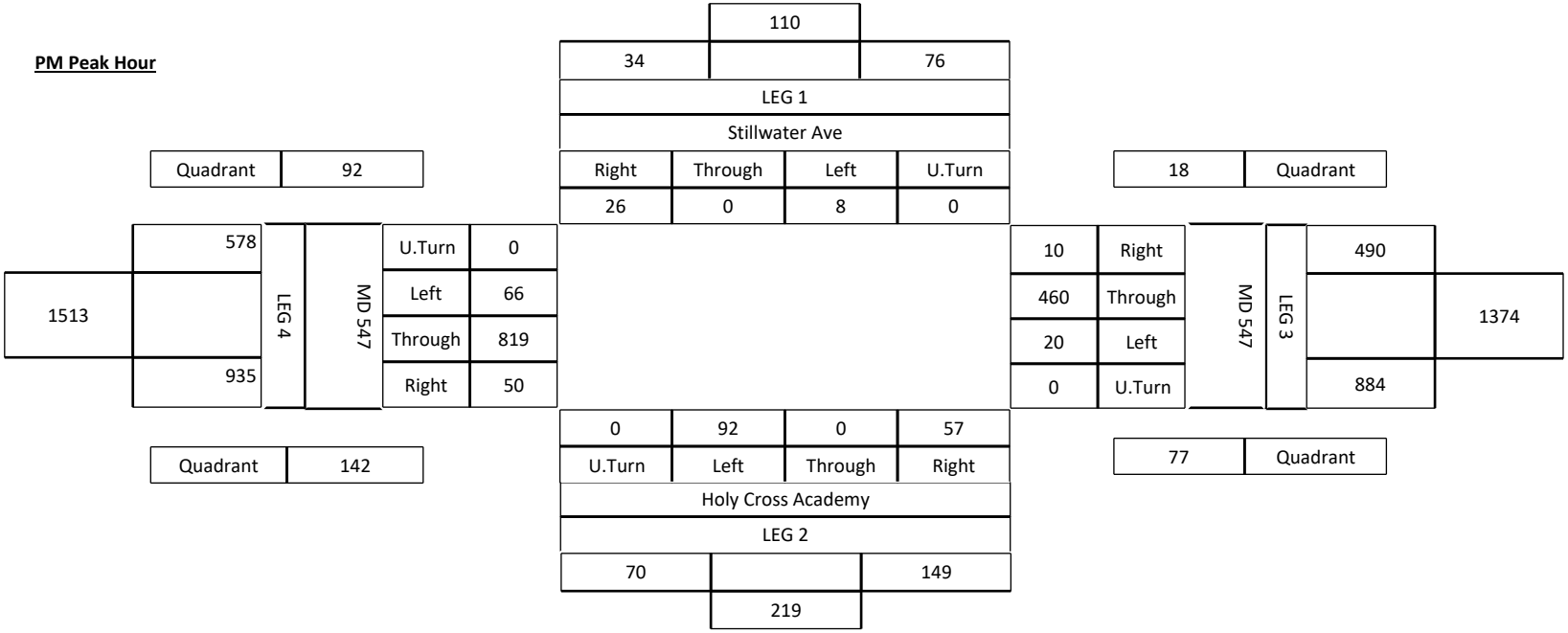
Holy Cross Academy — From North

MD 547 — From South

MD 547 — From East

MD 547 — From West

PM Peak Hour



MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

Maryland Department of Transportation
State Highway Administration
Data Services Division
Turning Movement Summary Report

Station ID: S1997150076
County: Montgomery
Comments: LOS AM:C(0.76) PM:B(0.71)

Date: 4/17/2013 6:00:00 AM
Town: none

Location: MD 547 at Stillwater Ave/Entrance to Holy Cross Academy
Weather: Clear

Interval: 15 Min

PEAK	AM PERIOD	Start	End	Volume	LOS	V/C	PM PERIOD	Start	End	Volume	LOS	V/C
Hours	6:00AM-12:00PM	07:15	08:00	1686	C	0.76	12:00PM-19:00PM	17:15	18:00	1681	B	0.71

	Stillwater Ave					Ent to Holy Cross Academy					MD 547					MD 547					
	From North					From South					From East					From West					
Begin Hour	**U.Turn**	**Left**	**Through**	**Right**	**TOTAL**	**U.Turn**	**Left**	**Through**	**Right**	**TOTAL**	**U.Turn**	**Left**	**Through**	**Right**	**TOTAL**	**U.Turn**	**Left**	**Through**	**Right**	**TOTAL**	**GrandTotal**
06:00	0	0	0	0	0	0	0	0	0	0	0	0	32	0	32	0	0	17	2	19	51
06:15	0	1	0	7	8	0	1	0	1	2	0	0	31	0	31	0	0	15	4	19	60
06:30	0	1	1	9	11	0	3	0	0	3	0	1	49	1	51	0	2	46	3	51	116
06:45	0	0	0	11	11	0	1	1	0	2	0	8	76	2	86	0	2	55	9	66	165
07:00	0	1	0	22	23	0	18	0	7	25	0	31	100	0	131	0	2	54	42	98	277
07:15	0	4	0	29	33	0	50	0	13	63	0	59	106	0	165	0	3	66	107	176	437
07:30	0	2	5	32	39	0	92	2	36	130	0	45	119	1	165	0	4	90	76	170	504
07:45	0	5	0	26	31	0	9	1	3	13	0	4	168	0	172	0	3	151	9	163	379
08:00	0	2	2	18	22	0	1	0	0	1	0	0	201	2	203	0	9	126	5	140	366
08:15	0	0	0	24	24	0	4	0	0	4	0	2	156	0	158	0	10	121	2	133	319
08:30	0	1	0	13	14	0	0	0	1	1	0	1	140	0	141	0	6	117	3	126	282
08:45	0	3	0	12	15	0	1	0	0	1	0	3	113	1	117	0	4	126	3	133	266
09:00	0	4	0	17	21	0	1	0	1	2	0	2	145	2	149	0	3	111	3	117	289
09:15	0	2	0	18	20	0	4	0	0	4	0	2	140	2	144	0	3	92	2	97	265
09:30	0	2	0	12	14	0	0	0	0	0	0	0	113	1	114	0	5	82	1	88	216
09:45	0	0	0	7	7	0	1	0	0	1	0	1	104	1	106	0	3	119	2	124	238
10:00	0	0	0	12	12	0	2	0	0	2	0	2	103	0	105	0	3	91	1	95	214
10:15	0	1	0	9	10	0	2	0	0	2	0	2	97	2	101	0	4	89	2	95	208
10:30	0	3	0	8	11	0	0	0	0	0	0	0	85	3	88	0	0	81	2	83	182
10:45	0	2	0	9	11	0	0	0	0	0	0	0	94	2	96	0	1	96	4	101	208
11:00	0	0	0	4	4	0	1	0	1	2	0	1	83	1	85	0	1	84	3	88	179
11:15	0	2	0	4	6	0	2	0	2	4	0	1	75	1	77	0	5	99	0	104	191
11:30	0	1	0	8	9	0	0	0	0	0	0	0	96	2	98	0	9	79	2	90	197
11:45	0	1	0	7	8	0	1	0	2	3	0	0	106	2	108	0	4	104	0	108	227
12:00	0	2	0	5	7	0	2	0	2	4	0	2	112	2	116	0	4	103	0	107	234
12:15	0	2	0	8	10	0	1	0	0	1	0	1	96	0	97	0	4	115	0	119	227
12:30	0	3	2	7	12	0	1	0	0	1	0	0	98	1	99	0	5	89	1	95	207

Maryland Department of Transportation
State Highway Administration
Data Services Division

Turning Movement Summary Report

Station ID: S1997150076 County: Montgomery Comments: LOS AM:C(0.76) PM:B(0.71)

Date: 4/17/2013 6:00:00 AM Town: none

Location: MD 547 at Stillwater Ave/Entrance to Holy Cross Academy Weather: Clear

Interval: 15 Min

PEAK	AM PERIOD	Start	End	Volume	LOS	V/C	PM PERIOD	Start	End	Volume	LOS	V/C
Hours	6:00AM-12:00PM	07:15	08:00	1686	C	0.76	12:00PM-19:00PM	17:15	18:00	1681	B	0.71

	Stillwater Ave					Ent to Holy Cross Academy					MD 547					MD 547					
	From North					From South					From East					From West					
12:45	0	0	0	7	7	0	2	0	1	3	0	1	99	0	100	0	3	81	4	88	198
13:00	0	2	0	3	5	0	1	1	2	4	0	2	98	2	102	0	2	107	1	110	221
13:15	0	1	0	7	8	0	2	0	2	4	0	3	88	1	92	0	5	86	3	94	198
13:30	0	1	0	7	8	0	4	0	1	5	0	0	78	0	78	0	8	99	2	109	200
13:45	0	2	0	7	9	0	3	0	1	4	0	3	90	1	94	0	7	83	5	95	202
14:00	0	0	0	2	2	0	3	0	3	6	0	2	94	1	97	0	5	92	7	104	209
14:15	0	1	0	6	7	0	5	0	0	5	0	6	86	5	97	0	3	107	18	128	237
14:30	0	2	0	6	8	0	28	0	22	50	0	6	87	1	94	0	8	138	22	168	320
14:45	0	3	1	13	17	0	49	2	39	90	0	5	77	2	84	0	10	146	27	183	374
15:00	0	1	0	8	9	0	28	0	13	41	0	8	102	2	112	0	4	136	14	154	316
15:15	0	3	0	7	10	0	15	0	11	26	0	6	107	4	117	0	5	156	11	172	325
15:30	0	4	0	6	10	0	7	0	9	16	0	4	105	2	111	0	8	172	5	185	322
15:45	0	3	0	8	11	0	11	0	6	17	0	3	128	2	133	0	9	151	7	167	328
16:00	0	1	0	8	9	0	15	0	6	21	0	3	103	4	110	0	11	147	6	164	304
16:15	0	1	0	8	9	0	10	0	4	14	0	4	101	3	108	0	4	199	5	208	339
16:30	0	3	0	3	6	0	8	1	6	15	0	0	109	1	110	0	9	180	3	192	323
16:45	0	5	0	10	15	0	7	0	3	10	0	1	133	2	136	0	8	197	10	215	376
17:00	0	2	0	5	7	0	11	0	9	20	0	0	128	1	129	0	16	207	12	235	391
17:15	0	2	0	11	13	0	21	0	19	40	0	10	131	0	141	0	14	211	14	239	433
17:30	0	1	0	14	15	0	21	0	13	34	0	6	145	2	153	0	12	202	14	228	430
17:45	0	0	0	8	8	0	10	0	3	13	0	7	151	3	161	0	9	217	11	237	419
18:00	0	0	0	12	12	0	11	0	5	16	0	4	132	2	138	0	18	204	11	233	399
18:15	0	1	0	9	10	0	2	0	5	7	0	0	117	2	119	0	8	197	8	213	349
18:30	0	1	0	11	12	0	6	0	2	8	0	0	116	2	118	0	13	176	3	192	330
18:45	0	4	0	5	9	0	1	0	0	1	0	0	124	1	125	0	11	154	5	170	305
TOTAL	**0**	**89**	**11**	**529**	**629**	**0**	**479**	**8**	**254**	**741**	**0**	**252**	**5567**	**75**	**5894**	**0**	**309**	**6263**	**516**	**7088**	**14352**
AMPEAK	**0**	**13**	**7**	**105**	**125**	**0**	**152**	**3**	**52**	**207**	**0**	**108**	**594**	**3**	**705**	**0**	**19**	**433**	**197**	**649**	**1686**
PMPEAK	**0**	**3**	**0**	**45**	**48**	**0**	**63**	**0**	**40**	**103**	**0**	**27**	**559**	**7**	**593**	**0**	**53**	**834**	**50**	**937**	**1681**

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

Maryland Department of Transportation
State Highway Administration
Data Services Division
Turning Movement Summary Report

Station ID:	S1997150076	County:	Montgomery	Comments:	LOS AM:C(0.76) PM:B(0.71)
Date:	4/17/2013 6:00:00 AM	Town:	none		
Location:	MD 547 at Stillwater Ave/Entrance to Holy Cross Academy	Weather:	Clear		
Interval:	15 Min				

PEAK	AM PERIOD	Start	End	Volume	LOS	V/C	PM PERIOD	Start	End	Volume	LOS	V/C
Hours	6:00AM-12:00PM	07:15	08:00	1686	C	0.76	12:00PM-19:00PM	17:15	18:00	1681	B	0.71

	Stillwater Ave			Ent to Holy Cross Academy			MD 547			MD 547		
	From North			From South			From East			From West		
Begin Hour	**School Children**	**Pedestrians**	**Bicycles**	**School Childer**	**Pedestrians**	**Bicycles**	**School Children**	**Pedestrians**	**Bicycles**	**School Children**	**Pedestrians**	**Bicycles**
06:00	0	0		0	0		0	0		0	0	
06:15	0	0		0	1		0	0		0	1	
06:30	0	0		0	0		0	0		0	1	
06:45	0	0		0	1		0	0		0	3	
07:00	0	0		0	2		0	0		0	2	
07:15	0	0		0	2		0	0		0	5	
07:30	0	0		0	0		0	0		0	3	
07:45	0	3		0	0		0	0		0	9	
08:00	0	0		0	1		0	1		0	8	
08:15	0	2		0	1		0	1		0	3	
08:30	0	2		0	0		0	0		0	8	
08:45	0	2		0	0		0	0		0	4	
09:00	0	4		0	1		0	0		0	8	
09:15	0	1		0	2		0	0		0	1	
09:30	0	1		0	0		0	0		0	4	
09:45	0	0		0	0		0	0		0	1	
10:00	0	0		0	0		0	0		0	1	
10:15	0	0		0	0		0	0		0	1	
10:30	0	0		0	0		0	0		0	2	
10:45	0	0		0	0		0	0		0	1	
11:00	0	0		0	0		0	0		0	1	
11:15	0	0		0	0		0	0		0	1	
11:30	0	0		0	0		0	0		0	3	
11:45	0	0		0	0		0	0		0	1	
12:00	0	0		0	2		0	0		0	1	
12:15	0	1		0	0		0	0		0	2	
12:30	0	0		0	0		0	0		0	0	

Maryland Department of Transportation
State Highway Administration
Data Services Division
Turning Movement Summary Report

Station ID: S1997150076 | County: Montgomery | Comments: LOS AM:C(0.76) PM:B(0.71)

Date: 4/17/2013 6:00:00 AM | Town: none

Location: MD 547 at Stillwater Ave/Entrance to Holy Cross Academy | Weather: Clear

Interval: 15 Min

PEAK	AM PERIOD	Start	End	Volume	LOS	V/C	PM PERIOD	Start	End	Volume	LOS	V/C
Hours	6:00AM-12:00PM	07:15	08:00	1686	C	0.76	12:00PM-19:00PM	17:15	18:00	1681	B	0.71

	Stillwater Ave			Ent to Holy Cross Academy			MD 547			MD 547		
	From North			From South			From East			From West		
Begin Hour	**School Children**	**Pedestrians**	**Bicycles**	**School Childer**	**Pedestrians**	**Bicycles**	**School Children**	**Pedestrians**	**Bicycles**	**School Children**	**Pedestrians**	**Bicycles**
12:45	0	0		0	0		0	0		0	1	
13:00	0	0		0	0		0	0		0	0	
13:15	0	0		0	0		0	0		0	0	
13:30	0	1		0	2		0	1		0	2	
13:45	0	0		0	0		0	0		0	0	
14:00	0	0		0	0		0	0		0	1	
14:15	0	0		0	0		0	0		0	0	
14:30	0	0		0	2		0	0		0	2	
14:45	0	0		0	3		0	0		0	0	
15:00	0	0		0	0		0	0		0	1	
15:15	0	0		0	0		0	0		0	0	
15:30	0	0		0	1		0	0		0	0	
15:45	0	0		0	0		0	0		0	2	
16:00	0	0		0	0		0	0		0	0	
16:15	0	1		0	0		0	0		0	3	
16:30	0	0		0	0		0	0		0	3	
16:45	0	0		0	0		0	3		0	4	
17:00	0	0		0	1		0	0		0	1	
17:15	0	1		0	0		0	0		0	4	
17:30	0	1		0	0		0	0		0	3	
17:45	0	0		0	0		0	2		0	7	
18:00	0	0		0	0		0	0		0	9	
18:15	0	2		0	0		0	2		0	7	
18:30	0	0		0	0		0	0		0	4	
18:45	0	2		0	2		0	0		0	10	
TOTAL	**0**	**24**		**0**	**24**		**0**	**10**		**0**	**139**	
AMPEAK	**0**	**3**		**0**	**3**		**0**	**1**		**0**	**25**	

Maryland Department of Transportation
State Highway Administration
Data Services Division

Turning Movement Summary Report

Station ID:	S1997150076	County:	Montgomery	Comments:	LOS AM:C(0.76) PM:B(0.71)
Date:	4/17/2013 6:00:00 AM	Town:	none		
Location:	MD 547 at Stillwater Ave/Entrance to Holy Cross Academy	Weather:	Clear		
Interval:	15 Min				

PEAK	AM PERIOD	Start	End	Volume	LOS	V/C	PM PERIOD	Start	End	Volume	LOS	V/C
Hours	6:00AM-12:00PM	07:15	08:00	1686	C	0.76	12:00PM-19:00PM	17:15	18:00	1681	B	0.71

	Stillwater Ave			Ent to Holy Cross Academy			MD 547			MD 547		
	From North			From South			From East			From West		
Begin Hour	**School Children**	**Pedestrians**	**Bicycles**	**School Childer**	**Pedestrians**	**Bicycles**	**School Children**	**Pedestrians**	**Bicycles**	**School Children**	**Pedestrians**	**Bicycles**
PMPEAK	**0**	**2**		**0**	**0**		**0**	**2**		**0**	**23**	

Maryland Department of Transportation
State Highway Administration
Data Services Division
Turning Movement Summary Report

Station ID:	S1997150076	County:	Montgomery	Comments:	LOS AM:C(0.76) PM:B(0.71)
Date:	4/17/2013 6:00:00 AM	Town:	none		
Location:	MD 547 at Stillwater Ave/Entrance to Holy Cross Academy	Weather:	Clear		
Interval:	15 Min				

PEAK	AM PERIOD	Start	End	Volume	LOS	V/C	PM PERIOD	Start	End	Volume	LOS	V/C
Hours	6:00AM-12:00PM	07:15	08:00	1686	C	0.76	12:00PM-19:00PM	17:15	18:00	1681	B	0.71

Stillwater Ave	Ent to Holy Cross Academy	MD 547	MD 547
From North	From South	From East	From West

Turning Movement Summary

					1021								
				629		392							
				LEG 1									
				Stillwater Ave									
Quadrant	838			Right	Through	Left	U.Turn			164	Quadrant		
				529	11	89	0						
	6575	LEG 4	MD 547	U.Turn	0				75	Right	MD 547	LEG 3	5894
13663				Left	309				5567	Through			12500
				Through	6263				252	Left			
	7088			Right	516				0	U.Turn			6606
				0	479	8	254						
Quadrant	995			U.Turn	Left	Through	Right			506	Quadrant		
				Ent to Holy Cross Academy									
				LEG 2									
				779		741							
					1520								

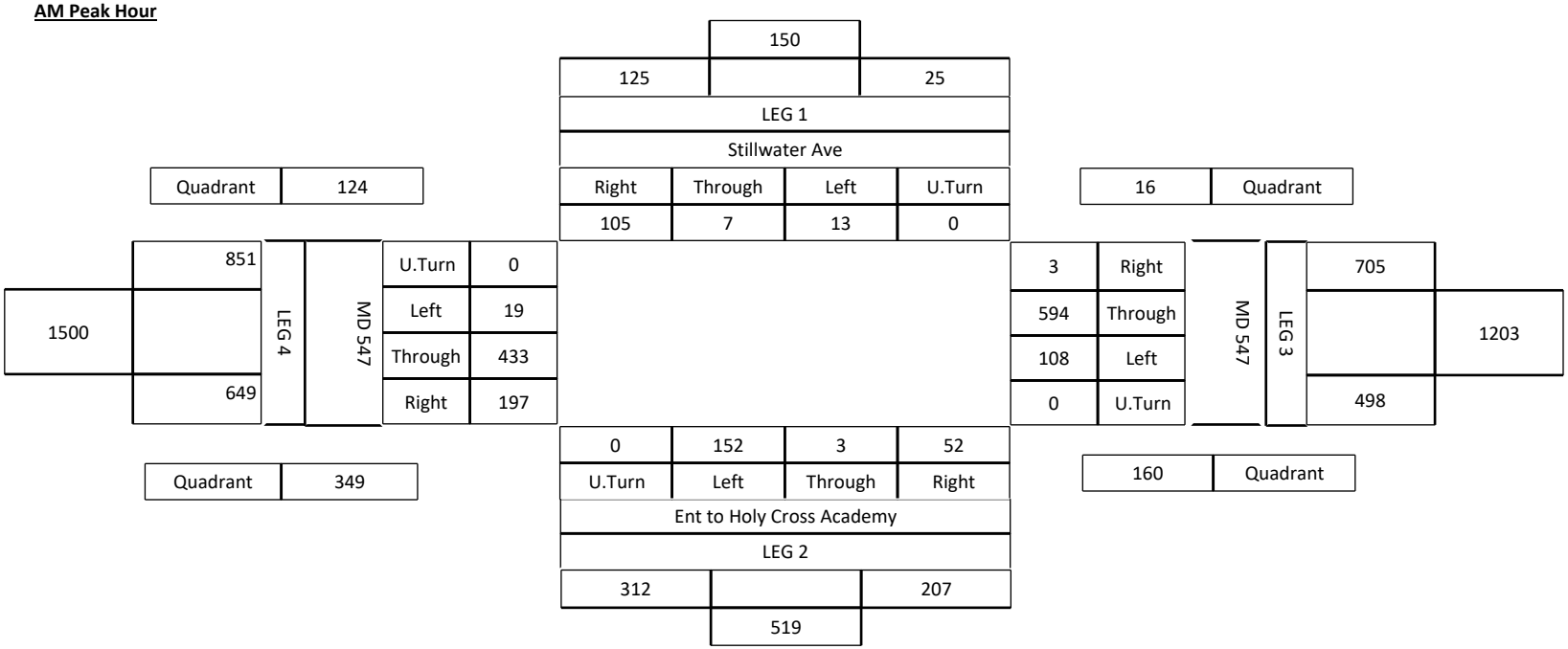
Maryland Department of Transportation
State Highway Administration
Data Services Division
Turning Movement Summary Report

Station ID:	S1997150076	County:	Montgomery	Comments:	LOS AM:C(0.76) PM:B(0.71)
Date:	4/17/2013 6:00:00 AM	Town:	none		
Location:	MD 547 at Stillwater Ave/Entrance to Holy Cross Academy	Weather:	Clear		
Interval:	15 Min				

PEAK	AM PERIOD	Start	End	Volume	LOS	V/C	PM PERIOD	Start	End	Volume	LOS	V/C
Hours	6:00AM-12:00PM	07:15	08:00	1686	C	0.76	12:00PM-19:00PM	17:15	18:00	1681	B	0.71

Stillwater Ave	Ent to Holy Cross Academy	MD 547	MD 547
From North	From South	From East	From West

AM Peak Hour



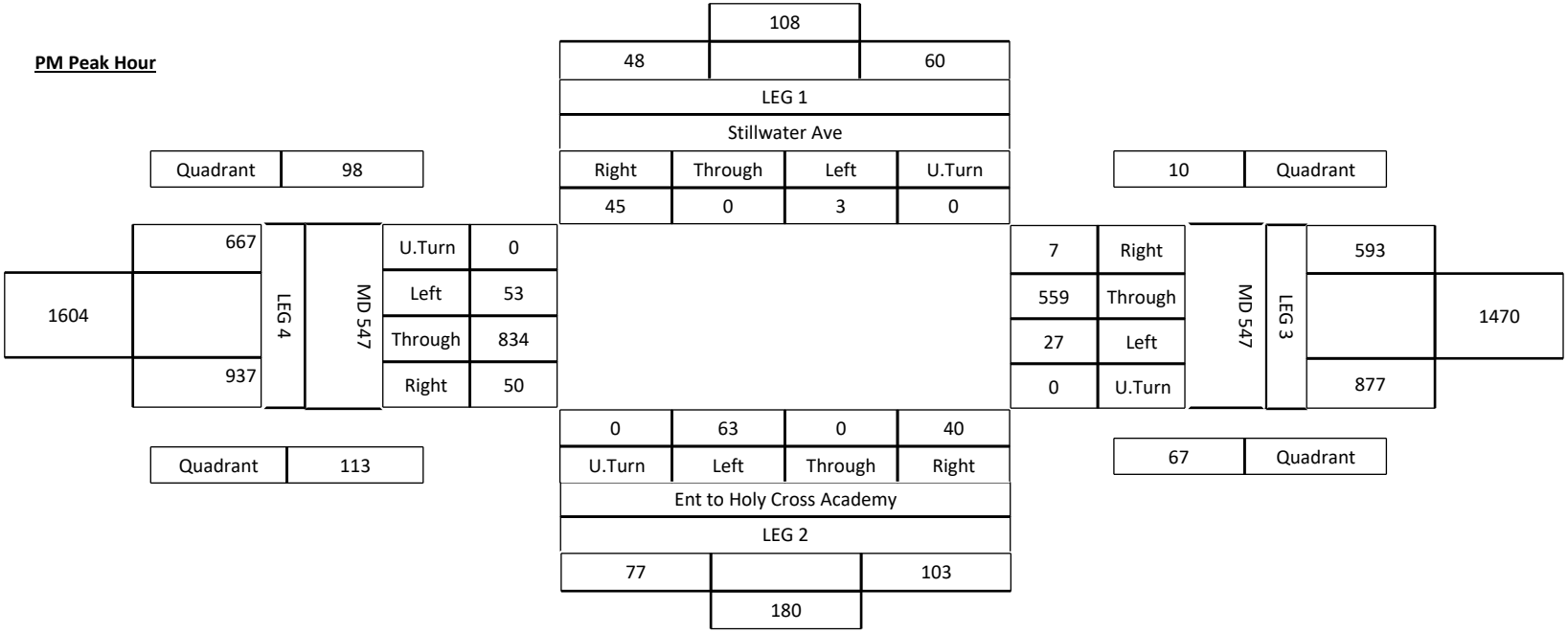
Maryland Department of Transportation
State Highway Administration
Data Services Division
Turning Movement Summary Report

Station ID:	S1997150076	County:	Montgomery	Comments:	LOS AM:C(0.76) PM:B(0.71)
Date:	4/17/2013 6:00:00 AM	Town:	none		
Location:	MD 547 at Stillwater Ave/Entrance to Holy Cross Academy	Weather:	Clear		
Interval:	15 Min				

PEAK	AM PERIOD	Start	End	Volume	LOS	V/C	PM PERIOD	Start	End	Volume	LOS	V/C
Hours	6:00AM-12:00PM	07:15	08:00	1686	C	0.76	12:00PM-19:00PM	17:15	18:00	1681	B	0.71

PM Peak Hour

From North	From South	From East	From West
	Ent to Holy Cross Academy	MD 547	MD 547



2005 Enrollment vs. 2020 Enrollment Trip Generation Based on Count Data							
Enrollment	Trip Generation Source	AM Vehicle Trips (veh/hr) *Peak Hour (8:00 AM - 9:00 AM)*			PM Vehicle Trips (veh/hr) *Peak Hour (5:15 PM - 6:15 PM)*		
		In	Out	Total	In	Out	Total
2005 Driveway Count Trip Generation							
583 Students	Driveway Counts[1]	310	182	492	70	149	219
	Trip Generation Rate per Student:	*0.53*	*0.31*	*0.84*	*0.12*	*0.26*	*0.38*
2020 Enrollment Trip Generation							
600 Students	2020 Driveway Rates	319	187	506	72	153	225

Notes:
1. Driveway count data retrieved from MDOT's Internet Traffic Monitoring System at Strathmore Avenue and School Driveway/Stillwater Avenue intersection collected on Tuesday September 13, 2005.

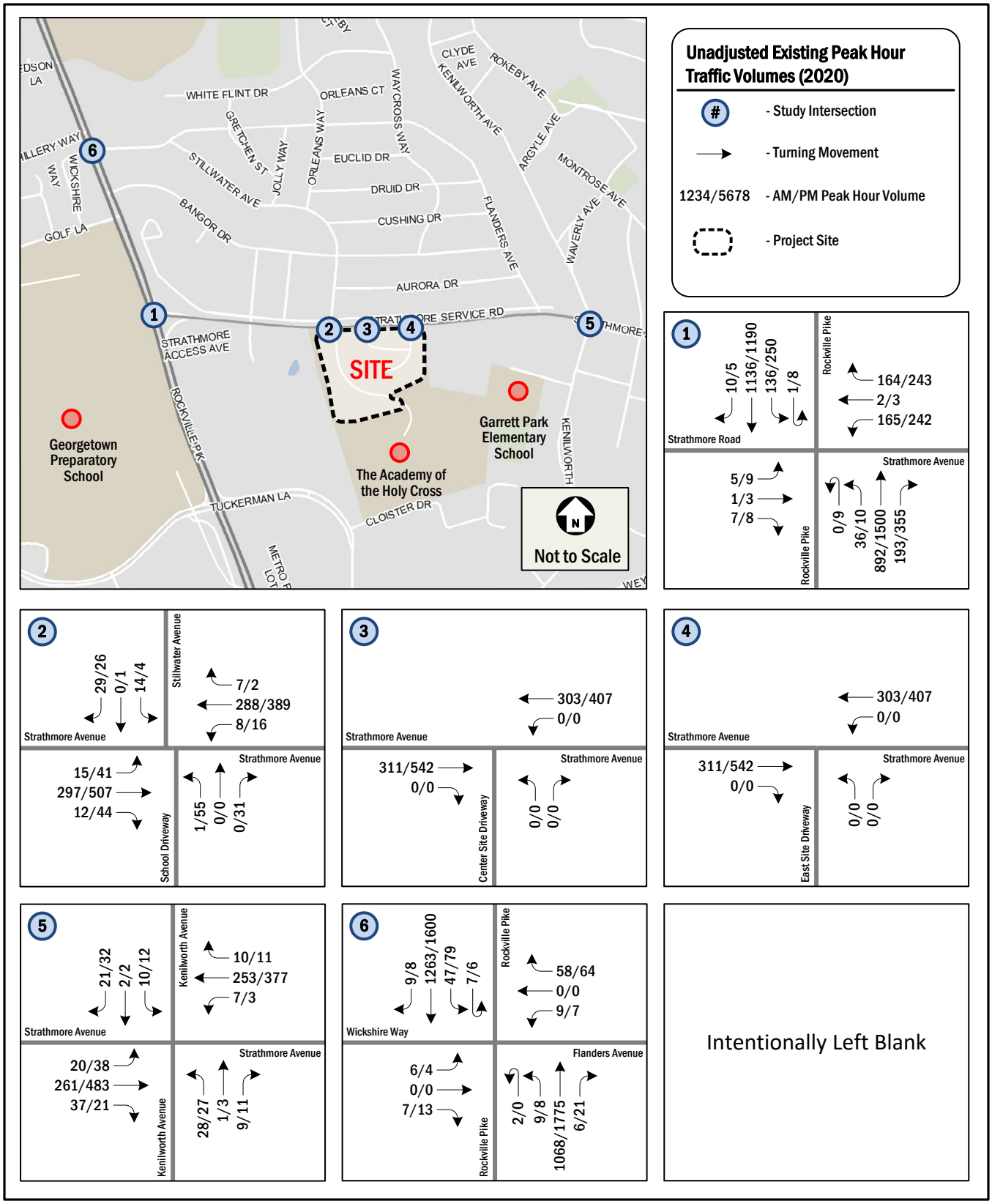
2013 Enrollment vs. 2020 Enrollment Trip Generation Based on Count Data							
Enrollment	Trip Generation Source	AM Vehicle Trips (veh/hr) *Peak Hour (7:15 AM - 8:15 AM)*			PM Vehicle Trips (veh/hr) *Peak Hour (5:15 PM - 6:15 PM)*		
		In	Out	Total	In	Out	Total
2013 Driveway Count Trip Generation							
528 Students	Driveway Counts[1]	312	207	519	77	103	180
	Trip Generation Rate per Student:	*0.54*	*0.36*	*0.89*	*0.13*	*0.18*	*0.31*
2020 Enrollment Trip Generation							
600 Students	2020 Driveway Rates	321	213	534	79	106	185

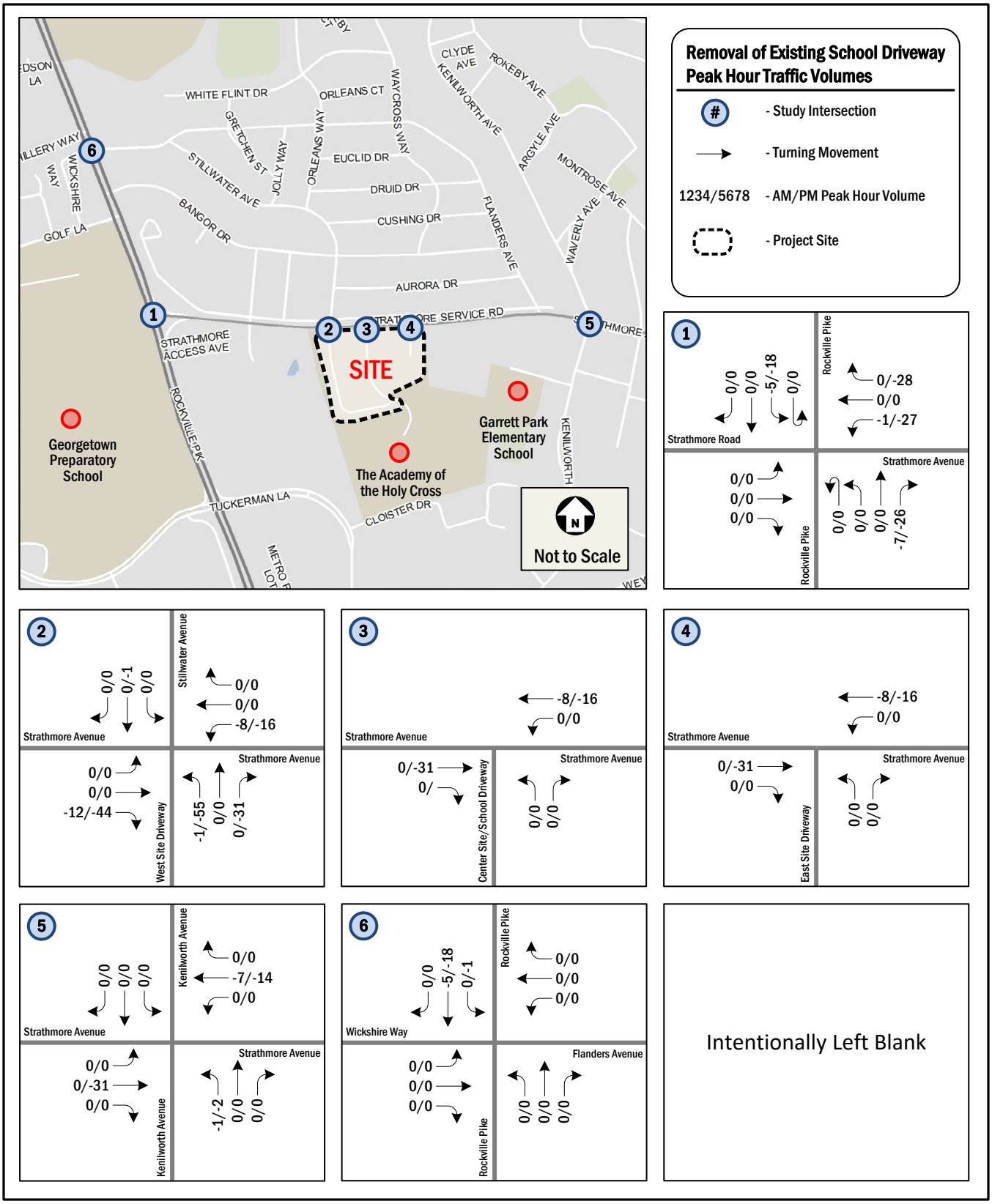
Notes:
1. Driveway count data retrieved from MDOT's Internet Traffic Monitoring System at Strathmore Avenue and School Driveway/Stillwater Avenue intersection collected on Wednesday April 17, 2013.

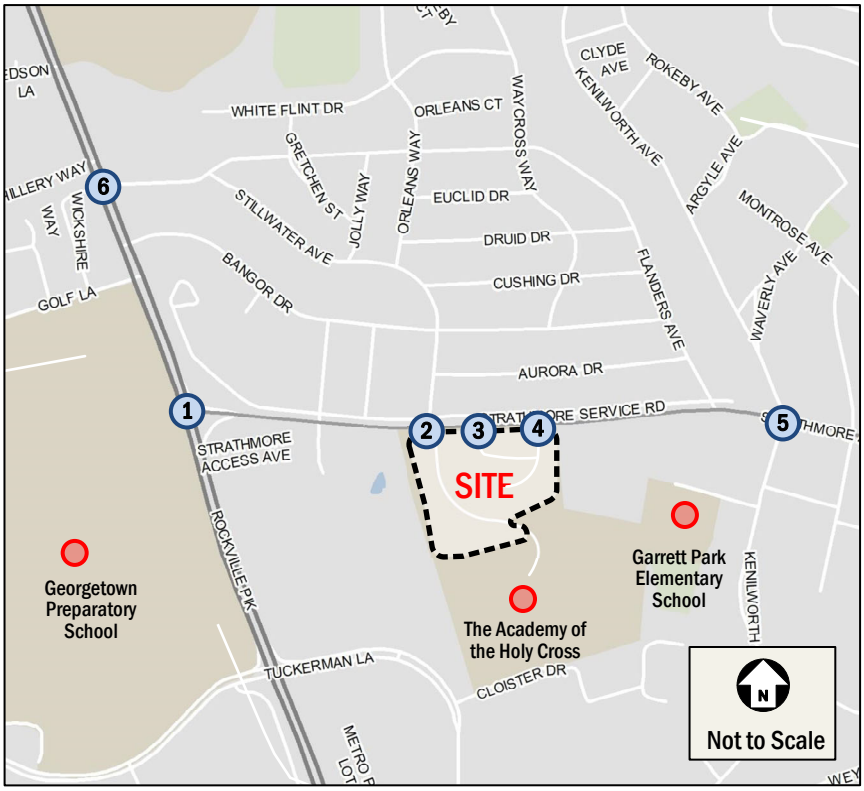
2005 vs 2013 Enrollment Trip Generation Rate Comparison							
2005 Driveway Count Trip Generation							
583 Students	Driveway Counts[1]	310	182	492	70	149	219
	Trip Generation Rate per Student:	*0.53*	*0.31*	*0.84*	*0.12*	*0.26*	*0.38*
2013 Driveway Count Trip Generation							
528 Students	Driveway Counts[1]	312	207	519	77	103	180
	Trip Generation Rate per Student:	*0.54*	*0.36*	*0.89*	*0.13*	*0.18*	*0.31*
Trip Generation Rate Comparison							
Net Change in Trip Generation Rate		0.003	0.04	0.05	0.01	-0.08	-0.07
Average Trip Generate Rates based on 2005 and 2013 Driveway Counts							
Average Trip Generation Rate		0.53	0.33	0.87	0.13	0.22	0.34
Projected 2020 Enrollment Trip Generation							
600 Students	2020 Driveway Estimate	320	200	520	76	129	205

Existing vs. Proposed Trip Generation Comparison Based on ITE Rates							
Enrollment	Trip Generation Source	AM Vehicle Trips (veh/hr)			Commuter PM Trips (veh/hr)		
		In	Out	Total	In	Out	Total
2005 Enrollment ITE Trip Generation							
583 Students	ITE Rates 10th Ed. (LUC: 530)	203	100	303	39	43	82
	Trip Generation Rate per Student:	*0.35*	*0.17*	*0.52*	*0.07*	*0.07*	*0.14*
2013 Enrollment ITE Trip Generation							
528 Students	ITE Rates 10th Ed. (LUC: 530)	184	91	275	36	38	74
	Trip Generation Rate per Student:	*0.35*	*0.17*	*0.52*	*0.07*	*0.07*	*0.14*
2020 Enrollment ITE Trip Generation							
600 Students	ITE Rates10th Ed. (LUC: 530)	209	103	312	40	44	84

G: RAW EXISTING VOLUMES AND ADJUSTMENT VOLUMES


Unadjusted Existing Peak Hour Traffic Volumes (2020)
- Study Intersection
- Turning Movement
1234/5678 - AM/PM Peak Hour Volume
- Project Site
SITE
Georgetown Preparatory School
The Academy of the Holy Cross
Garrett Park Elementary School
STRATHMORE ACCESS AVE
ROCKVILLE PK
TUCKERMAN LA
CLOISTER DR
KENILWORTH
STRATHMORE SERVICE RD
AURORA DR
DRUID DR
CUSHING DR
EUCLID DR
WHITE FLINT DR
ORLEANS CT
ORLEANS WAY
WAYCROSS WAY
CLYDE AVE
ROKEBY AVE
KENILWORTH AVE
ARGYLE AVE
MONTROSE AVE
WAVERLY AVE
FLANDERS AVE
STILLWATER AVE
JOLLY WAY
GRETCHEN ST
BANGOR DR
GOLF LA
WICKSHIRE WAY
Not to Scale
1
Strathmore Road
10/5
1136/1190
136/250
1/8
Rockville Pike
164/243
2/3
165/242
Strathmore Avenue
5/9
1/3
7/8
Rockville Pike
0/9
36/10
892/1500
193/355
2
Strathmore Avenue
29/26
0/1
14/4
Stillwater Avenue
7/2
288/389
8/16
15/41
297/507
12/44
School Driveway
Strathmore Avenue
1/55
0/0
0/31
3
Strathmore Avenue
303/407
0/0
311/542
0/0
Center Site Driveway
Strathmore Avenue
0/0
0/0
4
Strathmore Avenue
303/407
0/0
311/542
0/0
East Site Driveway
Strathmore Avenue
0/0
0/0
5
Strathmore Avenue
21/32
2/2
10/12
Kenilworth Avenue
10/11
253/377
7/3
20/38
261/483
37/21
Kenilworth Avenue
Strathmore Avenue
28/27
1/3
9/11
6
Wickshire Way
9/8
1263/1600
47/79
7/6
Rockville Pike
58/64
0/0
9/7
6/4
0/0
7/13
Rockville Pike
Flanders Avenue
2/0
9/8
1068/1775
6/21
Intentionally Left Blank


Removal of Existing School Driveway
Peak Hour Traffic Volumes
- Study Intersection
- Turning Movement
1234/5678 - AM/PM Peak Hour Volume
- Project Site
WHITE FLINT DR
ORLEANS CT
WAYCROSS WAY
CLYDE AVE
ROKEBY AVE
KENILWORTH AVE
ARGYLE AVE
MONTROSE AVE
GRETCHEN ST
JOLLY WAY
ORLEANS WAY
EUCLID DR
STILLWATER AVE
DRUID DR
BANGOR DR
CUSHING DR
FLANDERS AVE
WAVERLY AVE
GOLF LA
AURORA DR
STRATHMORE ACCESS AVE
STRATHMORE SERVICE RD
SITE
ROCKVILLE PK
Georgetown Preparatory School
The Academy of the Holy Cross
Garrett Park Elementary School
KENILWORTH
TUCKERMAN LA
CLOISTER DR
Not to Scale
Strathmore Road
Rockville Pike
Strathmore Avenue
Stillwater Avenue
West Site Driveway
Center Site/School Driveway
East Site Driveway
Kenilworth Avenue
Wickshire Way
Flanders Avenue
Intentionally Left Blank



Peak Hour Traffic Volumes Adjustments for COVID-19

- (#) - Study Intersection
- → - Turning Movement
- 1234/5678 - AM/PM Peak Hour Volume
- ▭ - Project Site

1

Strathmore Road: 1/0, 80/83, 9/16, 0/1
Rockville Pike: 11/15, 0/0, 11/15
Rockville Pike: 0/1, 0/0, 0/1
Strathmore Avenue: 0/1, 3/1, 62/105, 13/23

2

Strathmore Avenue: 2/2, 0/0, 1/0
Stillwater Avenue: 0/0, 20/27, 0/0
School Driveway: 1/3, 21/35, 0/0
Strathmore Avenue: 0/0, 0/0, 0/0

3

Strathmore Avenue: 21/27, 0/0
Center Site Driveway: 22/36, 0/0
Strathmore Avenue: 0/0, 0/0

4

Strathmore Avenue: 21/27, 0/0
East Site Driveway: 22/36, 0/0
Strathmore Avenue: 0/0, 0/0

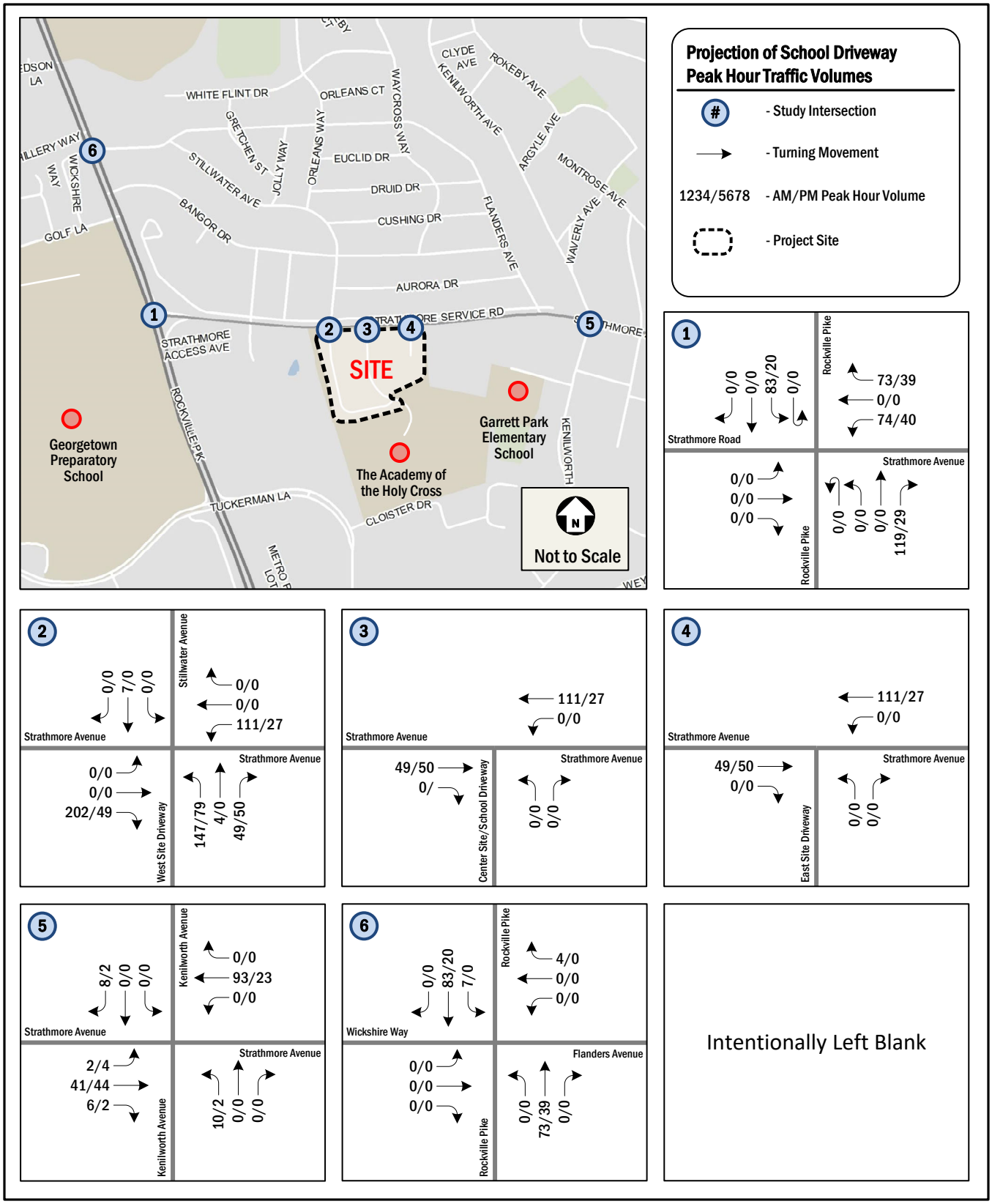
5

Strathmore Avenue: 1/2, 0/0, 1/1
Kenilworth Avenue: 1/1, 17/25, 0/0
Kenilworth Avenue: 1/3, 18/32, 3/1
Strathmore Avenue: 2/2, 0/0, 1/1

6

Wickshire Way: 1/1, 88/111, 3/5
Rockville Pike: 4/4, 0/0, 1/0
Rockville Pike: 0/0, 0/0, 0/1
Flanders Avenue: 1/1, 75/124, 0/1

Intentionally Left Blank


Projection of School Driveway Peak Hour Traffic Volumes
- Study Intersection
- Turning Movement
1234/5678 - AM/PM Peak Hour Volume
- Project Site
SITE
Georgetown Preparatory School
The Academy of the Holy Cross
Garrett Park Elementary School
Not to Scale
WHITE FLINT DR
ORLEANS CT
CLYDE AVE
ROKEBY AVE
KENILWORTH AVE
WAYCROSS WAY
ORLEANS WAY
GRETCHEN ST
JOLLY WAY
EUCLID DR
ARGYLE AVE
MONTROSE AVE
STILLWATER AVE
DRUID DR
BANGOR DR
CUSHING DR
FLANDERS AVE
WAVERLY AVE
GOLF LA
AURORA DR
STRATHMORE ACCESS AVE
ROCKVILLE PK
TUCKERMAN LA
CLOISTER DR
KENILWORTH
1
0/0 0/0 83/20 0/0
Strathmore Road
Rockville Pike
73/39
0/0
74/40
0/0 0/0 0/0
Rockville Pike
Strathmore Avenue
0/0 0/0 0/0 119/29
2
0/0 7/0 0/0
Strathmore Avenue
Stillwater Avenue
0/0
0/0
111/27
0/0 0/0 202/49
West Site Driveway
Strathmore Avenue
147/79 4/0 49/50
3
111/27
0/0
Strathmore Avenue
49/50 0/
Center Site/School Driveway
Strathmore Avenue
0/0 0/0
4
111/27
0/0
Strathmore Avenue
49/50 0/0
East Site Driveway
Strathmore Avenue
0/0 0/0
5
8/2 0/0 0/0
Strathmore Avenue
Kenilworth Avenue
0/0
93/23
0/0
2/4 41/44 6/2
Kenilworth Avenue
Strathmore Avenue
10/2 0/0 0/0
6
0/0 83/20 7/0
Wickshire Way
Rockville Pike
4/0
0/0
0/0
0/0 0/0 0/0
Rockville Pike
Flanders Avenue
0/0 73/39 0/0
Intentionally Left Blank

H: SIGNAL TIMING INFORMATION

39 ROCKVILLE PIKE (MD 355) & STRATHMORE AVENUE (MD 547)

	NBLT - MD 355	SB - MD 355	EB - STRATHMORE RD	WB - MD 547	SBLT - MD 355	NB - MD 355		
PHASE	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
MIN GRN	3	7	5	5	4	7	0	0
BK MGRN	0	0	0	0	0	0	0	0
CS MGRN	0	0	0	0	0	0	0	0
DLY GRN	0	0	0	0	0	0	0	0
WALK	0	0	0	7	0	7	0	0
WALK2	0	0	0	0	0	0	0	0
WLK MAX	0	0	0	0	0	0	0	0
PED CLR	0	0	0	25	0	11	0	0
PD CLR2	0	0	0	0	0	0	0	0
PC MAX	0	0	0	0	0	0	0	0
PED CO	0	0	0	0	0	0	0	0
VEH EXT	3	0	4	4	4	0	0	0
VH EXT2	0	0	0	0	0	0	0	0
MAX1	10	60	20	30	25	60	0	0
MAX2	60	50	60	60	60	50	0	0
MAX3	0	0	60	0	70	0	0	0
DYM MAX	0	0	0	0	0	0	0	0
DYM STP	0	0	0	0	0	0	0	0
YELLOW	3.5	4.5	3.5	4	3.5	4.5	3	3
RED CLR	1.5	1	2.5	2.5	1.5	1	0	0
RED MAX	0	0	0	0	0	0	0	0
RED RVT	5	5	5	5	5	5	5	5
ACT B4	0	0	0	0	0	0	0	0
SEC/ACT	0	0	0	0	0	0	0	0
MAX INT	0	0	0	0	0	0	0	0
TIME B4	0	0	0	0	0	0	0	0
CARS WT	0	0	0	0	0	0	0	0
STPTDUC	0	0	0	0	0	0	0	0
TTREDUC	0	0	0	0	0	0	0	0
MIN GAP	0	0	0	0	0	0	0	0

	AM	Mid	PM
USE SPLIT PATTERN	1	2	3
CYCLE	150	150	150
OFFSET VAL	87	43	127

PHASE	1	2	3	4	5	6	7	8
SPLIT 1	27	57	24	42	27	57	0	0
COORD		X				X		
PHASE MODE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE

PHASE	1	2	3	4	5	6	7	8
SPLIT 2	25	58	28	39	36	47	0	0
COORD		X				X		
PHASE MODE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE

PHASE	1	2	3	4	5	6	7	8
SPLIT 3	25	64	22	39	34	55	0	0
COORD		X				X		
PHASE MODE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE

715 STRATHMORE AVENUE (MD 547) & KENILWORTH AVENUE

	EBLT - MD 547	WB - MD 547		SB - KENILWORTH AVE		EB - MD 547		NB - KENWILWORTH AVE
PHASE	1	2	3	4	5	6	7	8
MIN GRN	5	7	0	5	0	7	0	5
BK MGRN	0	0	0	0	0	0	0	0
CS MGRN	0	0	0	0	0	0	0	0
DLY GRN	0	0	0	0	0	0	0	0
WALK	0	7	0	7	0	7	0	0
WALK2	0	0	0	0	0	0	0	0
WLK MAX	0	0	0	0	0	0	0	0
PED CLR	0	10	0	12	0	10	0	0
PD CLR2	0	0	0	0	0	0	0	0
PC MAX	0	0	0	0	0	0	0	0
PED CO	0	0	0	0	0	0	0	0
VEH EXT	3	6	0	5	0	6	0	5
VH EXT2	0	0	0	0	0	0	0	0
MAX1	10	70	0	20	0	70	0	20
MAX2	30	60	0	40	0	60	0	40
MAX3	0	0	0	0	0	0	0	0
DYM MAX	0	0	0	0	0	0	0	0
DYM STP	0	0	0	0	0	0	0	0
YELLOW	3.5	4	3	3.5	3	4	3	3.5
RED CLR	1	1.5	0	2	0	1.5	0	2
RED MAX	0	0	0	0	0	0	0	0
RED RVT	5	2	5	5	5	2	5	5
ACT B4	0	0	0	0	0	0	0	0
SEC/ACT	0	0	0	0	0	0	0	0
MAX INT	0	0	0	0	0	0	0	0
TIME B4	0	0	0	0	0	0	0	0
CARS WT	0	0	0	0	0	0	0	0
STPTDUC	0	0	0	0	0	0	0	0
TTREDUC	0	0	0	0	0	0	0	0
MIN GAP	0	0	0	0	0	0	0	0

	AM	Mid	PM
USE SPLIT PATTERN	1	2	3
CYCLE	120	55	120
OFFSET VAL	0	0	0

This intersection runs in FREE mode in all hours that are not Flash
Flash = 12:30AM - 5:30AM 7 days per week.

PHASE	1	2	3	4	5	6	7	8
SPLIT 1	18	71	0	31	0	89	0	31
COORD		X				X		
PHASE MODE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE

PHASE	1	2	3	4	5	6	7	8
SPLIT 2	9	35	0	11	0	44	0	11
COORD		X				X		
PHASE MODE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE

PHASE	1	2	3	4	5	6	7	8
SPLIT 3	18	70	0	32	0	88	0	32
COORD		X				X		
PHASE MODE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE

I: EXISTING CONDITIONS HCM ANALYSIS WORKSHEETS



Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	10	11	134	136	267	42	1026	342	238	1306
v/c Ratio	0.12	0.06	0.62	0.63	0.18	0.15	0.36	0.23	0.59	0.42
Control Delay	70.8	0.7	72.8	73.1	0.3	10.8	18.9	0.4	14.6	14.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.8	0.7	72.8	73.1	0.3	10.8	18.9	0.4	14.6	14.8
Queue Length 50th (ft)	10	0	133	135	0	11	190	0	73	230
Queue Length 95th (ft)	22	0	191	194	0	33	319	0	148	351
Internal Link Dist (ft)	309			223			629			451
Turn Bay Length (ft)					100	160		500	400	
Base Capacity (vph)	195	273	377	378	1454	441	2853	1479	469	3110
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.04	0.36	0.36	0.18	0.10	0.36	0.23	0.51	0.42

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	5	1	7	249	2	248	39	954	318	1	223	1216
Future Volume (vph)	5	1	7	249	2	248	39	954	318	1	223	1216
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	12	11	11
Total Lost time (s)		6.0	6.0	6.5	6.5	4.0	5.0	5.5	4.0		5.0	5.5
Lane Util. Factor		1.00	1.00	0.95	0.95	1.00	1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes		1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.99		1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Frt		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85		1.00	1.00
Flt Protected		0.96	1.00	0.95	0.95	1.00	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)		1629	1531	1594	1599	1454	1693	4775	1479		1646	4681
Flt Permitted		0.96	1.00	0.95	0.95	1.00	0.19	1.00	1.00		0.22	1.00
Satd. Flow (perm)		1629	1531	1594	1599	1454	335	4775	1479		382	4681
Peak-hour factor, PHF	0.65	0.65	0.65	0.93	0.93	0.93	0.93	0.93	0.93	0.94	0.94	0.94
Adj. Flow (vph)	8	2	11	268	2	267	42	1026	342	1	237	1294
RTOR Reduction (vph)	0	0	11	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	10	0	134	136	267	42	1026	342	0	238	1306
Confl. Peds. (#/hr)	2					2	4		7		7	
Confl. Bikes (#/hr)									3			
Heavy Vehicles (%)	10%	2%	2%	4%	2%	6%	3%	5%	4%	0%	6%	7%
Turn Type	Split	NA	Perm	Split	NA	Free	pm+pt	NA	Free	custom	pm+pt	NA
Protected Phases	3	3		4	4		1	6			5	2
Permitted Phases			3			Free	6		Free	5	2	
Actuated Green, G (s)		4.9	4.9	20.2	20.2	150.0	92.9	87.3	150.0		106.9	96.3
Effective Green, g (s)		4.9	4.9	20.2	20.2	150.0	92.9	87.3	150.0		106.9	96.3
Actuated g/C Ratio		0.03	0.03	0.13	0.13	1.00	0.62	0.58	1.00		0.71	0.64
Clearance Time (s)		6.0	6.0	6.5	6.5		5.0	5.5			5.0	5.5
Vehicle Extension (s)		4.0	4.0	4.0	4.0		3.0	0.2			4.0	0.2
Lane Grp Cap (vph)		53	50	214	215	1454	258	2779	1479		395	3005
v/s Ratio Prot		0.01		0.08	c0.09		0.01	0.21			c0.06	0.28
v/s Ratio Perm			0.00			0.18	0.09		c0.23		c0.37	
v/c Ratio		0.19	0.01	0.63	0.63	0.18	0.16	0.37	0.23		0.60	0.43
Uniform Delay, d1		70.6	70.2	61.3	61.4	0.0	11.2	16.7	0.0		9.0	13.3
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2		2.4	0.1	6.4	6.7	0.3	0.3	0.4	0.4		3.0	0.5
Delay (s)		73.0	70.3	67.7	68.1	0.3	11.5	17.1	0.4		12.0	13.8
Level of Service		E	E	E	E	A	B	B	A		B	B
Approach Delay (s)		71.6			34.3			12.9				13.5
Approach LOS		E			C			B				B

Intersection Summary			
HCM 2000 Control Delay	16.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	59.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	SBR
Lane Configurations	
Traffic Volume (vph)	11
Future Volume (vph)	11
Ideal Flow (vphpl)	1900
Lane Width	11
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.94
Adj. Flow (vph)	12
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	11
Confl. Bikes (#/hr)	
Heavy Vehicles (%)	0%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	520	456	11	22	31
Future Vol, veh/h	16	520	456	11	22	31
Conflicting Peds, #/hr	2	0	0	2	0	6
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	95	95	83	83
Heavy Vehicles, %	10	5	5	2	2	2
Mvmt Flow	17	559	480	12	27	37

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	494	0	-	0	1081	494
Stage 1	-	-	-	-	488	-
Stage 2	-	-	-	-	593	-
Critical Hdwy	4.2	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.29	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1029	-	-	-	241	575
Stage 1	-	-	-	-	617	-
Stage 2	-	-	-	-	552	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1027	-	-	-	234	571
Mov Cap-2 Maneuver	-	-	-	-	234	-
Stage 1	-	-	-	-	601	-
Stage 2	-	-	-	-	551	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	17.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1027	-	-	-	357
HCM Lane V/C Ratio	0.017	-	-	-	0.179
HCM Control Delay (s)	8.6	0	-	-	17.3
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

Intersection	
Int Delay, s/veh	445.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	333	209	111	316	151	49
Future Vol, veh/h	333	209	111	316	151	49
Conflicting Peds, #/hr	0	4	4	0	6	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	95	95	25	25
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	358	225	117	333	604	196

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	587	0	1048	475
Stage 1	-	-	-	-	475	-
Stage 2	-	-	-	-	573	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	988	-	~ 252	590
Stage 1	-	-	-	-	626	-
Stage 2	-	-	-	-	~ 564	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	985	-	~ 213	588
Mov Cap-2 Maneuver	-	-	-	-	~ 213	-
Stage 1	-	-	-	-	624	-
Stage 2	-	-	-	-	~ 479	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	$ 1018.3
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	252	-	-	985	-
HCM Lane V/C Ratio	3.175	-	-	0.119	-
HCM Control Delay (s)	$ 1018.3	-	-	9.1	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	72.6	-	-	0.4	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	382	0	0	427	0	0
Future Vol, veh/h	382	0	0	427	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	95	95	92	92
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	411	0	0	449	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	411	0	860	411
Stage 1	-	-	-	-	411	-
Stage 2	-	-	-	-	449	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1148	-	326	641
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	643	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1148	-	326	641
Mov Cap-2 Maneuver	-	-	-	-	326	-
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	643	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1148	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	382	0	0	427	0	0
Future Vol, veh/h	382	0	0	427	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	95	95	92	92
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	411	0	0	449	0	0

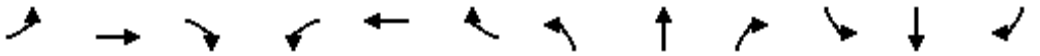
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	411	0	860	411
Stage 1	-	-	-	-	411	-
Stage 2	-	-	-	-	449	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1148	-	326	641
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	643	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1148	-	326	641
Mov Cap-2 Maneuver	-	-	-	-	326	-
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	643	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1148	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	438	416	95	58
v/c Ratio	0.34	0.31	0.58	0.29
Control Delay	5.3	5.2	56.1	22.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	5.3	5.2	56.1	22.9
Queue Length 50th (ft)	83	79	63	12
Queue Length 95th (ft)	157	151	60	37
Internal Link Dist (ft)	1247	344	370	292
Turn Bay Length (ft)				
Base Capacity (vph)	1293	1328	260	295
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.34	0.31	0.37	0.20

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	320	46	7	356	11	39	1	10	11	2	30
Future Volume (vph)	23	320	46	7	356	11	39	1	10	11	2	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		5.5			5.5			5.5			5.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			1.00			1.00			0.95	
Flpb, ped/bikes		1.00			1.00			0.97			1.00	
Frt		0.98			1.00			0.97			0.91	
Flt Protected		1.00			1.00			0.96			0.99	
Satd. Flow (prot)		1722			1724			1468			1328	
Flt Permitted		0.96			0.99			0.78			0.92	
Satd. Flow (perm)		1662			1712			1188			1240	
Peak-hour factor, PHF	0.89	0.89	0.89	0.90	0.90	0.90	0.53	0.53	0.53	0.75	0.75	0.75
Adj. Flow (vph)	26	360	52	8	396	12	74	2	19	15	3	40
RTOR Reduction (vph)	0	3	0	0	0	0	0	9	0	0	35	0
Lane Group Flow (vph)	0	435	0	0	416	0	0	86	0	0	23	0
Confl. Peds. (#/hr)	8		9	9		8	15					15
Confl. Bikes (#/hr)						1						1
Heavy Vehicles (%)	5%	4%	3%	2%	6%	2%	2%	2%	2%	10%	2%	5%
Parking (#/hr)							0	0	0	0	0	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	6			2			8			4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)		93.1			93.1			15.9			15.9	
Effective Green, g (s)		93.1			93.1			15.9			15.9	
Actuated g/C Ratio		0.78			0.78			0.13			0.13	
Clearance Time (s)		5.5			5.5			5.5			5.5	
Vehicle Extension (s)		6.0			6.0			5.0			5.0	
Lane Grp Cap (vph)		1289			1328			157			164	
v/s Ratio Prot												
v/s Ratio Perm		c0.26			0.24			c0.07			0.02	
v/c Ratio		0.34			0.31			0.55			0.14	
Uniform Delay, d1		4.1			4.0			48.7			46.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.2			0.6			6.8			0.8	
Delay (s)		4.2			4.6			55.5			46.9	
Level of Service		A			A			E			D	
Approach Delay (s)		4.2			4.6			55.5			46.9	
Approach LOS		A			A			E			D	

Intersection Summary			
HCM 2000 Control Delay	11.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	50.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	6	0	7	10	0	66	2	10	1216	6	7	57	1429	10
Future Vol, veh/h	6	0	7	10	0	66	2	10	1216	6	7	57	1429	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	3	0	2	0	2	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	-	270	-	-	-	270	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-	0	-	-	-	0	-
Peak Hour Factor	46	46	46	93	93	93	96	96	96	96	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	0	2	5	2	0	4	6	2
Mvmt Flow	13	0	15	11	0	71	2	10	1267	6	8	61	1537	11

Major/Minor	Minor2			Minor1			Major1				Major2			
Conflicting Flow All	2215	2983	777	2049	2985	639	1130	1551	0	0	929	1275	0	0
Stage 1	1684	1684	-	1296	1296	-	-	-	-	-	-	-	-	-
Stage 2	531	1299	-	753	1689	-	-	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.6	5.34	-	-	5.6	5.38	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	2.3	3.12	-	-	2.3	3.14	-	-
Pot Cap-1 Maneuver	47	14	291	59	14	359	379	210	-	-	489	283	-	-
Stage 1	65	149	-	123	231	-	-	-	-	-	-	-	-	-
Stage 2	456	230	-	334	148	-	-	-	-	-	-	-	-	-
Platoon blocked, %									-	-			-	-
Mov Cap-1 Maneuver	29	10	290	44	10	358	226	226	-	-	292	292	-	-
Mov Cap-2 Maneuver	29	10	-	44	10	-	-	-	-	-	-	-	-	-
Stage 1	61	114	-	116	217	-	-	-	-	-	-	-	-	-
Stage 2	345	216	-	242	113	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	122.2	39	0.2	0.9
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	226	-	-	56	185	292	-	-
HCM Lane V/C Ratio	0.055	-	-	0.505	0.442	0.236	-	-
HCM Control Delay (s)	21.8	-	-	122.2	39	21.1	-	-
HCM Lane LOS	C	-	-	F	E	C	-	-
HCM 95th %tile Q(veh)	0.2	-	-	2	2	0.9	-	-



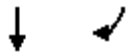
Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	21	14	138	136	270	21	1596	381	289	1328
v/c Ratio	0.22	0.07	0.63	0.62	0.18	0.08	0.62	0.25	0.80	0.40
Control Delay	72.3	0.6	73.0	72.3	0.3	13.1	30.0	0.4	48.5	14.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.3	0.6	73.0	72.3	0.3	13.1	30.0	0.4	48.5	14.1
Queue Length 50th (ft)	20	0	137	135	0	6	416	0	186	232
Queue Length 95th (ft)	30	0	197	193	0	20	#679	0	300	354
Internal Link Dist (ft)	309			223			629			451
Turn Bay Length (ft)					100	160		500	400	
Base Capacity (vph)	184	286	352	353	1511	413	2593	1507	423	3326
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.05	0.39	0.39	0.18	0.05	0.62	0.25	0.68	0.40

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	9	3	8	255	3	254	9	10	1500	358	8	252
Future Volume (vph)	9	3	8	255	3	254	9	10	1500	358	8	252
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	12	11	11	11	12	11
Total Lost time (s)		6.0	6.0	6.5	6.5	4.0		5.0	5.5	4.0		5.0
Lane Util. Factor		1.00	1.00	0.95	0.95	1.00		1.00	0.91	1.00		1.00
Frpb, ped/bikes		1.00	1.00	1.00	1.00	0.99		1.00	1.00	0.98		1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00
Frt		1.00	0.85	1.00	1.00	0.85		1.00	1.00	0.85		1.00
Flt Protected		0.96	1.00	0.95	0.95	1.00		0.95	1.00	1.00		0.95
Satd. Flow (prot)		1735	1531	1625	1631	1511		1710	4916	1507		1711
Flt Permitted		0.96	1.00	0.95	0.95	1.00		0.19	1.00	1.00		0.08
Satd. Flow (perm)		1735	1531	1625	1631	1511		350	4916	1507		152
Peak-hour factor, PHF	0.56	0.56	0.56	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.90	0.90
Adj. Flow (vph)	16	5	14	271	3	270	10	11	1596	381	9	280
RTOR Reduction (vph)	0	0	13	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	21	1	138	136	270	0	21	1596	381	0	289
Confl. Peds. (#/hr)	2					2		6		9		9
Confl. Bikes (#/hr)										2		
Turn Type	Split	NA	Perm	Split	NA	Free	custom	pm+pt	NA	Free	custom	pm+pt
Protected Phases	3	3		4	4			1	6			5
Permitted Phases			3			Free	1	6		Free	5	2
Actuated Green, G (s)		5.6	5.6	20.2	20.2	150.0		80.7	76.8	150.0		106.2
Effective Green, g (s)		5.6	5.6	20.2	20.2	150.0		80.7	76.8	150.0		106.2
Actuated g/C Ratio		0.04	0.04	0.13	0.13	1.00		0.54	0.51	1.00		0.71
Clearance Time (s)		6.0	6.0	6.5	6.5			5.0	5.5			5.0
Vehicle Extension (s)		4.0	4.0	4.0	4.0			3.0	0.2			4.0
Lane Grp Cap (vph)		64	57	218	219	1511		223	2516	1507		361
v/s Ratio Prot		0.01		c0.08	0.08			0.00	0.32			c0.13
v/s Ratio Perm			0.00			0.18		0.05		c0.25		c0.44
v/c Ratio		0.33	0.01	0.63	0.62	0.18		0.09	0.63	0.25		0.80
Uniform Delay, d1		70.4	69.5	61.4	61.3	0.0		16.2	26.5	0.0		37.9
Progression Factor		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00
Incremental Delay, d2		4.1	0.1	6.6	6.1	0.3		0.2	1.2	0.4		12.6
Delay (s)		74.4	69.6	68.0	67.4	0.3		16.4	27.7	0.4		50.6
Level of Service		E	E	E	E	A		B	C	A		D
Approach Delay (s)		72.5			34.2				22.4			
Approach LOS		E			C				C			

Intersection Summary			
HCM 2000 Control Delay	23.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	72.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	1190	5
Future Volume (vph)	1190	5
Ideal Flow (vphpl)	1900	1900
Lane Width	11	11
Total Lost time (s)	5.5	
Lane Util. Factor	0.91	
Frpb, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	1.00	
Flt Protected	1.00	
Satd. Flow (prot)	4912	
Flt Permitted	1.00	
Satd. Flow (perm)	4912	
Peak-hour factor, PHF	0.90	0.90
Adj. Flow (vph)	1322	6
RTOR Reduction (vph)	0	0
Lane Group Flow (vph)	1328	0
Confl. Peds. (#/hr)		6
Confl. Bikes (#/hr)		3
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	97.3	
Effective Green, g (s)	97.3	
Actuated g/C Ratio	0.65	
Clearance Time (s)	5.5	
Vehicle Extension (s)	0.2	
Lane Grp Cap (vph)	3186	
v/s Ratio Prot	0.27	
v/s Ratio Perm		
v/c Ratio	0.42	
Uniform Delay, d1	12.7	
Progression Factor	1.00	
Incremental Delay, d2	0.4	
Delay (s)	13.1	
Level of Service	B	
Approach Delay (s)	19.8	
Approach LOS	B	

Intersection Summary

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	41	556	468	2	4	26
Future Vol, veh/h	41	556	468	2	4	26
Conflicting Peds, #/hr	13	0	0	13	0	21
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	86	86
Heavy Vehicles, %	2	2	2	2	2	4
Mvmt Flow	47	632	532	2	5	30

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	547	0	-	0	1272	567
Stage 1	-	-	-	-	546	-
Stage 2	-	-	-	-	726	-
Critical Hdwy	4.12	-	-	-	6.42	6.24
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.336
Pot Cap-1 Maneuver	1022	-	-	-	185	519
Stage 1	-	-	-	-	580	-
Stage 2	-	-	-	-	479	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1010	-	-	-	168	504
Mov Cap-2 Maneuver	-	-	-	-	168	-
Stage 1	-	-	-	-	532	-
Stage 2	-	-	-	-	474	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	14.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1010	-	-	-	398
HCM Lane V/C Ratio	0.046	-	-	-	0.088
HCM Control Delay (s)	8.7	0	-	-	14.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Intersection	
Int Delay, s/veh	5.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	511	49	27	391	79	50
Future Vol, veh/h	511	49	27	391	79	50
Conflicting Peds, #/hr	0	4	4	0	21	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	581	56	31	444	103	65

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	641	0	1140	613
Stage 1	-	-	-	-	613	-
Stage 2	-	-	-	-	527	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	943	-	222	492
Stage 1	-	-	-	-	541	-
Stage 2	-	-	-	-	592	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	940	-	208	490
Mov Cap-2 Maneuver	-	-	-	-	208	-
Stage 1	-	-	-	-	539	-
Stage 2	-	-	-	-	555	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	38.5
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	268	-	-	940	-
HCM Lane V/C Ratio	0.625	-	-	0.033	-
HCM Control Delay (s)	38.5	-	-	9	0
HCM Lane LOS	E	-	-	A	A
HCM 95th %tile Q(veh)	3.8	-	-	0.1	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	561	0	0	418	0	0
Future Vol, veh/h	561	0	0	418	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	638	0	0	475	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	638	0	1113	638
Stage 1	-	-	-	-	638	-
Stage 2	-	-	-	-	475	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	946	-	231	477
Stage 1	-	-	-	-	526	-
Stage 2	-	-	-	-	626	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	946	-	231	477
Mov Cap-2 Maneuver	-	-	-	-	231	-
Stage 1	-	-	-	-	526	-
Stage 2	-	-	-	-	626	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	946	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	561	0	0	418	0	0
Future Vol, veh/h	561	0	0	418	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	638	0	0	475	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	638	0	1113	638
Stage 1	-	-	-	-	638	-
Stage 2	-	-	-	-	475	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	946	-	231	477
Stage 1	-	-	-	-	526	-
Stage 2	-	-	-	-	626	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	946	-	231	477
Mov Cap-2 Maneuver	-	-	-	-	231	-
Stage 1	-	-	-	-	526	-
Stage 2	-	-	-	-	626	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	946	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	590	439	76	83
v/c Ratio	0.43	0.30	0.57	0.43
Control Delay	5.2	4.1	56.1	25.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	5.2	4.1	56.1	25.0
Queue Length 50th (ft)	117	75	46	17
Queue Length 95th (ft)	219	141	49	25
Internal Link Dist (ft)	1247	344	370	292
Turn Bay Length (ft)				
Base Capacity (vph)	1387	1476	249	319
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.43	0.30	0.31	0.26

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	496	23	3	386	11	27	3	11	12	2	34
Future Volume (vph)	42	496	23	3	386	11	27	3	11	12	2	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		5.5			5.5			5.5			5.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			0.93	
Flpb, ped/bikes		1.00			1.00			0.97			1.00	
Frt		0.99			1.00			0.96			0.90	
Flt Protected		1.00			1.00			0.97			0.99	
Satd. Flow (prot)		1774			1790			1450			1335	
Flt Permitted		0.94			1.00			0.72			0.91	
Satd. Flow (perm)		1678			1787			1080			1230	
Peak-hour factor, PHF	0.95	0.95	0.95	0.91	0.91	0.91	0.54	0.54	0.54	0.58	0.58	0.58
Adj. Flow (vph)	44	522	24	3	424	12	50	6	20	21	3	59
RTOR Reduction (vph)	0	1	0	0	0	0	0	13	0	0	53	0
Lane Group Flow (vph)	0	589	0	0	439	0	0	63	0	0	30	0
Confl. Peds. (#/hr)	10		18	18		10	21		1	1		21
Confl. Bikes (#/hr)			3			1			1			4
Heavy Vehicles (%)	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%
Parking (#/hr)							0	0	0	0	0	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	6			2			8			4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)		96.9			96.9			12.1			12.1	
Effective Green, g (s)		96.9			96.9			12.1			12.1	
Actuated g/C Ratio		0.81			0.81			0.10			0.10	
Clearance Time (s)		5.5			5.5			5.5			5.5	
Vehicle Extension (s)		6.0			6.0			5.0			5.0	
Lane Grp Cap (vph)		1354			1443			108			124	
v/s Ratio Prot												
v/s Ratio Perm		c0.35			0.25			c0.06			0.02	
v/c Ratio		0.44			0.30			0.59			0.24	
Uniform Delay, d1		3.4			2.9			51.6			49.7	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.2			0.5			12.0			2.1	
Delay (s)		3.7			3.5			63.6			51.8	
Level of Service		A			A			E			D	
Approach Delay (s)		3.7			3.5			63.6			51.8	
Approach LOS		A			A			E			D	

Intersection Summary			
HCM 2000 Control Delay	10.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	74.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	19.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	4	0	13	7	0	64	8	1814	21	6	78	1602	8
Future Vol, veh/h	4	0	13	7	0	64	8	1814	21	6	78	1602	8
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	1	0	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	270	-	-	-	270	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	71	71	71	77	77	77	89	89	89	95	95	95	95
Heavy Vehicles, %	2	2	8	2	2	2	2	2	2	0	2	2	10
Mvmt Flow	6	0	18	9	0	83	9	2038	24	6	82	1686	8

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	2700	3948	848	2919	3940	1032	1695	0	0	1505	2063	0	0
Stage 1	1867	1867	-	2069	2069	-	-	-	-	-	-	-	-
Stage 2	833	2081	-	850	1871	-	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.26	6.44	6.54	7.14	5.34	-	-	5.6	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.98	3.82	4.02	3.92	3.12	-	-	2.3	3.12	-	-
Pot Cap-1 Maneuver	23	3	252	17	3	197	178	-	-	234	116	-	-
Stage 1	48	121	-	34	95	-	-	-	-	-	-	-	-
Stage 2	298	94	-	291	120	-	-	-	-	-	-	-	-
Platoon blocked, %								-	-			-	-
Mov Cap-1 Maneuver	~ 5	1	252	~ 6	1	197	178	-	-	118	118	-	-
Mov Cap-2 Maneuver	~ 5	1	-	~ 6	1	-	-	-	-	-	-	-	-
Stage 1	46	31	-	32	90	-	-	-	-	-	-	-	-
Stage 2	164	89	-	69	31	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 543.9	$ 615.5	0.1	4.7
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	178	-	-	20	48	118	-	-
HCM Lane V/C Ratio	0.05	-	-	1.197	1.921	0.749	-	-
HCM Control Delay (s)	26.3	-	-	-$ 543.9	$ 615.5	94.7	-	-
HCM Lane LOS	D	-	-	F	F	F	-	-
HCM 95th %tile Q(veh)	0.2	-	-	3.3	9.3	4.2	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

J: Background Conditions HCM Analysis Worksheets



Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	10	11	134	137	268	42	1425	347	242	1627
v/c Ratio	0.12	0.06	0.62	0.63	0.18	0.20	0.54	0.23	0.68	0.52
Control Delay	70.8	0.7	72.6	73.2	0.3	13.5	26.2	0.4	28.3	16.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.8	0.7	72.6	73.2	0.3	13.5	26.2	0.4	28.3	16.6
Queue Length 50th (ft)	10	0	133	136	0	11	338	0	100	317
Queue Length 95th (ft)	22	0	191	195	0	33	523	0	216	476
Internal Link Dist (ft)	309			223			629			451
Turn Bay Length (ft)					100	160		500	400	
Base Capacity (vph)	195	273	377	378	1454	377	2639	1479	385	3108
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.04	0.36	0.36	0.18	0.11	0.54	0.23	0.63	0.52

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	5	1	7	250	2	249	39	1325	323	1	227	1518
Future Volume (vph)	5	1	7	250	2	249	39	1325	323	1	227	1518
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	12	11	11
Total Lost time (s)		6.0	6.0	6.5	6.5	4.0	5.0	5.5	4.0		5.0	5.5
Lane Util. Factor		1.00	1.00	0.95	0.95	1.00	1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes		1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.99		1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Frt		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85		1.00	1.00
Flt Protected		0.96	1.00	0.95	0.95	1.00	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)		1629	1531	1594	1599	1454	1694	4775	1479		1646	4682
Flt Permitted		0.96	1.00	0.95	0.95	1.00	0.13	1.00	1.00		0.12	1.00
Satd. Flow (perm)		1629	1531	1594	1599	1454	235	4775	1479		205	4682
Peak-hour factor, PHF	0.65	0.65	0.65	0.93	0.93	0.93	0.93	0.93	0.93	0.94	0.94	0.94
Adj. Flow (vph)	8	2	11	269	2	268	42	1425	347	1	241	1615
RTOR Reduction (vph)	0	0	11	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	10	0	134	137	268	42	1425	347	0	242	1627
Confl. Peds. (#/hr)	2					2	4		7		7	
Confl. Bikes (#/hr)									3			
Heavy Vehicles (%)	10%	2%	2%	4%	2%	6%	3%	5%	4%	0%	6%	7%
Turn Type	Split	NA	Perm	Split	NA	Free	pm+pt	NA	Free	custom	pm+pt	NA
Protected Phases	3	3		4	4		1	6			5	2
Permitted Phases			3			Free	6		Free	5	2	
Actuated Green, G (s)		4.9	4.9	20.3	20.3	150.0	86.1	80.5	150.0		106.8	96.2
Effective Green, g (s)		4.9	4.9	20.3	20.3	150.0	86.1	80.5	150.0		106.8	96.2
Actuated g/C Ratio		0.03	0.03	0.14	0.14	1.00	0.57	0.54	1.00		0.71	0.64
Clearance Time (s)		6.0	6.0	6.5	6.5		5.0	5.5			5.0	5.5
Vehicle Extension (s)		4.0	4.0	4.0	4.0		3.0	0.2			4.0	0.2
Lane Grp Cap (vph)		53	50	215	216	1454	189	2562	1479		350	3002
v/s Ratio Prot		0.01		0.08	c0.09		0.01	0.30			c0.10	0.35
v/s Ratio Perm			0.00			0.18	0.12		c0.23		c0.39	
v/c Ratio		0.19	0.01	0.62	0.63	0.18	0.22	0.56	0.23		0.69	0.54
Uniform Delay, d1		70.6	70.2	61.2	61.3	0.0	14.1	23.0	0.0		22.3	14.8
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2		2.4	0.1	6.3	6.7	0.3	0.6	0.9	0.4		6.2	0.7
Delay (s)		73.0	70.3	67.5	68.0	0.3	14.7	23.8	0.4		28.5	15.5
Level of Service		E	E	E	E	A	B	C	A		C	B
Approach Delay (s)		71.6			34.2			19.1				17.2
Approach LOS		E			C			B				B

Intersection Summary			
HCM 2000 Control Delay	20.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	66.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	SBR
Lane Configurations	
Traffic Volume (vph)	11
Future Volume (vph)	11
Ideal Flow (vphpl)	1900
Lane Width	11
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.94
Adj. Flow (vph)	12
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	4
Confl. Bikes (#/hr)	
Heavy Vehicles (%)	0%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	529	462	7	22	31
Future Vol, veh/h	16	529	462	7	22	31
Conflicting Peds, #/hr	2	0	0	2	0	6
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	95	95	83	83
Heavy Vehicles, %	10	5	5	2	2	2
Mvmt Flow	17	569	486	7	27	37

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	495	0	-	0	1095	498
Stage 1	-	-	-	-	492	-
Stage 2	-	-	-	-	603	-
Critical Hdwy	4.2	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.29	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1029	-	-	-	236	572
Stage 1	-	-	-	-	615	-
Stage 2	-	-	-	-	546	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1027	-	-	-	229	568
Mov Cap-2 Maneuver	-	-	-	-	229	-
Stage 1	-	-	-	-	599	-
Stage 2	-	-	-	-	545	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	17.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1027	-	-	-	352
HCM Lane V/C Ratio	0.017	-	-	-	0.181
HCM Control Delay (s)	8.6	0	-	-	17.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.7

Intersection	
Int Delay, s/veh	449.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	342	209	111	318	151	49
Future Vol, veh/h	342	209	111	318	151	49
Conflicting Peds, #/hr	0	4	4	0	6	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	95	95	25	25
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	368	225	117	335	604	196

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	597	0	1060	485
Stage 1	-	-	-	-	485	-
Stage 2	-	-	-	-	575	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	980	-	~ 248	582
Stage 1	-	-	-	-	619	-
Stage 2	-	-	-	-	~ 563	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	977	-	~ 210	580
Mov Cap-2 Maneuver	-	-	-	-	~ 210	-
Stage 1	-	-	-	-	617	-
Stage 2	-	-	-	-	~ 478	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	$ 1035.8
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	249	-	-	977	-
HCM Lane V/C Ratio	3.213	-	-	0.12	-
HCM Control Delay (s)	$ 1035.8	-	-	9.2	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	73	-	-	0.4	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	382	9	0	427	2	0
Future Vol, veh/h	382	9	0	427	2	0
Conflicting Peds, #/hr	0	334	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	95	95	92	92
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	411	10	0	449	2	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	755	0	1199	750
Stage 1	-	-	-	-	750	-
Stage 2	-	-	-	-	449	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	855	-	205	411
Stage 1	-	-	-	-	467	-
Stage 2	-	-	-	-	643	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	606	-	145	291
Mov Cap-2 Maneuver	-	-	-	-	145	-
Stage 1	-	-	-	-	331	-
Stage 2	-	-	-	-	643	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	30.2
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	145	-	-	606	-
HCM Lane V/C Ratio	0.015	-	-	-	-
HCM Control Delay (s)	30.2	-	-	0	-
HCM Lane LOS	D	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	382	0	1	427	0	0
Future Vol, veh/h	382	0	1	427	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	95	95	92	92
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	411	0	1	449	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	411	0	862	411
Stage 1	-	-	-	-	411	-
Stage 2	-	-	-	-	451	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1148	-	325	641
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	642	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1148	-	325	641
Mov Cap-2 Maneuver	-	-	-	-	325	-
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	641	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1148	-
HCM Lane V/C Ratio	-	-	-	0.001	-
HCM Control Delay (s)	0	-	-	8.1	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	438	417	95	58
v/c Ratio	0.34	0.31	0.58	0.29
Control Delay	5.3	5.2	56.1	22.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	5.3	5.2	56.1	22.9
Queue Length 50th (ft)	83	80	63	12
Queue Length 95th (ft)	157	152	60	37
Internal Link Dist (ft)	1247	344	370	292
Turn Bay Length (ft)				
Base Capacity (vph)	1292	1328	260	295
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.34	0.31	0.37	0.20

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	320	46	7	357	11	39	1	10	11	2	30
Future Volume (vph)	23	320	46	7	357	11	39	1	10	11	2	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		5.5			5.5			5.5			5.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			1.00			1.00			0.95	
Flpb, ped/bikes		1.00			1.00			0.97			1.00	
Frt		0.98			1.00			0.97			0.91	
Flt Protected		1.00			1.00			0.96			0.99	
Satd. Flow (prot)		1722			1725			1468			1328	
Flt Permitted		0.96			0.99			0.78			0.92	
Satd. Flow (perm)		1662			1712			1188			1240	
Peak-hour factor, PHF	0.89	0.89	0.89	0.90	0.90	0.90	0.53	0.53	0.53	0.75	0.75	0.75
Adj. Flow (vph)	26	360	52	8	397	12	74	2	19	15	3	40
RTOR Reduction (vph)	0	3	0	0	0	0	0	9	0	0	35	0
Lane Group Flow (vph)	0	435	0	0	417	0	0	86	0	0	23	0
Confl. Peds. (#/hr)	8		9	9		8	15					15
Confl. Bikes (#/hr)						1						1
Heavy Vehicles (%)	5%	4%	3%	2%	6%	2%	2%	2%	2%	10%	2%	5%
Parking (#/hr)							0	0	0	0	0	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	6			2			8			4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)		93.1			93.1			15.9			15.9	
Effective Green, g (s)		93.1			93.1			15.9			15.9	
Actuated g/C Ratio		0.78			0.78			0.13			0.13	
Clearance Time (s)		5.5			5.5			5.5			5.5	
Vehicle Extension (s)		6.0			6.0			5.0			5.0	
Lane Grp Cap (vph)		1289			1328			157			164	
v/s Ratio Prot												
v/s Ratio Perm		c0.26			0.24			c0.07			0.02	
v/c Ratio		0.34			0.31			0.55			0.14	
Uniform Delay, d1		4.1			4.0			48.7			46.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.2			0.6			6.8			0.8	
Delay (s)		4.2			4.6			55.5			46.9	
Level of Service		A			A			E			D	
Approach Delay (s)		4.2			4.6			55.5			46.9	
Approach LOS		A			A			E			D	

Intersection Summary			
HCM 2000 Control Delay	11.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	50.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	6	0	7	10	0	66	2	10	1588	6	7	57	1735	10
Future Vol, veh/h	6	0	7	10	0	66	2	10	1588	6	7	57	1735	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	3	0	2	0	2	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	-	270	-	-	-	270	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-	0	-	-	-	0	-
Peak Hour Factor	46	46	46	93	93	93	96	96	96	96	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	0	2	5	2	0	4	6	2
Mvmt Flow	13	0	15	11	0	71	2	10	1654	6	8	61	1866	11

Major/Minor	Minor2			Minor1			Major1				Major2			
Conflicting Flow All	2699	3699	942	2567	3701	832	1370	1880	0	0	1212	1662	0	0
Stage 1	2013	2013	-	1683	1683	-	-	-	-	-	-	-	-	-
Stage 2	686	1686	-	884	2018	-	-	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.6	5.34	-	-	5.6	5.38	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	2.3	3.12	-	-	2.3	3.14	-	-
Pot Cap-1 Maneuver	23	5	227	28	5	268	279	144	-	-	341	181	-	-
Stage 1	38	102	-	65	149	-	-	-	-	-	-	-	-	-
Stage 2	367	149	-	278	101	-	-	-	-	-	-	-	-	-
Platoon blocked, %									-	-			-	-
Mov Cap-1 Maneuver	~ 11	3	226	18	3	268	156	156	-	-	187	187	-	-
Mov Cap-2 Maneuver	~ 11	3	-	18	3	-	-	-	-	-	-	-	-	-
Stage 1	35	64	-	59	136	-	-	-	-	-	-	-	-	-
Stage 2	247	136	-	164	64	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 511.6	136.6	0.2	1.2
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	156	-	-	23	95	187	-	-
HCM Lane V/C Ratio	0.08	-	-	1.229	0.86	0.368	-	-
HCM Control Delay (s)	30.1	-	-	$ 511.6	136.6	35	-	-
HCM Lane LOS	D	-	-	F	F	E	-	-
HCM 95th %tile Q(veh)	0.3	-	-	3.6	4.8	1.6	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



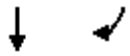
Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	21	14	142	139	274	21	2082	383	291	1929
v/c Ratio	0.22	0.07	0.64	0.63	0.18	0.13	0.81	0.25	0.88	0.58
Control Delay	72.3	0.6	73.2	72.3	0.3	14.8	35.2	0.4	71.4	17.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.3	0.6	73.2	72.3	0.3	14.8	35.2	0.4	71.4	17.4
Queue Length 50th (ft)	20	0	142	138	0	6	641	0	230	407
Queue Length 95th (ft)	30	0	202	198	0	20	#1035	0	333	601
Internal Link Dist (ft)	309			223			629			451
Turn Bay Length (ft)					100	160		500	400	
Base Capacity (vph)	184	286	352	353	1511	315	2577	1507	391	3320
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.05	0.40	0.39	0.18	0.07	0.81	0.25	0.74	0.58

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	9	3	8	261	3	258	9	10	1957	360	8	254
Future Volume (vph)	9	3	8	261	3	258	9	10	1957	360	8	254
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	12	11	11	11	12	11
Total Lost time (s)		6.0	6.0	6.5	6.5	4.0		5.0	5.5	4.0		5.0
Lane Util. Factor		1.00	1.00	0.95	0.95	1.00		1.00	0.91	1.00		1.00
Frpb, ped/bikes		1.00	1.00	1.00	1.00	0.99		1.00	1.00	0.98		1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00
Frt		1.00	0.85	1.00	1.00	0.85		1.00	1.00	0.85		1.00
Flt Protected		0.96	1.00	0.95	0.95	1.00		0.95	1.00	1.00		0.95
Satd. Flow (prot)		1735	1531	1625	1631	1511		1711	4916	1507		1711
Flt Permitted		0.96	1.00	0.95	0.95	1.00		0.09	1.00	1.00		0.05
Satd. Flow (perm)		1735	1531	1625	1631	1511		165	4916	1507		89
Peak-hour factor, PHF	0.56	0.56	0.56	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.90	0.90
Adj. Flow (vph)	16	5	14	278	3	274	10	11	2082	383	9	282
RTOR Reduction (vph)	0	0	13	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	21	1	142	139	274	0	21	2082	383	0	291
Confl. Peds. (#/hr)	2					2		6		9		9
Confl. Bikes (#/hr)										2		
Turn Type	Split	NA	Perm	Split	NA	Free	custom	pm+pt	NA	Free	custom	pm+pt
Protected Phases	3	3		4	4			1	6			5
Permitted Phases			3			Free	1	6		Free	5	2
Actuated Green, G (s)		5.6	5.6	20.5	20.5	150.0		80.2	76.3	150.0		105.9
Effective Green, g (s)		5.6	5.6	20.5	20.5	150.0		80.2	76.3	150.0		105.9
Actuated g/C Ratio		0.04	0.04	0.14	0.14	1.00		0.53	0.51	1.00		0.71
Clearance Time (s)		6.0	6.0	6.5	6.5			5.0	5.5			5.0
Vehicle Extension (s)		4.0	4.0	4.0	4.0			3.0	0.2			4.0
Lane Grp Cap (vph)		64	57	222	222	1511		128	2500	1507		328
v/s Ratio Prot		0.01		c0.09	0.09			0.00	0.42			c0.15
v/s Ratio Perm			0.00			0.18		0.08		c0.25		c0.48
v/c Ratio		0.33	0.01	0.64	0.63	0.18		0.16	0.83	0.25		0.89
Uniform Delay, d1		70.4	69.5	61.3	61.1	0.0		16.7	31.4	0.0		49.8
Progression Factor		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00
Incremental Delay, d2		4.1	0.1	6.7	6.1	0.3		0.6	3.4	0.4		24.3
Delay (s)		74.4	69.6	67.9	67.3	0.3		17.3	34.8	0.4		74.1
Level of Service		E	E	E	E	A		B	C	A		E
Approach Delay (s)		72.5			34.4				29.4			
Approach LOS		E			C				C			

Intersection Summary			
HCM 2000 Control Delay	27.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	81.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	1731	5
Future Volume (vph)	1731	5
Ideal Flow (vphpl)	1900	1900
Lane Width	11	11
Total Lost time (s)	5.5	
Lane Util. Factor	0.91	
Frpb, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	1.00	
Flt Protected	1.00	
Satd. Flow (prot)	4913	
Flt Permitted	1.00	
Satd. Flow (perm)	4913	
Peak-hour factor, PHF	0.90	0.90
Adj. Flow (vph)	1923	6
RTOR Reduction (vph)	0	0
Lane Group Flow (vph)	1929	0
Confl. Peds. (#/hr)		6
Confl. Bikes (#/hr)		3
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	97.0	
Effective Green, g (s)	97.0	
Actuated g/C Ratio	0.65	
Clearance Time (s)	5.5	
Vehicle Extension (s)	0.2	
Lane Grp Cap (vph)	3177	
v/s Ratio Prot	0.39	
v/s Ratio Perm		
v/c Ratio	0.61	
Uniform Delay, d1	15.4	
Progression Factor	1.00	
Incremental Delay, d2	0.9	
Delay (s)	16.3	
Level of Service	B	
Approach Delay (s)	23.9	
Approach LOS	C	

Intersection Summary

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	41	560	478	2	4	26
Future Vol, veh/h	41	560	478	2	4	26
Conflicting Peds, #/hr	13	0	0	13	0	21
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	86	86
Heavy Vehicles, %	2	2	2	2	2	4
Mvmt Flow	47	636	543	2	5	30

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	558	0	-	0	1287	578
Stage 1	-	-	-	-	557	-
Stage 2	-	-	-	-	730	-
Critical Hdwy	4.12	-	-	-	6.42	6.24
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.336
Pot Cap-1 Maneuver	1013	-	-	-	181	512
Stage 1	-	-	-	-	574	-
Stage 2	-	-	-	-	477	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1002	-	-	-	164	497
Mov Cap-2 Maneuver	-	-	-	-	164	-
Stage 1	-	-	-	-	526	-
Stage 2	-	-	-	-	472	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	15.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1002	-	-	-	391
HCM Lane V/C Ratio	0.046	-	-	-	0.089
HCM Control Delay (s)	8.8	0	-	-	15.1
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Intersection	
Int Delay, s/veh	5.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	515	49	27	401	79	50
Future Vol, veh/h	515	49	27	401	79	50
Conflicting Peds, #/hr	0	4	4	0	21	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	585	56	31	456	103	65

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	645	0	1156	617
Stage 1	-	-	-	-	617	-
Stage 2	-	-	-	-	539	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	940	-	217	490
Stage 1	-	-	-	-	538	-
Stage 2	-	-	-	-	585	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	937	-	203	488
Mov Cap-2 Maneuver	-	-	-	-	203	-
Stage 1	-	-	-	-	536	-
Stage 2	-	-	-	-	549	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	40.3
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	262	-	-	937	-
HCM Lane V/C Ratio	0.639	-	-	0.033	-
HCM Control Delay (s)	40.3	-	-	9	0
HCM Lane LOS	E	-	-	A	A
HCM 95th %tile Q(veh)	4	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	561	4	0	418	10	0
Future Vol, veh/h	561	4	0	418	10	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	638	5	0	475	11	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	643	0	1116	641
Stage 1	-	-	-	-	641	-
Stage 2	-	-	-	-	475	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	942	-	230	475
Stage 1	-	-	-	-	525	-
Stage 2	-	-	-	-	626	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	942	-	230	475
Mov Cap-2 Maneuver	-	-	-	-	230	-
Stage 1	-	-	-	-	525	-
Stage 2	-	-	-	-	626	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	21.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	230	-	-	942	-
HCM Lane V/C Ratio	0.047	-	-	-	-
HCM Control Delay (s)	21.4	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	561	0	0	418	0	1
Future Vol, veh/h	561	0	0	418	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	638	0	0	475	0	1

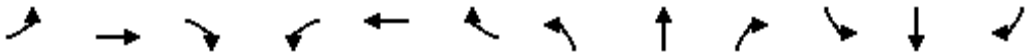
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	638	0	1113	638
Stage 1	-	-	-	-	638	-
Stage 2	-	-	-	-	475	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	946	-	231	477
Stage 1	-	-	-	-	526	-
Stage 2	-	-	-	-	626	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	946	-	231	477
Mov Cap-2 Maneuver	-	-	-	-	231	-
Stage 1	-	-	-	-	526	-
Stage 2	-	-	-	-	626	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	477	-	-	946	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	12.6	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	591	439	76	83
v/c Ratio	0.43	0.30	0.57	0.43
Control Delay	5.2	4.1	56.1	25.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	5.2	4.1	56.1	25.0
Queue Length 50th (ft)	117	75	46	17
Queue Length 95th (ft)	220	141	49	25
Internal Link Dist (ft)	1247	344	370	292
Turn Bay Length (ft)				
Base Capacity (vph)	1387	1476	249	319
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.43	0.30	0.31	0.26

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	497	23	3	386	11	27	3	11	12	2	34
Future Volume (vph)	42	497	23	3	386	11	27	3	11	12	2	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		5.5			5.5			5.5			5.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			0.93	
Flpb, ped/bikes		1.00			1.00			0.97			1.00	
Frt		0.99			1.00			0.96			0.90	
Flt Protected		1.00			1.00			0.97			0.99	
Satd. Flow (prot)		1774			1790			1450			1335	
Flt Permitted		0.94			1.00			0.72			0.91	
Satd. Flow (perm)		1678			1787			1080			1230	
Peak-hour factor, PHF	0.95	0.95	0.95	0.91	0.91	0.91	0.54	0.54	0.54	0.58	0.58	0.58
Adj. Flow (vph)	44	523	24	3	424	12	50	6	20	21	3	59
RTOR Reduction (vph)	0	1	0	0	0	0	0	13	0	0	53	0
Lane Group Flow (vph)	0	590	0	0	439	0	0	63	0	0	30	0
Confl. Peds. (#/hr)	10		18	18		10	21		1	1		21
Confl. Bikes (#/hr)			3			1			1			4
Heavy Vehicles (%)	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%
Parking (#/hr)							0	0	0	0	0	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	6			2			8			4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)		96.9			96.9			12.1			12.1	
Effective Green, g (s)		96.9			96.9			12.1			12.1	
Actuated g/C Ratio		0.81			0.81			0.10			0.10	
Clearance Time (s)		5.5			5.5			5.5			5.5	
Vehicle Extension (s)		6.0			6.0			5.0			5.0	
Lane Grp Cap (vph)		1354			1443			108			124	
v/s Ratio Prot												
v/s Ratio Perm		c0.35			0.25			c0.06			0.02	
v/c Ratio		0.44			0.30			0.59			0.24	
Uniform Delay, d1		3.4			2.9			51.6			49.7	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.2			0.5			12.0			2.1	
Delay (s)		3.7			3.5			63.6			51.8	
Level of Service		A			A			E			D	
Approach Delay (s)		3.7			3.5			63.6			51.8	
Approach LOS		A			A			E			D	

Intersection Summary			
HCM 2000 Control Delay	10.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	75.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	4	0	13	7	0	64	8	2275	21	6	78	2145	8
Future Vol, veh/h	4	0	13	7	0	64	8	2275	21	6	78	2145	8
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	1	0	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	270	-	-	-	270	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	71	71	71	77	77	77	89	89	89	95	95	95	95
Heavy Vehicles, %	2	2	8	2	2	2	2	2	2	0	2	2	10
Mvmt Flow	6	0	18	9	0	83	9	2556	24	6	82	2258	8

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	3479	5038	1134	3666	5030	1291	2267	0	0	1883	2581	0	0
Stage 1	2439	2439	-	2587	2587	-	-	-	-	-	-	-	-
Stage 2	1040	2599	-	1079	2443	-	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.26	6.44	6.54	7.14	5.34	-	-	5.6	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.98	3.82	4.02	3.92	3.12	-	-	2.3	3.12	-	-
Pot Cap-1 Maneuver	7	1	161	~ 5	1	132	91	-	-	144	~ 63	-	-
Stage 1	18	61	-	14	51	-	-	-	-	-	-	-	-
Stage 2	222	50	-	210	61	-	-	-	-	-	-	-	-
Platoon blocked, %								-	-			-	-
Mov Cap-1 Maneuver	-	0	161	-	0	132	91	-	-	64	~ 64	-	-
Mov Cap-2 Maneuver	-	0	-	-	0	-	-	-	-	-	-	-	-
Stage 1	16	0	-	13	46	-	-	-	-	-	-	-	-
Stage 2	74	45	-	-	0	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			0.2	13.4
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	91	-	-	-	-	~ 64	-	-
HCM Lane V/C Ratio	0.099	-	-	-	-	1.382	-	-
HCM Control Delay (s)	48.9	-	-	-	-	-$ 356.3	-	-
HCM Lane LOS	E	-	-	-	-	F	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-	-	7.5	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

K: TOTAL FUTURE CONDITIONS HCM ANALYSIS WORKSHEETS



Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	10	11	145	148	284	42	1425	356	249	1627
v/c Ratio	0.12	0.06	0.65	0.66	0.20	0.21	0.55	0.24	0.69	0.53
Control Delay	70.8	0.7	73.2	73.9	0.3	13.9	27.5	0.4	30.2	17.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.8	0.7	73.2	73.9	0.3	13.9	27.5	0.4	30.2	17.0
Queue Length 50th (ft)	10	0	144	147	0	12	349	0	113	323
Queue Length 95th (ft)	22	0	206	210	0	33	528	0	228	476
Internal Link Dist (ft)	309			223			629			451
Turn Bay Length (ft)					100	160		500	400	
Base Capacity (vph)	195	273	377	378	1454	375	2577	1479	387	3083
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.04	0.38	0.39	0.20	0.11	0.55	0.24	0.64	0.53

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	5	1	7	271	2	264	39	1325	331	1	233	1518
Future Volume (vph)	5	1	7	271	2	264	39	1325	331	1	233	1518
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	12	11	11
Total Lost time (s)		6.0	6.0	6.5	6.5	4.0	5.0	5.5	4.0		5.0	5.5
Lane Util. Factor		1.00	1.00	0.95	0.95	1.00	1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes		1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.99		1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Frt		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85		1.00	1.00
Flt Protected		0.96	1.00	0.95	0.95	1.00	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)		1629	1531	1594	1599	1454	1694	4775	1479		1646	4682
Flt Permitted		0.96	1.00	0.95	0.95	1.00	0.13	1.00	1.00		0.12	1.00
Satd. Flow (perm)		1629	1531	1594	1599	1454	237	4775	1479		200	4682
Peak-hour factor, PHF	0.65	0.65	0.65	0.93	0.93	0.93	0.93	0.93	0.93	0.94	0.94	0.94
Adj. Flow (vph)	8	2	11	291	2	284	42	1425	356	1	248	1615
RTOR Reduction (vph)	0	0	11	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	10	0	145	148	284	42	1425	356	0	249	1627
Confl. Peds. (#/hr)	2					2	4		7		7	
Confl. Bikes (#/hr)									3			
Heavy Vehicles (%)	10%	2%	2%	4%	2%	6%	3%	5%	4%	0%	6%	7%
Turn Type	Split	NA	Perm	Split	NA	Free	pm+pt	NA	Free	custom	pm+pt	NA
Protected Phases	3	3		4	4		1	6			5	2
Permitted Phases			3			Free	6		Free	5	2	
Actuated Green, G (s)		4.9	4.9	21.1	21.1	150.0	84.2	78.6	150.0		106.0	95.4
Effective Green, g (s)		4.9	4.9	21.1	21.1	150.0	84.2	78.6	150.0		106.0	95.4
Actuated g/C Ratio		0.03	0.03	0.14	0.14	1.00	0.56	0.52	1.00		0.71	0.64
Clearance Time (s)		6.0	6.0	6.5	6.5		5.0	5.5			5.0	5.5
Vehicle Extension (s)		4.0	4.0	4.0	4.0		3.0	0.2			4.0	0.2
Lane Grp Cap (vph)		53	50	224	224	1454	187	2502	1479		357	2977
v/s Ratio Prot		0.01		0.09	c0.09		0.01	0.30			c0.10	0.35
v/s Ratio Perm			0.00			0.20	0.12		c0.24		c0.39	
v/c Ratio		0.19	0.01	0.65	0.66	0.20	0.22	0.57	0.24		0.70	0.55
Uniform Delay, d1		70.6	70.2	60.9	61.1	0.0	14.9	24.2	0.0		24.5	15.2
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2		2.4	0.1	7.0	7.8	0.3	0.6	0.9	0.4		6.3	0.7
Delay (s)		73.0	70.3	67.9	68.9	0.3	15.5	25.2	0.4		30.7	16.0
Level of Service		E	E	E	E	A	B	C	A		C	B
Approach Delay (s)		71.6			34.9			20.1				17.9
Approach LOS		E			C			C				B

Intersection Summary			
HCM 2000 Control Delay	21.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	67.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	SBR
Lane Configurations	
Traffic Volume (vph)	11
Future Volume (vph)	11
Ideal Flow (vphpl)	1900
Lane Width	11
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.94
Adj. Flow (vph)	12
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	4
Confl. Bikes (#/hr)	
Heavy Vehicles (%)	0%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	16	528	15	3	468	11	25	0	2	22	0	31
Future Vol, veh/h	16	528	15	3	468	11	25	0	2	22	0	31
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	0	0	0	31
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	92	92	95	95	92	92	92	83	92	83
Heavy Vehicles, %	10	5	2	2	5	2	2	2	2	2	2	2
Mvmt Flow	17	568	16	3	493	12	27	0	2	27	0	37

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	507	0	0	584	0	0	1165	1123	576	1118	1125	532
Stage 1	-	-	-	-	-	-	610	610	-	507	507	-
Stage 2	-	-	-	-	-	-	555	513	-	611	618	-
Critical Hdwy	4.2	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.29	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1018	-	-	991	-	-	171	206	517	184	205	547
Stage 1	-	-	-	-	-	-	482	485	-	548	539	-
Stage 2	-	-	-	-	-	-	516	536	-	481	481	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1016	-	-	991	-	-	151	200	517	179	199	531
Mov Cap-2 Maneuver	-	-	-	-	-	-	151	200	-	179	199	-
Stage 1	-	-	-	-	-	-	470	473	-	533	536	-
Stage 2	-	-	-	-	-	-	465	533	-	467	469	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.1	32.7	20.7
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	159	1016	-	-	991	-	-	292
HCM Lane V/C Ratio	0.185	0.017	-	-	0.003	-	-	0.219
HCM Control Delay (s)	32.7	8.6	0	-	8.6	0	-	20.7
HCM Lane LOS	D	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.7	0.1	-	-	0	-	-	0.8

Intersection	
Int Delay, s/veh	10.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	338	214	111	323	160	51
Future Vol, veh/h	338	214	111	323	160	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	95	95	92	92
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	363	230	117	340	174	55

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	593	0	1052	478
Stage 1	-	-	-	-	478	-
Stage 2	-	-	-	-	574	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	983	-	251	587
Stage 1	-	-	-	-	624	-
Stage 2	-	-	-	-	563	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	983	-	214	587
Mov Cap-2 Maneuver	-	-	-	-	214	-
Stage 1	-	-	-	-	624	-
Stage 2	-	-	-	-	480	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.3	54.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	214	587	-	-	983	-
HCM Lane V/C Ratio	0.813	0.094	-	-	0.119	-
HCM Control Delay (s)	68.7	11.8	-	-	9.2	0
HCM Lane LOS	F	B	-	-	A	A
HCM 95th %tile Q(veh)	6	0.3	-	-	0.4	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	386	3	0	430	4	0
Future Vol, veh/h	386	3	0	430	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	95	95	92	92
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	415	3	0	453	4	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	418	0	870	417
Stage 1	-	-	-	-	417	-
Stage 2	-	-	-	-	453	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1141	-	322	636
Stage 1	-	-	-	-	665	-
Stage 2	-	-	-	-	640	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1141	-	322	636
Mov Cap-2 Maneuver	-	-	-	-	322	-
Stage 1	-	-	-	-	665	-
Stage 2	-	-	-	-	640	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	16.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	322	-	-	1141	-
HCM Lane V/C Ratio	0.014	-	-	-	-
HCM Control Delay (s)	16.3	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	442	419	95	58
v/c Ratio	0.34	0.32	0.58	0.29
Control Delay	5.3	5.2	56.1	22.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	5.3	5.2	56.1	22.9
Queue Length 50th (ft)	84	80	63	12
Queue Length 95th (ft)	159	152	60	37
Internal Link Dist (ft)	1247	344	370	292
Turn Bay Length (ft)				
Base Capacity (vph)	1293	1328	260	295
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.34	0.32	0.37	0.20

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	324	46	7	359	11	39	1	10	11	2	30
Future Volume (vph)	23	324	46	7	359	11	39	1	10	11	2	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		5.5			5.5			5.5			5.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			1.00			1.00			0.95	
Flpb, ped/bikes		1.00			1.00			0.97			1.00	
Frt		0.98			1.00			0.97			0.91	
Flt Protected		1.00			1.00			0.96			0.99	
Satd. Flow (prot)		1722			1725			1468			1328	
Flt Permitted		0.96			0.99			0.78			0.92	
Satd. Flow (perm)		1663			1712			1188			1240	
Peak-hour factor, PHF	0.89	0.89	0.89	0.90	0.90	0.90	0.53	0.53	0.53	0.75	0.75	0.75
Adj. Flow (vph)	26	364	52	8	399	12	74	2	19	15	3	40
RTOR Reduction (vph)	0	3	0	0	0	0	0	9	0	0	35	0
Lane Group Flow (vph)	0	439	0	0	419	0	0	86	0	0	23	0
Confl. Peds. (#/hr)	8		9	9		8	15					15
Confl. Bikes (#/hr)						1						1
Heavy Vehicles (%)	5%	4%	3%	2%	6%	2%	2%	2%	2%	10%	2%	5%
Parking (#/hr)							0	0	0	0	0	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	6			2			8			4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)		93.1			93.1			15.9			15.9	
Effective Green, g (s)		93.1			93.1			15.9			15.9	
Actuated g/C Ratio		0.78			0.78			0.13			0.13	
Clearance Time (s)		5.5			5.5			5.5			5.5	
Vehicle Extension (s)		6.0			6.0			5.0			5.0	
Lane Grp Cap (vph)		1290			1328			157			164	
v/s Ratio Prot												
v/s Ratio Perm		c0.26			0.24			c0.07			0.02	
v/c Ratio		0.34			0.32			0.55			0.14	
Uniform Delay, d1		4.1			4.0			48.7			46.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.2			0.6			6.8			0.8	
Delay (s)		4.3			4.6			55.5			46.9	
Level of Service		A			A			E			D	
Approach Delay (s)		4.3			4.6			55.5			46.9	
Approach LOS		A			A			E			D	

Intersection Summary			
HCM 2000 Control Delay	11.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	50.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	6	0	7	10	0	66	2	10	1603	6	7	57	1741	10
Future Vol, veh/h	6	0	7	10	0	66	2	10	1603	6	7	57	1741	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	3	0	2	0	2	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	-	270	-	-	-	270	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-	0	-	-	-	0	-
Peak Hour Factor	46	46	46	93	93	93	96	96	96	96	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	0	2	5	2	0	4	6	2
Mvmt Flow	13	0	15	11	0	71	2	10	1670	6	8	61	1872	11

Major/Minor	Minor2			Minor1			Major1				Major2			
Conflicting Flow All	2711	3721	945	2586	3723	840	1374	1886	0	0	1224	1678	0	0
Stage 1	2019	2019	-	1699	1699	-	-	-	-	-	-	-	-	-
Stage 2	692	1702	-	887	2024	-	-	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.6	5.34	-	-	5.6	5.38	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	2.3	3.12	-	-	2.3	3.14	-	-
Pot Cap-1 Maneuver	22	4	226	27	4	265	277	143	-	-	336	178	-	-
Stage 1	37	101	-	64	146	-	-	-	-	-	-	-	-	-
Stage 2	364	146	-	276	100	-	-	-	-	-	-	-	-	-
Platoon blocked, %									-	-			-	-
Mov Cap-1 Maneuver	~ 11	2	225	17	2	265	155	155	-	-	184	184	-	-
Mov Cap-2 Maneuver	~ 11	2	-	17	2	-	-	-	-	-	-	-	-	-
Stage 1	34	63	-	59	133	-	-	-	-	-	-	-	-	-
Stage 2	244	133	-	161	62	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 511.6	150.1	0.2	1.3
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	155	-	-	23	91	184	-	-
HCM Lane V/C Ratio	0.081	-	-	1.229	0.898	0.374	-	-
HCM Control Delay (s)	30.2	-	-	$ 511.6	150.1	35.8	-	-
HCM Lane LOS	D	-	-	F	F	E	-	-
HCM 95th %tile Q(veh)	0.3	-	-	3.6	5	1.6	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



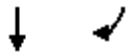
Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	21	14	146	150	286	21	2082	405	308	1929
v/c Ratio	0.22	0.07	0.64	0.66	0.19	0.13	0.83	0.27	0.88	0.58
Control Delay	72.3	0.6	72.8	73.8	0.3	15.2	37.1	0.4	70.3	17.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.3	0.6	72.8	73.8	0.3	15.2	37.1	0.4	70.3	17.6
Queue Length 50th (ft)	20	0	145	149	0	6	667	0	244	413
Queue Length 95th (ft)	30	0	207	212	0	20	#1035	0	355	601
Internal Link Dist (ft)	309			223			629			451
Turn Bay Length (ft)					100	160		500	400	
Base Capacity (vph)	184	286	352	353	1511	314	2509	1507	397	3304
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.05	0.41	0.42	0.19	0.07	0.83	0.27	0.78	0.58

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	9	3	8	275	3	269	9	10	1957	381	8	269
Future Volume (vph)	9	3	8	275	3	269	9	10	1957	381	8	269
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	12	11	11	11	12	11
Total Lost time (s)		6.0	6.0	6.5	6.5	4.0		5.0	5.5	4.0		5.0
Lane Util. Factor		1.00	1.00	0.95	0.95	1.00		1.00	0.91	1.00		1.00
Frpb, ped/bikes		1.00	1.00	1.00	1.00	0.99		1.00	1.00	0.98		1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00
Frt		1.00	0.85	1.00	1.00	0.85		1.00	1.00	0.85		1.00
Flt Protected		0.96	1.00	0.95	0.95	1.00		0.95	1.00	1.00		0.95
Satd. Flow (prot)		1735	1531	1625	1631	1511		1711	4916	1507		1711
Flt Permitted		0.96	1.00	0.95	0.95	1.00		0.09	1.00	1.00		0.05
Satd. Flow (perm)		1735	1531	1625	1631	1511		167	4916	1507		91
Peak-hour factor, PHF	0.56	0.56	0.56	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.90	0.90
Adj. Flow (vph)	16	5	14	293	3	286	10	11	2082	405	9	299
RTOR Reduction (vph)	0	0	13	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	21	1	146	150	286	0	21	2082	405	0	308
Confl. Peds. (#/hr)	2					2		6		9		9
Confl. Bikes (#/hr)										2		
Turn Type	Split	NA	Perm	Split	NA	Free	custom	pm+pt	NA	Free	custom	pm+pt
Protected Phases	3	3		4	4			1	6			5
Permitted Phases			3			Free	1	6		Free	5	2
Actuated Green, G (s)		5.6	5.6	21.0	21.0	150.0		78.1	74.2	150.0		105.4
Effective Green, g (s)		5.6	5.6	21.0	21.0	150.0		78.1	74.2	150.0		105.4
Actuated g/C Ratio		0.04	0.04	0.14	0.14	1.00		0.52	0.49	1.00		0.70
Clearance Time (s)		6.0	6.0	6.5	6.5			5.0	5.5			5.0
Vehicle Extension (s)		4.0	4.0	4.0	4.0			3.0	0.2			4.0
Lane Grp Cap (vph)		64	57	227	228	1511		127	2431	1507		346
v/s Ratio Prot		0.01		0.09	c0.09			0.00	0.42			c0.16
v/s Ratio Perm			0.00			0.19		0.08		c0.27		c0.47
v/c Ratio		0.33	0.01	0.64	0.66	0.19		0.17	0.86	0.27		0.89
Uniform Delay, d1		70.4	69.5	61.0	61.1	0.0		17.6	33.2	0.0		49.6
Progression Factor		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00
Incremental Delay, d2		4.1	0.1	6.8	7.4	0.3		0.6	4.2	0.4		24.0
Delay (s)		74.4	69.6	67.8	68.5	0.3		18.2	37.4	0.4		73.7
Level of Service		E	E	E	E	A		B	D	A		E
Approach Delay (s)		72.5			34.8				31.3			
Approach LOS		E			C				C			

Intersection Summary			
HCM 2000 Control Delay	29.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	82.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	1731	5
Future Volume (vph)	1731	5
Ideal Flow (vphpl)	1900	1900
Lane Width	11	11
Total Lost time (s)	5.5	
Lane Util. Factor	0.91	
Frpb, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	1.00	
Flt Protected	1.00	
Satd. Flow (prot)	4913	
Flt Permitted	1.00	
Satd. Flow (perm)	4913	
Peak-hour factor, PHF	0.90	0.90
Adj. Flow (vph)	1923	6
RTOR Reduction (vph)	0	0
Lane Group Flow (vph)	1929	0
Confl. Peds. (#/hr)		6
Confl. Bikes (#/hr)		3
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	96.5	
Effective Green, g (s)	96.5	
Actuated g/C Ratio	0.64	
Clearance Time (s)	5.5	
Vehicle Extension (s)	0.2	
Lane Grp Cap (vph)	3160	
v/s Ratio Prot	0.39	
v/s Ratio Perm		
v/c Ratio	0.61	
Uniform Delay, d1	15.7	
Progression Factor	1.00	
Incremental Delay, d2	0.9	
Delay (s)	16.6	
Level of Service	B	
Approach Delay (s)	24.5	
Approach LOS	C	

Intersection Summary

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	41	569	27	4	480	2	23	0	2	4	0	26
Future Vol, veh/h	41	569	27	4	480	2	23	0	2	4	0	26
Conflicting Peds, #/hr	13	0	0	0	0	13	0	0	0	0	0	21
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	92	92	88	88	92	92	92	86	92	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	4
Mvmt Flow	47	647	29	4	545	2	25	0	2	5	0	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	560	0	0	676	0	0	1346	1324	662	1324	1337	580
Stage 1	-	-	-	-	-	-	756	756	-	567	567	-
Stage 2	-	-	-	-	-	-	590	568	-	757	770	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.336
Pot Cap-1 Maneuver	1011	-	-	915	-	-	128	156	462	133	153	510
Stage 1	-	-	-	-	-	-	400	416	-	508	507	-
Stage 2	-	-	-	-	-	-	494	506	-	400	410	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	998	-	-	915	-	-	111	141	462	123	139	494
Mov Cap-2 Maneuver	-	-	-	-	-	-	111	141	-	123	139	-
Stage 1	-	-	-	-	-	-	370	384	-	464	498	-
Stage 2	-	-	-	-	-	-	453	497	-	368	379	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.1	44.4	16.3
HCM LOS			E	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	118	998	-	-	915	-	-	352
HCM Lane V/C Ratio	0.23	0.047	-	-	0.005	-	-	0.099
HCM Control Delay (s)	44.4	8.8	0	-	9	0	-	16.3
HCM Lane LOS	E	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.8	0.1	-	-	0	-	-	0.3

Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	517	58	27	399	87	52
Future Vol, veh/h	517	58	27	399	87	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	588	66	31	453	95	57

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	654	0	1136	621
Stage 1	-	-	-	-	621	-
Stage 2	-	-	-	-	515	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	933	-	223	487
Stage 1	-	-	-	-	536	-
Stage 2	-	-	-	-	600	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	933	-	213	487
Mov Cap-2 Maneuver	-	-	-	-	213	-
Stage 1	-	-	-	-	536	-
Stage 2	-	-	-	-	574	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	26.7
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	213	487	-	-	933	-
HCM Lane V/C Ratio	0.444	0.116	-	-	0.033	-
HCM Control Delay (s)	34.7	13.4	-	-	9	0
HCM Lane LOS	D	B	-	-	A	A
HCM 95th %tile Q(veh)	2.1	0.4	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	565	4	0	422	4	0
Future Vol, veh/h	565	4	0	422	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	642	5	0	480	4	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	647	0	1125	645
Stage 1	-	-	-	-	645	-
Stage 2	-	-	-	-	480	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	939	-	227	472
Stage 1	-	-	-	-	522	-
Stage 2	-	-	-	-	622	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	939	-	227	472
Mov Cap-2 Maneuver	-	-	-	-	227	-
Stage 1	-	-	-	-	522	-
Stage 2	-	-	-	-	622	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	21.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	227	-	-	939	-
HCM Lane V/C Ratio	0.019	-	-	-	-
HCM Control Delay (s)	21.2	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	594	444	76	83
v/c Ratio	0.43	0.30	0.57	0.43
Control Delay	5.2	4.2	56.1	25.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	5.2	4.2	56.1	25.0
Queue Length 50th (ft)	118	76	46	17
Queue Length 95th (ft)	222	143	49	25
Internal Link Dist (ft)	1247	344	370	292
Turn Bay Length (ft)				
Base Capacity (vph)	1388	1476	249	319
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.43	0.30	0.31	0.26

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	500	23	3	390	11	27	3	11	12	2	34
Future Volume (vph)	42	500	23	3	390	11	27	3	11	12	2	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		5.5			5.5			5.5			5.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			0.93	
Flpb, ped/bikes		1.00			1.00			0.97			1.00	
Frt		0.99			1.00			0.96			0.90	
Flt Protected		1.00			1.00			0.97			0.99	
Satd. Flow (prot)		1774			1791			1450			1335	
Flt Permitted		0.94			1.00			0.72			0.91	
Satd. Flow (perm)		1678			1787			1080			1230	
Peak-hour factor, PHF	0.95	0.95	0.95	0.91	0.91	0.91	0.54	0.54	0.54	0.58	0.58	0.58
Adj. Flow (vph)	44	526	24	3	429	12	50	6	20	21	3	59
RTOR Reduction (vph)	0	1	0	0	0	0	0	13	0	0	53	0
Lane Group Flow (vph)	0	593	0	0	444	0	0	63	0	0	30	0
Confl. Peds. (#/hr)	10		18	18		10	21		1	1		21
Confl. Bikes (#/hr)			3			1			1			4
Heavy Vehicles (%)	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%
Parking (#/hr)							0	0	0	0	0	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	6			2			8			4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)		96.9			96.9			12.1			12.1	
Effective Green, g (s)		96.9			96.9			12.1			12.1	
Actuated g/C Ratio		0.81			0.81			0.10			0.10	
Clearance Time (s)		5.5			5.5			5.5			5.5	
Vehicle Extension (s)		6.0			6.0			5.0			5.0	
Lane Grp Cap (vph)		1354			1443			108			124	
v/s Ratio Prot												
v/s Ratio Perm		c0.35			0.25			c0.06			0.02	
v/c Ratio		0.44			0.31			0.59			0.24	
Uniform Delay, d1		3.4			3.0			51.6			49.7	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.2			0.6			12.0			2.1	
Delay (s)		3.7			3.5			63.6			51.8	
Level of Service		A			A			E			D	
Approach Delay (s)		3.7			3.5			63.6			51.8	
Approach LOS		A			A			E			D	

Intersection Summary			
HCM 2000 Control Delay	10.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	75.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	4	0	13	7	0	64	8	2286	21	6	78	2160	8
Future Vol, veh/h	4	0	13	7	0	64	8	2286	21	6	78	2160	8
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	1	0	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	270	-	-	-	270	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	71	71	71	77	77	77	89	89	89	95	95	95	95
Heavy Vehicles, %	2	2	8	2	2	2	2	2	2	0	2	2	10
Mvmt Flow	6	0	18	9	0	83	9	2569	24	6	82	2274	8

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	3501	5067	1142	3686	5059	1298	2283	0	0	1892	2594	0	0
Stage 1	2455	2455	-	2600	2600	-	-	-	-	-	-	-	-
Stage 2	1046	2612	-	1086	2459	-	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.26	6.44	6.54	7.14	5.34	-	-	5.6	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.98	3.82	4.02	3.92	3.12	-	-	2.3	3.12	-	-
Pot Cap-1 Maneuver	7	1	159	~ 5	1	131	90	-	-	142	~ 62	-	-
Stage 1	18	60	-	14	50	-	-	-	-	-	-	-	-
Stage 2	220	50	-	208	60	-	-	-	-	-	-	-	-
Platoon blocked, %								-	-			-	-
Mov Cap-1 Maneuver	-	0	159	-	0	131	90	-	-	63	~ 63	-	-
Mov Cap-2 Maneuver	-	0	-	-	0	-	-	-	-	-	-	-	-
Stage 1	16	0	-	13	45	-	-	-	-	-	-	-	-
Stage 2	72	45	-	-	0	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			0.2	13.7
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	90	-	-	-	-	~ 63	-	-
HCM Lane V/C Ratio	0.1	-	-	-	-	1.404	-	-
HCM Control Delay (s)	49.4	-	-	-	-	$ 367	-	-
HCM Lane LOS	E	-	-	-	-	F	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-	-	7.6	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

L: CRITICAL LANE VOLUME (CLV) ANALYSIS

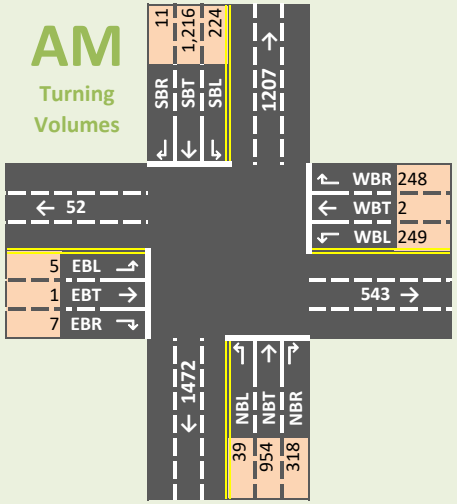
GOROVE SLADE
Transportation Planners and Engineers

Critical Lane Volume Analysis

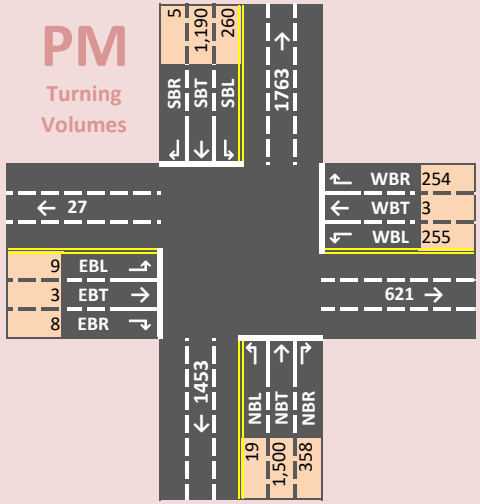
Turning Movement Summary and Level of Service

Project: 4910 and 4920 Strathmore Avenue
Location: 4910 and 4920 Strathmore Avenue, Kensington, MD
Project Number: 2592-008
Condition: Existing
Count Date: 2020

AM Peak Hour: 8:00-9:00 AM

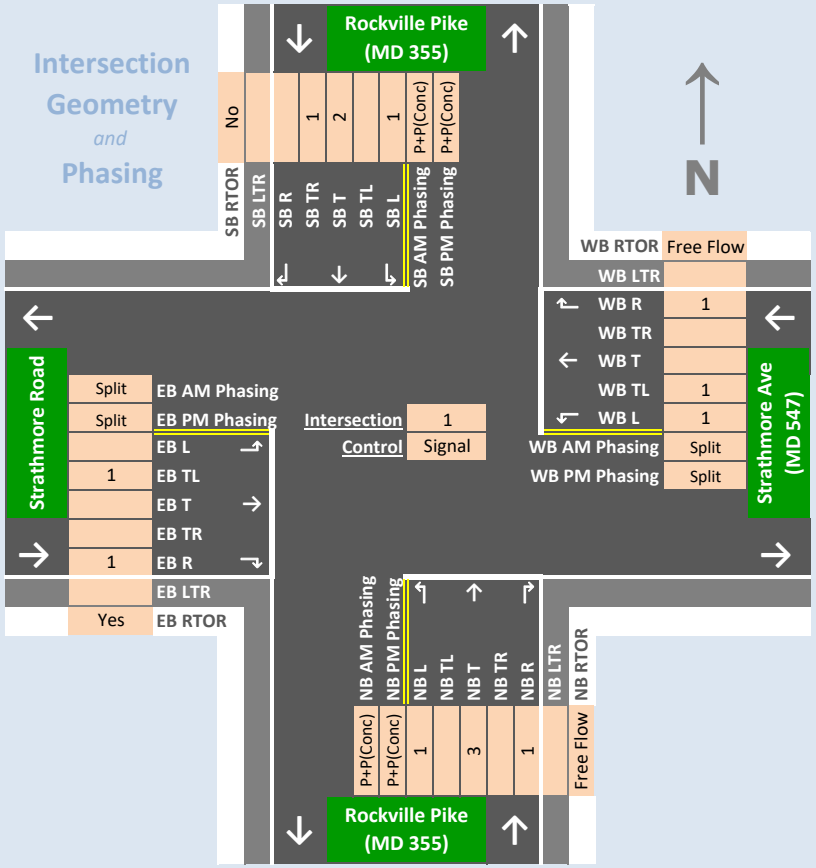


PM Peak Hour: 5:00-6:00 PM



ϕA	ϕB	ϕC	ϕD	ϕE	ϕF	ϕA	ϕB	ϕC	ϕD	ϕE	ϕF

Intersection Geometry and Phasing



ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	SB	TR	1227	0.37	454	39		**493**	
		L	224	1.00	224			**224**	
	WB	R	0	1.00	0			**0**	
		TL	251	0.53	133			**133**	√
	NB	R	0	1.00	0			**0**	
		T	954	0.37	353	224		**577**	√
		L	39	1.00	39			**26**	
	EB	R	0	1.00	0			**0**	
		TL	6	1.00	6			**6**	√
					TOTAL AM CRITICAL VOLUME:			**716**	**LOS A**

ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	SB	TR	1195	0.37	442	19		**461**	
		L	260	1.00	260			**260**	
	WB	R	0	1.00	0			**0**	
		TL	258	0.53	137			**137**	√
	NB	R	0	1.00	0			**0**	
		T	1500	0.37	555	260		**815**	√
		L	19	1.00	19			**19**	
	EB	R	0	1.00	0			**0**	
		TL	12	1.00	12			**12**	√
					TOTAL PM CRITICAL VOLUME:			**964**	**LOS A**

P:\2592-008 St Angela Hall (7301-2801)\Analysis\CLV\CLV Calculations - Existing Conditions 8.24.21.xlsx

Note: Yellow cells indicate lane groups where single, high-volume movement overrides the lane group volume.

Computed By:

Date: 8/23/2021

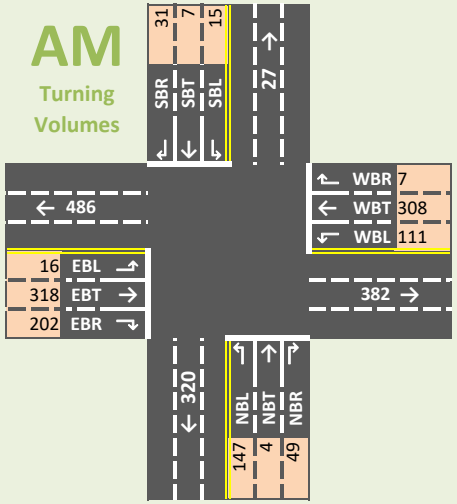
GOROVE SLADE
Transportation Planners and Engineers

Critical Lane Volume Analysis

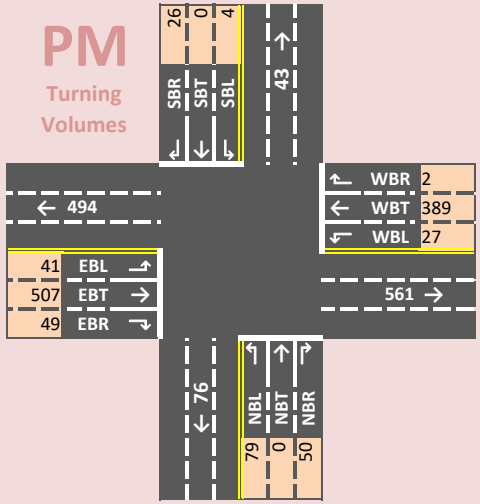
Turning Movement Summary and Level of Service

Project: 4910 and 4920 Strathmore Avenue
Location: 4910 and 4920 Strathmore Avenue, Kensington, MD
Project Number: 2592-008
Condition: Existing
Count Date: 2020

AM Peak Hour: 8:00-9:00 AM



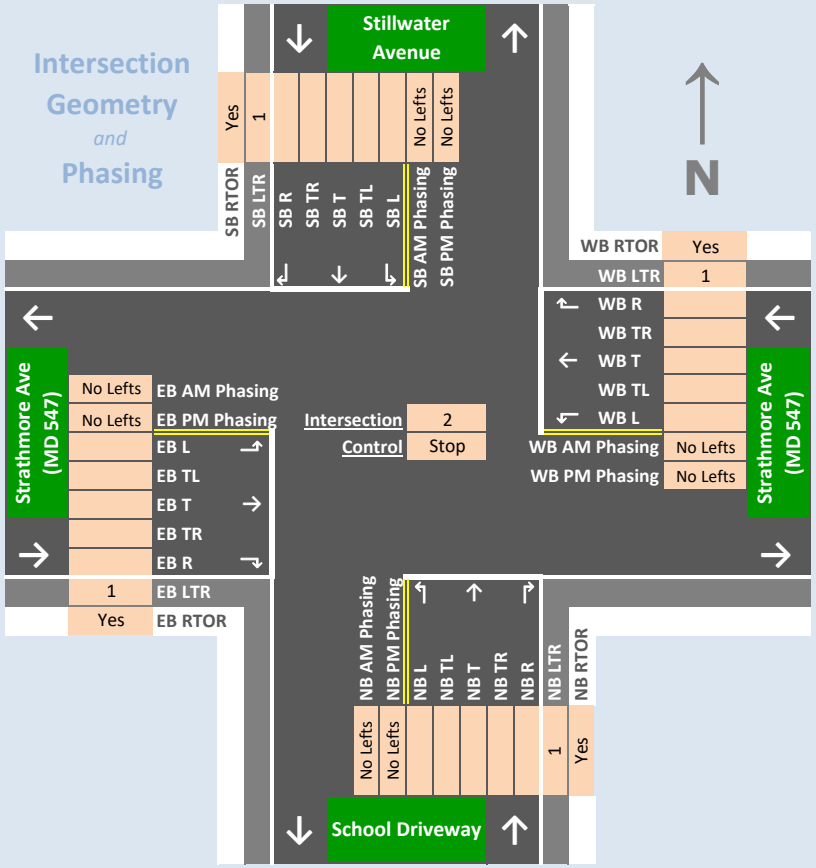
PM Peak Hour: 5:00-6:00 PM



ϕA	ϕB	ϕC	ϕD	ϕE	ϕF

ϕA	ϕB	ϕC	ϕD	ϕE	ϕF

Intersection Geometry and Phasing



ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	SB	LTR	53	1.00	53	147		**200**	
	WB	LTR	426	1.00	426	16		**442**	
	NB	LTR	200	1.00	200	15		**215**	√
	EB	LTR	536	1.00	536	111		**647**	√
					TOTAL AM CRITICAL VOLUME:			**862**	LOS A

ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	SB	LTR	30	1.00	30	79		**109**	
	WB	LTR	418	1.00	418	41		**459**	
	NB	LTR	129	1.00	129	4		**133**	√
	EB	LTR	597	1.00	597	27		**624**	√
					TOTAL PM CRITICAL VOLUME:			**757**	LOS A

P:\2592-008 St Angela Hall (7301-2801)\Analysis\CLV\CLV Calculations - Existing Conditions 8.24.21.xlsx

Note: Yellow cells indicate lane groups where single, high-volume movement overrides the lane group volume.

Computed By:

Date: 8/23/2021

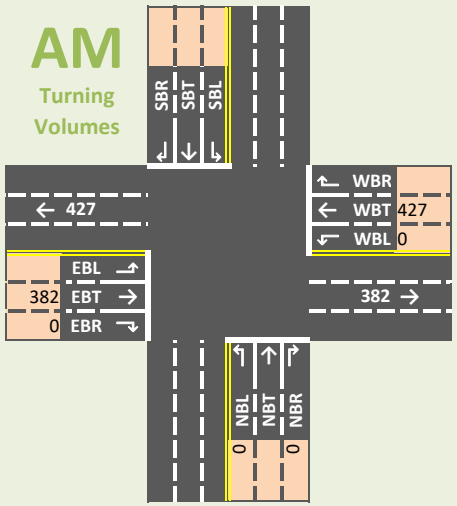
GOROVE SLADE
Transportation Planners and Engineers

Critical Lane Volume Analysis

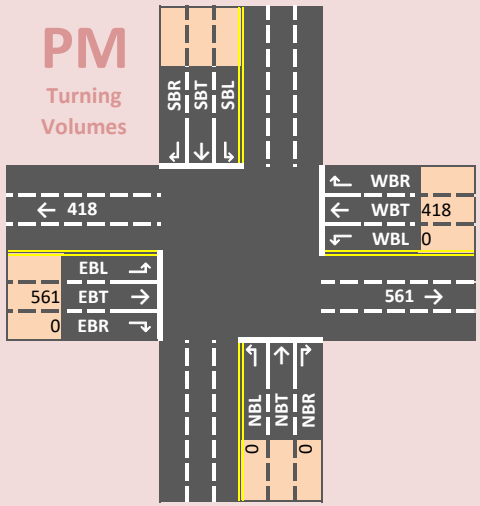
Turning Movement Summary and Level of Service

Project: 4910 and 4920 Strathmore Avenue
Location: 4910 and 4920 Strathmore Avenue, Kensington, MD
Project Number: 2592-008
Condition: Existing
Count Date: 2020

AM Peak Hour: 8:00-9:00 AM

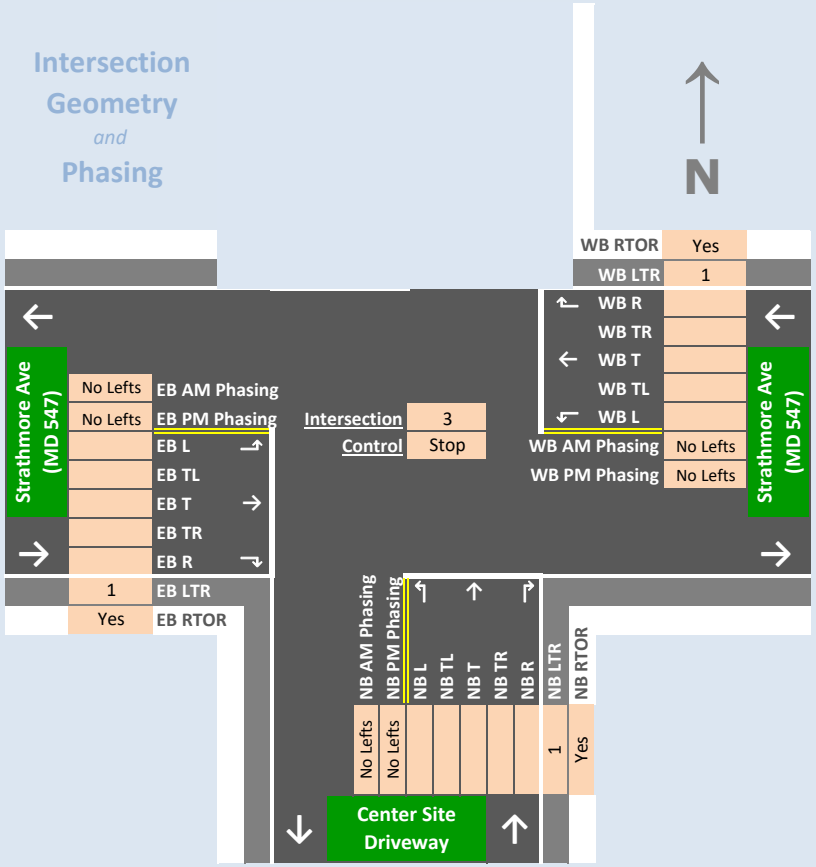


PM Peak Hour: 5:00-6:00 PM



ϕA	ϕB	ϕC	ϕD	ϕE	ϕF	ϕA	ϕB	ϕC	ϕD	ϕE	ϕF

Intersection Geometry and Phasing



ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	WB	LTR	427	1.00	427			**427**	√
	NB	LTR	0	1.00	0			**0**	√
	EB	LTR	382	1.00	382			**382**	
					TOTAL AM CRITICAL VOLUME:			**427**	**LOS A**

ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	WB	LTR	418	1.00	418			**418**	
	NB	LTR	0	1.00	0			**0**	√
	EB	LTR	561	1.00	561			**561**	√
					TOTAL PM CRITICAL VOLUME:			**561**	**LOS A**

P:\2592-008 St Angela Hall (7301-2801)\Analysis\CLV\CLV Calculations - Existing Conditions 8.24.21.xlsx

Note: Yellow cells indicate lane groups where single, high-volume movement overrides the lane group volume.

Computed By:

Date: 8/23/2021

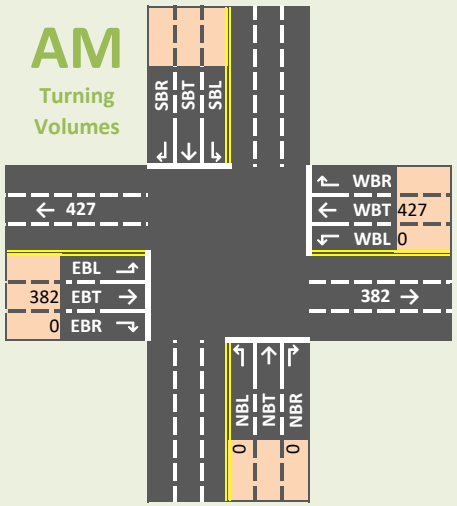
GOROVE SLADE
Transportation Planners and Engineers

Critical Lane Volume Analysis

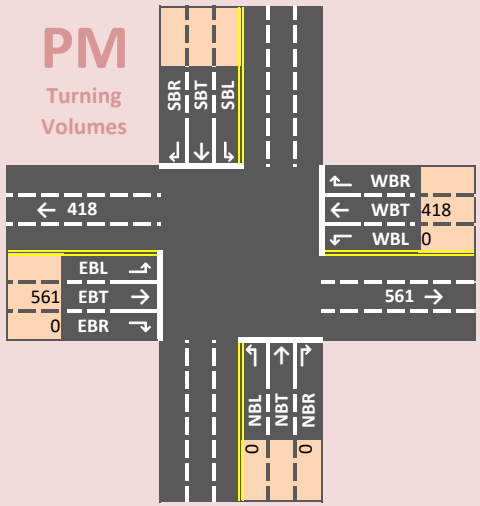
Turning Movement Summary and Level of Service

Project: 4910 and 4920 Strathmore Avenue
Location: 4910 and 4920 Strathmore Avenue, Kensington, MD
Project Number: 2592-008
Condition: Existing
Count Date: 2020

AM Peak Hour: 8:00-9:00 AM

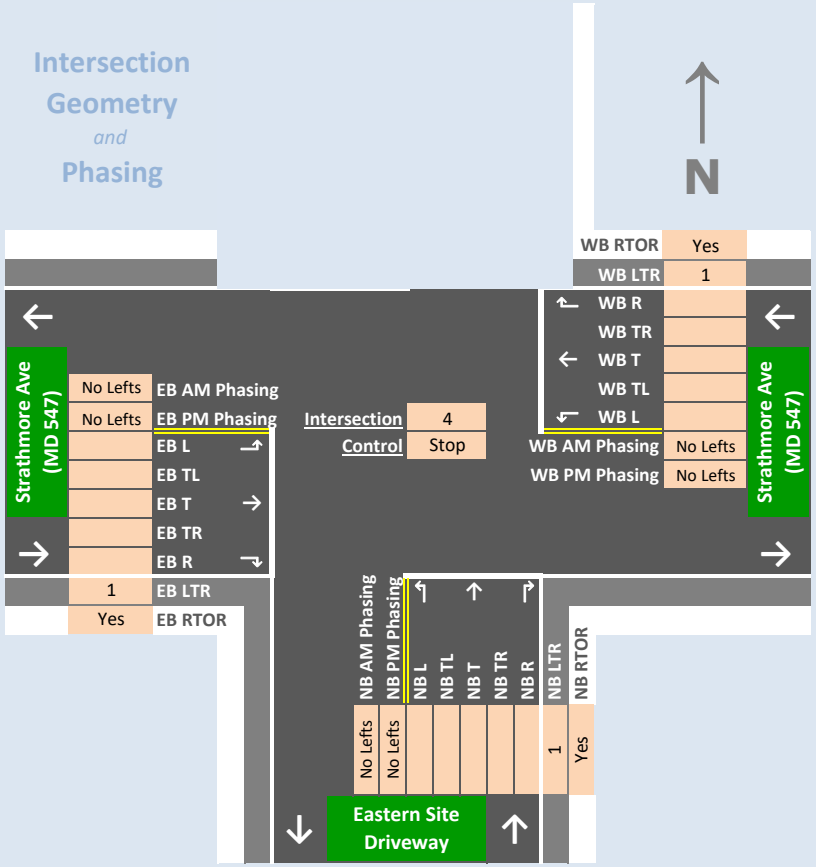


PM Peak Hour: 5:00-6:00 PM



ϕA	ϕB	ϕC	ϕD	ϕE	ϕF	ϕA	ϕB	ϕC	ϕD	ϕE	ϕF

Intersection Geometry and Phasing



ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)	ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	WB	LTR	427	1.00	427			**427**	√		WB	LTR	418	1.00	418			**418**	
	NB	LTR	0	1.00	0			**0**	√		NB	LTR	0	1.00	0			**0**	√
	EB	LTR	382	1.00	382			**382**			EB	LTR	561	1.00	561			**561**	√
					TOTAL AM CRITICAL VOLUME:			**427**	**LOS A**						**TOTAL PM CRITICAL VOLUME:**			**561**	**LOS A**

P:\2592-008 St Angela Hall (7301-2801)\Analysis\CLV\CLV Calculations - Existing Conditions 8.24.21.xlsx

Note: Yellow cells indicate lane groups where single, high-volume movement overrides the lane group volume.

Computed By:

Date: 8/23/2021

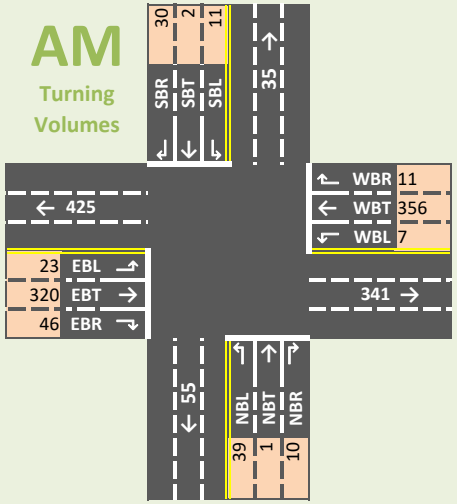
GOROVE SLADE
Transportation Planners and Engineers

Critical Lane Volume Analysis

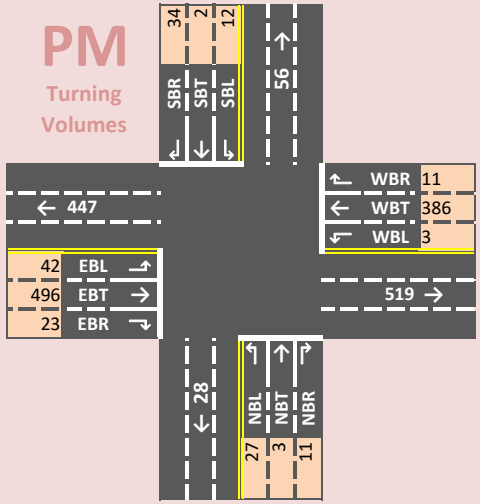
Turning Movement Summary and Level of Service

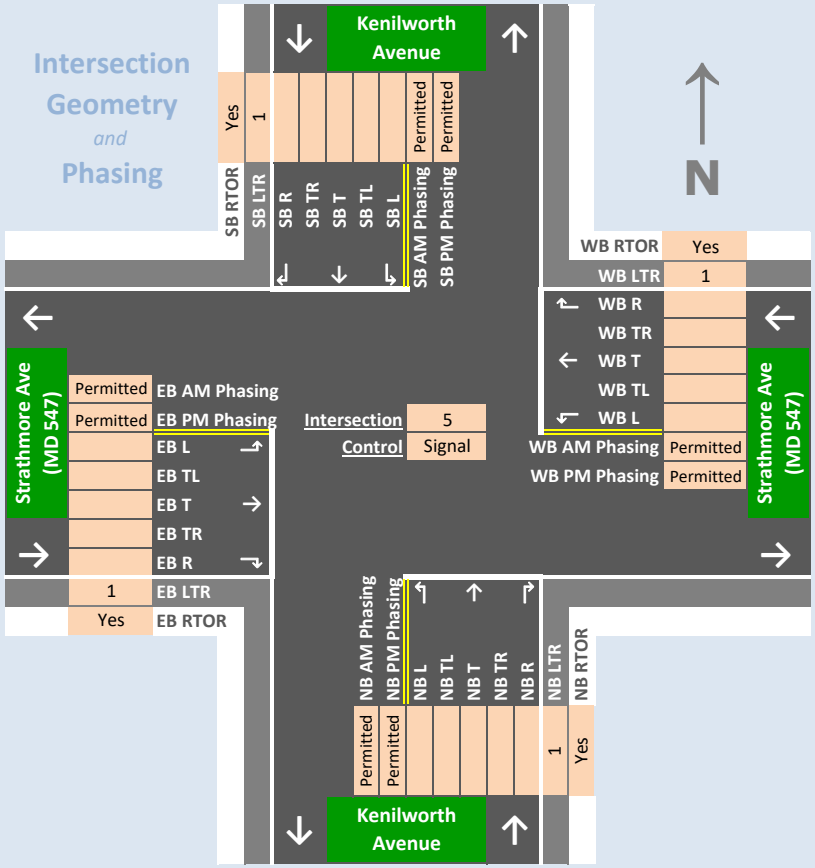
Project: 4910 and 4920 Strathmore Avenue
Location: 4910 and 4920 Strathmore Avenue, Kensington, MD
Project Number: 2592-008
Condition: Existing
Count Date: 2020

AM Peak Hour: 8:00-9:00 AM



PM Peak Hour: 5:00-6:00 PM





ϕA	ϕB	ϕC	ϕD	ϕE	ϕF	ϕA	ϕB	ϕC	ϕD	ϕE	ϕF

ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	SB	LTR	43	1.00	43	39		**82**	√
	WB	LTR	374	1.00	374	23		**397**	√
	NB	LTR	50	1.00	50	11		**61**	
	EB	LTR	389	1.00	389	7		**396**	
							TOTAL AM CRITICAL VOLUME:	**479**	**LOS A**

ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	SB	LTR	48	1.00	48	27		**75**	√
	WB	LTR	400	1.00	400	42		**442**	
	NB	LTR	41	1.00	41	12		**53**	
	EB	LTR	561	1.00	561	3		**564**	√
							TOTAL PM CRITICAL VOLUME:	**639**	**LOS A**

P:\2592-008 St Angela Hall (7301-2801)\Analysis\CLV\CLV Calculations - Existing Conditions 8.24.21.xlsx

Note: Yellow cells indicate lane groups where single, high-volume movement overrides the lane group volume.

Computed By:

Date: 8/23/2021

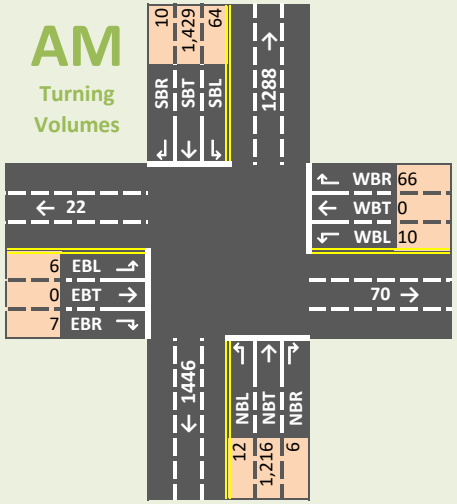
GOROVE SLADE
Transportation Planners and Engineers

Critical Lane Volume Analysis

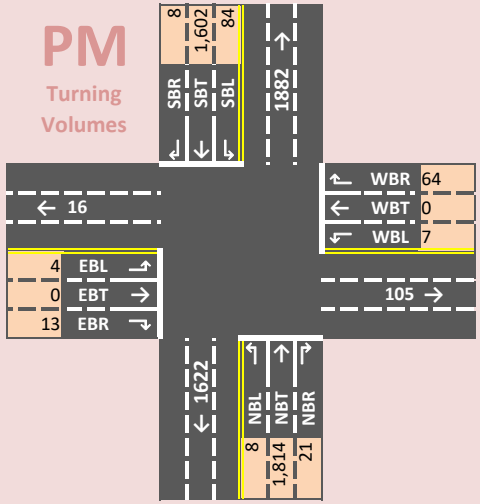
Turning Movement Summary and Level of Service

Project: 4910 and 4920 Strathmore Avenue
Location: 4910 and 4920 Strathmore Avenue, Kensington, MD
Project Number: 2592-008
Condition: Existing
Count Date: 2020

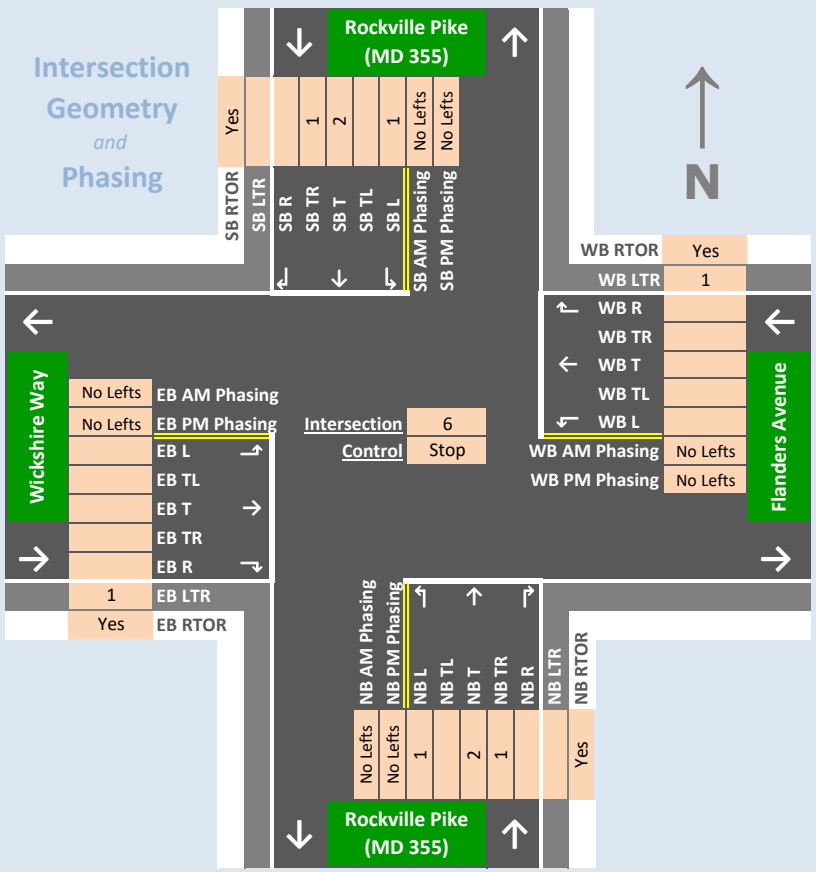
AM Peak Hour: 8:00-9:00 AM



PM Peak Hour: 5:00-6:00 PM



ϕA	ϕB	ϕC	ϕD	ϕE	ϕF	ϕA	ϕB	ϕC	ϕD	ϕE	ϕF



ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)	ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	SB	TR	1439	0.37	532	12		**544**	√		SB	TR	1610	0.37	596	8		**604**	
		L	64	1.00	64			**64**				L	84	1.00	84			**84**	
	WB	LTR	76	1.00	76	6		**82**	√		WB	LTR	71	1.00	71	4		**75**	√
	NB	TR	1222	0.37	452	64		**516**			NB	TR	1835	0.37	679	84		**763**	√
		L	12	1.00	12			**12**				L	8	1.00	8			**8**	
	EB	LTR	13	1.00	13	10		**23**			EB	LTR	17	1.00	17	7		**24**	
					TOTAL AM CRITICAL VOLUME:			**626**	**LOS A**						**TOTAL PM CRITICAL VOLUME:**			**838**	**LOS A**

P:\2592-008 St Angela Hall (7301-2801)\Analysis\CLV\CLV Calculations - Existing Conditions 8.24.21.xlsx

Note: Yellow cells indicate lane groups where single, high-volume movement overrides the lane group volume.

Computed By:

Date: 8/23/2021

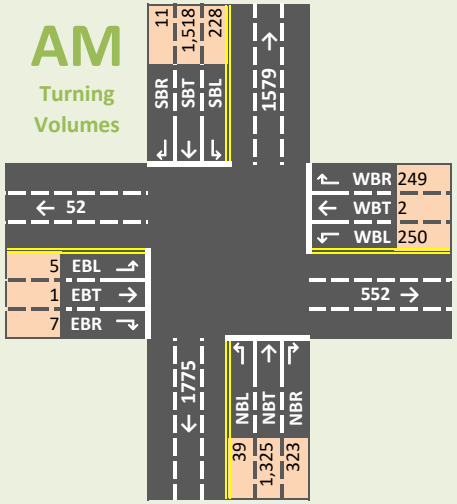
GOROVE SLADE
Transportation Planners and Engineers

Critical Lane Volume Analysis

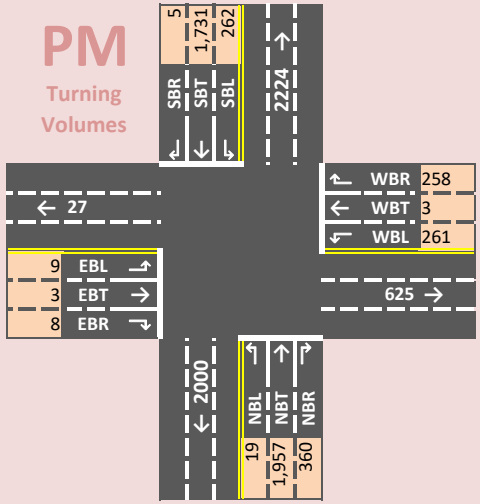
Turning Movement Summary and Level of Service

Project: 4910 and 4920 Strathmore Avenue
Location: 4910 and 4920 Strathmore Avenue, Kensington, MD
Project Number: 2592-008
Condition: Background
Design Year: 2022

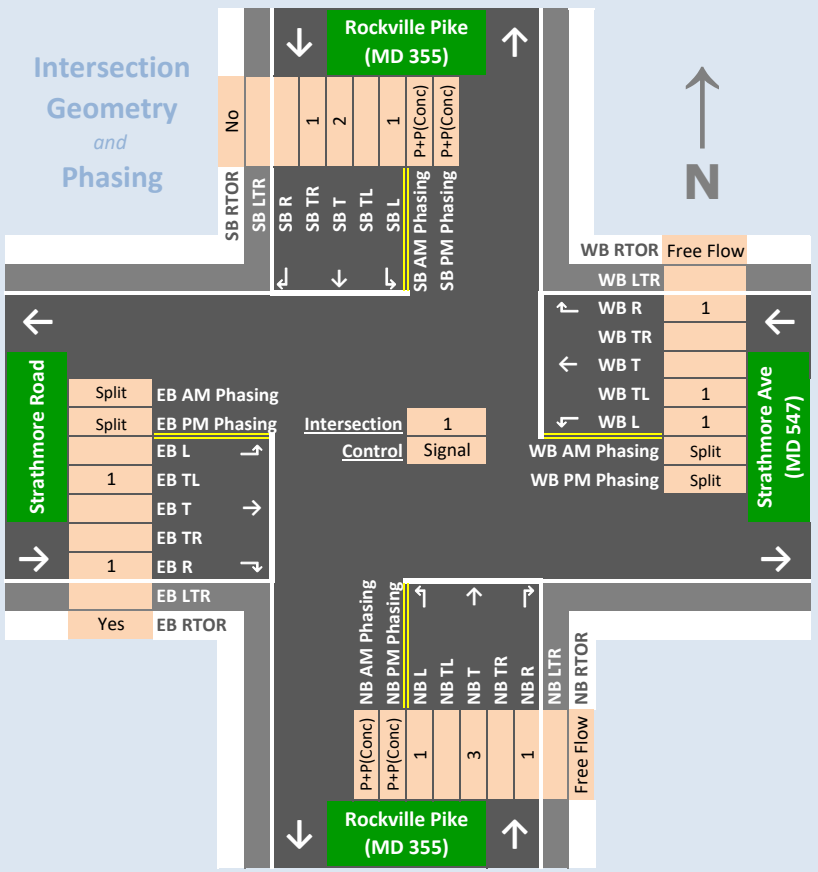
AM Peak Hour: 8:00-9:00 AM



PM Peak Hour: 5:00-6:00 PM



ϕA	ϕB	ϕC	ϕD	ϕE	ϕF	ϕA	ϕB	ϕC	ϕD	ϕE	ϕF



ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	SB	TR	1529	0.37	566	39		**605**	
		L	228	1.00	228			**228**	
	WB	R	0	1.00	0			**0**	
		TL	252	0.53	134			**134**	√
	NB	R	0	1.00	0			**0**	
		T	1325	0.37	490	228		**718**	√
		L	39	1.00	39			**26**	
	EB	R	0	1.00	0			**0**	
		TL	6	1.00	6			**6**	√
					TOTAL AM CRITICAL VOLUME:			**858**	**LOS A**

ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	SB	TR	1736	0.37	642	19		**661**	
		L	262	1.00	262			**262**	
	WB	R	0	1.00	0			**0**	
		TL	264	0.53	140			**140**	√
	NB	R	0	1.00	0			**0**	
		T	1957	0.37	724	262		**986**	√
		L	19	1.00	19			**19**	
	EB	R	0	1.00	0			**0**	
		TL	12	1.00	12			**12**	√
					TOTAL PM CRITICAL VOLUME:			**1138**	**LOS B**

P:\2592-008 St Angela Hall (7301-2801)\Analysis\CLV\CLV Calculations - Background Conditions 8.24.21.xlsx

Note: Yellow cells indicate lane groups where single, high-volume movement overrides the lane group volume.

Computed By:

Date: 8/23/2021

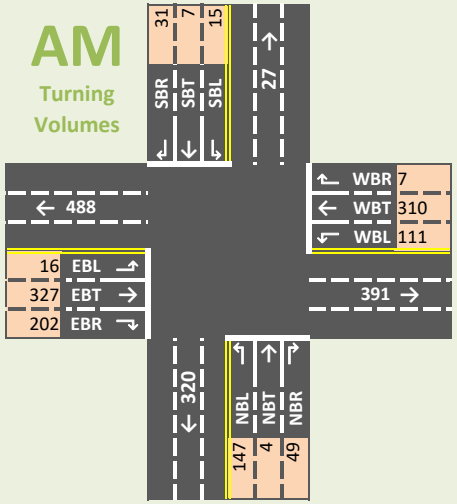
GOROVE SLADE
Transportation Planners and Engineers

Critical Lane Volume Analysis

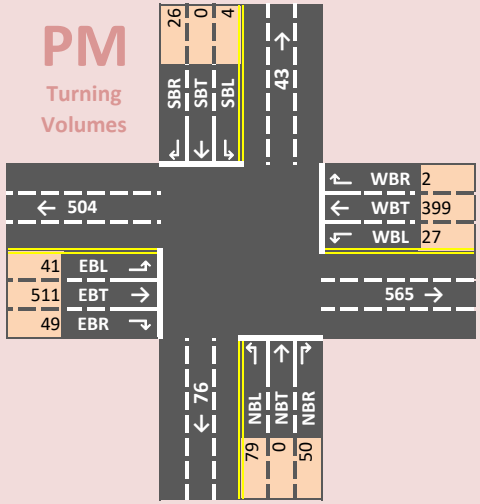
Turning Movement Summary and Level of Service

Project: 4910 and 4920 Strathmore Avenue
Location: 4910 and 4920 Strathmore Avenue, Kensington, MD
Project Number: 2592-008
Condition: Background
Design Year: 2022

AM Peak Hour: 8:00-9:00 AM

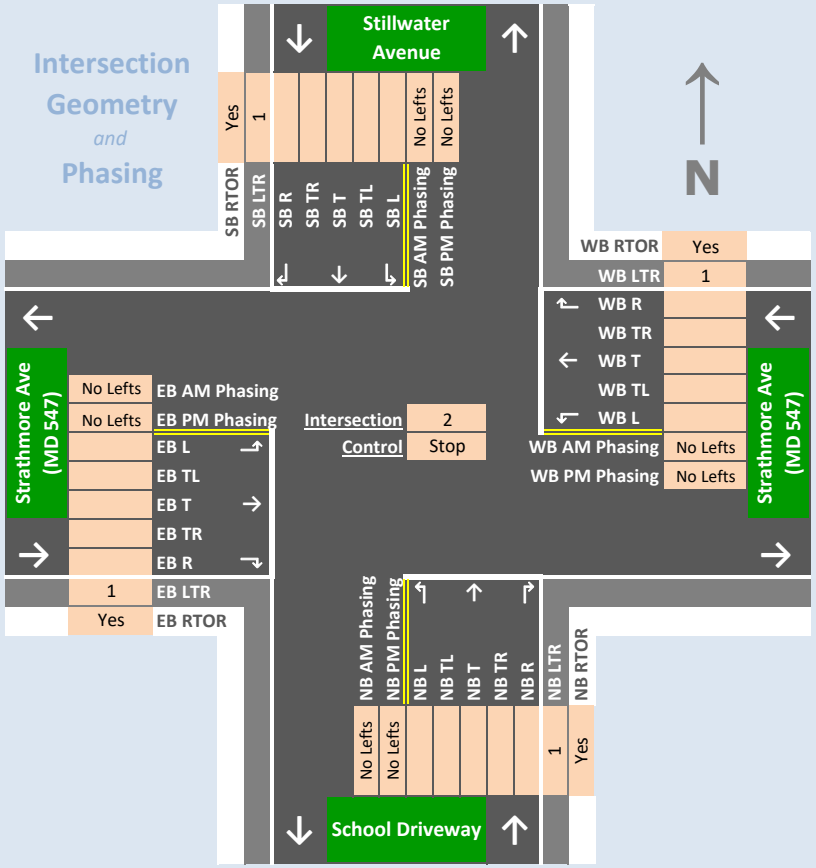


PM Peak Hour: 5:00-6:00 PM



ϕA	ϕB	ϕC	ϕD	ϕE	ϕF	ϕA	ϕB	ϕC	ϕD	ϕE	ϕF

Intersection Geometry and Phasing



ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	SB	LTR	55	1.00	55	147		**202**	
	WB	LTR	428	1.00	428	16		**444**	
	NB	LTR	215	1.00	215	15		**230**	√
	EB	LTR	545	1.00	545	111		**656**	√
					TOTAL AM CRITICAL VOLUME:			**886**	LOS A

ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	SB	LTR	30	1.00	30	79		**109**	
	WB	LTR	428	1.00	428	41		**469**	
	NB	LTR	137	1.00	137	4		**141**	√
	EB	LTR	601	1.00	601	27		**628**	√
					TOTAL PM CRITICAL VOLUME:			**769**	LOS A

P:\2592-008 St Angela Hall (7301-2801)\Analysis\CLV\CLV Calculations - Background Conditions 8.24.21.xlsx

Note: Yellow cells indicate lane groups where single, high-volume movement overrides the lane group volume.

Computed By:

Date: 8/23/2021

GOROVE SLADE
Transportation Planners and Engineers

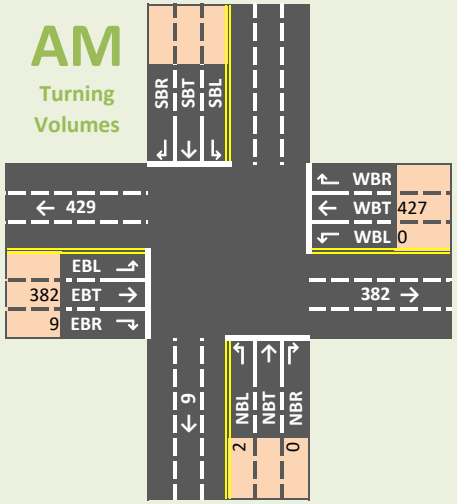
Critical Lane Volume Analysis

Turning Movement Summary and Level of Service

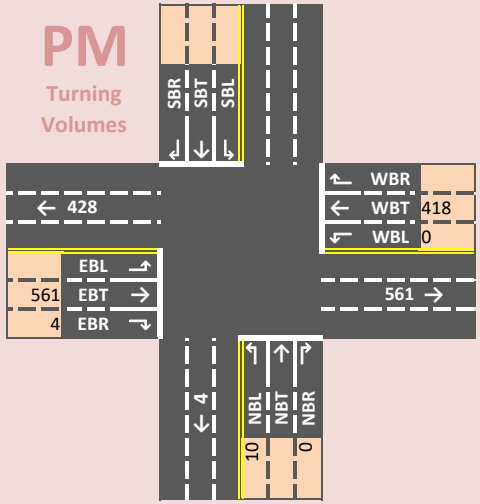
Project: 4910 and 4920 Strathmore Avenue
Location: 4910 and 4920 Strathmore Avenue, Kensington, MD

Project Number: 2592-008
Condition: Background
Design Year: 2022

AM Peak Hour: 8:00-9:00 AM

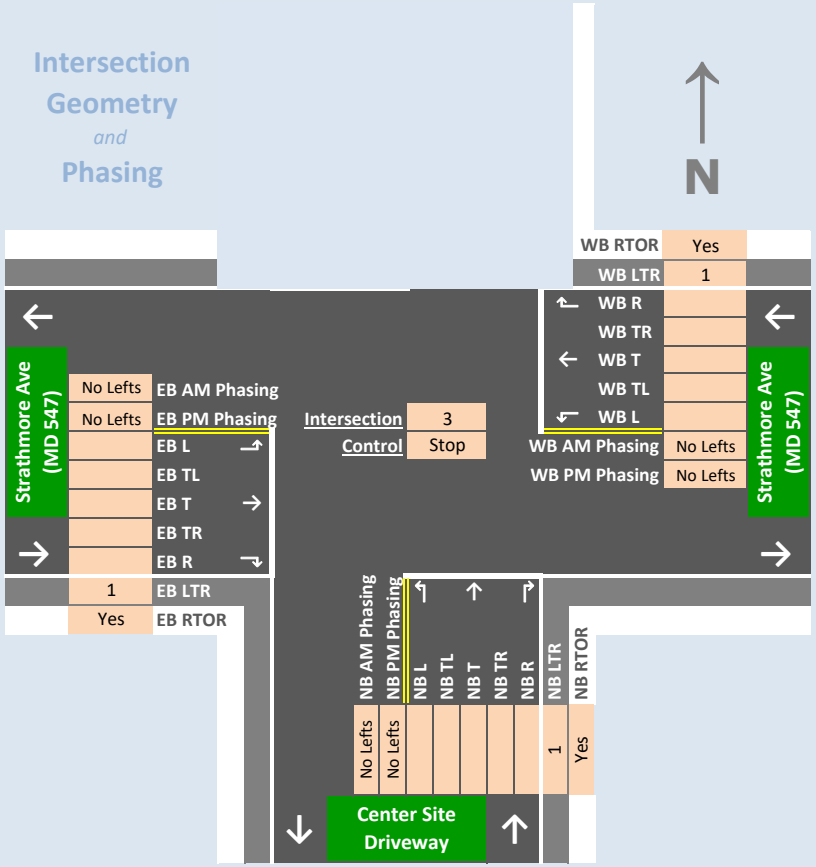


PM Peak Hour: 5:00-6:00 PM



ϕA	ϕB	ϕC	ϕD	ϕE	ϕF	ϕA	ϕB	ϕC	ϕD	ϕE	ϕF

Intersection Geometry and Phasing



ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)	ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	WB	LTR	427	1.00	427			**427**	√		WB	LTR	418	1.00	418			**418**	
	NB	LTR	2	1.00	2			**2**	√		NB	LTR	11	1.00	11			**11**	√
	EB	LTR	391	1.00	391			**391**			EB	LTR	565	1.00	565			**565**	√
					TOTAL AM CRITICAL VOLUME:			**429**	**LOS A**						**TOTAL PM CRITICAL VOLUME:**			**576**	**LOS A**

P:\2592-008 St Angela Hall (7301-2801)\Analysis\CLV\CLV Calculations - Background Conditions 8.24.21.xlsx

Note: Yellow cells indicate lane groups where single, high-volume movement overrides the lane group volume.

Computed By:

Date: 8/23/2021

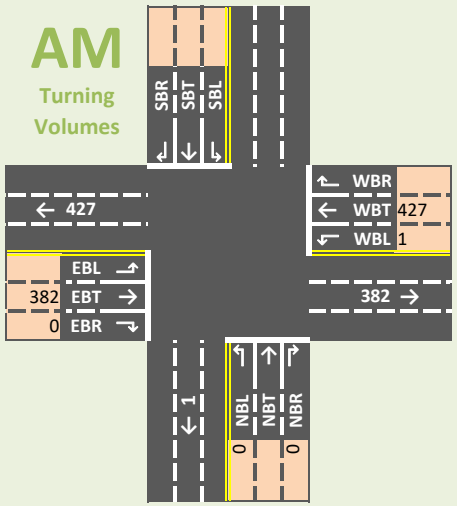
GOROVE SLADE
Transportation Planners and Engineers

Critical Lane Volume Analysis

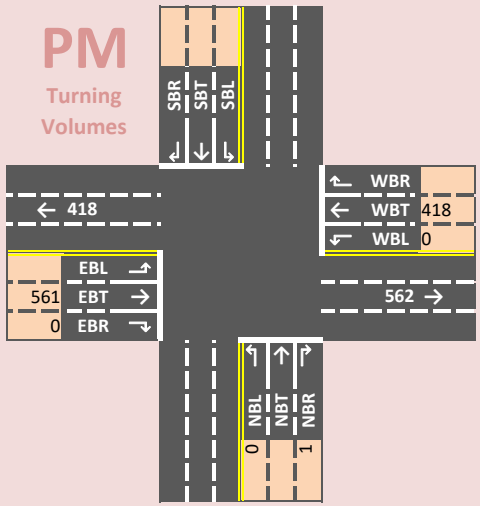
Turning Movement Summary and Level of Service

Project: 4910 and 4920 Strathmore Avenue
Location: 4910 and 4920 Strathmore Avenue, Kensington, MD
Project Number: 2592-008
Condition: Background
Design Year: 2022

AM Peak Hour: 8:00-9:00 AM

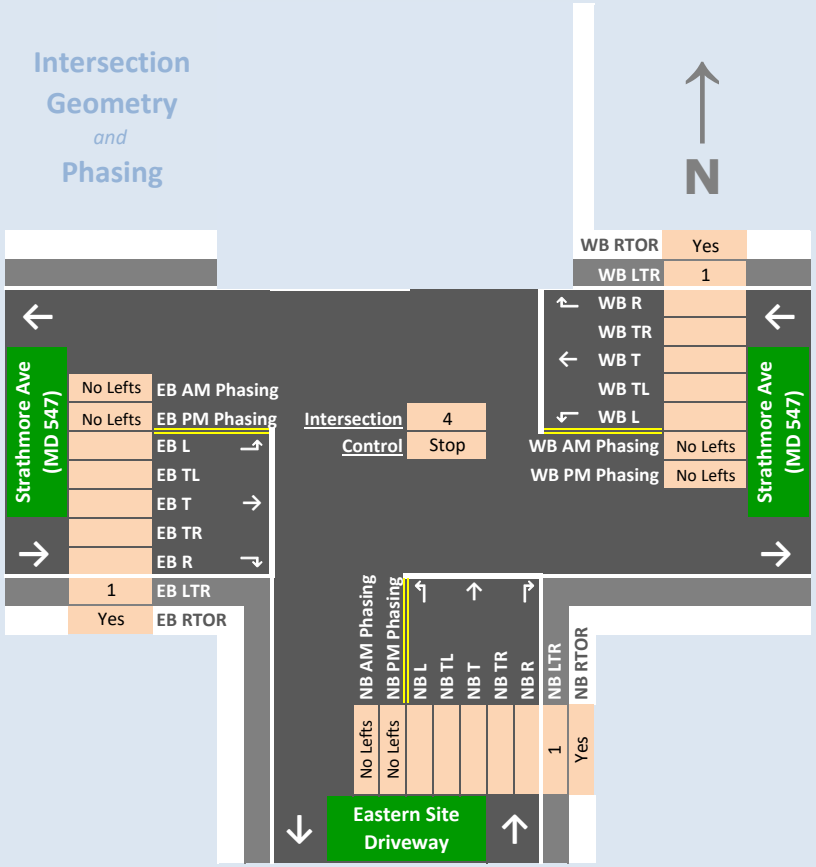


PM Peak Hour: 5:00-6:00 PM



ϕA	ϕB	ϕC	ϕD	ϕE	ϕF	ϕA	ϕB	ϕC	ϕD	ϕE	ϕF

Intersection Geometry and Phasing



ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	WB	LTR	428	1.00	428			**428**	√
	NB	LTR	0	1.00	0			**0**	√
	EB	LTR	382	1.00	382	1		**383**	
							TOTAL AM CRITICAL VOLUME:	**428**	**LOS A**

ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	WB	LTR	418	1.00	418			**418**	
	NB	LTR	1	1.00	1			**1**	√
	EB	LTR	561	1.00	561			**561**	√
							TOTAL PM CRITICAL VOLUME:	**562**	**LOS A**

P:\2592-008 St Angela Hall (7301-2801)\Analysis\CLV\CLV Calculations - Background Conditions 8.24.21.xlsx

Note: Yellow cells indicate lane groups where single, high-volume movement overrides the lane group volume.

Computed By:

Date: 8/23/2021

GOROVE SLADE
Transportation Planners and Engineers

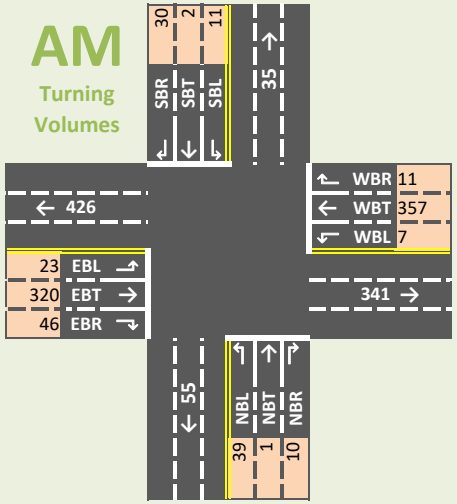
Critical Lane Volume Analysis

Turning Movement Summary and Level of Service

Project: 4910 and 4920 Strathmore Avenue
Location: 4910 and 4920 Strathmore Avenue, Kensington, MD
Project Number: 2592-008
Condition: Background
Design Year: 2022

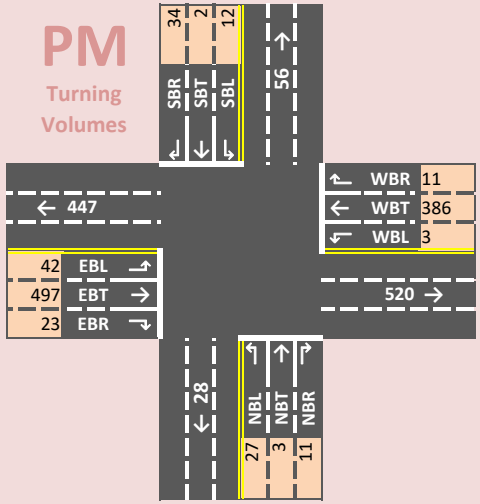
AM Peak Hour: 8:00-9:00 AM

AM Turning Volumes



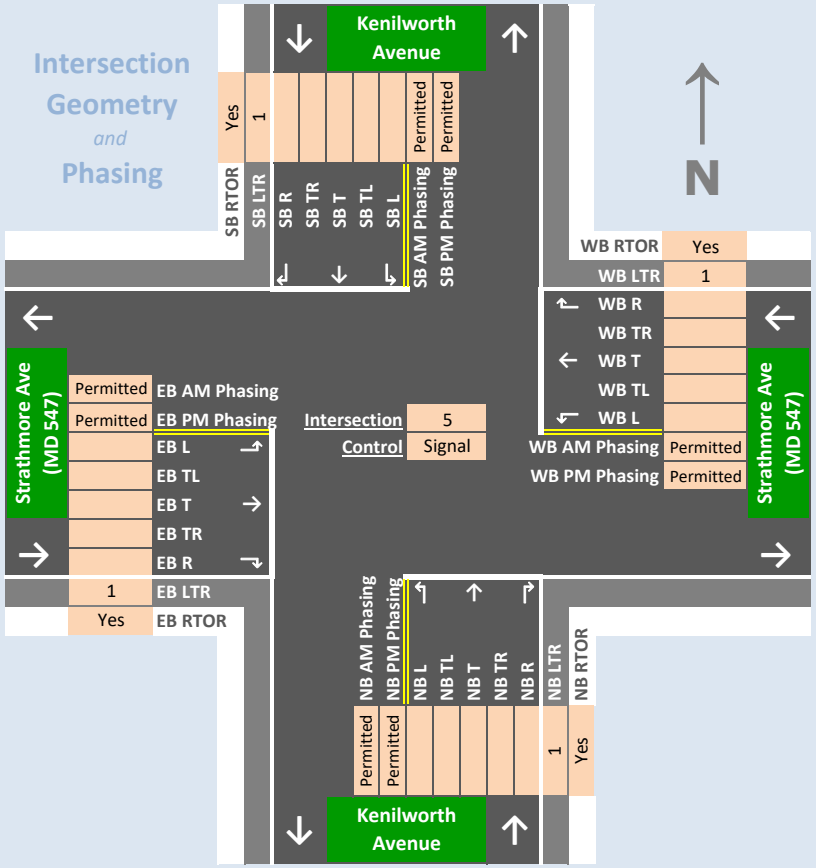
PM Peak Hour: 5:00-6:00 PM

PM Turning Volumes



AM ϕA	ϕB	ϕC	ϕD	ϕE	ϕF	PM ϕA	ϕB	ϕC	ϕD	ϕE	ϕF

Intersection Geometry and Phasing



ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)	ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	SB	LTR	44	1.00	44	39		**83**	√		SB	LTR	49	1.00	49	27		**76**	√
	WB	LTR	375	1.00	375	23		**398**	√		WB	LTR	400	1.00	400	42		**442**	
	NB	LTR	54	1.00	54	11		**65**			NB	LTR	44	1.00	44	12		**56**	
	EB	LTR	389	1.00	389	7		**396**			EB	LTR	562	1.00	562	3		**565**	√
					TOTAL AM CRITICAL VOLUME:			**481**	**LOS A**						**TOTAL PM CRITICAL VOLUME:**			**641**	**LOS A**

P:\2592-008 St Angela Hall (7301-2801)\Analysis\CLV\CLV Calculations - Background Conditions 8.24.21.xlsx

Note: Yellow cells indicate lane groups where single, high-volume movement overrides the lane group volume.

Computed By:

Date: 8/23/2021

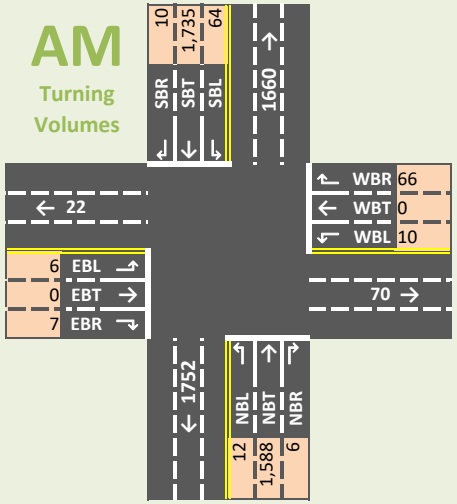
GOROVE SLADE
Transportation Planners and Engineers

Critical Lane Volume Analysis

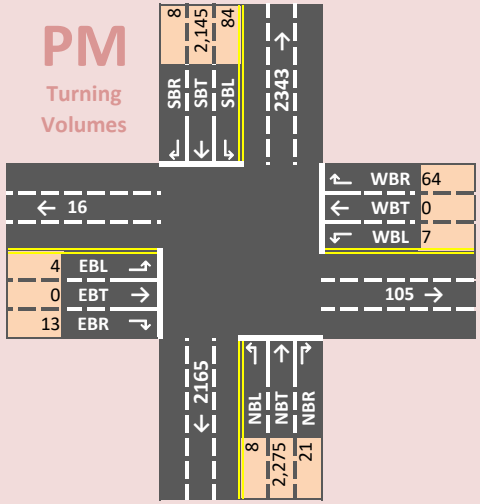
Turning Movement Summary and Level of Service

Project: 4910 and 4920 Strathmore Avenue
Location: 4910 and 4920 Strathmore Avenue, Kensington, MD
Project Number: 2592-008
Condition: Background
Design Year: 2022

AM Peak Hour: 8:00-9:00 AM

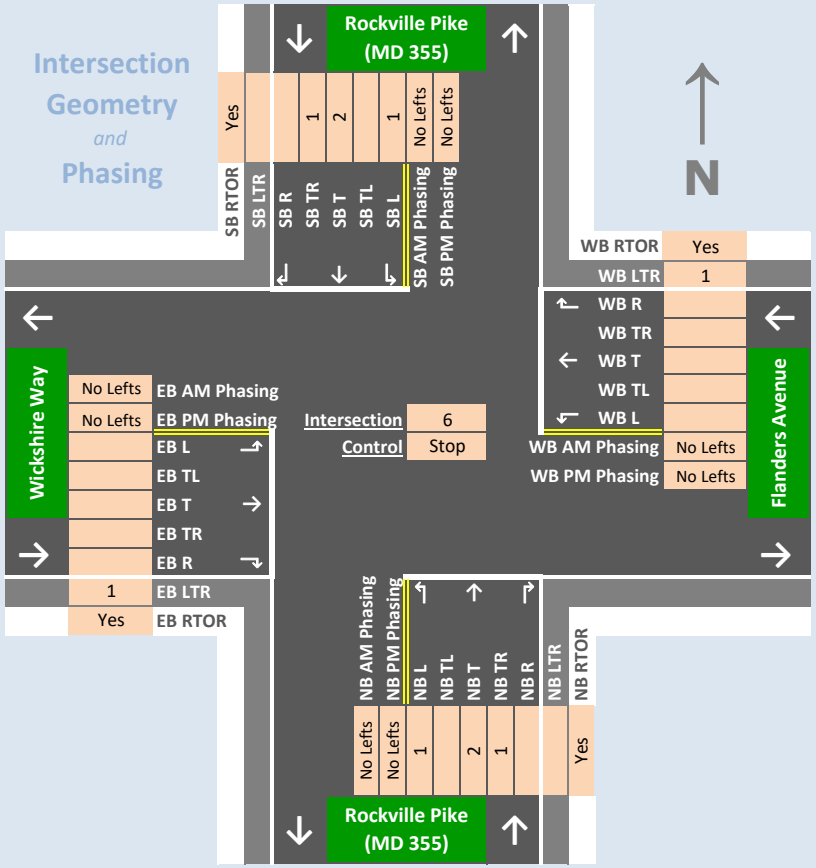


PM Peak Hour: 5:00-6:00 PM



ϕA	ϕB	ϕC	ϕD	ϕE	ϕF	ϕA	ϕB	ϕC	ϕD	ϕE	ϕF

Intersection Geometry and Phasing



ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)	ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	SB	TR	1745	0.37	646	12		**658**	√		SB	TR	2153	0.37	797	8		**805**	
		L	64	1.00	64			**64**				L	84	1.00	84			**84**	
	WB	LTR	77	1.00	77	6		**83**	√		WB	LTR	72	1.00	72	4		**76**	√
	NB	TR	1594	0.37	590	64		**654**			NB	TR	2296	0.37	850	84		**934**	√
		L	12	1.00	12			**12**				L	8	1.00	8			**8**	
	EB	LTR	14	1.00	14	10		**24**			EB	LTR	17	1.00	17	7		**24**	
					TOTAL AM CRITICAL VOLUME:			**741**	**LOS A**						**TOTAL PM CRITICAL VOLUME:**			**1010**	**LOS B**

P:\2592-008 St Angela Hall (7301-2801)\Analysis\CLV\CLV Calculations - Background Conditions 8.24.21.xlsx

Note: Yellow cells indicate lane groups where single, high-volume movement overrides the lane group volume.

Computed By:

Date: 8/23/2021

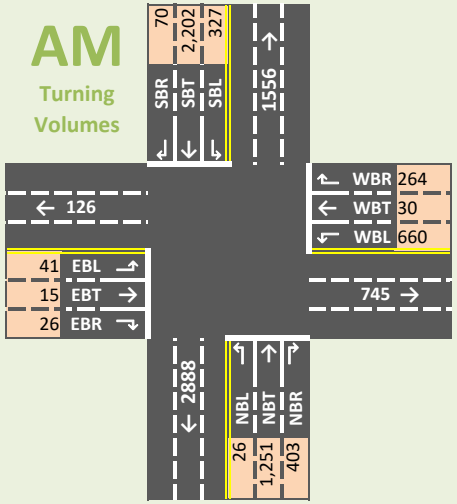
GOROVE SLADE
Transportation Planners and Engineers

Critical Lane Volume Analysis

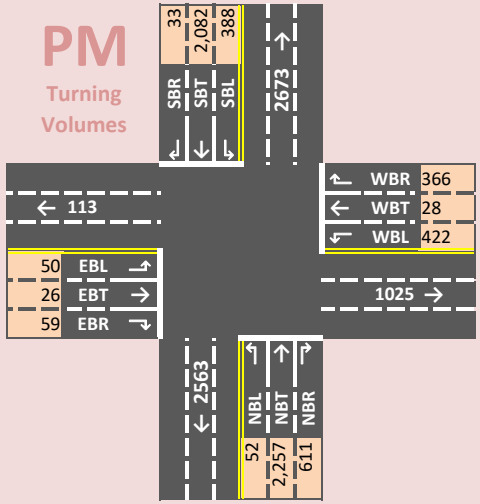
Turning Movement Summary and Level of Service

Project: 4910 and 4920 Strathmore Avenue
Location: 4910 and 4920 Strathmore Avenue, Kensington, MD
Project Number: 2592-008
Condition: Total Future
Design Year: 2022

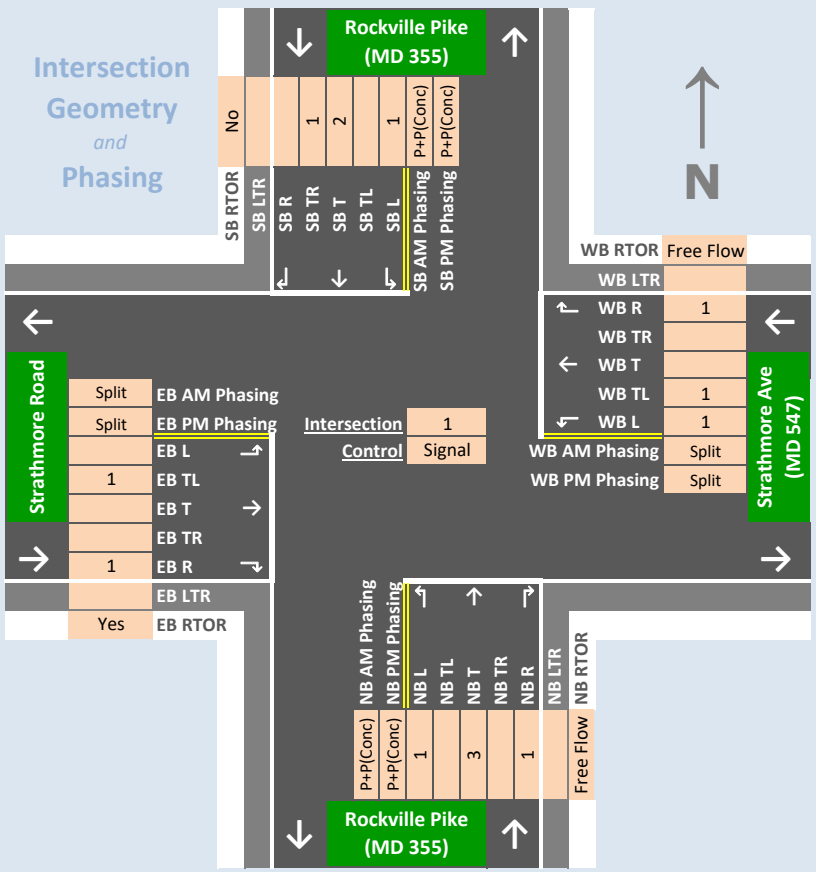
AM Peak Hour: 7:30-8:30 AM



PM Peak Hour: 5:00-6:00 PM



ϕA	ϕB	ϕC	ϕD	ϕE	ϕF	ϕA	ϕB	ϕC	ϕD	ϕE	ϕF



ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)	ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	SB	TR	2272	0.37	841	26		**867**	√		SB	TR	2115	0.37	783	52		**835**	
		L	327	1.00	327			**327**				L	388	1.00	388			**388**	
	WB	R	0	1.00	0			**0**			WB	R	0	1.00	0			**0**	
		TL	690	0.53	366			**366**	√			TL	450	0.53	239			**239**	√
	NB	R	0	1.00	0			**0**			NB	R	0	1.00	0			**0**	
		T	1251	0.37	463	327		**790**				T	2257	0.37	835	388		**1223**	√
		L	26	1.00	26			**26**				L	52	1.00	52			**52**	
	EB	R	0	1.00	0			**0**			EB	R	7	1.00	7			**7**	
		TL	56	1.00	56			**56**	√			TL	76	1.00	76			**76**	√
TOTAL AM CRITICAL VOLUME:								**1289**	**LOS C**	**TOTAL PM CRITICAL VOLUME:**								**1538**	**LOS E**

P:\2592-008 St Angela Hall (7301-2801)\Analysis\CLV\CLV Calculations - Background Conditions 8.24.21.xlsx

Note: Yellow cells indicate lane groups where single, high-volume movement overrides the lane group volume.

Computed By: MNW

Date: 8/23/2021

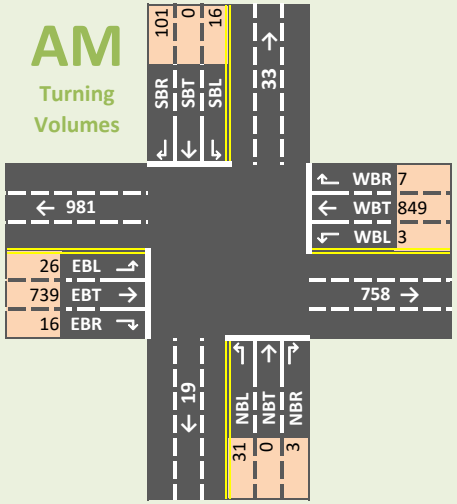
GOROVE SLADE
Transportation Planners and Engineers

Critical Lane Volume Analysis

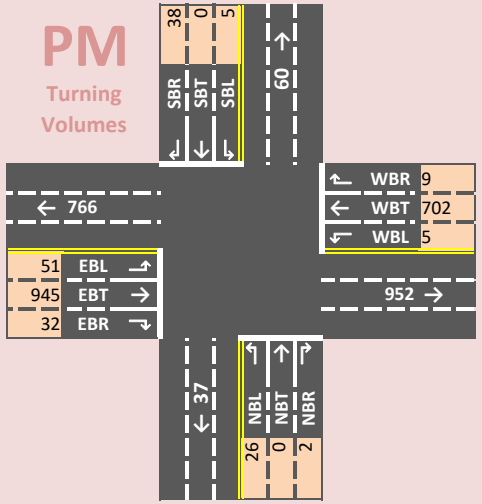
Turning Movement Summary and Level of Service

Project: 4910 and 4920 Strathmore Avenue
Location: 4910 and 4920 Strathmore Avenue, Kensington, MD
Project Number: 2592-008
Condition: Total Future
Design Year: 2022

AM Peak Hour: 7:30-8:30 AM

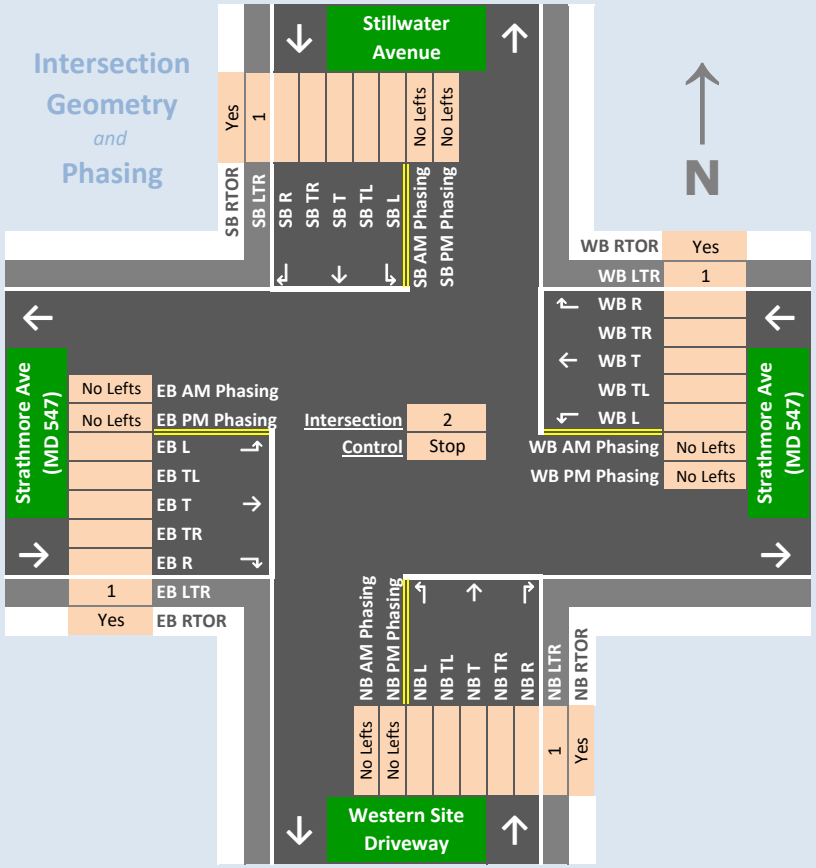


PM Peak Hour: 5:00-6:00 PM



ϕA	ϕB	ϕC	ϕD	ϕE	ϕF	ϕA	ϕB	ϕC	ϕD	ϕE	ϕF

Intersection Geometry and Phasing



ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	SB	LTR	117	1.00	117	31		**148**	√
	WB	LTR	859	1.00	859	26		**885**	√
	NB	LTR	34	1.00	34	16		**50**	
	EB	LTR	781	1.00	781	3		**784**	
					TOTAL AM CRITICAL VOLUME:			**1033**	**LOS B**

ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	SB	LTR	43	1.00	43	26		**69**	√
	WB	LTR	716	1.00	716	51		**767**	
	NB	LTR	28	1.00	28	5		**33**	
	EB	LTR	1,028	1.00	1028	5		**1033**	√
					TOTAL PM CRITICAL VOLUME:			**1102**	**LOS B**

P:\2592-008 St Angela Hall (7301-2801)\Analysis\CLV\CLV Calculations - Background Conditions 8.24.21.xlsx

Note: Yellow cells indicate lane groups where single, high-volume movement overrides the lane group volume.

Computed By: MNW Date: 8/23/2021

GOROVE SLADE
Transportation Planners and Engineers

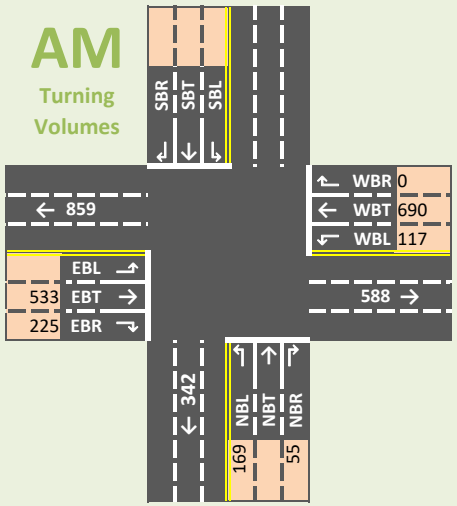
Critical Lane Volume Analysis

Turning Movement Summary and Level of Service

Project: 4910 and 4920 Strathmore Avenue
Location: 4910 and 4920 Strathmore Avenue, Kensington, MD
Project Number: 2592-008
Condition: Total Future
Design Year: 2022

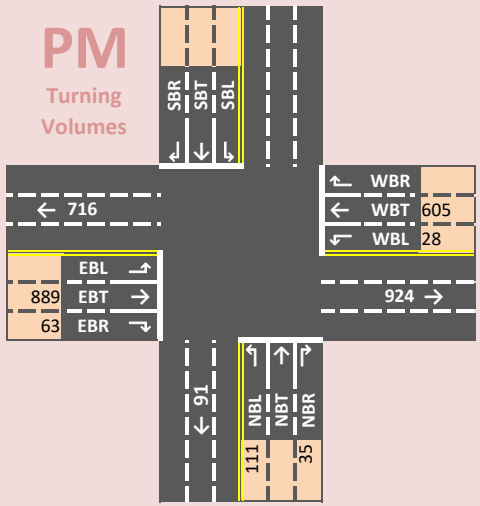
AM Peak Hour: 7:30-8:30 AM

AM Turning Volumes

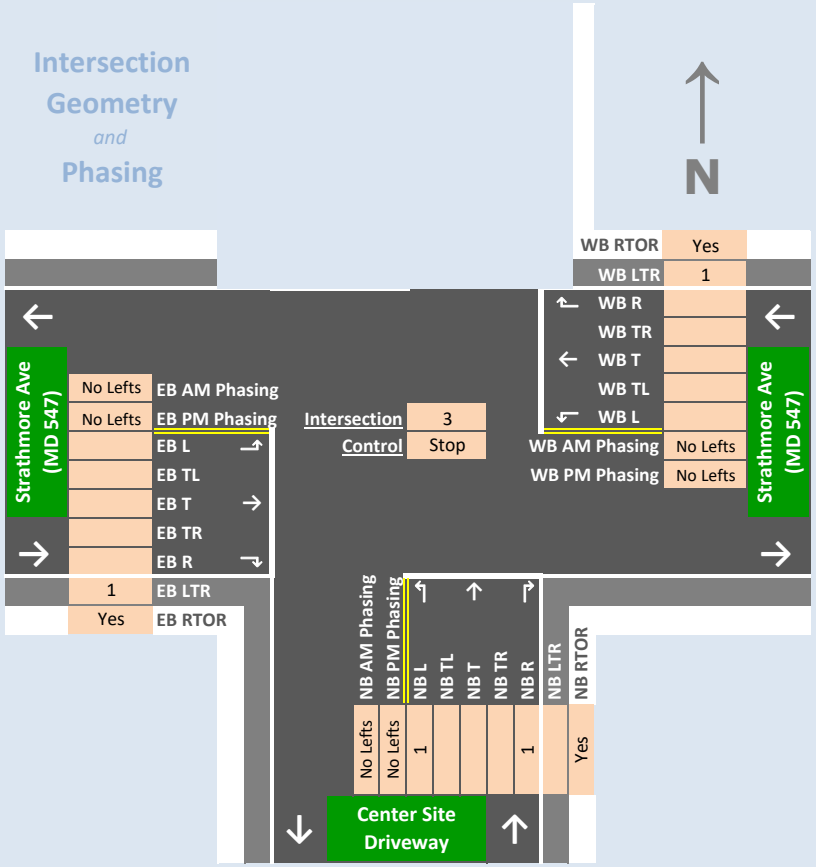


PM Peak Hour: 5:00-6:00 PM

PM Turning Volumes



Intersection Geometry and Phasing



ϕA	ϕB	ϕC	ϕD	ϕE	ϕF	ϕA	ϕB	ϕC	ϕD	ϕE	ϕF

ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	WB	LTR	807	1.00	807			**807**	
	NB	R	0	1.00	0			**0**	
		L	169	1.00	169			**169**	√
	EB	LTR	758	1.00	758	117		**875**	√
							TOTAL AM CRITICAL VOLUME:	**1044**	LOS B

ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	WB	LTR	633	1.00	633			**633**	
	NB	R	7	1.00	7			**7**	
		L	111	1.00	111			**111**	√
	EB	LTR	952	1.00	952	28		**980**	√
							TOTAL PM CRITICAL VOLUME:	**1091**	LOS B

P:\2592-008 St Angela Hall (7301-2801)\Analysis\CLV\CLV Calculations - Background Conditions 8.24.21.xlsx

Note: Yellow cells indicate lane groups where single, high-volume movement overrides the lane group volume.

Computed By: MNW Date: 8/23/2021

GOROVE SLADE
Transportation Planners and Engineers

Critical Lane Volume Analysis

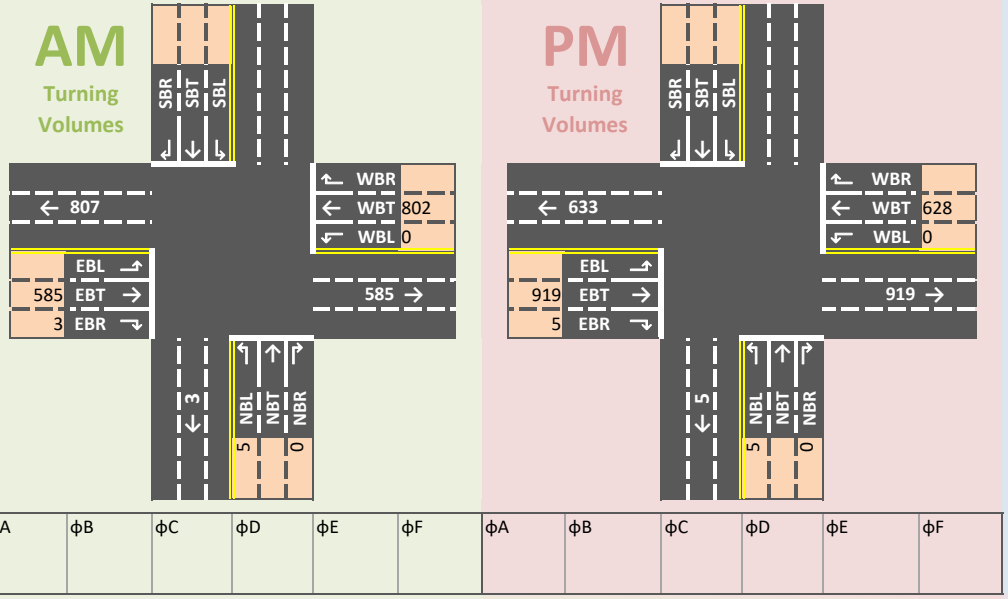
Turning Movement Summary and Level of Service

Project: 4910 and 4920 Strathmore Avenue
Location: 4910 and 4920 Strathmore Avenue, Kensington, MD

Project Number: 2592-008
Condition: Total Future
Design Year: 2022

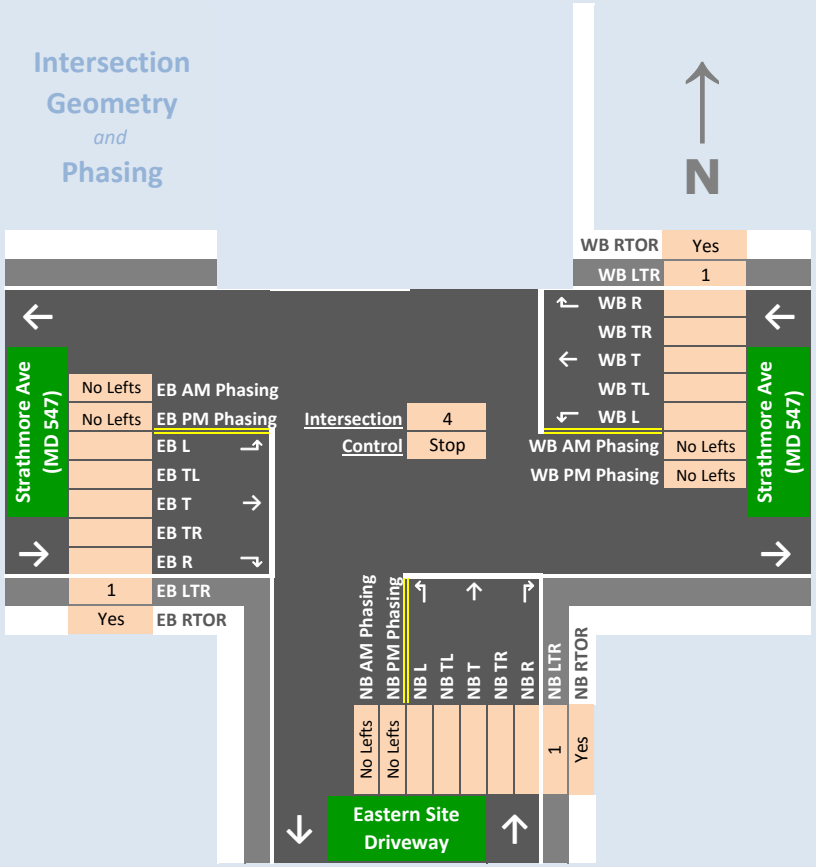
AM Peak Hour: 7:30-8:30 AM

PM Peak Hour: 5:00-6:00 PM



ϕA	ϕB	ϕC	ϕD	ϕE	ϕF	ϕA	ϕB	ϕC	ϕD	ϕE	ϕF

Intersection Geometry and Phasing



ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)	ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	WB	LTR	802	1.00	802			**802**	√		WB	LTR	628	1.00	628			**628**	
	NB	LTR	5	1.00	5			**5**	√		NB	LTR	5	1.00	5			**5**	√
	EB	LTR	588	1.00	588			**588**			EB	LTR	924	1.00	924			**924**	√
					TOTAL AM CRITICAL VOLUME:			**807**	**LOS A**						**TOTAL PM CRITICAL VOLUME:**			**929**	**LOS A**

P:\2592-008 St Angela Hall (7301-2801)\Analysis\CLV\CLV Calculations - Background Conditions 8.24.21.xlsx

Note: Yellow cells indicate lane groups where single, high-volume movement overrides the lane group volume.

Computed By: MNW

Date: 8/23/2021

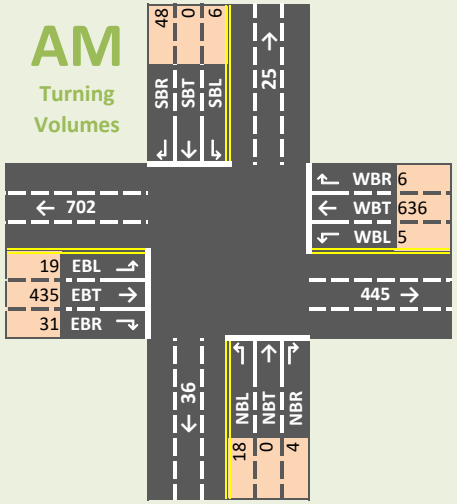
GOROVE SLADE
Transportation Planners and Engineers

Critical Lane Volume Analysis

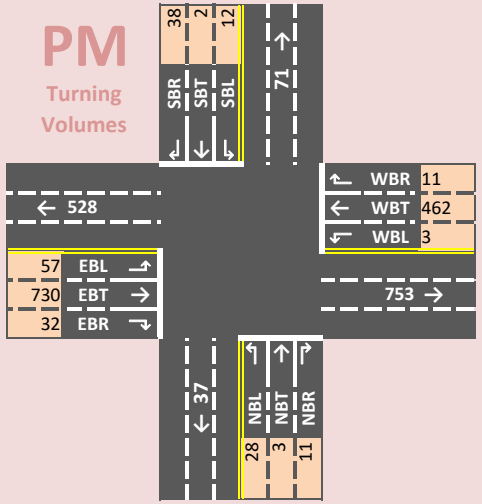
Turning Movement Summary and Level of Service

Project: 4910 and 4920 Strathmore Avenue
Location: 4910 and 4920 Strathmore Avenue, Kensington, MD
Project Number: 2592-008
Condition: Total Future
Design Year: 2022

AM Peak Hour: 7:30-8:30 AM

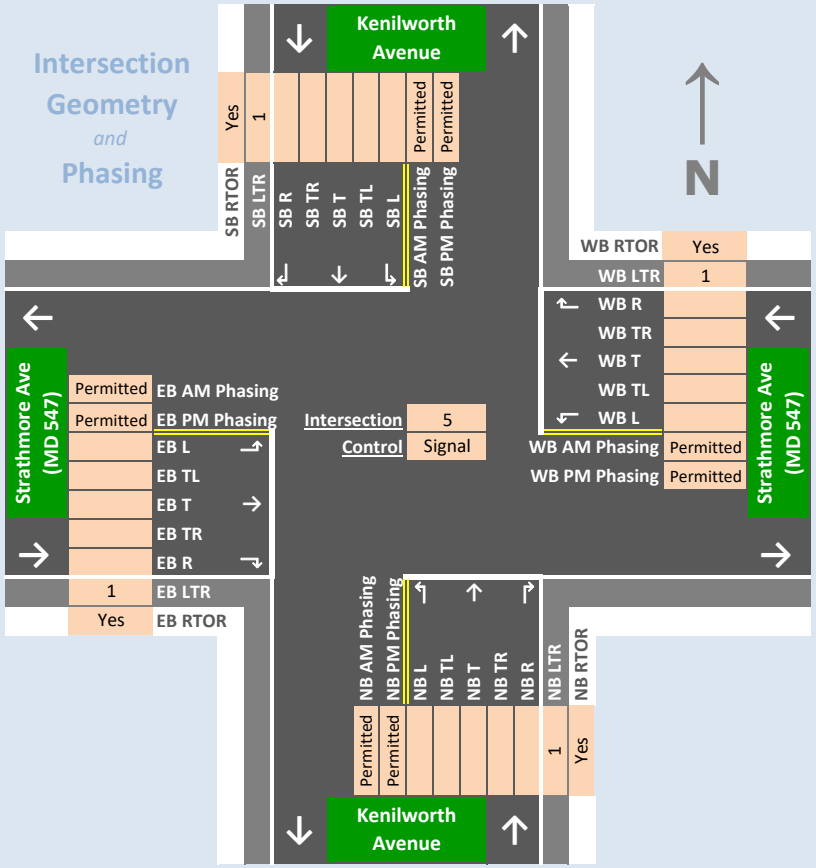


PM Peak Hour: 5:00-6:00 PM



ϕA	ϕB	ϕC	ϕD	ϕE	ϕF	ϕA	ϕB	ϕC	ϕD	ϕE	ϕF

Intersection Geometry and Phasing



ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)	ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	SB	LTR	54	1.00	54	18		**72**	√		SB	LTR	52	1.00	52	28		**80**	√
	WB	LTR	647	1.00	647	19		**666**	√		WB	LTR	476	1.00	476	57		**533**	
	NB	LTR	22	1.00	22	6		**28**			NB	LTR	42	1.00	42	12		**54**	
	EB	LTR	485	1.00	485	5		**490**			EB	LTR	819	1.00	819	3		**822**	√
					TOTAL AM CRITICAL VOLUME:			**738**	**LOS A**						**TOTAL PM CRITICAL VOLUME:**			**902**	**LOS A**

P:\2592-008 St Angela Hall (7301-2801)\Analysis\CLV\CLV Calculations - Background Conditions 8.24.21.xlsx

Note: Yellow cells indicate lane groups where single, high-volume movement overrides the lane group volume.

Computed By: MNW Date: 8/23/2021

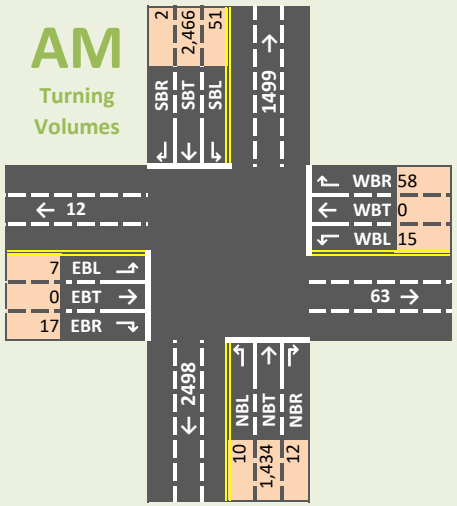
GOROVE SLADE
Transportation Planners and Engineers

Critical Lane Volume Analysis

Turning Movement Summary and Level of Service

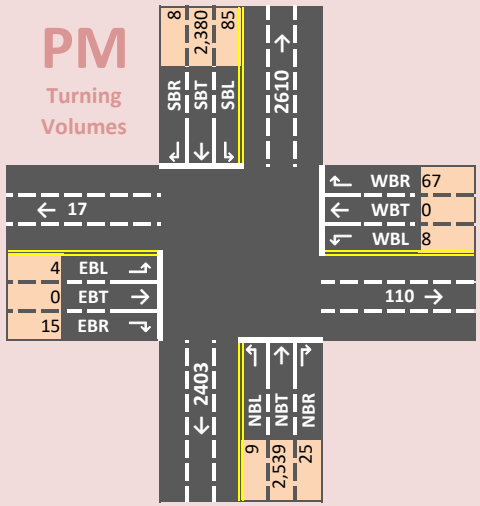
Project: 4910 and 4920 Strathmore Avenue
Location: 4910 and 4920 Strathmore Avenue, Kensington, MD
Project Number: 2592-008
Condition: Total Future
Design Year: 2022

AM Peak Hour: 7:30-8:30 AM

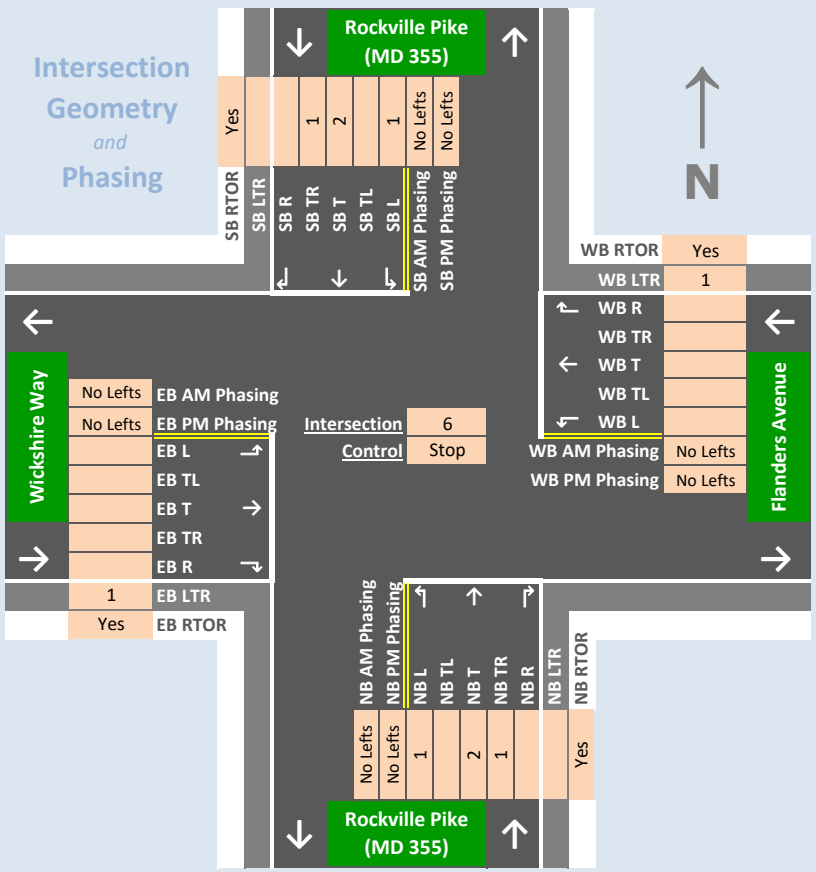


ϕA	ϕB	ϕC	ϕD	ϕE	ϕF

PM Peak Hour: 5:00-6:00 PM



ϕA	ϕB	ϕC	ϕD	ϕE	ϕF



ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	SB	TR	2468	0.37	913	10		**923**	√
		L	51	1.00	51			**51**	
	WB	LTR	73	1.00	73	7		**80**	√
	NB	TR	1446	0.37	535	51		**586**	
		L	10	1.00	10			**10**	
	EB	LTR	24	1.00	24	15		**39**	
					TOTAL AM CRITICAL VOLUME:			**1003**	**LOS B**

ϕ	MOVEMENT		VOLUME	LANE USE FACTOR	LANE VOLUME	OPP L (+)	CONC L (-)	CRITICAL LANE VOLUME	√ (CRITICAL)
	SB	TR	2388	0.37	884	9		**893**	
		L	85	1.00	85			**85**	
	WB	LTR	75	1.00	75	4		**79**	√
	NB	TR	2564	0.37	949	85		**1034**	√
		L	9	1.00	9			**9**	
	EB	LTR	19	1.00	19	8		**27**	
					TOTAL PM CRITICAL VOLUME:			**1113**	**LOS B**

P:\2592-008 St Angela Hall (7301-2801)\Analysis\CLV\CLV Calculations - Background Conditions 8.24.21.xlsx

Note: Yellow cells indicate lane groups where single, high-volume movement overrides the lane group volume.

Computed By: MNW Date: 8/23/2021

December 13, 2021

Via email: MCP-Chair@mncppc-mc.org

Chair Casey Anderson
Montgomery County Planning Board
2425 Reedie Drive
Wheaton, Maryland 20902

Re: Comments of Doug and Dianna Burdin and Residents of Symphony Park
SERIOUS FLAWS IN TRAFFIC STUDY AND TRANSIT CLAIMS
Item 5: Local Map Amendment No. H-143 - Rezoning of Holy Cross Property (4910-4920 Strathmore Ave.)
Hearing Date December 16, 2021

Dear Chair Casey Anderson and Members of the Planning Board:

We submit these comments on our behalf and on behalf of 29 residents of Symphony Park, which is directly adjacent to the property at 4910-4920 Strathmore Ave., for which a developer is requesting a change to the zoning from R-60 to CRNF 0.75, C 0.25, R 0.75, H 50. **We oppose the zoning amendment and proposed development**, as currently formulated, for numerous reasons.

In particular, the traffic studies submitted by the developer's consultant appear to **acknowledge significant (six times the standard) morning peak hour congestion** at the most important intersection (the entrance to Holy Cross Academy ("HCA") for the existing and background scenarios, but **somehow makes this congestion virtually disappear in the Total Future Conditions** (i.e., the Background conditions plus the added traffic from the project). In short, the project would impose adverse and unacceptable impacts on traffic. The Staff Report and Recommendation uncritically accepted the traffic consultant's flawed analysis and conclusions, including on the disappearing congestion.

In addition, the project would not serve the goal of placing high density housing near transit (such as Metro) as **the developer has admitted that transit use will be "minimal,"** and the proposed project would not serve walkability goals.

The surrounding neighborhoods should not have to endure this worsened traffic just so the developer can pack more houses and a residential care facility into R-60 zoned properties. **We encourage you to recommend denial of the zoning change so that the property can be developed, if at all, according to its long-held zoning status.** We discuss these point in more detail below.

The Code Requires the County to Critically Analyze the Zoning Change

The Code requires the County, in each level of the decision-making process, to critically analyze the application and clearly detail and explain, with citations to facts and data in the record, the

Exhibit 63
H-143

analysis. The County must make what are called **"Necessary Findings"** per Section 7.2.1(E), provided below.

> E. Necessary Findings
>
> 1. A Floating zone application that satisfies Article 59-5 may not be sufficient to require approval of the application.
> 2. For a Floating zone application the District Council must find that the floating zone plan will:
>   a. substantially conform with the recommendations of the applicable master plan, general plan, and other applicable County plans;
>   b. **further the public interest**;
>   c. satisfy the intent, purposes, and standards of the proposed zone and requirements of this Chapter;
>   d. **be compatible with existing and approved adjacent development**;
>   e. **generate traffic that does not exceed the critical lane volume** or volume/ capacity ratio standard as applicable under the Planning Board's LATR Guidelines, or, if traffic exceeds the applicable standard, that the applicant demonstrate an **ability to mitigate such adverse impacts**; and
>   f. when applying a non-Residential Floating zone to a property previously under a Residential Detached zone, **not adversely affect the character of the surrounding neighborhood**.
>
> (Emphasis added.)

The Impact on Traffic Will be Unacceptable

- **Traffic Will Increase and be Unacceptable.** Without doubt, **traffic on the already overburdened two-lane Strathmore Ave. (which serves three schools and is a major cut-through between Kensington and Rockville) and nearby streets would increase considerably**. More congestion would make this road even less safe and would make getting out of nearby neighborhoods even harder. The congestion would also lead to increased cut-through in the Garrett Park Estates (*i.e,,* on Flanders and Stillwater), which is unfair to those neighbors.
    - The **125 homes**, with likely at least two cars each, would add numerous new cars to Strathmore and surrounding streets.
    - The residential care facility would compound the problems, as it adds **150 residents, visitors, 50 employees, and 24-hour staffing**.

- **The Board, with help from Staff and the Montgomery County DOT and Maryland DOT, must address the disappearing congestion contained in the developer's consultant studies, as explained in detail below.**

    - **You should not accept the Staff Recommendation to approve the zoning change without reviewing Table 7** on page 30 and the explanation of Table 7 on page 16 of the LATR by Gorove Slade (December 2020, updated August 2021) ("2020 LATR"). Table

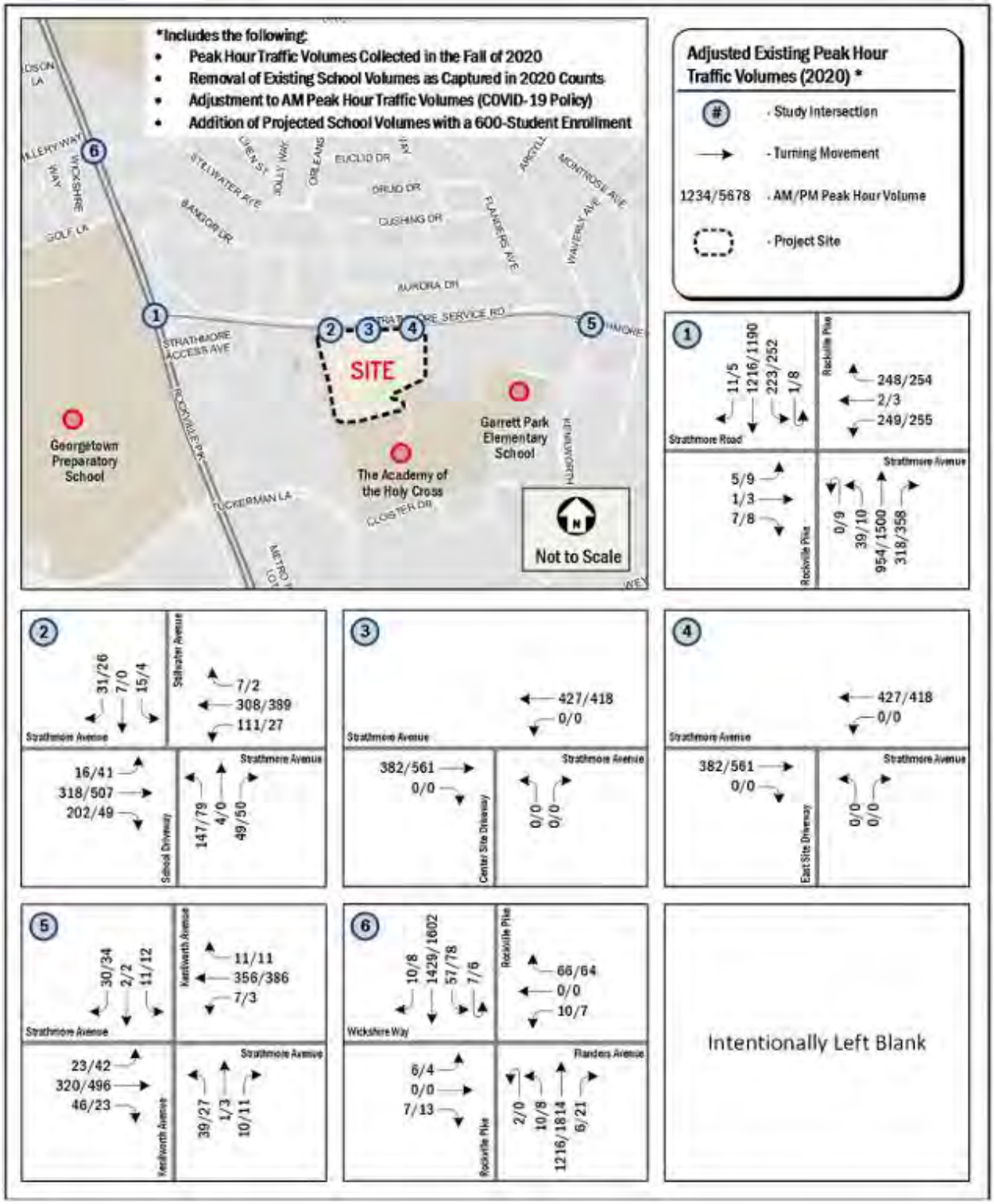
7 and the explanation are inserted below for your convenience. Table 7 shows that under the Existing Conditions and Background Conditions (Existing Conditions plus traffic from approved nearby developments), the **AM Peak Hour delay in seconds is 445.2 and 449.9 per vehicle for the Strathmore/Stillwater/HCA entrance intersection**. The Congestion Standard (*i.e.*, upper limit) is 71 seconds, so the **delay at this intersection is OVER SIX TIMES TOO LONG**. Yet under the Total Future Conditions for the Center Site Entrance (the new entrance to the HCA), **this delay virtually disappears (down to 10.7 seconds)**, allowing the consultant to conclude, and Staff to agree, that all intersections are below the Congestion Standard. See Explanation of Table 7 from page 16 of the 2020 LATR, inserted below.

Table 7: Intersection HCM Delay Results

Intersection	Congestion Standard (s)	Existing Conditions (2020)				Background Conditions				Total Future Conditions			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS
Rockville Pike & Strathmore Avenue / Strathmore Road	71.0	16.8	B	23.3	C	20.4	C	27.9	C	21.4	C	29.1	C
Strathmore Avenue & Stillwater Avenue / Western Site Driveway (Unsignalized)	71.0	445.2	--	5.3	--	449.9	--	5.4	--	2.0	--	1.7	--
Strathmore Avenue & Center Site Driveway (Unsignalized)	71.0	0.0	--	0.0	--	0.1	--	0.2	--	10.7	--	3.4	--
Strathmore Avenue & Eastern Site Driveway (Unsignalized)	71.0	0.0	--	0.0	--	0.0	--	0.0	--	0.1	--	0.1	--
Strathmore Avenue & Kenilworth Avenue	71.0	11.7	B	10.8	B	11.7	B	10.8	B	11.6	B	10.8	B
Rockville Pike & Flanders Avenue / Wickshire Way (Unsignalized)	71.0	2.8	--	19.7	--	7.6	--	6.3	--	7.9	--	6.5	--

> Table 7 presents the HCM results at the study intersections. As shown in Table 7, under the Existing and Background conditions, the intersection of Strathmore Avenue and Stillwater Avenue/School Driveway operate above the congestion standard during the morning peak hour. This is due to a significant number of westbound left-turning traffic turning into the school and northbound left-turning traffic turning out of the school, resulting in delays that exceed the congestion standard at this two-way stop-controlled intersection. The existing offset between Stillwater Avenue and the School Driveway exacerbates the delay at this intersection. However, under Total Future conditions, the westernmost site driveway is realigned to eliminate the offset as a result of the project, and the school traffic is rerouted to utilize the center site driveway which will serve as the school entrance. Delays under Background Conditions at the Strathmore Avenue and Stillwater Avenue intersection are shifted to the Center Site Driveway under Future Conditions to operate well within the congestion standard. The traffic pattern changes result in improved conditions in which all study intersections operate well below the congestion standard of 71.0 seconds.

- Helpful to understanding Table 7 is Figure 6 (inserted below) from page 18 of the 2020 LATR, which explains the proposed intersection reconfigurations discussed above and below.
    - Under the proposal, the existing HCA entrance (number 2 on the schematic below) would be moved slightly west to align with Stillwater (to be used mainly by residents of the townhouses). What would become the main entrance to HCA, some townhouses, and the residential facility, is moved east and becomes the "Center Site Entrance" (number 3 below). As stated throughout the 2020 LATR, the project proposes to move the existing excessive traffic from the current west entrance to the proposed center entrance (and then add other traffic to it). According to the scant explanation of Table 7 on page 16, inserted above, this simple realignment of the current entrance with Stillwater and the addition of one lane coming out of HCA get rid of all the morning congestion (changing it from 445 to 10.7 seconds). This defies reality.
    -


*Includes the following:
Peak Hour Traffic Volumes Collected in the Fall of 2020
Removal of Existing School Volumes as Captured in 2020 Counts
Adjustment to AM Peak Hour Traffic Volumes (COVID-19 Policy)
Addition of Projected School Volumes with a 600-Student Enrollment
Adjusted Existing Peak Hour Traffic Volumes (2020) *
- Study Intersection
- Turning Movement
1234/5678 - AM/PM Peak Hour Volume
- Project Site
SITE
Georgetown Preparatory School
The Academy of the Holy Cross
Garrett Park Elementary School
Not to Scale
STRATHMORE ACCESS AVE
TUCKERMAN LA
AURORA DR
CUSHING DR
DRUID DR
EUCLID DR
BANGOR DR
GOLF LA
CLOISTER DR
Strathmore Road
Rockville Pike
Strathmore Avenue
Stillwater Avenue
Kenilworth Avenue
Wickshire Way
Randes Avenue
School Driveway
Center Site Driveway
East Site Driveway
Intentionally Left Blank

.

- The supplemental analysis the consultant performed in 2021, which used different traffic count inputs, contains a table that is similar to Table 7 discussed above, showing **Existing and Background Condition delays of 224.2 and 255.9 for the school entrance intersection**. See Table 5, page 26, and explanation on page 24 (inserted below). These are about ½ of the numbers from the 2020 LATR analysis but **still more than three times the 71 second standard**. Interestingly, however, the delay under the Total Future Conditions (i.e., with the project) for the new center entrance to the HCA is 77.7 seconds, above the congestion standard and seven times higher than the analysis in the 2020 LATR for the same intersection (discussed above**). Because the same entrance modification is analyzed in the two reports, it is very strange that the inputs from the supplemental analysis generated a lower delay in the Existing and Background Conditions and a higher congestion delay for the Future Conditions while inputs in the 2020 LATR analysis generated greater delays in Existing and Background Conditions but lower delays in the Future Conditions**.

Table 5: Intersection HCM Delay Results

Intersection	Congestion Standard (s)	Existing Conditions (2020)				Background Conditions				Total Future Conditions			
		AM		PM		AM		PM		AM		PM	
		Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS
Rockville Pike & Strathmore Avenue	71.0	39.4	D	52.3	D	54.9	D	118.6	F	59.1	D	123.7	F
Mitigated with signal timing adjustments	71.0	--	--	--	--	--	--	--	--	--	--	*99.8*	*F*
Strathmore Avenue & Stillwater Avenue / Western Site Driveway (Unsignalized)	71.0	224.2	--	52.3	--	255.9	--	64.7	--	9.1	--	4.6	--
Strathmore Avenue & Center Site Driveway (Unsignalized)	71.0	0.0	--	0.0	--	0.0	--	0.3	--	77.7	--	18.6	--
Mitigated with signalization	*71.0*	--	--	--	--	--	--	--	--	*24.2*	*C*	*12.3*	*B*
Mitigated with signal and 150' WBL	*71.0*	--	--	--	--	--	--	--	--	*13.7*	*B*	*11.9*	*B*
Strathmore Avenue & Eastern Site Driveway (Unsignalized)	71.0	0.0	--	0.0	--	0.0	--	0.0	--	0.1	--	0.1	--
Strathmore Avenue & Kenilworth Avenue	71.0	6.3	A	7.6	A	6.3	A	7.8	A	6.3	B	7.8	A
Rockville Pike & Flanders Avenue / Wickshire Way (Unsignalized)	71.0	4.5	--	3.8	--	15.4	--	9.8	--	16.2	--	10.1	--

Table 5 presents the HCM results at the study intersections. As shown in Table 5, two (2) intersections meet mitigation criteria per the LATR guidelines: (1) the Strathmore Avenue and Center Site Driveway intersection, and (2) the Rockville Pike and Strathmore Avenue intersection.

Under the Existing and Background conditions, the intersection of Strathmore Avenue and Stillwater Avenue/School Driveway operates above the congestion standard during the morning peak hour and close to the congestion standard during the afternoon peak hour. This is due to a significant number of westbound left-turning traffic turning into the school and northbound left-turning traffic turning out of the school, resulting in delays that exceed the congestion standard at this two-way stop-controlled intersection. The existing offset between Stillwater Avenue and the School Driveway exacerbates delays at this intersection. However, under Total Future conditions, the westernmost site driveway is realigned to eliminate the offset as a result of the project, and the school traffic is rerouted to utilize the center site driveway which will serve as the school entrance. The traffic pattern changes shift the delays to the center driveway which operates above the congestion standard under unmitigated future conditions with the project. Conditions are greatly improved at the Strathmore Avenue and Stillwater Avenue/School Driveway intersection. Mitigation measures to address impact at the Strathmore Avenue and Center Site Driveway intersection are discussed in the following section.

- For both analyses, the one in the 2020 LATR and the one in the supplemental analysis, the reports contain technical attachments that presumably explain how they obtained the congestion delays. These attachments are incomprehensible to a lay person. **We have requested that experts from the state and county DOTs analyze these technical attachments and report to you. We hope they will.** The three relevant attachments from the 2020 LATR are inserted below. We have identified the numerical inputs that are significantly different between the Existing and Background delay analyses and the Future Conditions delay analysis.
    - The inputs for the Existing Conditions and Background Conditions are virtually the same, as was the output of 445.2 second delay and 449.9 second delay. See first two pages of inserts below.
    - The inputs for the Future Conditions, on the other hand, differ significantly in several regards from the inputs from the Existing/Background Conditions (as does the output, 445.2/449.9 vs. 10.7).
    - The differences are found in the following rows and columns:
        - Peak Hour Factor row; NBL and NBR columns.
        - Mvmt Flow row; NBL and NBR columns.
        - HCM Control Delay, s row; NB column.
        - Capacity row; NBLn1 and NBLn2 columns.
        - HCM Lane V/C Ratio row; NBLn1 and NBLn2 columns.
        - HCM Control Delay (s) row; NBLn1 and NBLn2 columns.
        - HCM Land LOS row; NBLn1 and NBLn2 columns.
        - HCM 95th %tile Q(veh) row; NBLn1 and NBLn2 columns.
    - These differences presumably are the key factors in understanding the conclusions stated in the tables.
    - Hopefully, the County and state DOT experts can explain to you how these different inputs can result in such radically different delays. If they cannot, or there is no rational explanation, or the consultant has unreasonably manipulated the inputs to predetermine the outcome, then you should recommend denial of this zoning change.

HCM 2010 TWSC
3: School Driveway & Strathmore Ave

4910 and 4920 Strathmore Avenue
12/17/2020

Intersection						
Int Delay, s/veh	445.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	333	209	111	316	151	49
Future Vol, veh/h	333	209	111	316	151	49
Conflicting Peds, #/hr	0	4	4	0	6	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	95	95	25	25
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	358	225	117	333	604	196

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	587	0	1048	475
Stage 1	-	-	-	-	475	-
Stage 2	-	-	-	-	573	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	988	-	~ 252	590
Stage 1	-	-	-	-	626	-
Stage 2	-	-	-	-	~ 564	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	985	-	~ 213	588
Mov Cap-2 Maneuver	-	-	-	-	~ 213	-
Stage 1	-	-	-	-	624	-
Stage 2	-	-	-	-	~ 479	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	$ 1018.3
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	252	-	-	985	-
HCM Lane V/C Ratio	3.175	-	-	0.119	-
HCM Control Delay (s)	$ 1018.3	-	-	9.1	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	72.6	-	-	0.4	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 TWSC
3: School Driveway & Strathmore Ave

4910 and 4920 Strathmore Avenue
12/17/2020

Intersection	
Int Delay, s/veh	449.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	342	209	111	318	151	49
Future Vol, veh/h	342	209	111	318	151	49
Conflicting Peds, #/hr	0	4	4	0	6	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	95	95	25	25
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	368	225	117	335	604	196

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	597	0	1060	485
Stage 1	-	-	-	-	485	-
Stage 2	-	-	-	-	575	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	980	-	~ 248	582
Stage 1	-	-	-	-	619	-
Stage 2	-	-	-	-	~ 563	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	977	-	~ 210	580
Mov Cap-2 Maneuver	-	-	-	-	~ 210	-
Stage 1	-	-	-	-	617	-
Stage 2	-	-	-	-	~ 478	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	$ 1035.8
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	249	-	-	977	-
HCM Lane V/C Ratio	3.213	-	-	0.12	-
HCM Control Delay (s)	$ 1035.8	-	-	9.2	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	73	-	-	0.4	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 2010 TWSC
3: Center Site Driveway & Strathmore Ave

4910 and 4920 Strathmore Avenue
08/16/2021

Intersection	
Int Delay, s/veh	10.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	338	214	111	323	160	51
Future Vol, veh/h	338	214	111	323	160	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	95	95	92	92
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	363	230	117	340	174	55

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	593	0	1052	478
Stage 1	-	-	-	-	478	-
Stage 2	-	-	-	-	574	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	983	-	251	587
Stage 1	-	-	-	-	624	-
Stage 2	-	-	-	-	563	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	983	-	214	587
Mov Cap-2 Maneuver	-	-	-	-	214	-
Stage 1	-	-	-	-	624	-
Stage 2	-	-	-	-	480	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.3	54.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	214	587	-	-	983	-
HCM Lane V/C Ratio	0.813	0.094	-	-	0.119	-
HCM Control Delay (s)	68.7	11.8	-	-	9.2	0
HCM Lane LOS	F	B	-	-	A	A
HCM 95th %tile Q(veh)	6	0.3	-	-	0.4	-

- **The Planning Department Staff has adopted the** analysis of the 2020 LATR **that contains the disappearing congestion discussed above**. In the insert below, see the 445.2 second delay in row 2, column 3 and 10.7 second delay from row 3, column 4 in Table 3 from Pages 14-15 of the Staff Report and Recommendation (11-5-21). Staff never questioned what happened to the congestion. **Based on this reliance, Staff erroneously agrees with the conclusion that the proposed project would not have a detrimental impact on traffic.**
    - From what we can tell, the Planning Department Staff did not rely on the supplemental analysis in its decision to recommend approval of the project.

Table 3: Existing and Future Traffic Impact

	AM				PM			
	Existing CLV	Future CLV	Existing Delay	Future Delay	Existing CLV	Future CLV	Existing Delay	Future Delay
Rockville Pike and Strathmore Avenue	716	1,289	16.8	21.4	964	1,538	23.3	29.1
Stillwater Avenue and Strathmore Avenue	862	1,033	445.2	2.0	757	1,102	5.3	1.7
Strathmore Avenue and center drive access	427	1,044	0.0	10.7	561	1,091	0.0	3.4
Strathmore Avenue and eastern drive access	427	807	0.0	0.1	561	929	0.0	0.1
Strathmore Avenue and Kenilworth Avenue	479	738	11.7	11.6	639	902	10.8	10.8
Rockville Pike and Flanders Avenue	626	1,003	2.8	7.9	838	1,113	19.7	6.5

(Source: Applicant's LATR Review prepared by Gorove Slade, dated August 24, 2021.)

- In addition, the developer's traffic consultant only analyzed the "Peak Hours," 8:00-9:00 am and 5:00-6:00. **The problem with these counts is that they miss some of the busiest times on Strathmore Ave, 7:30-8:00 am and 2:30-3:30 pm.** The HCA and other schools on or near this part of Strathmore create significant traffic volume outside of the peak hours. **Capturing actual counts during these additional hours, along with the peak hours, and any other high-volume times, likely would show additional delay times in excess of the congestion standard**. For example, there should be counts and congestion analysis for the 2:30-3:30 hour when all the HCA traffic comes and goes for afternoon pickup/departure. We understand that the Transportation Departments sometimes require counts and analysis for the non-peak hours for intersections affected by special circumstances, such as a large school letting out. **Here we have not only HCA letting out around this time but the lower Holy Cross school and Garrett Park Elementary**.

- **Approval also is not appropriate based on confusion about whether a traffic light and turn lane will necessarily be a part of the consideration of the zoning change**. The Maryland DOT has indicated that these items are warranted and would occur, but the Staff makes no mention of them and appears satisfied that the Total Future Conditions for traffic satisfy the standards without these items.

- **The Board Also Should Not Recommend Approval of the Zoning Change Without Certainty about Mitigation.** Until the mitigation actions are approved, the County should not rely on a traffic report based on the existence of these hypothetical actions at these intersections, as it appears the developer does. The consultant's supplemental analysis on traffic only concludes that the project will not have a detrimental impact if certain mitigation steps are implemented, including changing the timing of the light at Strathmore and Rockville Pike, installing a light at the center entrance, and installing a west-bound left turn lane at the center entrance. See Supplemental Analysis at page 24-25. **This report admits that without this hypothetical mitigation, these intersections are not compliant. Not one of these measures is certain to occur.**

The Change to Denser Zoning is Not Warranted as the Developer Admits Transit Use will be "Minimal"

- **Relative Proximity to Metro Does Not Warrant Zoning Change.** The developer is arguing for the zoning change and approval of this denser housing project largely based on the proximity (relative) of the development to mass transit, mainly the Grosvenor Metro station. See Statement of Justification at page 8. However**, the developer also admits in its own documents that use of transit will be "minimal."** 2020 LATR at page 31, inserted below (emphasis added).

  The following conclusions are reached within this chapter:
  - The development site is located adjacent to Ride On bus stops, approximately 0.7 miles from the Grosvenor-Strathmore Metrorail station, and approximately 0.6 miles from the Garrett Park MARC train station, and is surrounded by several Ride On routes that travel along multiple primary corridors
  - **The site is expected to generate a minimal amount of transit trips**, which will not have detrimental impacts to the surrounding transportation network

  The Grosvenor Metro is underutilized, including by the residents of Symphony Park, an adjacent townhome development that is even closer to Metro than the Strathmore property. We are out most morning between 8:00-9:00 a.m. walking our dog and almost never see anyone walking to the Metro from Symphony Park. The **developer should not be able to rely on this so-called closeness to transit goal of the Master Plan** without hard evidence of projected strong use of Metro (and the MARC train station at Garrett Park).

Pedestrian Safety/Walkability

- **Sidewalk to Nowhere.** Nothing guarantees that the developer will be able to connect the planned sidewalk (multi-use path that ends at the border of its property) to the sidewalk that starts near Kenilworth and Strathmore. The developer touts this action as a benefit for walkability. **But for this to happen, the developer would have to purchase the land or an easement from the Parish of Holy Cross.** To our knowledge, this has not happened, although such a proposal apparently has been floated since the 1990s. The likelihood of this happening now is unknown. Such a path would:
    - Cross the western entrance to the Church and School and the eastern entrance to the School (both heavily trafficked during drop off and pick up).
    - Likely infringe on the current drainage along the road.
    - Require the Parish to relocate the fencing on the northeast end of their field, making their field smaller.
    - Likely require the removal of very mature trees, especially in the small field at the eastern end of the property.

- **Improvement to Walkability is Minimal.** The developer has suggested that it only takes 10 minutes to walk from the proposed development to the Metro and to the train station in Garrett Park. We have walked both, starting from the HCA main entrance, at a relatively fast pace. The actual walking time by an average walker is closer to 15 minutes, in the best of weather. For those residents in the back of development, the walk would be even longer to both stations. The employees of the residential care facility would have an even longer walk to the Metro.

- **Strathmore-Stillwater Crossing is Not Signalized and is Already Dangerous.** The County should correct its misperception that the Strathmore and Stillwater intersection has a "signalized pedestrian crossing." **It does not**. Those walking or biking across this intersection must rely on the car drivers seeing the pedestrians at the crosswalk and stopping in time. The eastbound and westbound cars often come down the hill at excessive speed. More cars on Strathmore from the proposed project would exacerbate this problem.

The requested change is from the R-60 zone, which allows only housing and at a much lower number of units. The amendment, if approved, would allow a greater number of houses and a large assisted-living facility, resulting in more adverse impacts from the project as measured against the R-60 baseline. While the amendment no doubt would add to the developer's bottom line, the burden of this increased use and density would fall on the residence of surrounding neighborhoods. The Board should recommend disapproval of a change to this longstanding zoning status. The development then can proceed consistent with existing zoning.

We appreciate the efforts of the Board, the Planning Department Staff, and consulting agencies (e.g., the two DOTs) during these trying times. We and our neighbors signing on ask for your careful consideration of this important issue. Please let us know if have any questions or need anything further from us.

Sincerely,

Doug Burdin
Dianna Gonzales-Burdin

Doug Burdin
Dianna Gonzales-Burdin

cc: Gwen Wright (gwen.wright@montgomeryplanning.org)
Tamika Graham (tamika.graham@montgomeryplanning.org)
Kwesi Woodroffe (KWoodroffe@mdot.maryland.gov)
Rebecca Torma (Rebecca.Torma-Kim@montgomerycountymd.gov)
Kip Edwards (president@gpewfp.org)
Kacky Chantry (mayorkacky@garrettparkmd.gov)
William Neches, President, Strathmore Place HOA (nechesw@yahoo.com)

The following Symphony Park Residents are signing on to these December 13, 2021 Comments of Doug and Dianna Burdin:

Steven and Mara Brick	10882 Symphony Park Dr.
Jerry Stouck and Mindy Buren	10863 Symphony Park Dr.
Cathie and Al Goltz	10753 Symphony Park Dr.
Joseph and Nancy Rose	10737 Symphony Park Dr.
Leslie Tarantola and Simeon Taylor	10845 Symphony Park Dr.
Edda Guerrero	10880 Symphony Park Dr.
Jean-Michel Eid and Amy Ballard	10873 Symphony Park Dr.
Sudha Srinivasan	10796 Symphony Park Dr.
Bob and Gail Dufek	10875 Symphony Park Dr.
Jeffrey and Michelle Milton	10857 Symphony Park Dr.
Sheila Levin	5226 Strathmore Ave.
Tim and Laura Arling	5238 Strathmore Ave.
Katharine Roberts	5110 Strathmore Ave.
Marcia Feuerstein	5242 Strathmore Ave.
Julie Black and Robert Shepard	5250 Strathmore Ave.
Ivy Baer and Marc Rothenberg	5248 Strathmore Ave.
John and Marylouise Serrato	5216 Strathmore Ave.

December 14, 2021

Gwen Wright, Planning Director
Montgomery County Planning Board
2425 Reedie Drive 14th floor
Wheaton, Maryland 20902

Re: *REVISED* Comments from a resident of Strathmore Avenue, across from the proposed development site being discussed for rezoning: Local Map Amendment No. H-143 - Rezoning of Holy Cross Property/4910-4920 Strathmore Avenue

Dear Ms. Wright:

I live on the north side of Strathmore Avenue, and I'm writing to echo many of the submitted written objections of the Garrett Park Estates-White Flint Park Citizens Association ("GPE-WFP"). After meeting with the developer of this project, discussions with my neighbors, very helpful meetings with Ms. Tamika Graham and other Montgomery County planning officials, and also email correspondence with Ms. Brenda Pardo in the Montgomery County Department of Transportation, I remain very concerned that the proposed zoning change for the 4910-4920 Strathmore Avenue property, Local Map Amendment No. H-143, would bring highly unwanted changes to the surrounding neighborhoods.

For the single-family homes located on the north side of Strathmore Avenue, separated from the main Strathmore Avenue artery by a green buffer strip with trees and bushes, this proposed development and the certainty of increased traffic threatens to materially damage the value of our homes. Many of my neighbors and I are highly concerned that the increase in traffic, despite the traffic mitigation proposals the developer has promised, will effectively bring more traffic noise, automobile emissions, and even light pollution from oncoming headlights into our bedrooms and living rooms, as well as far more traffic on Strathmore Avenue and the surrounding neighborhood streets.

My primary objections are as follows:

1) The request to **change the zoning for the subject property** from R-60 to a CRNF 0.75, C 0.25, R 0.75, H 50 zone **seems rushed and haphazard**, as it is predicated on faulty or missing data, particularly on road usage and typical traffic conditions. **Please do not make this zoning decision without a recent, reliable, accurate, and comprehensive traffic study** — and please consider the reality that a lower-density, R-60 development may be a far more prudent decision, as fewer homes would put fewer cars on the road, and have less of an impact on the environment.

Indeed, **new data from a neighborhood-sponsored traffic video study this week shows 1,200 vehicles passing through the Stillwater Ave. and Strathmore Ave. intersection between 7:20 a.m. and 8:20 a.m. on Monday, Dec. 13, 2021**—this is a far higher number of cars than the base numbers claimed in the LATR analysis that purports there will be "minimal traffic impact" from the addition of 120+ new homes and a new 150-bed care facility.

Traffic currently backs up several times daily along Strathmore Avenue, in part timed to when students arrive and depart from the three schools located in close proximity to each other — but also simply because of heavier traffic during the morning and evening rush hour. When traffic backs up, some drivers seek to jump the queue, either by zipping far too quickly down our Strathmore access road (which is narrow, with cars parked in front of our homes on the north side, making this effectively a one-lane, go-slow road), or by making a quick turn onto Flanders Avenue or Stillwater Avenue to the only other alternative exit, at Rockville Pike. With added traffic, more drivers will no doubt cut through our Garrett Park Estates neighborhood.

The traffic data and traffic studies also seem to rely on studies taken during the pandemic (when schools were not meeting in person, and many people were working from home) and an earlier data set from a traffic study taken during a Friday afternoon in mid-summer, with no schools in session. It's simply not plausible, to anyone who lives here, that the proposed development will have no detrimental impact on local traffic, as the developer claims! **The new data from the neighborhood-generated video traffic study will support our concerns about adding even more traffic to this major traffic artery.**



An added concern about traffic backups is the fact that Strathmore Avenue provides critical access for emergency vehicles from the Kensington Fire Department, who frequently use this route to travel to emergencies along Rockville Pike or the Beltway, or transport patients to Suburban Hospital. What may appear as "extra curb space" is much needed, as this is how cars pull over to let emergency vehicles pass.

The developer has proposed the addition of a new traffic signal will resolve any traffic issues — and proposes to locate this light for the convenience of the new development. If the County is serious about overall traffic safety, and pedestrian safety, the logical place for a new traffic signal would be **at the bottom of the hill**, where the proposed plans indicate the current Stillwater intersection would become a 4-way intersection, continuing the road into the new development. A traffic signal at that intersection would allow GRE-WFP residents to exit safely onto Strathmore, and allow walkers/bikers to cross Strathmore safely on their way to the Metro (there is currently a pedestrian crossing and island, but the crossing on Strathmore is not signalized — see photo).

2) Local residents want to **fully protect the current Strathmore Avenue green buffer** zone that separates our homes from traffic along this busy roadway.

This buffer zone, with its trees and shrubs, is vital to mitigating road noise and pollution that affect our homes along the north side of Strathmore Avenue, but is also a place where people walk. This usage has become even more evident during the pandemic, as large numbers of local residents used the sidewalk, street, and the green buffer zone to move up and down Strathmore Avenue. Even the Holy Cross Academy cross-country team uses this side/access roadway to do interval workouts.

The developer has assured me that their plans for enlarging Strathmore Avenue to accommodate the proposed left turn lanes **would NOT encroach** on this green buffer zone, and comments from County planning and traffic officials also say that any right of way to accommodate the entries to the proposed development and road frontage to accommodate the proposed bike path must come from the south side of Strathmore Avenue.

Nonetheless, my neighbors and I seek assurances that any zoning changes, any future developments, and any future changes to the main roadway **will not materially alter the current buffer zone or our access road along the north side of Strathmore Avenue** — and that any destroyed trees and shrubs would be replanted. These may seem "minor" changes that might appear inconsequential on paper or schematic drawings, and yet matter immensely, as they materially threaten the livability, comfort, and value of the homes of people who live directly across from the proposed development plot.

3) The proposed **stormwater solutions appear inadequate**, given the downward slope towards the Strathmore-Stillwater Avenue dip in the road, where the roadway crosses over a small creek. Because of this terrain, what would stop rainwater from a new development, and more paved roads/built space, from flowing down the proposed center entrance and down the south side of Strathmore Avenue? The developer's answers seem to involve rainwater gardens—and blanket assurances—but I remain unconvinced.



Currently, the dip at the bottom of Strathmore Avenue (near the pedestrian crossing at Stillwater Avenue) tends to flood during heavy rains, making driving dangerous or impossible. Please see this August 2021 photo taken after one storm, and note the debris level along the fence fronting the south side of Strathmore Avenue, at the southwest corner of the 4910-4920 Strathmore Avenue property, just west of the

current entrance to Holy Cross Academy. That's a foot or more of running water, running down Strathmore Avenue and depositing leaves and debris precisely where 2 new houses are proposed. How does this make any sense?

4) **Loss of overall green space in the area.** The recent Strathmore Square development, which was approved, offered maps that included the 4910-4920 parcel as "green space," to show that the Strathmore Square development would be surrounded by plenty of trees and green space. Does the County simply ignore one development's surrounding "green space," when considering the rezoning of that very "green space" to allow more dense development, in a hearing held just weeks later? This appears to be happening right now. What green space will be left in our area to mitigate hotter temperatures, and help keep the air clean?

5) **Lack of parks/play areas, or connected walkways,** in the proposed rezoning/development.

The proposed plans accompanying this rezoning effort call for a bike/walking path that goes only as far as the eastern property line, but does not connect to anything east of the property. The proposed development also includes a "heart health" path that similarly goes nowhere — and County planners have raised concerns about the safety of that path, given that it will not be visible from the proposed new homes, and the lack of lighting or benches.

Every neighborhood deserves outdoor space, and it seems foolhardy to propose a new development that excludes a playground altogether — are families supposed to hop in their cars to drive toddlers to a park or playground? Are older children expected to hop on their bikes and cross a busy road to meet up with their friends? The proposed plans that are prompting this rezoning request simply don't make sense when it comes to parks and recreation, and the overall health and well-being that open spaces, playgrounds, and communal green space offer—please insist that plans include more green space/play areas that are accessible, ADA-compliant, and designed with both older/younger County residents in mind.

In any future development of the 4910-4920 parcel, wouldn't direct walking paths from the development to Metro be a priority? And if we encourage children to walk to schools, wouldn't creating direct, safe pathways to the surrounding schools (Garrett Park Elementary and Holy Cross Parish School K-8) be a priority? Why would parents opt to walk out to the main road, then carefully walk along the busy roadway to bring their children safely to either one of these schools? Out of convenience and safety considerations, it's likely most parents simply put their children in the car, even for a relatively short school run.

Thank you for your close consideration of these concerns, which are shared by many of my neighbors.

Sincerely,

Vanessa Lide
5013 Strathmore Avenue
Kensington, MD 20895
v.lide2345@gmail.com

cc: Tamika Graham (tamika.graham@montgomeryplanning.org)
Kip Edwards, President, Garrett Park Estates - White Flint Park Mayor (president@gpewfp.org)
Kacky Chantry, Mayor of Garrett Park: (mayorkacky@garrettparkmd.gov)
William Neches, President, Strathmore Place HOA: (nechesw@yahoo.com)
Casey Anderson, Planning Board Chair: (MCP-Chair@mncppc-mc.org)
Rebecca Torma-Kim, Development Review Team Manager: (Rebecca.Torma-Kim@montgomerycountymd.gov)
Senator Jeff Waldstreicher: (jeff.waldstreicher@senate.state.md.us)
Andrew Friedson: (Councilmember.Friedson@montgomerycomd.gov)
OZAH@montgomerycountymd.gov

Graham, Tamika

From: gandgantiques@aol.com
Sent: Wednesday, December 15, 2021 9:18 PM
To: MCP-Chair; Wright, Gwen; Graham, Tamika; Rebecca.Torma-Kim@montgomerycountymd.gov
Subject: St. Angela Hall, Strathmore Avenue Proposal

Categories: Tracked To Dynamics 365

[EXTERNAL EMAIL] Exercise caution when opening attachments, clicking links, or responding.

TO: MCP Members & Staff
FROM: Margaret Goldsborough & Max Faulkner

As longtime residents of the Town of Garrett Park, we must weigh in on the plans for the St. Angela Hall property.

The report supporting the change in zoning states blithely that "...the local map amendment will not negatively impact...nearby historic resources." The Town of Garrett Park is one of the "nearby historic resources" and we will, indeed, be negatively impacted. On the traffic issue alone this plan must be reconsidered at its core. It ignores the already very difficult traffic situation on Strathmore Avenue. We call your attention to the correspondence from our good neighbors from Garrett Park Estates who determined that the developer dramatically understated the existing traffic flow in attempting to make its case. We already have UNacceptable levels of congestion. New turning lanes will not address the problem created by adding 125 townhouses, a block of so-called single family houses jammed on tiny lots, and an assisted living facility with three shifts of staff coming and going every day.

They also quite absurdly tout their plans for recreational areas. We think of recreational areas as playgrounds, tennis courts, swimming pools. There is not a single one of those planned. The developers have filled every possible square foot of the property with money-making construction, and always provide the bare minimum required in terms of green space, double dipping (in a regulatory sense) by placing paths in areas that must be preserved due to topographical and wetlands concerns.

We associate ourselves with the recommendations of the Town of Garrett Park.

In conclusion, please know that this proposed zoning change is NOT furthering the public interest of these tax-paying residents of Montgomery County and the Town of Garrett Park. Thank you for your attention.

GARRETT PARK ESTATES-WHITE FLINT PARK CITIZENS ASSOCIATION

WWW.GPEWFP.ORG

PRESIDENT
KIP M. EDWARDS, ESQ.
PRESIDENT@GPEWFP.ORG

VICE PRESIDENT
JEFF DEROGATIS

SECRETARY
SUZANNE HUDSON

COMMUNICATIONS CHAIR
STEVE DAUBRESSE

December 14, 2021

Chair Casey Anderson
Montgomery County Planning Board
2425 Reedie Drive 14th floor
Wheaton, Maryland 20902

Re: Comments of Garrett Park Estates - White Flint Park Citizens Association on Local Map Amendment No. H-143 - Rezoning of Holy Cross Property

Dear Chair Casey Anderson and Members of the Planning Board:

On behalf of the Garrett Park Estates-White Flint Park Citizens Association ("GPE-WFP"), I submit the following comments to the Planning Board. GPE-WFP represents the families and residents of more than 650 homes. Our single-family homes are adjacent to the proposed development of 4910-4920 Strathmore Avenue, Local Map Amendment No. H-143. **We oppose the local map amendment as currently formulated by the applicant for the reasons outlined below** and therefore ask the Planning Board to reject the LMA application and encourage the property owners to explore a development in accordance with the existing R60 zone, if at all.

GPEWFP opposes the LMA as it has been proposed for the following reasons:

- **First, our community has not been provided with access to necessary documentation in accessible format which is a clear violation of the Americans with Disabilities Act.** People with disabilities deserve respect and reasonable accommodation. While some documentation has been provided by the developer following our request in October, not all of it has. Ignoring our resident's (and our association's) continued requests for accommodation and moving on with this process without providing equal access is a violation of 28 U.S.C. Section § 35.160, and frankly, disrespectful.
- **Second, the impact a dense development would have on traffic has not been properly studied.** Despite having months to acquire accurate traffic counts, the applicant is relying on data acquired at the height of the pandemic and supplementing with data acquired more than five years ago. To demonstrate how inaccurate this data is, we submit for the record video and a chart (Appendix 1) showing

GARRETT PARK ESTATES-WHITE FLINT PARK CITIZENS ASSOCIATION

WWW.GPEWFP.ORG

PRESIDENT
KIP M. EDWARDS, ESQ.
PRESIDENT@GPEWFP.ORG

VICE PRESIDENT
JEFF DEROGATIS

SECRETARY
SUZANNE HUDSON

COMMUNICATIONS CHAIR
STEVE DAUBRESSE

traffic counts on December 13, 2021, at Stillwater Ave. and Strathmore Ave. from 7:20 to 8:20am.

Our count for what our neighborhood knows is the AM peak period was at least 1,970 trips which is 63.4% higher than what the applicant's traffic consultant based their analysis and mitigation strategies on for this intersection (1,205 trips).

The proposed development adds 125 residences (so, possibly 250 additional vehicles), a 150-resident assisted living facility with daily visitors, 50 employees, 24-hour staffing and frequent emergency medical response. This could mean more than 300 additional vehicles making multiple trips per day. That is a significant added burden to an already overburdened road.

More congestion will make this road even less safe and will make getting out of our neighborhood and nearby neighborhoods even harder. The congestion will also lead to increased cut-through in our neighborhood (i.e., on Flanders and Stillwater Avenues).

- **Third, the applicant's own flawed data shows that Strathmore Avenue is already overburdened**. The traffic studies submitted by the developer's consultant appear to **acknowledge significant (six times the Maryland SHA standard) morning peak hour congestion.** Their proposed mitigation strategies should not be given weight as they are based on flawed baseline assumptions and ignore the most obvious mitigation measure—adding a second entrance to the rear of the property on Tuckerman Lane. Furthermore, the project would not serve the goal of placing high density housing near transit (such as Metro) as **the developer has admitted that transit use will be "minimal,"** and the project does not currently serve walkability goals (as detailed below).

  The County should not approve the zoning change without certainty about mitigation. The developer's Supplemental Analysis on traffic only concludes that the project will not have a detrimental impact if certain mitigation steps are implemented, including changing the timing of the light at Strathmore and Rockville Pike, installing a light at the center entrance, and installing a west-bound left turn lane at the center entrance. See Supplemental Analysis at page 24-25. **This report admits that without hypothetical mitigation, these intersections are not compliant. But none of these measures are certain to actually mitigate traffic because the data underlying their analysis is so critically flawed.**

GARRETT PARK ESTATES-WHITE FLINT PARK CITIZENS ASSOCIATION

WWW.GPEWFP.ORG

PRESIDENT
KIP M. EDWARDS, ESQ.
PRESIDENT@GPEWFP.ORG

VICE PRESIDENT
JEFF DEROGATIS

SECRETARY
SUZANNE HUDSON

COMMUNICATIONS CHAIR
STEVE DAUBRESSE



(Strathmore and Stillwater during true AM Peak)



(Strathmore and Stillwater during PM Peak)

- **Fourth, the environmental impact of a dense development removing one of the area's few last large greenspaces next to wetlands and a stream has not been properly studied.** According to the EPA, there is no baseline water quality data for the wetland area and stream running through the property which will undoubtedly catch sedimentary runoff during construction and will

GARRETT PARK ESTATES-WHITE FLINT PARK CITIZENS ASSOCIATION

WWW.GPEWFP.ORG

PRESIDENT
KIP M. EDWARDS, ESQ.
PRESIDENT@GPEWFP.ORG

VICE PRESIDENT
JEFF DEROGATIS

SECRETARY
SUZANNE HUDSON

COMMUNICATIONS CHAIR
STEVE DAUBRESSE

absorb nearly all of the runoff caused by the massive amount of new non-permeable surface area created by the proposed development. We are very concerned about potential environmental impacts of the zoning change. We have not seen any documents reflecting the amount of impermeable surface that will replace the green space. As climate change increases rapidly, no zoning decision should be made until there is documentation of how the storm water flow from these unknown areas of impermeable surface will affect the stream that runs into Rock Creek and the navigable waters of the Potomac. **No zoning decision should be made until a storm water drainage control plan is provided that takes into account the immediate effects of climate change** we are seeing in this area with the increased flooding of many parts of our community.

We also understand that there are some **wetlands on the project which may require federal approvals**, which are not discussed in the documents we have been provided. **Moreover, bald eagles are often seen on this property, and neighbors hear Barred Owls there every night.** Essentially, this zoning change is proposed without any concept or data on the environmental impacts of the development—not consistent with the ethos of Montgomery County, Maryland.

In addition, the noise from Strathmore will increase significantly with the increased traffic and **the noise levels in the community** affected should also be analyzed. The **increase in carbon footprint** of the proposed zoning change should also be considered in light of climate change.

- **Fifth, schools in our cluster are already overcapacity.** The Walter Johnson cluster has experienced large enrollment increases in recent years. MCPS attributes this primarily to turnover of existing homes to younger families. However, the residences at NoBe Market and Pike & Rose feed into our cluster. The Harwood Flats Apartments plans to open with 335 units in summer 2022, and Strathmore Square is moving ahead with their first phase of 220 units. While MCPS plans to open a new high school (Woodward) in a few years, there are no plans yet for another elementary school in our cluster and this development would surely feed into Garrett Park Elementary School, but that school is already over capacity. **MCPS should plan for another elementary school in this cluster to accommodate the increase in denser development** and without that plan this move to additional dense development should not be

GARRETT PARK ESTATES-WHITE FLINT PARK CITIZENS ASSOCIATION

WWW.GPEWFP.ORG

PRESIDENT
KIP M. EDWARDS, ESQ.
PRESIDENT@GPEWFP.ORG

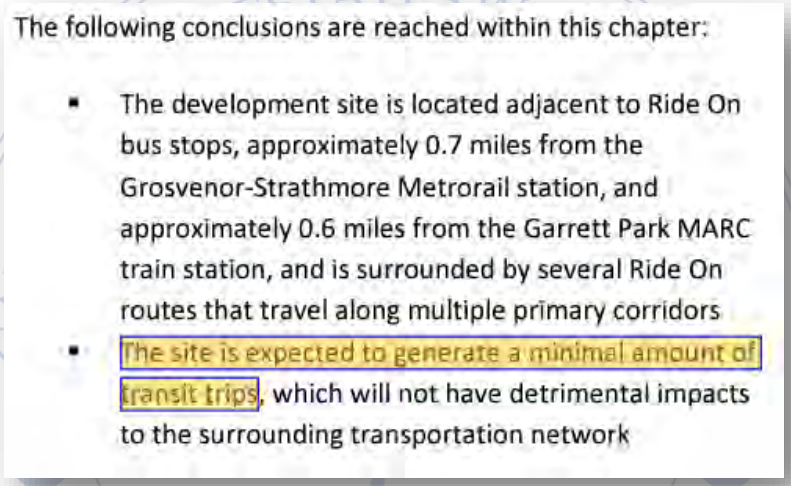
VICE PRESIDENT
JEFF DEROGATIS

SECRETARY
SUZANNE HUDSON

COMMUNICATIONS CHAIR
STEVE DAUBRESSE

approved. Just because the County Council eased the moratorium on building in clusters above 120% capacity doesn't mean school capacity should be completely ignored by the Board. Easing a moratorium doesn't relive this County of it's need to account for school capacity whatsoever.

- **Sixth, the site's relative proximity to metro does not warrant zoning change.** The applicant is asking for the zoning change and approval of this denser housing project largely based on the proximity (relative) of the development to mass transit, mainly the Grosvenor Metro station. See, Statement of Justification at page 8. However, **the developer also admits in its own documents that use of transit will be "minimal."** 2020 LATR at page 31, inserted below.


The following conclusions are reached within this chapter:

- The development site is located adjacent to Ride On bus stops, approximately 0.7 miles from the Grosvenor-Strathmore Metrorail station, and approximately 0.6 miles from the Garrett Park MARC train station, and is surrounded by several Ride On routes that travel along multiple primary corridors
- The site is expected to generate a minimal amount of transit trips, which will not have detrimental impacts to the surrounding transportation network

The Grosvenor Metro is underutilized, including by the residents of Symphony Park, an adjacent townhome development that is even closer to the Metro station than the property. One of our neighbors, who lives in Symphony Park, is out most mornings between 8-9 am walking their dog and almost never sees anyone heading to the Metro. **The developer should not be able to rely on this goal of the Master Plan** without hard evidence of projected strong use of Metro (and to a lesser extent the bus line and MARC train station at Garrett Park).

The developer has suggested that it only takes 10 minutes to walk from the development to the Metro and to the train station in Garrett Park. We have walked both, starting from the Holy Cross main entrance, and walked both routes at a relatively fast pace. The actual walking time by an average walker is closer to 15 minutes, in the best of weather. For those residents in the back of the

GARRETT PARK ESTATES-WHITE FLINT PARK CITIZENS ASSOCIATION

WWW.GPEWFP.ORG

PRESIDENT
KIP M. EDWARDS, ESQ.
PRESIDENT@GPEWFP.ORG

VICE PRESIDENT
JEFF DEROGATIS

SECRETARY
SUZANNE HUDSON

COMMUNICATIONS CHAIR
STEVE DAUBRESSE

development, the walk would be even longer to both stations. The employees of the assisted-living facility would have an even longer walk to the Metro. The employees of the assisted-living facility will also have working hours during times the Metro is closed. Visitors to the assisted-living facility are likely families, who would more likely drive than pay Metro fares for each member of the family. **We should note that if the applicant planned to add an entrance on Tuckerman Lane, then the true walkability to the Metro would improve dramatically.**

We also note that the Coalition for Smarter Growth has submitted comment on this development advocating for its approval based, primarily on its proximity to mass transportation and so-called walkability. This organization has likely never been our neighborhood and fails to recognize the fact that the effective walking distances to the Metro are much longer due to the stream creating an obstacle. **Take note that the developer behind this application—EYA—made a significant financial contribution to this organization before they submitted their testimony ($5,000 - $19,999 according to their 2021 annual report).**

- **Seventh, aspects of the development are detrimental to the character and safety of the surrounding neighborhoods.** The proposed path from the new development to the Grosvenor Metro as planned is neither safe nor Americans with Disabilities Act compliant. It has been designed with limited visibility from the townhouses above the path next to the stream and with little to no lighting. This creates an unmonitored, dark path at night.

***

The amendment, if approved, would allow a greater number of houses and a large assisted-living facility, resulting in significant adverse impacts from the project as measured against the R-60 baseline. The burden of this increased use and density would fall on the residents of surrounding neighborhoods. The Board should deny a change to this long-standing zoning status. The development then can proceed consistent with existing zoning.

However, if the board seeks to recommend approval of the LMA, we request it only do so with the following stipulations:

- **Requested Stipulation 1:** If the Board recommends approval of the LMA it should only be done on condition that all documentation for

GARRETT PARK ESTATES-WHITE FLINT PARK CITIZENS ASSOCIATION

WWW.GPEWFP.ORG

PRESIDENT
KIP M. EDWARDS, ESQ.
PRESIDENT@GPEWFP.ORG

VICE PRESIDENT
JEFF DEROGATIS

SECRETARY
SUZANNE HUDSON

COMMUNICATIONS CHAIR
STEVE DAUBRESSE

the LMA and all future development materials must be provided in accessible format for the visually impaired.

- **Requested Stipulation 2:** If the Board recommends approval of the LMA it should only be done on condition that measures to address cut-through traffic in our neighborhood on Flanders Avenue and Stillwater Avenue be built into future development plans. Such measures might include forbidding non-residents from entering our neighborhood during peak traffic times, and the addition of speed bumps on Stillwater Avenue and speed cameras to deter dangerous driving.
- **Requested Stipulation 3:** This development needs an actual park. The proposed plans preserve very little accessible green space, and expects families to leave their new neighborhood to access heavily used playgrounds nearby. **Approval should therefore be contingent on the developer incorporating an ADA-compliant, accessible park** large and appropriate enough for this so-called intergenerational community.
- **Requested Stipulation 4:** If the Board recommends approval of the LMA it should only be done on condition that future development preserves the existing green buffer along Strathmore Avenue. The homes along the Strathmore Avenue access road (on the north side of the street) are separated from traffic and road noise by a green buffer zone with trees and shrubs. Residents do not want to see spillover traffic along this narrow access road - but also want to be sure that **the proposed new turn lanes into the development are not created by carving into this green buffer zone**, or the loss of trees and shrubs along this buffer, both of which threaten to bring traffic noise and pollution significantly closer to our homes.
- **Requested Stipulation 5:** If the Board recommends approval of the LMA it should only be done on condition that new traffic lights are installed at Stillwater and Strathmore as well as Flanders and Rockville Pike to facilitate safe entry and exit to and from our neighborhood. There are approximately 650 homes in GPE-WFP, and (a very modestly estimated) 1,000 vehicles in GPE-WFP associated with these homes. These vehicles leave the neighborhood either by Flanders Avenue or Stillwater Avenue. We request traffic lights to be located at the intersection of Stillwater and Strathmore Avenue and Flanders and Rockville Pike, to facilitate safe vehicular and pedestrian entry and exit from GPE-WFP. Placing a new traffic light at the new main entrance to the proposed development without some sort of signalized control at Stillwater and Strathmore could result in residents of GPE-WFP being unable to exit the

GARRETT PARK ESTATES-WHITE FLINT PARK CITIZENS ASSOCIATION

WWW.GPEWFP.ORG

PRESIDENT
KIP M. EDWARDS, ESQ.
PRESIDENT@GPEWFP.ORG

VICE PRESIDENT
JEFF DEROGATIS

SECRETARY
SUZANNE HUDSON

COMMUNICATIONS CHAIR
STEVE DAUBRESSE

neighborhood during the peak traffic times (this already frequently occurs).

- **Requested Stipulation 6:** Approval of the LMA should include a prohibition of commencement of construction if projected overcrowding at any school which the development would feed into exceeds 120%.
- **Requested Stipulation 7:** Approval of the LMA should be conditioned on the inclusion of a rear entrance and exit to the community on Tuckerman Lane. We think this simple addition would significantly ease traffic burdens and improve the neighborhood's access to transit and the future commercial space at Grosvenor Strathmore Metro station. It is a win-win for policy and our future neighbors' quality of life.

***

We sincerely appreciate the efforts of the Planning Department and asks for your careful consideration of this important issue. Please let me know if you have any questions or need anything further from us.

Kip M. Edwards, Esq.
President
GPE-WFP Citizens Association
president@gpe-wfp.org

December 13, 2021

Chair Casey Anderson
Montgomery County Planning Board
2425 Reedie Drive 14th floor
Wheaton, Maryland 20902

Re: Comments of Arthur and Ariel Ribeiro on Local Map Amendment No. H-143 - Rezoning of Holy Cross Property[1]

Dear Chair Casey Anderson and Members of the Planning Board:

We are residents and homeowners of 5101 Strathmore Avenue, the house across the street from the property at 4910-4920 Strathmore Ave., for which a developer is requesting a change to the zoning from R-60 to CRNF 0.75, C 0.25, R 0.75, H 50. We are members of the Garrett Park Estates - White Flint Park (GPE-WFP) citizens association. **We oppose the zoning amendment and proposed development**, as currently formulated, for numerous reasons.

In particular, we are gravely concerned that the **Planning Department staff did not do their job of due diligence and follow due process procedures**, which presumes accurate information, with regard to this project. The Planning Department staff failed to visit the site or to verify if the claims from the developer are factual. The **Planning Board has no other choice but to reject their recommendation**.

In addition, the traffic studies submitted by the developer's consultant appear to **acknowledge significant (six times the standard) morning peak hour congestion** at the most important intersection (the entrance to Holy Cross Academy ("HCA" or "Academy") for the existing and background scenarios, but **somehow makes this congestion virtually disappear in the Total Future Conditions** (i.e., the Background conditions plus the added traffic from the project). In short, the project would impose an adverse and unacceptable impact on traffic. The Staff Report and Recommendation uncritically accepted the traffic consultant's flawed analysis and conclusions, including on the disappearing congestion.

Furthermore, the project would not serve the goal of placing high density housing near transit (such as Metro) as **the developer has admitted that transit use will be "minimal,"** and the project does not currently serve walkability goals.

The surrounding neighborhoods should not have to endure this worsened traffic just so the developer can pack more houses and a residential care facility into R-60 zoned properties. **We encourage you to recommend denial of the zoning change** so that the property can be developed, if at all, according to its long-held zoning status. We discuss these points in more detail below.

[1] We worked informally with Doug Burdin, so many elements of this letter incorporate points also made by him. We have added additional points to the ones he made.

The Code Requires the County to Critically Analyze the Zoning Change

The GPE-WFP homes have existed across from the Holy Cross Academy and the St. Angela convent property since the 1950's. The R-60 zoning, with its limited density, is a part of the fabric of this community. **The community expected continued lower density development** if this property was ever developed.

The Code requires the County, in each level of the decision-making process, to critically analyze the application and clearly detail and explain, with citations to facts and data in the record, the analysis. The County must make what are called **"Necessary Findings"** per Section 7.2.1(E), provided below.

> E. Necessary Findings
>
> 1. A Floating zone application that satisfies Article 59-5 may not be sufficient to require approval of the application.
> 2. For a Floating zone application the District Council must find that the floating zone plan will:
>   a. substantially conform with the recommendations of the applicable master plan, general plan, and other applicable County plans;
>   b. **further the public interest**;
>   c. satisfy the intent, purposes, and standards of the proposed zone and requirements of this Chapter;
>   d. **be compatible with existing and approved adjacent development**;
>   e. **generate traffic that does not exceed the critical lane volume** or volume/ capacity ratio standard as applicable under the Planning Board's LATR Guidelines, or, if traffic exceeds the applicable standard, that the applicant demonstrate an **ability to mitigate such adverse impacts**; and
>   f. when applying a non-Residential Floating zone to a property previously under a Residential Detached zone, **not adversely affect the character of the surrounding neighborhood**.
>
> (Emphasis added.)

Planning Department's Recommendation Lacks Credibility, Must Be Rejected

Consistent with what the County Code requires, as delineated above, the residents of Montgomery County, including those of GPE-WFP, presume that the Planning Department staff will follow administrative due process procedures, which includes use of accurate information. However, as demonstrated in their Staff Report and Recommendation, in their answer to one of our written questions, **the Planning Staff misrepresented the current situation at the intersection of Strathmore and Stillwater Avenues**. The County's Planning Staff stated that there is a "signalized pedestrian crossing" at this intersection (see their response in blue below).

What are the safety measures for cars accessing Strathmore Avenue? What are the safety measures for pedestrians crossing Strathmore Avenue? A stop light at the main entrance to the EYA development may help. But what about Stillwater and Jolly Way?

- **The existing signalized pedestrian crossing between the Ride On bus stops at the Strathmore Avenue and Stillwater Avenue intersection will remain. There are no traffic signals proposed for Stillwater or Jolly Way.**

This is factually incorrect (see picture below). The implications of this error are gravely concerning. It implies that **the Planning Department staff did not bother to actually visit the site**, or worse, that they just relied on the developer for information on this site without verifying its accuracy. There are potentially other aspects of the report, particularly the technical portions of the traffic study, for example, which a lay person is unable to understand, that the public relies on the Planning Department to analyze and verify. **This error clouds the credibility of the Planning Staff**, and makes GPE-WFP doubt that our high standard for due diligence was met. The numerous issues with the traffic studies, that we point out below, lends further credence to this lack of due diligence and credibility, as does the quick dismissal by the Planning Department staff of pursuing another entrance to HCA from Tuckerman Lane (also discussed below). As a result, **the Planning Board has no choice but to reject the Planning Department's recommendation**.



The Impact on Traffic Will be Unacceptable

- **Traffic Will Increase and be Unacceptable.** Without doubt, **traffic on the already overburdened two-lane Strathmore Avenue (which serves three schools and is a major cut-through between Kensington and Rockville) and nearby streets would increase considerably.** More congestion will make this road even less safe and will make getting out of our neighborhood and nearby neighborhoods even harder. The congestion will also lead to increased cut-through in our neighborhood (i.e., on Flanders and Stillwater Avenues).
    - The **125 homes**, with likely at least two cars each, will add numerous new cars to Strathmore and surrounding streets.
    - The assisted-living facility will compound the problems, as it adds **150 residents, visitors, 50 employees, and 24-hour staffing.** There will also be emergency vehicles responding to incidents at the assisted-living facility possibly daily and at all hours of the night. There will also be increased delivery trucks, visitors, and additional medical support personnel.

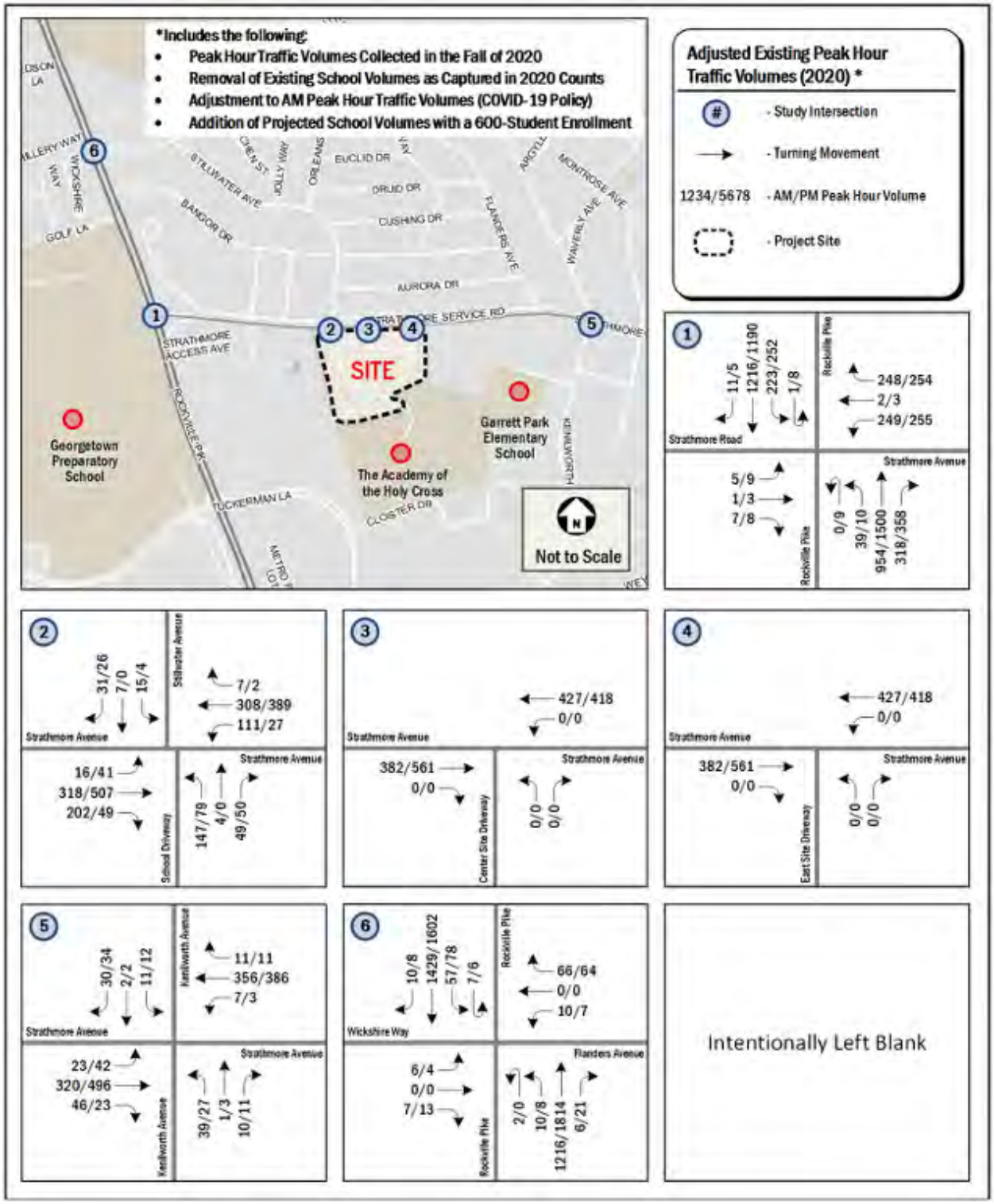
- **The Board, with help from Staff and the Montgomery County DOT and Maryland DOT, must address the disappearing congestion contained in the developer's consultant studies, as explained in detail below.**

    - **You should not accept the Staff Recommendation to approve the zoning change without reviewing Table 7** on page 30 and the explanation of Table 7 on page 16 of the LATR by Gorove Slade (December 2020, updated August 2021) ("2020 LATR"). Table 7 is inserted below for your convenience. Table 7 shows that under the Existing Conditions and Background Conditions (Existing Conditions plus traffic from approved nearby developments), the **AM Peak Hour delay in seconds is 445.2 and 449.9 per vehicle for the Strathmore/Stillwater/ HCA entrance intersection**. The Congestion Standard is 71 seconds, so the **delay at this intersection is OVER SIX TIMES TOO LONG**. Yet under the Total Future Conditions, **this delay somehow disappears**, allowing the consultant to conclude that all intersections are below the Congestion Standard.

Table 7: Intersection HCM Delay Results

Intersection	Congestion Standard (s)	Existing Conditions (2020)				Background Conditions				Total Future Conditions			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS
Rockville Pike & Strathmore Avenue / Strathmore Road	71.0	16.8	B	23.3	C	20.4	C	27.9	C	21.4	C	29.1	C
Strathmore Avenue & Stillwater Avenue / Western Site Driveway (Unsignalized)	71.0	445.2	--	5.3	--	449.9	--	5.4	--	2.0	--	1.7	--
Strathmore Avenue & Center Site Driveway (Unsignalized)	71.0	0.0	--	0.0	--	0.1	--	0.2	--	10.7	--	3.4	--
Strathmore Avenue & Eastern Site Driveway (Unsignalized)	71.0	0.0	--	0.0	--	0.0	--	0.0	--	0.1	--	0.1	--
Strathmore Avenue & Kenilworth Avenue	71.0	11.7	B	10.8	B	11.7	B	10.8	B	11.6	B	10.8	B
Rockville Pike & Flanders Avenue / Wickshire Way (Unsignalized)	71.0	2.8	--	19.7	--	7.6	--	6.3	--	7.9	--	6.5	--

- See Figure 6 (inserted below) from page 18 of the 2020 LATR, for the proposed intersection configurations discussed above and below, which is helpful to understanding Table 7.
- Under the proposal, the existing HCA entrance would be moved slightly west to align with Stillwater (to be used mainly by residents of the townhouses). What would become the main entrance to HCA, some townhouses, and the residential facility, is moved east and becomes the "Center Site Entrance." As stated throughout the 2020 LATR, the project proposes to move the existing excessive traffic from the current west entrance to the proposed center entrance (and then add other traffic to it). According to the scant explanation of Table 7 (also inserted below), this simple realignment of the current entrance with Stillwater gets rid of all the morning congestion (changing it from 445 to 10.7 seconds).


*Includes the following:
Peak Hour Traffic Volumes Collected in the Fall of 2020
Removal of Existing School Volumes as Captured in 2020 Counts
Adjustment to AM Peak Hour Traffic Volumes (COVID-19 Policy)
Addition of Projected School Volumes with a 600-Student Enrollment
Adjusted Existing Peak Hour Traffic Volumes (2020) *
- Study Intersection
- Turning Movement
1234/5678 - AM/PM Peak Hour Volume
- Project Site
SITE
Georgetown Preparatory School
The Academy of the Holy Cross
Garrett Park Elementary School
Not to Scale
STRATHMORE ACCESS AVE
ROCKVILLE PIKE
TUCKERMAN LA
CLOISTER DR
EUCLID DR
DRUID DR
CUSHING DR
AURORA DR
BANGOR DR
FLANDERS AVE
WAVERLY AVE
MONTROSE AVE
ARGYLL
ORLEANS
GOLF LA
WICKSHIRE WAY
Strathmore Road
Rockville Pike
Strathmore Avenue
Stillwater Avenue
School Driveway
Center Site Driveway
East Site Driveway
Kenilworth Avenue
Wickshire Way
Flanders Avenue
Intentionally Left Blank

> Table 7 presents the HCM results at the study intersections. As shown in Table 7, under the Existing and Background conditions, the intersection of Strathmore Avenue and Stillwater Avenue/School Driveway operate above the congestion standard during the morning peak hour. This is due to a significant number of westbound left-turning traffic turning into the school and northbound left-turning traffic turning out of the school, resulting in delays that exceed the congestion standard at this two-way stop-controlled intersection. The existing offset between Stillwater Avenue and the School Driveway exacerbates the delay at this intersection. However, under Total Future conditions, the westernmost site driveway is realigned to eliminate the offset as a result of the project, and the school traffic is rerouted to utilize the center site driveway which will serve as the school entrance. Delays under Background Conditions at the Strathmore Avenue and Stillwater Avenue intersection are shifted to the Center Site Driveway under Future Conditions to operate well within the congestion standard. The traffic pattern changes result in improved conditions in which all study intersections operate well below the congestion standard of 71.0 seconds.

- The supplemental analysis the consultant performed in 2021, which used different traffic counts, contains a table that is similar to Table 7 discussed above, showing **Existing and Background Condition delays of 224.2 and 255.9 for the school entrance intersection**. See Table 5, page 26, and explanation on page 24 (inserted below). These are about ½ of the numbers from the 2020 LATR analysis but still more than three times the 71 second standard. Interestingly, however, the Total Future Conditions (i.e., with the project) for this intersection is 77.7 seconds, above the congestion standard and seven times higher than the analysis in the 2020 LATR (discussed above).

Table 5: Intersection HCM Delay Results

Intersection	Congestion Standard (s)	Existing Conditions (2020)				Background Conditions				Total Future Conditions			
		AM		PM		AM		PM		AM		PM	
		Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS
Rockville Pike & Strathmore Avenue	71.0	39.4	D	52.3	D	54.9	D	118.6	F	59.1	D	123.7	F
Mitigated with signal timing adjustments	71.0	--	--	--	--	--	--	--	--	--	--	*99.8*	*F*
Strathmore Avenue & Stillwater Avenue / Western Site Driveway (Unsignalized)	71.0	224.2	--	52.3	--	255.9	--	64.7	--	9.1	--	4.6	--
Strathmore Avenue & Center Site Driveway (Unsignalized)	71.0	0.0	--	0.0	--	0.0	--	0.3	--	77.7	--	18.6	--
Mitigated with signalization	*71.0*	--	--	--	--	--	--	--	--	*24.2*	*C*	*12.3*	*B*
Mitigated with signal and 150' WBL	*71.0*	--	--	--	--	--	--	--	--	*13.7*	*B*	*11.9*	*B*
Strathmore Avenue & Eastern Site Driveway (Unsignalized)	71.0	0.0	--	0.0	--	0.0	--	0.0	--	0.1	--	0.1	--
Strathmore Avenue & Kenilworth Avenue	71.0	6.3	A	7.6	A	6.3	A	7.8	A	6.3	B	7.8	A
Rockville Pike & Flanders Avenue / Wickshire Way (Unsignalized)	71.0	4.5	--	3.8	--	15.4	--	9.8	--	16.2	--	10.1	--

Table 5 presents the HCM results at the study intersections. As shown in Table 5, two (2) intersections meet mitigation criteria per the LATR guidelines: (1) the Strathmore Avenue and Center Site Driveway intersection, and (2) the Rockville Pike and Strathmore Avenue intersection.

Under the Existing and Background conditions, the intersection of Strathmore Avenue and Stillwater Avenue/School Driveway operates above the congestion standard during the morning peak hour and close to the congestion standard during the afternoon peak hour. This is due to a significant number of westbound left-turning traffic turning into the school and northbound left-turning traffic turning out of the school, resulting in delays that exceed the congestion standard at this two-way stop-controlled intersection. The existing offset between Stillwater Avenue and the School Driveway exacerbates delays at this intersection. However, under Total Future conditions, the westernmost site driveway is realigned to eliminate the offset as a result of the project, and the school traffic is rerouted to utilize the center site driveway which will serve as the school entrance. The traffic pattern changes shift the delays to the center driveway which operates above the congestion standard under unmitigated future conditions with the project. Conditions are greatly improved at the Strathmore Avenue and Stillwater Avenue/School Driveway intersection. Mitigation measures to address impact at the Strathmore Avenue and Center Site Driveway intersection are discussed in the following section.

- For both analyses, the one in the 2020 LATR and the one in the supplemental analysis, the reports contain technical attachments that presumably explain how they obtained the congestion delays. These attachments are incomprehensible to a lay person. We have requested that experts from the state and county DOTs analyze these technical attachments and report to you. The three relevant attachments from the 2020 LATR with highlighting that shows what's different between the numbers for the Existing and Background delay analyses and the Future Conditions delay analysis are inserted below. These differences presumably are the key factors in understanding the conclusions stated in the tables.

HCM 2010 TWSC
3: School Driveway & Strathmore Ave

4910 and 4920 Strathmore Avenue
12/17/2020

Intersection	
Int Delay, s/veh	445.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	333	209	111	316	151	49
Future Vol, veh/h	333	209	111	316	151	49
Conflicting Peds, #/hr	0	4	4	0	6	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	95	95	25	25
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	358	225	117	333	604	196

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	587	0	1048	475
Stage 1	-	-	-	-	475	-
Stage 2	-	-	-	-	573	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	988	-	~ 252	590
Stage 1	-	-	-	-	626	-
Stage 2	-	-	-	-	~ 564	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	985	-	~ 213	588
Mov Cap-2 Maneuver	-	-	-	-	~ 213	-
Stage 1	-	-	-	-	624	-
Stage 2	-	-	-	-	~ 479	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	$ 1018.3
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	252	-	-	985	-
HCM Lane V/C Ratio	3.175	-	-	0.119	-
HCM Control Delay (s)	$ 1018.3	-	-	9.1	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	72.6	-	-	0.4	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 2010 TWSC
3: School Driveway & Strathmore Ave

4910 and 4920 Strathmore Avenue
12/17/2020

Intersection	
Int Delay, s/veh	449.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	342	209	111	318	151	49
Future Vol, veh/h	342	209	111	318	151	49
Conflicting Peds, #/hr	0	4	4	0	6	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	95	95	25	25
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	368	225	117	335	604	196

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	597	0	1060	485
Stage 1	-	-	-	-	485	-
Stage 2	-	-	-	-	575	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	980	-	~ 248	582
Stage 1	-	-	-	-	619	-
Stage 2	-	-	-	-	~ 563	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	977	-	~ 210	580
Mov Cap-2 Maneuver	-	-	-	-	~ 210	-
Stage 1	-	-	-	-	617	-
Stage 2	-	-	-	-	~ 478	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	$ 1035.8
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	249	-	-	977	-
HCM Lane V/C Ratio	3.213	-	-	0.12	-
HCM Control Delay (s)	$ 1035.8	-	-	9.2	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	73	-	-	0.4	-

Notes				
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon	

HCM 2010 TWSC
3: Center Site Driveway & Strathmore Ave

4910 and 4920 Strathmore Avenue
08/16/2021

Intersection	
Int Delay, s/veh	10.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	338	214	111	323	160	51
Future Vol, veh/h	338	214	111	323	160	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	95	95	92	92
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	363	230	117	340	174	55

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	593	0	1052	478
Stage 1	-	-	-	-	478	-
Stage 2	-	-	-	-	574	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	983	-	251	587
Stage 1	-	-	-	-	624	-
Stage 2	-	-	-	-	563	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	983	-	214	587
Mov Cap-2 Maneuver	-	-	-	-	214	-
Stage 1	-	-	-	-	624	-
Stage 2	-	-	-	-	480	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.3	54.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	214	587	-	-	983	-
HCM Lane V/C Ratio	0.813	0.094	-	-	0.119	-
HCM Control Delay (s)	68.7	11.8	-	-	9.2	0
HCM Lane LOS	F	B	-	-	A	A
HCM 95th %tile Q(veh)	6	0.3	-	-	0.4	-

- **The Planning Department Staff has adopted the 2020 analysis that contains the disappearing congestion discussed above**. See Table 3 from Pages 14-15 of the Staff Report and Recommendation (11-5-21), inserted below. Based on this reliance, Staff erroneously agrees with the conclusion that the proposed project would not have a detrimental impact on traffic.
  - From what we can tell, the Planning Department Staff did not rely on the supplemental analysis in its decision to recommend approval of the project.

Table 3: Existing and Future Traffic Impact

	AM				PM			
	Existing CLV	Future CLV	Existing Delay	Future Delay	Existing CLV	Future CLV	Existing Delay	Future Delay
Rockville Pike and Strathmore Avenue	716	1,289	16.8	21.4	964	1,538	23.3	29.1
Stillwater Avenue and Strathmore Avenue	862	1,033	445.2	2.0	757	1,102	5.3	1.7
Strathmore Avenue and center drive access	427	1,044	0.0	10.7	561	1,091	0.0	3.4
Strathmore Avenue and eastern drive access	427	807	0.0	0.1	561	929	0.0	0.1
Strathmore Avenue and Kenilworth Avenue	479	738	11.7	11.6	639	902	10.8	10.8
Rockville Pike and Flanders Avenue	626	1,003	2.8	7.9	838	1,113	19.7	6.5

(Source: Applicant's LATR Review prepared by Gorove Slade, dated August 24, 2021.)

- In addition, the developer's traffic consultant only analyzed the "Peak Hours," 8:00-9:00 am and 5:00-6:00. **The problem with these counts is that they miss some of the busiest times on Strathmore Ave, 7:30-8:00 am and 2:30-3:30 pm** (see picture below for east-bound traffic on Strathmore at 7:52am on Monday, December 13, 2021)**.** The HCA and other schools on or near this part of Strathmore create significant traffic volume outside of the peak hours. **Capturing actual counts during these additional hours, along with the peak hours, and any other high-volume times, likely would show additional times in excess of the congestion standard**. For example, there should be counts and congestion analysis for the 2:30-3:30 hour when all the HCA traffic comes and goes for afternoon pickup/departure. We understand that the Transportation Departments sometimes require counts and analysis for the non-peak hours for intersections affected by special circumstances, such as a large school letting out. **Here we have not only HCA letting out at this time, but also the lower Holy Cross school and Garrett Park Elementary School as well**.

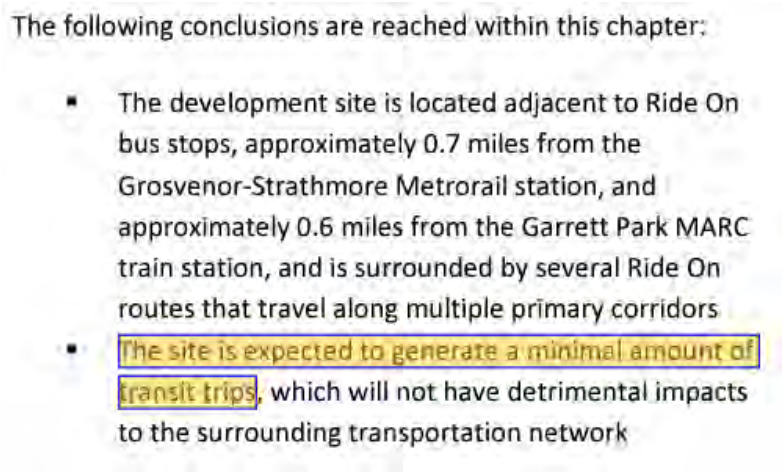


- **Approval also is not appropriate based on confusion about whether a traffic light and turn lane will necessarily be a part of the consideration of the zoning change**. The Maryland DOT has indicated that these items are warranted and will occur, but the Staff makes no mention of them and appears satisfied that the Total Future Conditions for traffic satisfy the standards without these items.

- **The Board Should Not Approve the Zoning Change Without Certainty about Mitigation.** Until the mitigation actions are approved, the County should not rely on a traffic report based on the existence of these hypothetical actions at these intersections, as it appears the developer's second traffic report does. The developer's Supplemental Analysis on traffic only concludes that the project will not have a detrimental impact if certain mitigation steps are implemented, including changing the timing of the light at Strathmore and Rockville Pike, installing a light at the center entrance, and installing a west-bound left turn lane at the center entrance. See Supplemental Analysis at page 24-25. **This report admits that without hypothetical mitigation, these intersections are not compliant. Not one of these measures is certain to occur.**

The Change to Denser Zoning is Not Warranted

- **Relative Proximity to Metro Does Not Warrant Zoning Change.** The developer is arguing for the zoning change and approval of this denser housing project largely based on the proximity (relative) of the development to mass transit, mainly the Grosvenor Metro station. See Statement of Justification at page 8. However, **the developer also admits in its own documents that use of transit will be "minimal."** 2020 LATR at page 31, inserted below.



The following conclusions are reached within this chapter:

- The development site is located adjacent to Ride On bus stops, approximately 0.7 miles from the Grosvenor-Strathmore Metrorail station, and approximately 0.6 miles from the Garrett Park MARC train station, and is surrounded by several Ride On routes that travel along multiple primary corridors
- The site is expected to generate a minimal amount of transit trips, which will not have detrimental impacts to the surrounding transportation network

The Grosvenor Metro is underutilized, including by the residents of Symphony Park, an adjacent townhome development that is even closer to the Metro stop than the property. One of our neighbors, who lives in Symphony Park, is out most mornings between 8-9 am walking their dog and almost never sees anyone heading to the Metro. **The developer should not be able to rely on this goal of the Master Plan** without hard evidence of projected strong use of Metro (and to a lesser extent the bus line and MARC train station at Garrett Park).

Pedestrian Safety/Walkability

- **Sidewalk to Nowhere.** Nothing guarantees that the developer will be able to connect the planned sidewalk (multi-use path that ends at the border of its property) to the sidewalk that starts near Kenilworth and Strathmore. The developer touts this action as a benefit for walkability. **But for this to happen, the developer would have to purchase the land or receive an easement from the Parish of Holy Cross.** The likelihood of this happening is low because such a path would:
    - Increase foot and bike traffic on a path right in front of their church, school, and playground.
    - Cross the western entrance to the Church and School and the eastern entrance to the School (both heavily trafficked during drop off and pick up).
    - Infringe on the current drainage along the road.
    - Require the Parish to relocate the fencing on the northeast end of their field, making their field smaller.
    - Likely require the removal of very mature trees, especially in the small field at the eastern end of the property.

- **Improvement to Walkability is Minimal.** The proposed **path from the new development to the Grosvenor Metro as planned is neither safe nor Americans with Disabilities Act compliant**. The developer has suggested that it only takes 10 minutes to walk from the development to the Metro and to the train station in Garrett Park. We have walked both, starting from the Holy Cross main entrance, and walked both routes at a relatively fast pace.

The actual walking time by an average walker is closer to 15 minutes, in the best of weather. For those residents in the back of the development, the walk would be even longer to both stations. The employees of the assisted-living facility would have an even longer walk to the Metro. The employees of the assisted-living facility will also have working hours during times the Metro is closed. Visitors to the assisted-living facility are likely families, who would more likely drive than pay Metro fares for each member of the family.

- **Strathmore-Stillwater Crossing is Not Signalized and is Already Dangerous.** The County should correct its misperception that the Strathmore and Stillwater Avenue intersection has a "signalized pedestrian crossing." **It does not.** Those walking or biking across this intersection must rely on the car drivers seeing the pedestrians at the crosswalk and stopping in time. The eastbound cars often come down the hill at excessive speed. More cars on Strathmore will exacerbate this problem. The pedestrian-crossing sign is regularly run over and some signs have not been replaced. There are routinely accidents at this intersection, especially as cars leave the Holy Cross road to turn onto Strathmore Avenue. The telephone pole at that intersection has also been hit by cars.

Environmental Impact of this Development Has Not Been Properly Studied

- We are very concerned about potential environmental impacts of the zoning change. We have not seen any documents reflecting the amount of impermeable surfaces that will replace the green space. As climate change increases rapidly, no zoning decision should be made until there is documentation of how the storm water flow from these unknown areas of impermeable surface will affect the stream that runs into Rock Creek and the navigable waters of the Potomac. **No zoning decision should be made until a storm water drainage control plan is provided that takes into account the immediate effects of climate change** we are seeing in this area with the increased flooding of many parts of our community.

- We also understand that there are some **wetlands on the project which may require federal approvals**, which are not discussed in the documents we have been provided. Moreover, bald eagles are often seen on this property, and we hear Barred Owls there every night. Essentially, this zoning change is proposed without any concept or data on the environmental impacts of the development.

- In addition, the noise from Strathmore will increase significantly with the increased traffic and **the noise levels in the community** affected should also be analyzed. The **increase in carbon footprint** of the proposed zoning change should also be considered in light of climate change.

Development of this site should take full account of the neighborhood's concerns and suggestions

- **Rear Entrance to the Academy is a Viable Option.** The County **should require the construction of a rear entrance,** with a bridge over the creek, for the Academy of Holy Cross from Tuckerman Lane (an underused four-lane road). According to the developer, 600 students attend the Academy, plus faculty, other staff and delivery vehicles, with a total population of roughly 700, including daily drop-off and pick-up of students.

- **Recourse Needed if Assumptions are Wrong.** The County should explain to the neighborhood and community what recourse there would be if the County approves this zoning change, then the various projections and analyses turn out to be wrong. **The neighborhood and community must have measures built into the approval that provide relief** in this scenario.
    - This could include measures to address cut-through traffic in our neighborhood on Flanders Avenue and Stillwater Avenue. Such measures might include forbidding non-residents from entering our neighborhood during peak traffic times, and the addition of speed bumps on Stillwater Avenue (Flanders Avenue already has speed bumps).

- **Schools are too Overcrowded for Denser Development.** The Walter Johnson cluster has experienced large enrollment increases in recent years. MCPS attributes this primarily to turnover of existing homes to younger families. However, the residences at NoBe Market and Pike & Rose feed into our cluster. The Harwood Flats Apartments plans to open with 335 units in summer 2022, and Strathmore Square is moving ahead with their first phase of 220 units. While MCPS plans to open a new high school (Woodward) in a few years, there are no plans yet for another elementary school in our cluster. **MCPS should plan for another elementary school in this cluster to accommodate the increase in denser development**.

- **This Development Needs a Park.** The proposed plans preserve very little accessible green space, and expects families to leave their new neighborhood to access heavily used playgrounds nearby. The County should **require the developer to incorporate an ADA-compliant, accessible park** large and appropriate enough for this so-called intergenerational community.

- **Preserving the existing green buffer along Strathmore Avenue.** The homes along the Strathmore Avenue access road (on the north side of the street) are separated from traffic and road noise by a green buffer zone with trees and shrubs. Residents do not want to see spillover traffic along this narrow access road - but also want to be sure that **the proposed new turn lanes into the development are not created by carving into this green buffer zone**, or the loss of trees and shrubs along this buffer, both of which threaten to bring traffic noise and pollution significantly closer to our homes.

- **Placement of traffic lights.** There are approximately 650 homes in GPE-WFP, and (a very modestly estimated) 1,000 vehicles in GPE-WFP associated with these homes. These vehicles leave the neighborhood either by Flanders Avenue or Stillwater Avenue. If a traffic light is added to Strathmore Avenue, **we request the light to be located at the intersection of Stillwater and Strathmore Avenues**, to facilitate cars exiting GPE-WFP. Placing a new

traffic light at the new entrance to the proposed development could result in residents of GPE-WFP being unable to exit the neighborhood during the peak traffic times. A light located at Stillwater Avenue and Strathmore would benefit both the residents of GPE-WFP and the residents of the new development.

The requested change is from the R-60 zone, which allows only housing and at a much lower number of units. The amendment, if approved, would allow a greater number of houses and a large assisted-living facility, resulting in more adverse impacts from the project as measured against the R-60 baseline. While the amendment no doubt would add to the developer's bottom line, the burden of this increased use and density would fall on the residents of surrounding neighborhoods. The Board should deny a change to this long-standing zoning status. The development then can proceed consistent with existing zoning.

We ask for your careful consideration of this important issue. Please let us know if you have any questions or need anything further from us.

Sincerely,

Arthur Ribeiro
Ariel Michelman Ribeiro

Arthur Ribeiro
Ariel Michelman Ribeiro
5101 Strathmore Avenue, Kensington, MD 20895

cc: Tamika Graham (tamika.graham@montgomeryplanning.org)

Graham, Tamika

From: vzeppo8x <vzeppo8x@verizon.net>
Sent: Thursday, December 16, 2021 10:15 AM
To: MCP-Chair; Wright, Gwen; Graham, Tamika; Rebecca.Torma-Kim@montgomerycountymd.gov
Subject: Strathmore redevelopment

Categories: Tracked To Dynamics 365

[EXTERNAL EMAIL] Exercise caution when opening attachments, clicking links, or responding.

The traffic study submitted with the Strathmore redevelopment plans is so seriously flawed that it is not acceptable. Strathmore Ave already has serious traffic problems and consequent safety issues. The proposed redevelopment will likely exacerbate these problems and ultimately impose costs for mitigation, but this study provides insufficient information about the potential impact. I'll try to be brief. There are many problems with the study, but I'll highlight a few:

- the data based on traffic during the pandemic is meaningless. Although there are "correction factors" applied, these very rough estimates are not appropriate given the particulars of this area--(as a scientist I would note that applying such adjustments to the numbers without an error range is misleading). For example, the largest employer in the county (nearby NIH) which contributes heavily to peak traffic was shut down, the 4 schools that are a major peak traffic source s were all closed, the adjacent Grosvenor metro (another source) was nearly empty as was the Garrett Park Marc station, the adjacent Strathmore Concert center, with its 2000 seat auditorium was also not open, and most people in the immediate area were working from home.
- the historical traffic data is also not appropriate. The data comes from a time before several developments that transformed the area and are major traffic sources, including the large townhouse development immediately adjacent, the adjacent Strathmore Concert Hall, the apartments at the metro, large apartments on former Georgetown Prep land, expansions at NIH, ...
- the emphasis on the capacity of the 355- Strathmore intersection is misplaced--the problem is not the intersection capacity, but rather the capacity of Strathmore Ave itself, which is not discussed at all. Strathmore Ave is a narrow road with several existing bottlenecks that already cause bumper to bumper traffic at peak times and backups onto 355. Among these, the necessary 25 mph school zones (dropping from 45 on 355), ingress/egress from schools, the light at Kennilworth (which has no left turn lanes and a single hanging signal that can't be seen if a car pulls up to let others pass ,so a single left turning car holds up traffic for a full light cycle), multiple well used crosswalks that are already hazardous for pedestrians, sharp downhill turn with no shoulder, and light at Beach Drive with very short left turn lane so that impatient left turning cars frequently cross the double yellow line and drive on the wrong side of the road...
- No consideration of the traffic impact of several large nearby developments that are already approved, e.g. more development at the Metro, major developments on nearby Grosvenor Lane now under construction, townhouses across the street from the metro under construction, major development at Strathmore and Connecticut nearing completion, ... Also the unknown impact of whatever will go in to the very large former White Flint Mall site must be considered since Strathmore Ave is the closest access road to the east.
- No consideration of the safety issues, e.g. Strathmore Ave is the only access road for emergency vehicles to Garrett Park and there is no room to pass on the shoulder. Emergency responders should be consulted about what problems this may cause and mitigation that may be necessary. Also several pedestrian safety issues, e.g. no sidewalks on the south side of Strathmore from Kennilworth to the Metro access path so people, including school children, often walk on the shoulder.
- The estimates of traffic for the assisted living facility may conform to standards--I don't know--but they certainly don't make sense given the staffing needs, shift based demand, visitors, etc. to such facilities.

- The backups on Strathmore are likely to shunt traffic through Garrett Park estates, which will cause another series of problems.

I suggest that the County should commission an independent traffic study that takes these considerations into account as well as potential steps to mitigate traffic problems , their costs, and who will pay, including possible alternate access routes to the development.

Thank you for the opportunity to comment.

Robert Zalutsky

4700 Clyde Ave, Garrett Park

STRATHMORE PLACE ASSOCIATION, INC.

President - William Neches Vice President - Noelle Heyman
Treasurer - Vladimir Papitashvili Secretary - Rafael Castro
At-Large: Susan Dimanna, Camille Wagner, Barbara Berschler

December 15, 2021

Chair Casey Anderson
Montgomery County Planning Board
2425 Reedie Drive 14th floor
Wheaton, Maryland 20902

RE: Comments of Strathmore Place Association, INC. on Local Map Amendment No H-143 – Rezoning of 4910-4920 Strathmore Ave. (Holy Cross Property)

Dear Chair Casey Anderson and Members of the Planning Board:

Strathmore Place is a community of 49 townhomes established in 1980 at the intersection of Strathmore Ave. (MD 547) and Rockville Pike (MD 355). We are a naturally developing multigenerational community, with residents ranging in age from two to over ninety. At present more than 50 percent of our residents are senior citizens who are actively aging in place. We oppose the zoning amendment and proposed development of the above referenced property for the following reasons:

- The Planning Board staff report has arbitrarily and capriciously omitted our community from the neighborhood to be impacted by this development (Section 2, page 3 of report, Exhibit 1 attached).
    - The entrance to our community is 80 steps from the east side of Jolly Way and 0.15 miles to the current entrance road to The Academy of the Holy Cross (AHC)
    - Our community has one exit out, along our access road to Jolly Way. Residents wishing to travel east to the Connecticut Ave. corridor or south on MD 355 must make already difficult and often dangerous turns onto Strathmore Ave.
        - All area maps contained in the traffic study submitted by the developer incorrectly show Bangor Dr. and the Strathmore Ave. access road connecting to Stillwater Ave. (see one example in the report, Figure 18, Exhibit 2). **This is incorrect and misleading.** Both roads dead end at a stream related area west of Stillwater Ave. See pictures attached, Exhibit 3a and 3b. Google maps correctly identifies these dead ends.
    - Residents on the east side of Jolly Way are defined as impacted. We must ask the Planning Board why they are impacted and we, the residents of Strathmore Place, and the residents on the west side of Jolly are not? The traffic and commuting challenges on the east side of Jolly Way are identical to ours.

- All of Symphony Park is in the defined impacted area, rather than just those on the east side of Symphony Park drive, applying an inconsistent standard to the two neighborhoods.
- We believe the true impact of this development extends directly across Strathmore Ave. from Symphony Park to include our community and those homes in Garrett Park Estates east of MD 355.
- The Planning Board staff report has demonstrated a lack of knowledge of this community and current traffic mitigation conditions when:
  - They state on page 33 of the H-143 SR, dated 11/09/21 that "The existing signalized pedestrian crossing between the Ride On bus stops at the Strathmore Avenue and Stillwater Avenue intersection will remain."
    - There is no signalized pedestrian crossing at the Strathmore Ave. and Stillwater Ave. intersection.
  - They have failed to note the incorrect and misleading area maps that show both Bangor Dr. and the Strathmore Access Rd. west of Stillwater Ave. connecting to Stillwater Ave.when they both dead end, restricting access out of the area west of Stillwater Ave.
- The clearly arbitrary and capricious omission of Strathmore Place from the impacted area has minimized the number of homes affected by this proposed development and applies an inconsistent standard across communities. This omission demonstrates a lack of good faith effort in protecting the safety of the current residents of this area.

- Traffic will increase and be unacceptable.
  - Strathmore Ave. is the only east-west arterial road between Randolph Rd. to the north and Jones Bridge Rd. to the south linking 355 to areas east of the county. It is an already heavily traveled two lane road.
  - At present, traffic backs up daily to the light at Rockville Pike in both directions during school drop-off and pick-up times at The Academy of the Holy Cross (AHC). The traffic back up extends at times to the eastbound turning lane of MD 355 (see photo, Exhibit 4).
  - While waiting in the back-ups, vehicles block the exits to Strathmore Ave. from Jolly Way and Symphony Park Drive, making it a challenge for residents of our community to exit onto Strathmore Ave. (see photo, Exhibit 5).
  - Montgomery County Public Schools busses pick up and discharge students on both the north and south sides of Strathmore Ave. at Jolly Way.
    - This testifier has observed cars continuing on Strathmore Ave as well as exiting Symphony Park Drive while a school bus had their lights flashing red, stop sign out, and students boarding and exiting busses. This is undoubtedly due to frustration with the current traffic conditions but presents a clear danger to the safety of our children. Additional traffic will only exacerbate this danger.

- This testifier has also observed a large group of students gathered on the south side of Strathmore Ave. after drop off and then crossing Strathmore Ave. after the school bus has left.
- The H-143 SR dated 11/09/21 states that "There are no traffic signals proposed for Stillwater or Jolly Way."
- Current traffic and use of this intersection for school bus pick up and drop off warrant a pedestrian-controlled signal, similar to the one on Strathmore Ave. in the Town of Garrett Park. Additional traffic generated by the proposed development will only increase the danger to all pedestrians at this busy crossing.

o Traffic conditions will make access of emergency vehicles into our community extremely problematic, particularly during peak volume hours. Strathmore Ave. is a two-lane road with no shoulder in our area.

- The County has not critically analyzed the Developer's Traffic Report. Testimony from both the Garrett Park Estates - White Flint Park Citizens Association (GPE-WFP) and representatives from Symphony Park provide detailed analysis of the report.
  - o A study conducted by the GPE-WFP provides current data in opposition to the Developer's Traffic Report. They are providing this information to the County.
  - o As previously stated, traffic maps in the Developer's Traffic Report incorrectly show Bangor Dr. and the Strathmore Access Rd. west of Stillwater Ave. connecting to Stillwater Ave. They both dead end before Stillwater significantly limiting access out of this area as previously stated (See Exhibit 3a and 3b).
  - o Any projections based on counts taken in 2020, during pandemic shutdowns and work from home conditions, should be regarded as flawed and non-representative of regular traffic conditions. However, even the questionable numbers generated from the 2020 traffic study indicate that current conditions exceed acceptable limits of the county.
    - The Developer's traffic study states that the "morning peak hour was from 8:00-9:00 AM and the afternoon peak hour was from 5:00-6:00 PM."
    - We challenge this premise as The Academy of the Holy Cross hours of operation are 8:00 AM to 3:00 PM and families are entering and exiting prior to these times.
    - Currently, the County provides traffic control via a Montgomery County police officer stationed at the school entrance on Strathmore Ave. during the hours of approximately 7:15 AM – 8:00 AM and 2:30 PM – 3:15 PM.
    - Any traffic counts must include all of the school's hours.

- At a minimum, any traffic study must take place on a day when both Montgomery County Public Schools, The Academy of the Holy Cross, Holy Cross Catholic School, Garrett Park Elementary School, and County and Government offices are open. To rely on any other data points would demonstrate a lack of good faith on the part of the County Government in protecting the safety of local residents.

- The existing traffic study discounts the currently approved sizeable development of Strathmore Square at the Grosvenor Metro.
  - When completed, this development will have 1,905,219 square feet of total development including up to 1,746,451 square feet of residential use (approximately 2,008 units) and up to 317,537 square feet of non-residential development. The initial phase, which has been approved and is in process, will create 220 housing units.
  - There are also several other large developments taking place along the Rockville Pike – North Bethesda corridor.
  - These large-scale developments will be generating additional east-west traffic as cars avoid the frequent back-ups on Interstate 495 between MD 355 and Connecticut Ave. and use Strathmore Ave. as the work-around to other areas of the County.

- The safety of current homeowners in this area, including the 600+ residential units of Garrett Park Estates – White Flint Park, the 120+ residential units of Symphony Park and the 49 residential units of Strathmore Place should be the priority of the Planning Committee. We recommend that:
  - Any future traffic light be located at the intersection of Stillwater and Strathmore Ave.
  - The pedestrian crossing at Jolly Way and Strathmore Ave have a pedestrian activated crosswalk signal.
  - Signs be added to the Jolly Way/Symphony Park Drive/Strathmore intersection that indicate “do not block the intersection.”
  - The entrance to The Academy of the Holy Cross be relocated onto Tuckerman Lane, a four-lane road, using property currently owned by The Academy. The Planning Board should require this additional egress as a condition of any development of this property.
  - Any future development should include an extended right turn lane, using current AHC property fronting on Strathmore, from after the stream crossing on Strathmore and Stillwater Aves. and extending to all entrances and exits of any future roadways or facilities on the south side of Strathmore Ave.

To maintain traffic and pedestrian safety in our area, to increase walkability for current residents, to maintain access for emergency vehicles into and out of our community, and to enable our seniors to continue to safely age in place, we request that the Planning Board maintain the current R-60 zoning for the subject property.

Sincerely,

Cynthia R. Weitz
Representive for
Strathmore Place Homeowners Association

Residents of Strathmore Place

(Signatures attached)

cc: Gwen Wright, Planning Director (gwen.wright@montgomeryplanning.org)
Tamika Graham (tamika.graham@montgomeryplanning.org)
Senator Jeff Waldstreicher (jeff.waldstreicher@senate.state.md.us)
Andrew Friedson (Councilmember.Friedson@montgomerycomd.gov)





Exhibit 1

SECTION 2

PROPERTY AND PROJECT DESCRIPTION

Vicinity

The Site is located at 4910-4920 Strathmore Avenue (MD 547), which is approximately 1,500 feet east of Rockville Pike (MD 355) and is adjacent to both the Strathmore Music Hall and the Holy Cross School and Church, as shown in Figure 1. Directly to the west of the Site is a stream valley and the Symphony Park townhouse development, which includes an open space that visually links the Property to Rockville Pike.

The Site is located near established residential neighborhoods and associated amenities, such as the Garrett Park Elementary School, Garrett Park Estates Local Park, Druid Drive Neighborhood Park, and Garrett Park – Waverly Park. The Site is within 0.6 miles of the Grosvenor-Strathmore Metro Station.

The Staff-defined neighborhood, outlined in blue in Figure 1 below, identifies the properties that contribute to the community character and may experience the most direct impacts of the proposed rezoning. The Staff-defined neighborhood is primarily defined by the community of single-family detached dwelling units that confront the Property to the north, across Strathmore Avenue, the single-family attached neighborhood, to the west, and the institutional uses abutting the Property to the south and east.

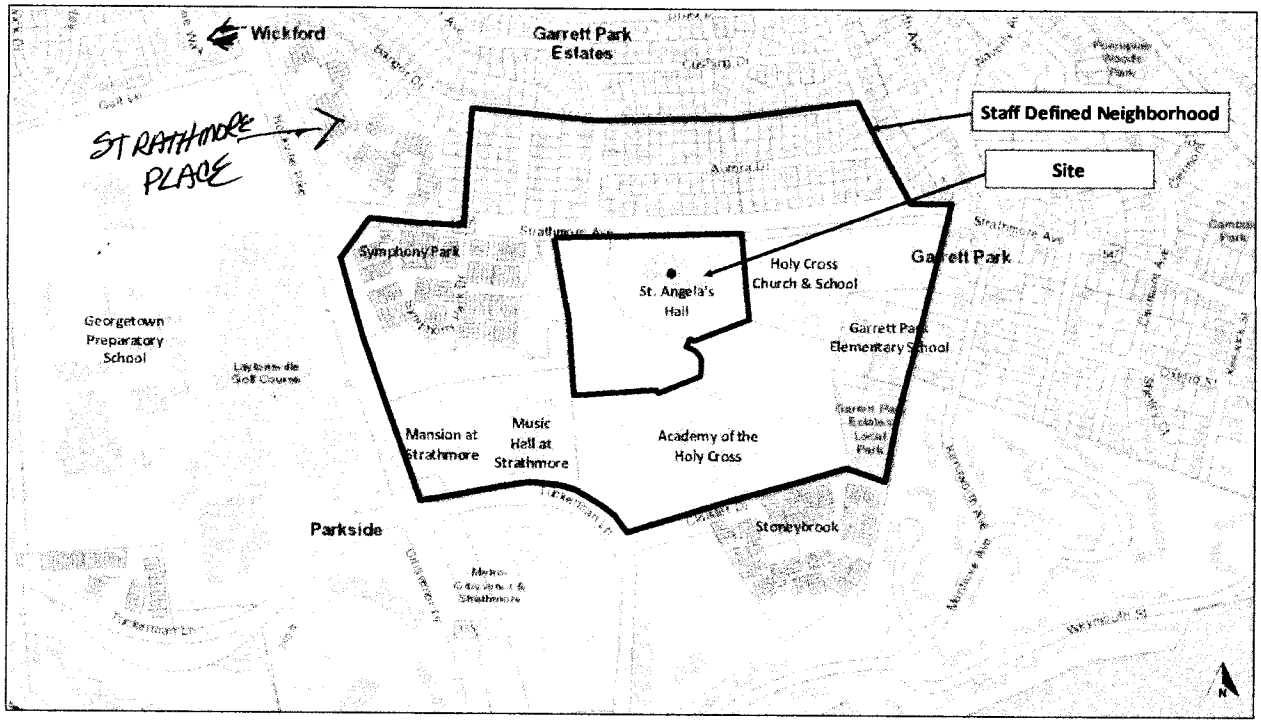


Figure 1: Vicinity/Staff Defined Neighborhood

Although the Subject Property is not listed as a historic site, there are properties in the surrounding area listed in the National Register of Historic Places, including the Strathmore Hall Arts Center to the southwest of the Site and the Garrett Park Subdivision approximately 1,000 feet to the east of the Site. The proposed Local Map Amendment will not negatively impact these nearby historic resources.

Exhibit 2 GS

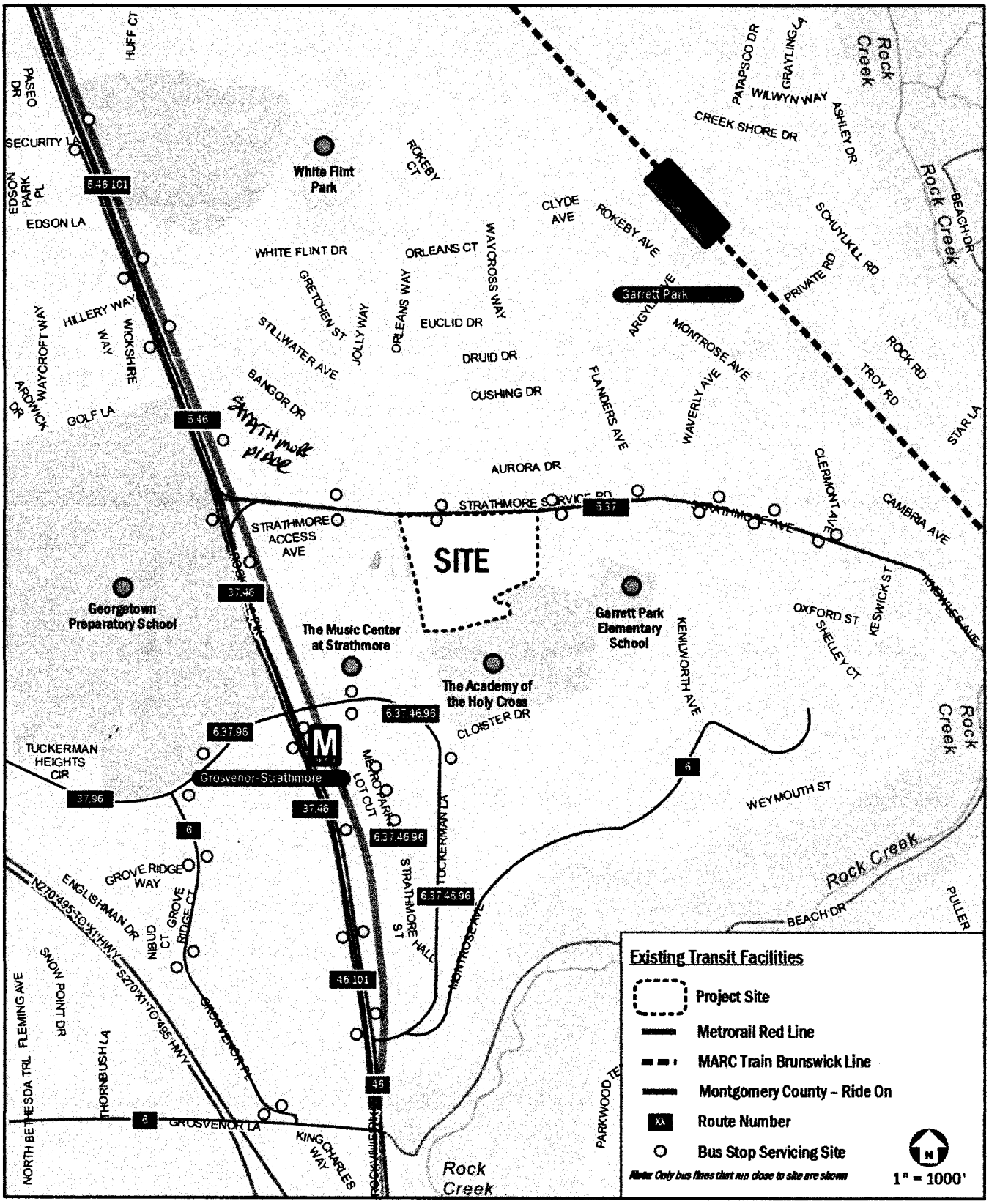


Figure 18: Existing Transit Facilities

(515)



STRATHMORE PLACE ASSOCIATION, INC.

President - William Neches Vice President - Noelle Heyman
Treasurer - Vladimir Papitashvili Secretary - Rafael Castro
At-Large: Susan Dimanna, Camille Wagner, Barbara Berschler

December 14, 2021

Chair Casey Anderson
Montgomery County Planning Board
2425 Reedie Drive 14th floor
Wheaton, Maryland 20902

RE: Comments of Strathmore Place Homeowners Association on Local Map Amendment No H-143 – Rezoning of 4910-4920 Strathmore Ave. (Holy Cross Property)

Dear Chair Casey Anderson and Members of the Planning Board:

This is to certify that Cynthia Weitz, a resident at 5305 Strathmore Ave., Kensington, MD has been appointed by the Strathmore Place Association, INC, to represent the Association at the upcoming Planning Board meeting to take place on December 16, 2021.

William Neches
President
Strathmore Place Association, INC.

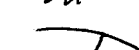
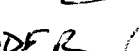
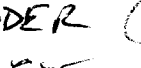
Petition in Opposition to Local Map Amendment No. H-143, rezoning and development of 4910-4920 Strathmore Ave.

NAME	SIGNATURE	ADDRESS Number
Yvonne Bayard		5237 STRATHMORE AVE
Evangelos Fotopoulos		5237 STRATHMORE AVE
Sharon Zweig	Sharon Zweig	5213 Strathmore Ave.
Ella A Johnson		5207 Strathmore Ave.
Anthony S. Johnson	A S Johnson	5207 Strathmore Ave.
PAUL H. MATHIEU		5211 Strathmore Ave

Petition in Opposition to Local Map Amendment No. H-143, rezoning and development of 4910-4920 Strathmore Ave.

NAME	SIGNATURE	ADDRESS Number
Evalyn Cohn		5335 Strathmore Ave. Kensington, MD. 20895
Kenny Cohn		

NAME	SIGNATURE	ADDRESS Number
Noelle Heyman		5339
Patricia Martinez		5347
Ruxian Wang		5345
Matth Hy		5339
[illegible]		5321
Lucy Hsu		5351
GREGORY SMITH		5343
Debra Tropp		5325
Rafael Castro		5349
Eric Gommel		5329
Kenneth M. Berner		5331
Cheryl LaRoche		5333
Pedro Verges		5355
Scott Le		5353

NAME	SIGNATURE	ADDRESS Number
Tiziana Cogliati		5307 Strathmore Ave _Kensington
Massimo Gadina		5307 Strathmore Ave _Kensington
Cynthia Weitz		5305 Strathmore 20895
Alan Weitz		5305 STRATHMORE 20895
Camille Wagner		5301 Strathmore 20895
Michael Wagner		5301 Strathmore 20895
Adam Krampf		5321 STRATHMORE 20895
KAREN SCHEINBERG		5303 STRATHMORE AVE 20895
MARTIN S. SCHEINBERG		5303 STRATHMORE AVE 20895
DAWN L. WEIR		5255 STRATHMORE AVE 20895
CHRISTOPHER C. BRODER		5255 STRATHMORE AVE 20895
Lily Conner		5319 Strathmore Ave 20895
Lupe Marks		5311 Strathmore Ave 20895
ELIANA SAVARY		5313 STRATHMORE AVE 20895
JUAN E. SAVARY		" " " "

NAME	SIGNATURE	ADDRESS Number
JOAN GUREVICH		5205 STRATHMORE AVE. 20895
NORMAN GUREVICH		5205 STRATHMORE AVE 20895
I Leen Kessler		5241 Strathmore Ave 20895
Alice Gresham Bullock		5243 Strathmore Ave 20895
Gregory LaRocca		5239 Strathmore Ave. 20895
Andrea Calizo		5239 Strathmore Ave 20895
Susan DiManna		5235 Strathmore Ave. 20895
Paul DiManna		" " 5233 " " 20895
Vladimir Papichshvili		
Natalia Papichshvili		
William H. Neches		5229 Strathmore Ave
Ellen D. Neches		5229 Strathmore Ave.
Donald T Van Houten		5221 Strathmore Ave.
LINDA MACK		5219 Strathmore Ave
WARREN MILLER		5225 STRATHMORE AVE
Pradip Bhaumik	Deborah Anderson	5209 Strathmore Ave.

NAME	SIGNATURE	ADDRESS Number
Tom & DEBORAH SILBERMAN		5247 STRATHMORE AVE KENSINGTON, MD 20895

From: **Damar Erb** damarerb@verizon.net
Subject: **Rezoning the Academy of the Holy Cross**
Date: **Dec 11, 2021 at 2:12:26 PM**
To: **Cynthia Weitz** weitzcyn@msn.com

I am a resident of 5253 Strathmore Ave, Kensington, MD. 20895, and am currently out of state. I wish to register that I oppose the rezoning of the property at the Academy of the Holy Cross on Strathmore Ave.

Damar Erb
5253 Strathmore Avenue
Kensington, MD. 20835

Sent from my iPhone

From:	Vanessa Lide
To:	Graham, Tamika; OZAH@montgomerycountymd.gov; MCP-Chair; Rebecca.Torma-Kim@montgomerycountymd.gov
Cc:	Councilmember.Friedson@montgomerycomd.gov; Kip Edwards; Kacky Chantry; nechesw@yahoo.com; Arthur Ribeiro; jeff.waldstreicher@senate.state.md.us
Subject:	No. H-143 LMA/Rezoning of Holy Cross Property at 4910-4920 Strathmore Avenue
Date:	Wednesday, December 15, 2021 12:19:27 PM
Attachments:	4910-4920 Strathmore Avenue rezoning - objections from Vanessa Lide 12-14-2021.pdf

[EXTERNAL EMAIL] Exercise caution when opening attachments, clicking links, or responding.

Good morning:

Attached are my written comments, observations, and objections to the proposed rezoning of the Holy Cross site at 4910-4920 Strathmore Avenue, in advance of testimony at the Dec. 16, 2021 LMA/rezoning hearing.

In my letter, I detail the shortcomings of the planning documents, and the many reasons why this proposal does not warrant approval as an appropriate use of this site, given the many concerns of residents of the surrounding neighborhoods.

Thank you for your careful consideration of these points.

Sincerely,

Vanessa Lide
5013 Strathmore Ave
Kensington, MD 20895

December 14, 2021

Gwen Wright, Planning Director
Montgomery County Planning Board
2425 Reedie Drive 14th floor
Wheaton, Maryland 20902

Re: *REVISED* Comments from a resident of Strathmore Avenue, across from the proposed development site being discussed for rezoning: Local Map Amendment No. H-143 - Rezoning of Holy Cross Property/4910-4920 Strathmore Avenue

Dear Ms. Wright:

I live on the north side of Strathmore Avenue, and I'm writing to echo many of the submitted written objections of the Garrett Park Estates-White Flint Park Citizens Association ("GPE-WFP"). After meeting with the developer of this project, discussions with my neighbors, very helpful meetings with Ms. Tamika Graham and other Montgomery County planning officials, and also email correspondence with Ms. Brenda Pardo in the Montgomery County Department of Transportation, I remain very concerned that the proposed zoning change for the 4910-4920 Strathmore Avenue property, Local Map Amendment No. H-143, would bring highly unwanted changes to the surrounding neighborhoods.

For the single-family homes located on the north side of Strathmore Avenue, separated from the main Strathmore Avenue artery by a green buffer strip with trees and bushes, this proposed development and the certainty of increased traffic threatens to materially damage the value of our homes. Many of my neighbors and I are highly concerned that the increase in traffic, despite the traffic mitigation proposals the developer has promised, will effectively bring more traffic noise, automobile emissions, and even light pollution from oncoming headlights into our bedrooms and living rooms, as well as far more traffic on Strathmore Avenue and the surrounding neighborhood streets.

My primary objections are as follows:

1) The request to **change the zoning for the subject property** from R-60 to a CRNF 0.75, C 0.25, R 0.75, H 50 zone **seems rushed and haphazard**, as it is predicated on faulty or missing data, particularly on road usage and typical traffic conditions. **Please do not make this zoning decision without a recent, reliable, accurate, and comprehensive traffic study** — and please consider the reality that a lower-density, R-60 development may be a far more prudent decision, as fewer homes would put fewer cars on the road, and have less of an impact on the environment.

Indeed, **new data from a neighborhood-sponsored traffic video study this week shows 1,200 vehicles passing through the Stillwater Ave. and Strathmore Ave. intersection between 7:20 a.m. and 8:20 a.m. on Monday, Dec. 13, 2021**—this is a far higher number of cars than the base numbers claimed in the LATR analysis that purports there will be "minimal traffic impact" from the addition of 120+ new homes and a new 150-bed care facility.

Traffic currently backs up several times daily along Strathmore Avenue, in part timed to when students arrive and depart from the three schools located in close proximity to each other — but also simply because of heavier traffic during the morning and evening rush hour. When traffic backs up, some drivers seek to jump the queue, either by zipping far too quickly down our Strathmore access road (which is narrow, with cars parked in front of our homes on the north side, making this effectively a one-lane, go-slow road), or by making a quick turn onto Flanders Avenue or Stillwater Avenue to the only other alternative exit, at Rockville Pike. With added traffic, more drivers will no doubt cut through our Garrett Park Estates neighborhood.

The traffic data and traffic studies also seem to rely on studies taken during the pandemic (when schools were not meeting in person, and many people were working from home) and an earlier data set from a traffic study taken during a Friday afternoon in mid-summer, with no schools in session. It's simply not plausible, to anyone who lives here, that the proposed development will have no detrimental impact on local traffic, as the developer claims! **The new data from the neighborhood-generated video traffic study will support our concerns about adding even more traffic to this major traffic artery.**



An added concern about traffic backups is the fact that Strathmore Avenue provides critical access for emergency vehicles from the Kensington Fire Department, who frequently use this route to travel to emergencies along Rockville Pike or the Beltway, or transport patients to Suburban Hospital. What may appear as "extra curb space" is much needed, as this is how cars pull over to let emergency vehicles pass.

The developer has proposed the addition of a new traffic signal will resolve any traffic issues — and proposes to locate this light for the convenience of the new development. If the County is serious about overall traffic safety, and pedestrian safety, the logical place for a new traffic signal would be **at the bottom of the hill**, where the proposed plans indicate the current Stillwater intersection would become a 4-way intersection, continuing the road into the new development. A traffic signal at that intersection would allow GRE-WFP residents to exit safely onto Strathmore, and allow walkers/bikers to cross Strathmore safely on their way to the Metro (there is currently a pedestrian crossing and island, but the crossing on Strathmore is not signalized — see photo).

2) Local residents want to **fully protect the current Strathmore Avenue green buffer** zone that separates our homes from traffic along this busy roadway.

This buffer zone, with its trees and shrubs, is vital to mitigating road noise and pollution that affect our homes along the north side of Strathmore Avenue, but is also a place where people walk. This usage has become even more evident during the pandemic, as large numbers of local residents used the sidewalk, street, and the green buffer zone to move up and down Strathmore Avenue. Even the Holy Cross Academy cross-country team uses this side/access roadway to do interval workouts.

The developer has assured me that their plans for enlarging Strathmore Avenue to accommodate the proposed left turn lanes **would NOT encroach** on this green buffer zone, and comments from County planning and traffic officials also say that any right of way to accommodate the entries to the proposed development and road frontage to accommodate the proposed bike path must come from the south side of Strathmore Avenue.

Nonetheless, my neighbors and I seek assurances that any zoning changes, any future developments, and any future changes to the main roadway **will not materially alter the current buffer zone or our access road along the north side of Strathmore Avenue** — and that any destroyed trees and shrubs would be replanted. These may seem "minor" changes that might appear inconsequential on paper or schematic drawings, and yet matter immensely, as they materially threaten the livability, comfort, and value of the homes of people who live directly across from the proposed development plot.

3) The proposed **stormwater solutions appear inadequate**, given the downward slope towards the Strathmore-Stillwater Avenue dip in the road, where the roadway crosses over a small creek. Because of this terrain, what would stop rainwater from a new development, and more paved roads/built space, from flowing down the proposed center entrance and down the south side of Strathmore Avenue? The developer's answers seem to involve rainwater gardens—and blanket assurances—but I remain unconvinced.



Currently, the dip at the bottom of Strathmore Avenue (near the pedestrian crossing at Stillwater Avenue) tends to flood during heavy rains, making driving dangerous or impossible. Please see this August 2021 photo taken after one storm, and note the debris level along the fence fronting the south side of Strathmore Avenue, at the southwest corner of the 4910-4920 Strathmore Avenue property, just west of the

current entrance to Holy Cross Academy. That's a foot or more of running water, running down Strathmore Avenue and depositing leaves and debris precisely where 2 new houses are proposed. How does this make any sense?

4) **Loss of overall green space in the area.** The recent Strathmore Square development, which was approved, offered maps that included the 4910-4920 parcel as "green space," to show that the Strathmore Square development would be surrounded by plenty of trees and green space. Does the County simply ignore one development's surrounding "green space," when considering the rezoning of that very "green space" to allow more dense development, in a hearing held just weeks later? This appears to be happening right now. What green space will be left in our area to mitigate hotter temperatures, and help keep the air clean?

5) **Lack of parks/play areas, or connected walkways,** in the proposed rezoning/development.

The proposed plans accompanying this rezoning effort call for a bike/walking path that goes only as far as the eastern property line, but does not connect to anything east of the property. The proposed development also includes a "heart health" path that similarly goes nowhere — and County planners have raised concerns about the safety of that path, given that it will not be visible from the proposed new homes, and the lack of lighting or benches.

Every neighborhood deserves outdoor space, and it seems foolhardy to propose a new development that excludes a playground altogether — are families supposed to hop in their cars to drive toddlers to a park or playground? Are older children expected to hop on their bikes and cross a busy road to meet up with their friends? The proposed plans that are prompting this rezoning request simply don't make sense when it comes to parks and recreation, and the overall health and well-being that open spaces, playgrounds, and communal green space offer—please insist that plans include more green space/play areas that are accessible, ADA-compliant, and designed with both older/younger County residents in mind.

In any future development of the 4910-4920 parcel, wouldn't direct walking paths from the development to Metro be a priority? And if we encourage children to walk to schools, wouldn't creating direct, safe pathways to the surrounding schools (Garrett Park Elementary and Holy Cross Parish School K-8) be a priority? Why would parents opt to walk out to the main road, then carefully walk along the busy roadway to bring their children safely to either one of these schools? Out of convenience and safety considerations, it's likely most parents simply put their children in the car, even for a relatively short school run.

Thank you for your close consideration of these concerns, which are shared by many of my neighbors.

Sincerely,

Vanessa Lide
5013 Strathmore Avenue
Kensington, MD 20895
v.lide2345@gmail.com

cc: Tamika Graham (tamika.graham@montgomeryplanning.org)
Kip Edwards, President, Garrett Park Estates - White Flint Park Mayor (president@gpewfp.org)
Kacky Chantry, Mayor of Garrett Park: (mayorkacky@garrettparkmd.gov)
William Neches, President, Strathmore Place HOA: (nechesw@yahoo.com)
Casey Anderson, Planning Board Chair: (MCP-Chair@mncppc-mc.org)
Rebecca Torma-Kim, Development Review Team Manager: (Rebecca.Torma-Kim@montgomerycountymd.gov)
Senator Jeff Waldstreicher: (jeff.waldstreicher@senate.state.md.us)
Andrew Friedson: (Councilmember.Friedson@montgomerycomd.gov)
OZAH@montgomerycountymd.gov

From:	Eric Bruskin
To:	MCP-Chair
Cc:	Heather Bois Bruskin
Subject:	Public Comment regarding H-143 Local Map Amendment, 4910 and 4920 Strathmore Avenue
Date:	Wednesday, December 15, 2021 10:05:10 AM

[EXTERNAL EMAIL] Exercise caution when opening attachments, clicking links, or responding.

To: Casey Anderson, Chair, Montgomery County Planning Board, 2425 Reedie Drive, Wheaton, MD 20902
Re: H-143 Local Map Amendment, 4910 and 4920 Strathmore Avenue

Good morning,

My name is Eric Bruskin and I live with my wife and two children near Strathmore Avenue in Garrett Park Estates, a few hundred yards from the proposed development at 4910 and 4920 Strathmore Avenue. I strongly support smart development in the County and view the addition of new housing units within walking distance to the Grosvenor-Strathmore Metro as a positive development in that regard. I also commend the developers for proposing to align the Holy Cross driveway with Stillwater Avenue. However, I write to express deep concern with some aspects of the proposed development:

- Traffic: As anyone who drives in this area knows, the traffic on Strathmore Avenue between Rockville Pike and Beech Drive (extending to Connecticut Ave) is already more than the two-lane road can handle, frequently requiring our community to seek alternative and less convenient routes during the morning and afternoon rush hours. It can take us 25-30 minutes just to get to downtown Kensington at the wrong time of the day. I understand the developers of this project, relying on old and/or pandemic-era traffic studies, contend the addition of hundreds of housing units will have "minimal traffic impact." This conclusion defies common sense, as anyone driving on Strathmore Avenue can see what a tremendous impact just one school's dismissal has on the road's traffic. It would do a grave disservice to the existing community here in Garrett Park Estates, as well as the surrounding communities who rely on Strathmore Avenue for direct access to Kensington, Rockville, Wheaton, North Bethesda, and Silver Spring, if the planning board approves this development based on faulty traffic assessments. In addition, the developers should explain why there are no alternatives to using Strathmore Avenue as the only way in and out of the new development. Although it may be more expensive, having traffic enter from and exit to Tuckerman would go a long way towards alleviating the negative traffic impacts on Strathmore Avenue. Given the County's smart growth objectives, it would also make sense to require the development to have a roadway to Tuckerman, which is a larger and less congested thoroughfare, as well as being much closer to Metro.
- Sidewalks: I understand the proposed sidewalk to be added along Strathmore would be right on the roadway. In light of recent sidewalk-related tragedies, including the nearby accident on Old Georgetown Road caused by the lack of buffer between the road and sidewalk, it shows a real disregard by the developer for the community's safety to propose such new sidewalks here. Please ensure any new sidewalks include a safe

buffer so those walking or biking along Strathmore Avenue are not in danger should they fall or trip.

- Noise: I understand the assisted living project will have an entrance and loading dock that is visible to the homes across the street from Strathmore Avenue. This means that houses in that area, possibly including mine, will not only be able to see the lights of cars, buses, and trucks coming and going from the facility at all hours of the day, but they will also hear trucks back-up up to make deliveries and haul away garbage, etc. The plan should be amended to ensure that noise and light disturbance is minimized as much as possible for the surrounding homes.
- School Impact: As experience shows, families with small children will live in any new development (see the new Strathmore townhomes) -- please make sure there is a realistic assessment of how many children the new development will add to the local elementary and middle schools.
- Green Space: The drawings of the development I have seen did not appear to include any new green space for the families living in the development or the families in the adjoining neighborhoods. Given the County's traditional commitment to public parks, it would be a wasted opportunity if the development did not include new green space for everyone to enjoy.

Thank you for your consideration, and for ensuring that *smart* growth means more than just growth near public transit.

Best regards,

Eric Bruskin
4912 Aurora Drive
Kensington, MD 20895
(617) 721-1455

From:	[redacted]
To:	MCP-Chair
Cc:	suzannehudson@verizon.net; [redacted]
Subject:	Casey Anderson, Chair, Montgomery County Planning Board, 2425 Reedie Drive, Wheaton, MD 20902. Re: H-143 Local Map Amendment, 4910 and 4920 Strathmore Avenue.
Date:	Wednesday, December 15, 2021 8:48:21 AM

[EXTERNAL EMAIL] Exercise caution when opening attachments, clicking links, or responding.

Good morning, Casey Anderson,

I have lived at [redacted], Kensington, MD 20895 for 13 years. I observe firsthand the current density and traffic congestion that occurs EVERY DAY on Strathmore Avenue.

I live across the street, a few steps, from the proposed development, and am 100% against this development. It is development intended to maximize profits of hundreds of millions of dollars at my personal expense.

I am a Registered Nurse working full time in a hospital and I cannot attend hearings. I am available to discuss further rationale to STOP this development by phone, cell [redacted].

This development would be a disaster for the Garrett Park Estates, White Flint, Garrett Park and adjoining communities. We all pay hefty taxes and we all vote.

Do NOT ALLOW THIS DEVELOPMENT TO PROCEED.

Thank you,
[redacted]

--
[redacted]

From: Eric Fowler
To: MCP-Chair
Subject: Grosvenor-Strathmore Development Project
Date: Wednesday, December 15, 2021 8:08:12 AM

[EXTERNAL EMAIL] Exercise caution when opening attachments, clicking links, or responding.

To the Planning Board Chair,

My name is Eric Fowler, and I am a resident of Bethesda. I recently learned of the Grosvenor-Strathmore development project, and wanted to voice my support for the project. Not only does MoCo need more dense housing near established metro stations and other mass transit services, MoCo needs better senior living integrated within the rest of the community. I hope the planning board seriously considers this great opportunity, and others even bolder. Thank you,

-Eric

From:	Gerilee Bennett
To:	MCP-Chair
Cc:	Kacky Chantry; Barbara Matthews; Phil Schulp; Elizabeth Henley; rebecca.torma-kim@montgomerycountymd.gov; Wright, Gwen; Graham, Tamika
Subject:	Statement for Planning Board Hearing December 16
Date:	Wednesday, December 15, 2021 8:07:27 AM
Attachments:	Ltr Testimony to MC Planning Board re LMA case H-143.pdf

[EXTERNAL EMAIL] Exercise caution when opening attachments, clicking links, or responding.

Dear Chair Anderson,
Attached please find a statement of testimony on behalf of the Town of Garrett Park expressing serious concerns regarding LMA case H-143.

Regards,
Gerilee Bennett
Town Councilmember
Garrett Park

Town of Garrett Park

Incorporated 1898

December 14, 2021

Chair Casey Anderson
Montgomery County Planning Board
2425 Reedie Drive, 14th Floor
Wheaton, MD 20902

Dear Chair Anderson,
Thank you for the information your office has shared with the Town of Garrett Park regarding LMA case H-143. Please accept the enclosed testimony statement in advance of the hearing regarding Case No. H-143 scheduled for December 16, 2021. I plan to attend the meeting and deliver the testimony in person. Please let me know if you need any further information.
Regards,

Gerilee Bennett
Councilmember

cc: Mayor Kacky Chantry
Councilmember Phil Schulp
Town Manager Barbara Matthews

Post Office Box 84 • Garrett Park, MD 20896-0084 • 301 933-7488 • Fax 301 933-7488
managerbarb@garrettparkmd.gov

Hello, I am Gerilee Bennett, Town Councilmember of Garrett Park. I am submitting this testimony on behalf of the Town of Garrett Park.

Thank you for the opportunity to provide input for this Local Map Amendment application review. This development is of great interest to the Town of Garrett Park and our residents. The Town limits are less than 1/4 mile away along Strathmore Avenue and the Town-owned Community Center and playground is adjacent to the Holy Cross church and school property.

It is **our position that the County should not approve the LMA for this development as currently proposed**. We would like to take this opportunity to summarize the feedback and concerns we have after our review of the detailed application materials made available for public review. We appreciate the care the developers are taking to preserve green space and attract multi-generational occupants.

Our foremost concern is the **automobile orientation** of the site plan despite the proximity to Grosvenor Metro, and the subsequent impact of additional traffic flowing in and out of the already highly congested stretch of Strathmore Avenue. With three school complexes along this same stretch of Strathmore, we are very concerned that this development will add much more congestion to this heavily travelled thoroughfare. We **question the reliability of the traffic study** results, given the weight given to Fall 2020 counts prior to COVID-19 vaccine availability, as well as dated traffic studies that do not adequately account for planned development in the area of the former White Flint Mall and Pike and Rose.

We're grateful for the efforts of the County's senior planner to make sure the project lives up to its transit-oriented billing. We agree with the senior planner that the project's initial design too heavily emphasizes automobile travel. For example, we agree the wide and long Townhouse driveways will result in an auto-dominated streetscape. In addition to her recommendations, we suggest the following:

First, **consolidate the entrance/exits, consistent with 2.11 of Bicycle Master Plan**, which calls for driveways/curb cuts to be consolidated along master planned bikeway facilities. Strathmore Avenue has a master-planned side path, which is a type of bikeway facility. Given the developer's transportation study finding of minimal anticipated vehicle trips resulting from the project, three entrances are excessive and will further encourage automobile trips. The comprehensive project information indicates an estimate that the development only adds 82

vehicle trips at the peak afternoon hour. One entrance for the development should be sufficient.

We appreciate the addition of a traffic signal and left turn lane to improve the flow of traffic along Strathmore during busy hours. However, **the light and lane should be at Stillwater Avenue aligned with what is the most appropriate main entrance of the development**. A signal located at Stillwater Avenue and Strathmore would benefit both the existing residents in Garrett Park Estates and White Flint Park as well as the residents of the new development. The inclusion of two alternative entrances/exits will serve to undermine the effectiveness of the signal and turn lane measures. The care facility could be moved to the western side of the development, which would help to disguise the building's height and massing at this lower point of the property. The site plan should be modified so that the care facility as well as the school are accessed via the single entrance to the development at Stillwater Avenue.

Second, the **parking lots and loading dock** supporting the residential care building should be tucked behind the building rather than facing Strathmore Avenue and accessed from a road within the development. As currently depicted, large delivery trucks will be motivated to back into the loading area directly from Strathmore Avenue creating further traffic disruption. Such a fundamental shift from the current tree-lined character of Strathmore Avenue is an unacceptable alteration towards a commercial streetscape in the neighborhood. The development circulation plan can easily be modified to support access to the rear via a signaled intersection at Stillwater, which is the more appropriate entrance for trucks. We note the Planning Board has repeatedly articulated a preference for MCPS school site plans to place parking lots to the rear and for the street facing side to be more inviting to pedestrians. This development should also follow these good design principles.

Third, the plan should include both a **pedestrian/bike path directly from the property to Metro as well as an additional vehicle outlet** for the Academy of the Holy Cross and/or the new development directly on to Cloister Drive or Tuckerman Lane. We understand the topography and stream at the south-western portion of the lot is a challenge but urge the incorporation of transit-oriented ingress/egress if feasible. Such a footpath would not only promote transit use by employees of Brandywine and residents of the new homes but also allow for access to new dining and retail at Grosvenor as well as events at Strathmore Hall without automobiles.

Fourth, this development feeds into **Garrett Park Elementary School (GPES), which has a history of overcrowding** and portable classrooms. New developments at Strathmore Square, Harwood Flats, and the White Flint area all feed into GPES. It is unacceptable to approve an LMA for this property to add denser housing without a clear, funded **MCPS plan for another elementary school in this cluster**. Additionally, the LMA should not be approved without a **funded and planned safe pedestrian access to GPES**.

Fifth, a housing development of this size, designed for families of all ages, should also provide **adequate recreational space for its residents**. It is shocking that the development includes

only one small (not clearly laid out) play area on the outskirts of the townhomes adjacent to a roadway rather than centrally located within the residential area. The locations of the closest existing playgrounds in the area were strategically situated to support their associated communities and the neighboring elementary and preschools. It is also shocking that the developer's planning documents cite the surrounding neighborhood playgrounds as adequate to support the new development. First, the new development lacks a safe pedestrian access to the playgrounds near the schools and families would need to cross the heavy traffic of Strathmore Avenue to reach any others. Secondly, the development itself should provide adequate play area to avoid overcrowding at existing playgrounds.

Finally, the Land Planning Report, Page 18, indicates that no commercial buildings or uses are proposed and that a binding element will prohibit any commercial density. We support this provision and request that this stipulation be incorporated directly into the Local Map Amendment, if approved.

Thank you for your consideration of our recommendations and concerns. Please let us know if we may clarify any points or answer any questions about our testimony.

From:	david.shaffer@davidshafferlaw.com
To:	MCP-Chair
Cc:	"Joyce Winston"; "Kip Edwards"; "Arthur Ribeiro"
Subject:	Comments on Local Map Amendment No. H-143 - Rezoning of Holy Cross Property
Date:	Tuesday, December 14, 2021 8:09:56 PM
Attachments:	accessibility report of planning board website.pdf Letter to Planning Board Final Draft JLW 14Dec2021.pdf

[EXTERNAL EMAIL] Exercise caution when opening attachments, clicking links, or responding.

Please find attached our comments to the above-referenced application.

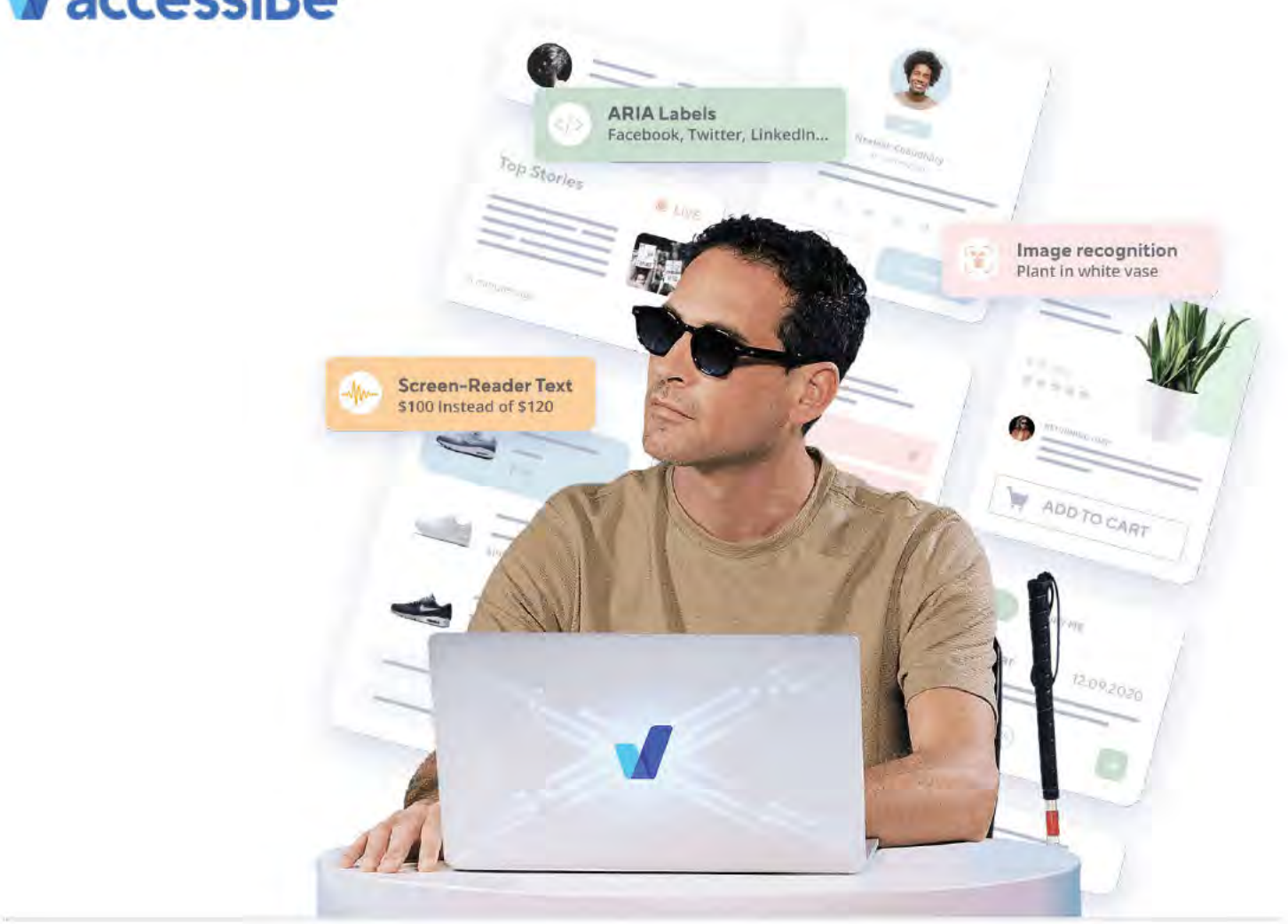
DAVID SHAFFER LAW, PLLC
CIVIL RIGHTS AND DISABILITY LAW

David J. Shaffer
Direct: 202-210-7424
Fax:993-422-0098
Email: david.shaffer@davidshafferlaw.com
Website:: www.davidshafferlaw.com

1629 K. St. N.W. Suite 300
Washington, D.C. 20006
Practice in the District of Columbia and
The Federal Courts and Agencies

This message is privileged and confidential and intended only for the named recipient. If you have received it by error, please delete and inform the sender immediately.

accessiBe



WCAG 2.1 Level AA Success Criteria

COMPLIANCE AUDIT

For montgomeryplanning.org | Verdict: Non-compliant

accessiBe is the web accessibility **market leader**, powering the accessibility of **tens-of-thousands** of websites, from **small businesses** to industry-leading **enterprises**.

This audit evaluates the adherence level of **montgomeryplanning.org** as of Wed Dec 15 2021, to the "Web Content Accessibility Guidelines" (WCAG) 2.1 level AA success criteria.

Below you'll find the results for dozens of tests that focus mainly on 3 categories: **screen-reader** adjustments(for blind users), **keyboard navigation** adjustments (for the motor impaired) and **UI, design, and readability** adjustments (for the vision impaired).

This audit is subjected to the terms of service

#	Requirement	Relevant	Successes	Failures	Score
1	Visually deleted texts (often used to show a previous price of a sale) should include an "aria label" attribute or a screen reader only text that explains this is deleted text.	No	0	0	
2	Breadcrumbs main element should include a "role" attribute that equals to "navigation" and an "aria label" attribute that describes the functionality."	No	0	0	
3	Ratings/scores that are represented visually using stars, meters or other indicators should either have an "aria label" attribute or a screen reader only texts conveying the score/rate.	No	0	0	
4	Making use of an accessibility interface helps to ensure that vision impaired users can adjust some of the UI and the design (font size, colors, spacing, etc.) to their needs. It is not a compliance requirement, but can help to improve compliance.	No	0	0	
5	Iframe elements should include a "title" or an "aria label" attribute explaining the purpose, the functionality or the destination of the iframe, or be tagged hidden for screen readers if irrelevant.	Yes	2	0	100%

Code snapshots of some successful elements

```
<iframe style="border: 0;" src="https://#" allowfullscreen="allowfullscreen" spusrc="https://www.ustream.tv/embed/20139640?html5ui&amp;volume=80&amp;autoplay=false" width="480" height="270" frameborder="0"></iframe>
```

```
<iframe style="display: none !important; width: 1px !important; height: 1px !important;
```

```
opacity: 0 !important; pointer-events: none !important;" name="_hjRemoteVarsFrame" title="_hjRemoteVarsFrame" id="_hjRemoteVarsFrame" src="https://vars.hotjar.com...
```

6	Font sizes should be at least 11px in size in order to stay readable in the majority of font families. This should be verified also when using dynamic units such as REM or percents.	No	0	11	

Code snapshots of some successful elements

```
<a href="https://www.montgomeryparks.org" >Parks</a>
```

```
<a href="https://montgomeryplanning.org/" target="_blank" >Planning<span class="screen-reader-only" style="position:absolute; display:block; text-indent:-9999px;" >(opens in a new tab)</span></a>
```

```
<a href="https://montgomeryplanningboard.org/" target="_blank" >Planning Board<span class="screen-reader-only" style="position:absolute; display:block; text-indent:-9999px;" >(opens in a new tab)</span></a>
```

```
<button class="gsc-search-button gsc-search-button-v2" ><svg width="13" height="13" viewBox="0 0 13 13" ><title >search</title><path d="m4.8495 7.8226c0.82666 0 1.5262-0.29146 2.0985-0.87438 0.57232-0.58292 0.86378-1.2877 0.87438-2.1144 0.010599-0.82...
```

```
<button class="translate-button single-language" data-translate="es" >Español</button>
```

```
<button class="translate-button single-language" data-translate="zh-CN" >□□</button>
```

```
<select onchange="changeLanguageOther(this)" id="translation_select" open-select="" > <option value="none" selected="true" disabled="true" >Other</option> <option value="" >Select Language</option><option value="af" >Afrikaans</option><opt...
```

```
<option value="none" selected="true" disabled="true" >Other</option>
```

```
<option value="" >Select Language</option>
```

```
<option value="af" >Afrikaans</option>
```

7	Letter spacing should not be set to below 1px in order to stay readable in the majority of font families. This should be verified also when using dynamic units such as REM or percents.	Yes	Pass		100%
8	Elements that have texts should meet a minimum contrast ratio of 4.5:1 between their foreground (usually text color) and background color.	Yes	203	6	97%

Code snapshots of some successful elements

```
<a href="https://www.mncppc.org" title="The Maryland-National Capital Park and Planni
ng Commission" class="mncppc-link" target="_blank" >The Maryland-National Capital P
ark and Planning Commission<span class="screen-reader-only" style="position:absolu...
```

```
<a href="https://www.montgomeryparks.org" >Parks</a>
```

```
<a href="https://montgomeryplanning.org/" target="_blank" >Planning<span class="sc
reen-reader-only" style="position:absolute; display:block; text-indent:-9999px;" >(opens
in a new tab)</span></a>
```

```
<a href="https://montgomeryplanningboard.org/" target="_blank" >Planning Board<sp
an class="screen-reader-only" style="position:absolute; display:block; text-indent:-9999
px;" >(opens in a new tab)</span></a>
```

```
<a href="https://montgomeryplanning.org" class="parks-planning-logo t-indent" title="B
ack to Home" >Montgomery Planning</a>
```

```
<p class="montco">Montgomery County, MD</p>
```

```
<p class="name">Montgomery Planning</p>
```

```
<a href="https://www.facebook.com/montgomeryplanning" target="_blank" >facebook
<svg data-name="Layer 1" xmlns="http://www.w3.org/2000/svg" viewBox="0 0 30 30"
```

```
><defs ><style >.cls-1fb{fill:#547bbc}.cls-2{fill:#fff}</style></defs><title >social-fb
</ti...
```

```
<a href="https://twitter.com/montgomeryplans" target="_blank" >twitter<svg data-na
me="Layer 1" xmlns="http://www.w3.org/2000/svg" viewBox="0 0 30 30" ><defs ><st
yle >.cls-1tw{fill:#5ea8dd}.cls-2{fill:#fff}</style></defs><title >social-tw</title><pat
h...
```

```
<a href="https://www.instagram.com/montgomeryplanning/" target="_blank" >instagra
m<svg xmlns="http://www.w3.org/2000/svg" viewBox="0 0 291.319 291.319" ><path
d="M145.659 0c80.44 0 145.66 65.219 145.66 145.66S226.1 291.319 145.66 291.319
0 226.1 0 14...
```

Code snapshots of some failed elements

```
<a href="/" class="ico ico-home" title="Back to Home" >Back to Home <svg data-name
="Layer 1" xmlns="http://www.w3.org/2000/svg" viewBox="0 0 31.9 30" ><defs ><sty
le >.cls-1{fill:#79ba00}</style></defs><title >icon-home...
```

```
<div class="close">×</div>
```

```
<a href="https://www.facebook.com/montgomeryplanning" class="btn" >Open Facebo
ok</a>
```

```
<a href="https://twitter.com/montgomeryplans" class="btn" >Open Twitter</a>
```

```
<a href="https://www.instagram.com/montgomeryplanning/" class="btn" >Open Instag
ram</a>
```

9	Tables that are being used as layout structures should include a "role" attribute that equals to "presentation" to indicate to screen readers that it is not really a table.	No	0	2	

Code snapshots of some failed elements

```
<table class="gsc-search-box" cellspacing="0" cellpadding="0"><tbody><tr><td clas
s="gsc-input" ><div class="gsc-input-box" id="gsc-iw-id1"><table style="width: 100%;
```

```
padding: 0px;" id="gs_id50" class="gstl_50 gsc-input" cellspacing="0" cellpadding="...
```

```
<table style="width: 100%; padding: 0px;" id="gs_id50" class="gstl_50 gsc-input" cellspacing="0" cellpadding="0"><tbody><tr><td id="gs_tti50" class="gsib_a"><input autocomplete="off" type="text" size="10" class="gsc-input" name="search" title="search...
```

10	If nested tables are used (a table element within a table cell), set the nested tables "role" attribute to "presentation".	No	Fail		

Code snapshots of some failed elements

```
<table style="width: 100%; padding: 0px;" id="gs_id50" class="gstl_50 gsc-input" cellspacing="0" cellpadding="0"><tbody><tr><td id="gs_tti50" class="gsib_a"><input autocomplete="off" type="text" size="10" class="gsc-input" name="search" title="search...
```

11	Tables that are missing a THEAD row with TH elements, should include a "role" attribute that equals to "rowheader" on the TD elements of the TR that represents the visual table headings.	No	0	0	
12	Form fields should either include an "aria label" attribute or a connected LABEL element describing the requirement of the field (email, phone, name, etc.).	Yes	2	1	67%

Code snapshots of some successful elements

```
<select class="goog-te-combo" aria-label="Language Translate Widget"><option value="">Select Language</option><option value="af">Afrikaans</option><option value="sq">Albanian</option><option value="am" >Amharic</option><option value="ar" >Arabic</opt...
```

```
<select onchange="changeLanguageOther(this)" id="translation_select" open-select="" > <option value="none" selected="true" disabled="true" >Other</option> <option value="" >Select Language</option><option value="af" >Afrikaans</option><opt...
```

Code snapshots of some failed elements

```
<input autocomplete="off" type="text" size="10" class="gsc-input" name="search" title="search" style="width: 100%; padding: 0px; border: medium none; margin: 0px; height: auto; outline: currentcolor none medium;" id="gsc-i-id1" dir="ltr" spellcheck="...
```

13	Form elements cannot have the same ID, or else their corresponding label will provide false information.	No	0	0	
14	Required form fields should include an "aria required" attribute that equals to "true" so blind users using screen readers know their validation.	No	0	0	
15	The validity status of every form element must be represented in the code at all times using the "aria invalid" attributes and the "true/false" values, and change dynamically when the status changes.	No	0	0	
16	aria describedby and aria labeledby attributes should be connected by ID to an element that either has text description or an "aria label" attribute.	No	0	0	
17	All forms should have a submission button that is built as an input type "submit" or a "button" element, or include a "role" tag that equals to "button". Buttons can be hidden if the form can be submitted using the Enter key.	Yes	2	0	100%

Code snapshots of some successful elements

```
<form action="/"> <script > (function() { var cx = '015286172176025413535:gj0owiulte8'; var gcse = document.createElement('script'); gcse.type = 'text/javascript'; gcse.async = true; ...
```

```
<form class="gsc-search-box gsc-search-box-tools" accept-charset="utf-8"><table class="gsc-search-box" cellspacing="0" cellpadding="0"><tbody><tr><td class="gsc-input" ><div class="gsc-input-box" id="gsc-iw-id1"><table style="width: 100%; padding: 0...
```

18	Search forms should include a "role" tag that equals to "search" (or be wrapped by one) to indicate a search landmark for screen readers.	No	0	2	

Code snapshots of some failed elements

```
<form action="/"> <script > (function() { var cx = '015286172176025413535:gj0owiulte8'; var gcse = document.createElement('script'); gcse.type = 'text/javascript'; gcse.async = true; ...
```

```
<form class="gsc-search-box gsc-search-box-tools" accept-charset="utf-8"><table class="gsc-search-box" cellspacing="0" cellpadding="0"><tbody><tr><td class="gsc-input" ><div class="gsc-input-box" id="gsc-iw-id1"><table style="width: 100%; padding: 0...
```

19	An H1 title provides information to blind users using screen readers of what the main topic of the page is and each page should have exactly one H1 title.	Yes	Pass		100%

Code snapshots of some successful elements

```
<h1 style="display:block; text-indent:-9999px; position: absolute;">Montgomery Planning</h1>
```

20	HTML title elements (H1 6) should have texts. If images or links are used, they should include an alternative or screen reader only text.	Yes	18	0	100%
21	Elements that visually appear as titles but are coded with a non heading HTML Tag should include a "role" attribute that equals to "heading" or have their tags fixed.	No	0	0	
22	Title levels should not be skipped and should be built with consistent hierarchy. For example: you cannot have "h4" titles and "h2" titles without having "h3" titles.	No	Fail		

Code snapshots of some failed elements

```
<h1></h1>
```

23	Images should have an alternative text description that describes both the objects and the embedded text that the image contains, using the "alt" attribute.	Yes	17	0	100%

Code snapshots of some successful elements

```
<img src="https://montgomeryplanning.org/wp-content/uploads/2020/02/montrose-270.jpg" alt="Corridor Forward: I-270 Transit Plan">
```

```
<img src="https://montgomeryplanning.org/wp-content/uploads/2019/05/thrive-grid.jpg" alt="thrive montgomery 250">
```

```
<img src="https://montgomeryplanning.org/wp-content/uploads/2019/09/ped_master_plan_grid.jpg" alt="pedestrian master plan">
```

```
<img src="https://montgomeryplanning.org/wp-content/uploads/2019/09/ssp_grid.jpg" a
```

```
lt="ssp">
```

```
<img src="https://montgomeryplanning.org/wp-content/uploads/2019/12/silverspring1.jpg" alt="Silver Spring">
```

```
<img src="https://montgomeryplanning.org/wp-content/uploads/2018/05/mcplacemaking_grid.jpg" alt="mc placemaking">
```

```
<img src="https://montgomeryplanning.org/wp-content/uploads/2019/04/research-grid-icon.jpg" alt="research department">
```

```
<img src="https://montgomeryplanning.org/wp-content/uploads/2016/07/third_place_blog_tile.jpg" alt="The Third Place Blog">
```

```
<img src="https://montgomeryplanning.org/wp-content/uploads/2016/07/gis_grid.png" alt="GIS Map and Pin">
```

```
<img alt="Montgomery County, Md., Planning Department" src="https://graph.facebook.com/10150095942110508/picture" border="0">
```

24	Background images that are not just for decoration purposes and should have the same treatment as standard images and include a "role" attribute that equals to "img" and an alternative text description in an "aria label" attribute.	No	0	0	
25	Font icons, SVG or images that are being used as spacers, decorations or their purpose is already described by the content should include a "role" attribute that equals to "presentation" or "none".	Yes	11	5	69%

Code snapshots of some successful elements

```
<span ></span>
```

```
<svg viewBox="0 0 24 24" aria-hidden="true" class="svg-inline--fa r-4qtqp9 r-yyyyoo r-
```

```
50lct3 r-dnmrzs r-bnwqim r-1plcrui r-lrvibr r-1srniue" ><g ><path d="M17.53 7.47l-5-5c-.293-.293-.768-.293-1.06 0l-5 5c-.294.293-.294.768 0 1.06s.767.294 1.06 0l3.7...
```

```
<span class="spu-timer" ></span>
```

Code snapshots of some failed elements

```
<svg xmlns="http://www.w3.org/2000/svg" viewBox="0 0 291.319 291.319" ><path d="M145.659 0c80.44 0 145.66 65.219 145.66 145.66S226.1 291.319 145.66 291.319 0 226.1 0 145.66 65.21 0 145.659 0z" fill="#9b6954" ></path><path d="M195.93 63.70 8H95.38c-17....
```

```
<i class="icon-thumbs-up"></i>
```

```
<svg xmlns="http://www.w3.org/2000/svg" class="goog-te-spinner" width="96px" height="96px" viewBox="0 0 66 66" ><circle class="goog-te-spinner-path" fill="none" stroke-width="6" stroke-linecap="round" cx="33" cy="33" r="30" ></circle></svg>
```

26	Figure elements that are used to display images should have a "role" attribute that equals to "none" and the image provide itself should provide the description using an "alt" attribute.	No	0	0	
27	Every "area" element of a "map" tag should be regarded as a standard image and receive an alternative text description using an "alt" attribute.	No	0	0	
28	Small or hidden tracker pixel images (often used for analytics or marketing purposes) should include a "role" attribute that equals to "none" or "presentation" so they are excluded from screen readers.	No	0	0	
29	Interactive elements such as links, buttons and form fields should all be navigable using the keyboard by	No	0	4	

either using a focusable element (a, button, input, etc.) or including the "tabindex" attribute that equals to "0".

Code snapshots of some failed elements

```
<option value="none" selected="true" disabled="true" >Other</option>
```

```
<option value="" >Select Language</option>
```

```
<option value="af" >Afrikaans</option>
```

```
<option value="sq" >Albanian</option>
```

30	Interactive elements that can be navigated using the keyboard should be surrounded by a visual outline whenever they are focused.	Yes	Pass		100%
31	Active popups should include an "aria modal" attribute that equals to "true", and a "role" attribute that equals to "dialog", so screen reader users know how to navigate within it.	No	0	0	
32	Every page should include hidden links that by clicking on them (either using keyboard navigation or a screen reader), the user will "skip" certain blocks directly to main landmarks such as main content, menu or footer.	No	Fail		

Code snapshots of some failed elements

```
<a class="modal-open" href="#" >Text Size</a>
```

33	Elements that are hidden using CSS	No	0	0	

	manipulations (opacity, height, text indent, off canvas, etc.) should be wrapped inside an element with an "aria hidden" attribute that equals to "false", or include it directly, and have it dynamically changed to "true" when they become visible.				
34	Elements that are hidden using CSS manipulations (opacity, height, text indent, off canvas, etc.) should include a "tabindex" attribute that is below 0, and have it dynamically changed to 0 when they become visible.	No	0	0	
35	Menus should either be built using the HTML5 "nav" element or include a "role" attribute that equals to "menu" or "navigation" to indicate a navigation landmark for screen readers.	No	Fail		

Code snapshots of some failed elements

```
<ul id="menu-hot-topics" class="menu" ><li id="menu-item-3468" class="menu-item menu-item-type-custom menu-item-object-custom menu-item-3468 top-nav-item"><a href="/media-center/eletters/" >eLetters</a></li> <li id="menu-item-394" class="menu-item me...
```

36	Menu items that have a dropdown menu include an "aria haspopup" attribute that equals to "true".	No	0	0	
37	Menu items that have a dropdown menu include an "aria expanded" attribute that equals to "false" that changes to "true" and back when opening or closing the dropdown.	No	0	0	
38	The title tag of the HEAD section (also the title that appears in the browser tab and Search Engine result pages) should exist and describe the name of	Yes	Pass		100%

the current webpage for screen reader users.

Code snapshots of some successful elements

```
<title> Montgomery Planning - Development in Montgomery County, MD </title>
```

39	The HTML tag should include a "lang" attribute that represents the main language of the webpage so screen readers can calibrate on it for blind users.	Yes	Pass		100%

Code snapshots of some successful elements

```
<html class="no-js dj_gecko dj_ff95 dj_contentbox fontawesome-i2svg-active fontawesome-i2svg-complete" style="height: 100%;" lang="en-US"><head> <base href="https://montgomeryplanning.org"><meta name="aceClient" content="false"><meta name="aceTok...
```

40	The meta viewport tag should allow vision impaired users to pinch zoom at least double the standard scaling using the user scalable="yes" and maximum scale={2 or higher} content strings.	No	Fail		

Code snapshots of some failed elements

```
<meta name="viewport" content="width=device-width, initial-scale=1, maximum-scale=12.0, minimum-scale=.25, user-scalable=yes">
```

41	Landmarks such as main content and footer should be built using their corresponding HTML5 element or include a description using an "aria label" attribute and a "role" tag that equals to "contentinfo" or "main".	Yes	1	2	33%

Landmarks such as search and navigation are tested in other sections.

Code snapshots of some failed elements

```
<div class="cc-m p-x"> <div class="nav mobile" > <a href="#" class="prev t-indent" >prev</a> ...
```

```
<div id="footer" class="main-footer planning-footer"> <div class="hot-topics row"> <div class="cc-m"> <h3>Topics</h3> <div cl...
```

42	Carousels should include an "aria label" attribute that equals to "carousel"/"slider" or something else that indicates the functionality, as well as be tagged as a landmark for screen readers using a "role" tag that equals to "contentinfo".	No	0	0	
43	Control elements such as next and previous icons should include an "aria label" attribute or a screen reader only text that explains the functionality to screen readers.	Yes	8	0	100%

Code snapshots of some successful elements

```
<a href="#" class="prev t-indent" >prev</a>
```

```
<a href="#" class="next t-indent" >next</a>
```

```
<a href="#" class="prev t-indent" >prev</a>
```

```
<a href="#" class="next t-indent" >next</a>
```

44	A common accessibility mistake is to treat carousels as live regions using	No	0	0	

	the "aria live" attribute and the "polite" or the "assertive values. Using this practice will cause screen readers to cut and skip announcements.				
45	Carousel pagination items (usually used as small dots at the bottom of the carousel) should indicate their functionality and slide number they control using an "aria label" and a screen reader only text.	No	0	0	
46	Elements that behave as buttons but are built using other tags such as span, div, a or others, should include a "role" attribute that equals to "button".	Yes	3	9	25%

Code snapshots of some successful elements

```
<button class="gsc-search-button gsc-search-button-v2" ><svg width="13" height="13" viewBox="0 0 13 13"><title>search</title><path d="m4.8495 7.8226c0.82666 0 1.5262-0.29146 2.0985-0.87438 0.57232-0.58292 0.86378-1.2877 0.87438-2.1144 0.010599-0.8266...
```

```
<button class="translate-button single-language" data-translate="es" >Español</button>
```

```
<button class="translate-button single-language" data-translate="zh-CN" >□□</button>
```

Code snapshots of some failed elements

```
<a class="modal-open" href="#" >Text Size</a>
```

```
<a href="#" class="prev t-indent" >prev</a>
```

```
<a href="#" class="next t-indent" >next</a>
```

```
<a href="javascript:;" class="ft-gallery-link-popup" title="Social Share Options" > <svg viewBox="0 0 24 24" aria-hidden="true" class="svg-inline--fa r-4qtqp9 r-yyyyoo r-50lct3 r
```

```
-dnmrzs r-bnwqim r-1plcrui r-lrvibr r-1srniue"><g><path d="M17.53 7.47l-...
```

47	Buttons should include text explaining their functionality, and if icons are used as buttons, a screen reader only text or an "aria label" attribute should be used for that description.	Yes	6	6	50%

Code snapshots of some successful elements

```
<button class="gsc-search-button gsc-search-button-v2" ><svg width="13" height="13" viewBox="0 0 13 13"><title>search</title><path d="m4.8495 7.8226c0.82666 0 1.5262-0.29146 2.0985-0.87438 0.57232-0.58292 0.86378-1.2877 0.87438-2.1144 0.010599-0.8266...
```

```
<button class="translate-button single-language" data-translate="es" >Español</button>
```

```
<button class="translate-button single-language" data-translate="zh-CN" >□□</button>
```

```
<a class="modal-open" href="#" >Text Size</a>
```

```
<a href="#" class="prev t-indent" >prev</a>
```

```
<a href="#" class="next t-indent" >next</a>
```

Code snapshots of some failed elements

```
<a href="javascript:;" class="ft-gallery-link-popup" title="Social Share Options" > <svg viewBox="0 0 24 24" aria-hidden="true" class="svg-inline--fa r-4qtqp9 r-yyyyoo r-50lct3 r-dnmrzs r-bnwqim r-1plcrui r-lrvibr r-1srniue"><g><path d="M17.53 7.47l-...
```

48	Links should include text that is setting expectations to what page they are leading to. If empty links are used as	Yes	148	4	97%

layout wrapping elements, a screen reader only text or an "aria label" attribute should be used for that description.

Code snapshots of some successful elements

```
<a href="https://www.mncppc.org" title="The Maryland-National Capital Park and Planning Commission" class="mncppc-link" target="_blank" >The Maryland-National Capital Park and Planning Commission<span class="screen-reader-only" style="position:absolu...
```

```
<a href="https://www.montgomeryparks.org" >Parks</a>
```

```
<a href="https://montgomeryplanning.org/" target="_blank" >Planning<span class="screen-reader-only" style="position:absolute; display:block; text-indent:-9999px;">(opens in a new tab)</span></a>
```

```
<a href="https://montgomeryplanningboard.org/" target="_blank" >Planning Board<span class="screen-reader-only" style="position:absolute; display:block; text-indent:-9999px;">(opens in a new tab)</span></a>
```

```
<a href="https://montgomeryplanning.org" class="parks-planning-logo t-indent" title="Back to Home" >Montgomery Planning</a>
```

```
<a href="https://montgomeryplanning.org" title="Back to Home" > <div class="title-wrap"> <p class="montco">Montgomery County, MD</p> <p class="name">Montgomer...
```

```
<a href="https://www.facebook.com/montgomeryplanning" target="_blank" >facebook<svg data-name="Layer 1" xmlns="http://www.w3.org/2000/svg" viewBox="0 0 30 30"><defs><style>.cls-1fb{fill:#547bbc}.cls-2{fill:#fff}</style></defs><title>social-fb</title>...
```

```
<a href="https://twitter.com/montgomeryplans" target="_blank" >twitter<svg data-name="Layer 1" xmlns="http://www.w3.org/2000/svg" viewBox="0 0 30 30"><defs><style>.cls-1tw{fill:#5ea8dd}.cls-2{fill:#fff}</style></defs><title>social-tw</title><path cla...
```

```
<a href="https://www.instagram.com/montgomeryplanning/" target="_blank" >instagram<svg xmlns="http://www.w3.org/2000/svg" viewBox="0 0 291.319 291.319"><path d="M145.659 0c80.44 0 145.66 65.219 145.66 145.66S226.1 291.319 145.66 291.319 0 226.1 0 145...
```

<a href="https://www.youtube.com/channel/UCeSWMUulDP6T8k7MlCsga7g?view_as=subscriber" target="_blank" >youtube<svg data-name="Layer 1" xmlns="http://www.w3.org/2000/svg" viewBox="0 0 30 30"><defs><style>.cls-1yt{fill:#e9644a}.cls-2{fill:#fff}</style>...

Code snapshots of some failed elements

<a href="https://twitter.com/montgomeryplans/status/1470862666600267782" ><svg class="svg-inline--fa fa-twitter fa-w-16" aria-hidden="true" focusable="false" data-prefix="fa" data-icon="twitter" role="img" xmlns="http://www.w3.org/2000/svg" viewBox="...

<a href="https://twitter.com/montgomeryplans/status/1470845193909768192" ><svg class="svg-inline--fa fa-twitter fa-w-16" aria-hidden="true" focusable="false" data-prefix="fa" data-icon="twitter" role="img" xmlns="http://www.w3.org/2000/svg" viewBox="...

<a href="https://twitter.com/montgomeryplans/status/1470769208996810757" ><svg class="svg-inline--fa fa-twitter fa-w-16" aria-hidden="true" focusable="false" data-prefix="fa" data-icon="twitter" role="img" xmlns="http://www.w3.org/2000/svg" viewBox="...

<a href="https://twitter.com/montgomeryplans/status/1470758660913651722" ><svg class="svg-inline--fa fa-twitter fa-w-16" aria-hidden="true" focusable="false" data-prefix="fa" data-icon="twitter" role="img" xmlns="http://www.w3.org/2000/svg" viewBox="...

49	Links that open in a new tab or a new window should either have an "aria label" attribute or a screen reader only element explaining to screen readers that this opens in a new tab.	Yes	65	1	98%

Code snapshots of some successful elements

<a href="https://www.mncppc.org" title="The Maryland-National Capital Park and Planning Commission" class="mncppc-link" target="_blank" >The Maryland-National Capital Park and Planning Commission<span class="screen-reader-only" style="position:absolu...

Planning(opens in a new tab)

```
<a href="https://montgomeryplanningboard.org/" target="_blank" >Planning Board<span class="screen-reader-only" style="position:absolute; display:block; text-indent:-9999px;">(opens in a new tab)</span></a>
```

```
<a href="https://www.facebook.com/montgomeryplanning" target="_blank" >facebook<svg data-name="Layer 1" xmlns="http://www.w3.org/2000/svg" viewBox="0 0 30 30"><defs><style>.cls-1fb{fill:#547bbc}.cls-2{fill:#fff}</style></defs><title>social-fb</title>...
```

```
<a href="https://twitter.com/montgomeryplans" target="_blank" >twitter<svg data-name="Layer 1" xmlns="http://www.w3.org/2000/svg" viewBox="0 0 30 30"><defs><style>.cls-1tw{fill:#5ea8dd}.cls-2{fill:#fff}</style></defs><title>social-tw</title><path cla...
```

```
<a href="https://www.instagram.com/montgomeryplanning/" target="_blank" >instagram<svg xmlns="http://www.w3.org/2000/svg" viewBox="0 0 291.319 291.319"><path d="M145.659 0c80.44 0 145.66 65.219 145.66 145.66S226.1 291.319 145.66 291.319 0 226.1 0 145...
```

```
<a href="https://www.youtube.com/channel/UCeSWMUulDP6T8k7MlCsga7g?view_as=subscriber" target="_blank" >youtube<svg data-name="Layer 1" xmlns="http://www.w3.org/2000/svg" viewBox="0 0 30 30"><defs><style>.cls-1yt{fill:#e9644a}.cls-2{fill:#fff}</style>...
```

```
<a href="https://montgomeryplanning.org/rss-feed/" target="_blank" >rss<svg data-name="Layer 1" xmlns="http://www.w3.org/2000/svg" viewBox="0 0 30 30"><defs><style>.cls-1rss{fill:#f29100}.cls-2{fill:#fff}</style></defs><title>social-rss</title><path ...
```

```
<a href="https://www.facebook.com/10150095942110508" target="_blank" rel="noreferrer" ><img alt="Montgomery County, Md., Planning Department" src="https://graph.facebook.com/10150095942110508/picture" border="0"><span class="screen-reader-only" style...
```

```
<a href="https://www.facebook.com/10150095942110508" target="_blank" rel="noreferrer" >Montgomery County, Md., Planning Department<span class="screen-reader-only" style="position:absolute; display:block; text-indent:-9999px;">(opens in a new tab)</sp...
```

Code snapshots of some failed elements

```
<a class="goog-logo-link" href="https://translate.google.com" target="_blank" ><img src="https://www.gstatic.com/images/branding/googlelogo/1x/googlelogo_color_42x16dp.
```

png" style="padding-right: 3px" alt="Google Translate" width="37px" height="14px">...

DAVID SHAFFER LAW, PLLC
CIVIL RIGHTS AND DISABILITY LAW

David J. Shaffer
202-210-7424
david.shaffer@davidshafferlaw.com

Kelley Brooks Simoneaux
Of Counsel
phone 202-507-9180
kelley.simoneaux@davidshafferlaw.com

Riley J. Connor
Legal Assistant
phone 480-688-1952
riley.connor@davidshafferlaw.com

December 14, 2021

Chair Casey Anderson
Montgomery County Planning Board
2425 Reedie Drive 14th Floor
Wheaton, Maryland 20902

RE: Comments on Local Map Amendment No. H-143 - Rezoning of Holy Cross Property

These comments are presented on behalf of myself and Joyce Winston, who live at 5012 Aurora Dr., Kensington, MD 20895. We are residents of the affected area subject to the above-referenced rezoning proposal. We join in, and incorporate by reference the comments of Garrett Park Estates -White Flint Park Citizens Association ("GPE-WFP") and Arthur Ribeiro and provide the following additional comments in opposition to the application.

Introduction

Mr. Shaffer is legally blind but is an advanced user of assistive technology for the blind. Mr. Shaffer is also an attorney with years of experience in environmental law, past President of the Stanford Law Society, Senior Editor of the Stanford Environmental Law, a former employee of the Natural Resources Defense Council (NRDC), and has represented NRDC, the Sierra Club, National Wildlife Federation, Friends of the Earth, and other environmental organizations in significant Clean Water Act, NEPA, and other causes. Mr. Shaffer is also an expert in web accessibility and has served as the Section 508 officer of a governmental agency. However, due to lack of accessible formats to some of the materials supporting this petition, and that parts and only pieces from the documents were made available to him in accessible format, and only after invoking Justice Department regulations requiring that these documents be produced in accessible format, neither he nor the community has been able tohave his full input. . As a result, not only have we been deprived of a full understanding of the issues in the proposal, but the GPE-WFP is deprived of his expert input into environmental issues here, as well as other members of the disability community. Who may be affected by the application.

We reserve the right to raise additional issues in further proceedings that would have been raised here if full access to the documents supporting the application had been granted, and requests that these proceedings be continued in until they are available to all residents of the affected area including the 20% of whom have disabilities that may interfere with their ability to access these documents or participate meaningfully in these proceedings.

1. This Hearing Violates the Notice and Hearing Requirements of Maryland Law.

Maryland law requires that interested parties be given meaningful opportunity to offer informed comments at statutorily mandated public hearings. *Free State Recycling Corp. v. Fredrick County*, 885 Supp. 798 (D. Md. 1994). If notice is not adequate, County commissioners are obligated by law to readvertise proposal and offer proper supplemental opportunities for interested parties to be heard. Id.

Mr. Shaffer, as well as others with disabilities in the affected area, because he is blind, has been denied equal and meaningful access to the documents supporting this application, and although some documents have been produced in partial accessible formats, he still has no full accesses to the record, and has not had the time available to non-disabled residents of the affected area to comment and analyze these documents.

The Websites for the Montgomery Planning Board (including, but not limited to, https://montgomeryplanning.org/, https://montgomeryplanningboard.org/, and https://www.mncppc.org/) ("Websites") violates the standards under the Americans with Disabilities Act (ADA) because it is not accessible to the blind. See, e.g., v. *Robles v. Domino's Pizza, LLC*, 913 F. 3d 898 9th Cir.t cert. denied, 140 S. Ct. 122 (Mem) (U.S., 2019), requiring apps and places of public accommodation, including websites, be in compliance with the ADA. Moreover, Justice Department regulations provide that all documents must be provided in accessible format. 28 C.F.R. Section 35.160. Mr. Shaffer invoked these regulations, and some documents have been provided, but not all, and, moreover, the remainder of the community does not have access to these documents since no accessible documents have been posted to the Planning Board's inaccessible Websites. Moreover, even the documents that purport to explain the zoning process and how to participate are in themselves inaccessible. Since these documents are unavailable to the disability community of the County, not even the most basic information is available in compliance with the ADA. In fact, Mr. Shaffer has yet to find a single fully accessible document on the Planning Board's Websites, to the best of his ability to navigate.

Recently, the Fourth Circuit court of Appeals Maryland's Held absentee voting process system in violation of the ADA. *See Nat. Fed. Of the Blind v. Maryland*, (4th Cir. 2015), because, although the ballots could be accessed on the Election commission's site, they could not be filled out online and a blind person could not vote independently. The Court stated:

> Title II of the ADA provides that "no qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity, or be subjected to discrimination by any such entity."

Id. (citing *Constantine v. Rectors & Visitors of George Mason Univ*., 411 F.3d 474, 498 (4th Cir.2005)). These Planning Board proceedings run directly contrary to Department of Justice regulations, as recognized by the Fourth Circuit.

The Fourth Circuit recognized that "Congress has explicitly directed the Attorney General to promulgate regulations implementing Title II's non-discrimination mandate. 42 U.S.C. § 12134. Pursuant to this directive, the Department of Justice ("DOJ") promulgated a number of regulations, including 28 C.F.R. § 35.130. That regulation provides:

> A public entity, in providing any aid, benefit, or service, may not ... [a]ford a qualified individual with a disability an opportunity to participate in or benefit from the aid, benefit, or service that is not equal to that afforded others ... [or] [p]provide a qualified individual with a disability with an aid, benefit, or service that is not as effective in affording equal opportunity to obtain the same result.

28 C.F.R. § 35.130(b)(1)(ii)-(iii). "

In striking down the absentee voting procedures, the Court held "This finding is also not clearly erroneous. This sharp disparity makes obvious that defendants have provided "an aid, benefit, or service [to disabled individuals] that is not as effective in affording equal opportunity to obtain the same result, to gain the same benefit, or to reach the same level of achievement as that provided to others." See 28 C.F.R. § 35.130(b)(1)(iii).

The same is true here. In the National Federation of the Blind, the flaw was the fact that, although a blind person could download an absentee voting form, he or she could not fill it out independently. It is significant that the district court concluded, and the Fourth Circuit affirmed, that the new voting system must comply with WCAG (Web Content Accessibility Guidelines), which is the standard followed by the federal courts that have considered the subject. (See Robles, surpass[1], denied review by the Supreme Court.) The attached report proves the county's violation of Title II of the ADA.

The fact that the entire Website of the Montgomery County Planning Department is inaccessible to persons with disabilities, including those in the subject area denies County residents with disabilities meaningful access and participation in the affair of this body and therefore this proceeding, and all future proceedings undertaken without Notice to the 20% of the county residents lacks legal validity. A copy of the accessibility report from a leading web testing company is attached hereto.

The lack of meaningful access to the Websites is further exacerbated by the lack of accessible documents within the web site and all documents supporting this application. Every document that Mr. Shaffer attempted to access produced testing reports of inaccessibility. Accordingly, to be legally valid, this hearing should not be continued until the County's Websites and documents supporting its zoning accessible to the county's residents with disabilities. Although Mr. Shaffer has provided many of the

[1] For a detailed explanation of the WCAG criteria and how they have been applied by the Courts can be found at Shaffer and Simoneaux, Web Accessibility and Layered Approaches, https://davidshafferlaw.com/web-accessibility-and-layered-approaches/

documents in the docket in arts, not all documents have been provided or either this application certainly lacks any factual basis to proceed.

2. Lack of consideration of needs of persons with disabilities in the plan

GPE-WFP proposes a light at the corner of Strathmore and Stillwater for in order permit our area to not be overrun our community, and the undersigned agrees with these points. Nonetheless, due in part to the County's lack of outreach to its disabled residents, we also advocate for an APS for people with disabilities and seniors at this intersection, which may become terribly busy. In fact, in this case, the APS is required under the ADA. See American Council for the Blind v. New York City, 495 F.Supp.3d 211 (S. D. Ny. 2020)(ADA required APS in area where blind cross).

We understand, but have not been provided with documents to review, that the walking path to the Metro will be made dark and unsafe. This path needs to be maintained and accessible to the community, and particularly those who are seniors and persons with disabilities, since our walking path would become unsafe under the proposal.

3. Environmental Concerns

The Storm Water Management Plan is nothing but a promise to have a plan. It fails to even mention the area of impermeable surface that will be created by the project, only saying that it will be managed by first level of stormwater management review by the County is a Concept Storm Water Management Plan (Stage 1). This plan is required to accompany the Preliminary Plan and must include an approved Natural Resource Inventory as well as conceptual ESD design and computations to demonstrate how the stormwater management criteria including ESD will be implemented to the MEP. The County produces a letter, accepting the design elements (types of facilities, requiring fees, etc.). Preliminary Storm Management Plan.

However, the Preliminary Storm Water Management Plan does not, in fact, contain "ESD design and computations," while other documents recognize wetlands on the property and the fact that since it flows into the Rock Creek, further Army Corp of Engineers permits may be required.

The environmental inventory also errs when it concludes there are no significant wildlife on the property, but we see bald eagles there daily. This species, as well as the Barred Owls heard nightly on property and the effect on them, and other wildlife clearly demonstrates the inadequacy of the environmental analysis.

According, we request that the application be denied, or, in the alternative , delayed until the developer and the County makes its documents available to the disabled population of the County.

_____/s/_____
David J> Shaffer

_____/s/_____
Joyce Winston

From: David Murray
To: MCP-Chair
Subject: Comments for the Record on Item 5: Local Map Amendment No. H-143
Date: Tuesday, December 14, 2021 6:33:39 PM
Attachments: strathmore.pdf

[EXTERNAL EMAIL] Exercise caution when opening attachments, clicking links, or responding.

Good evening,

Please pass along my attached comments on Item 5 on Thursday's agenda (Local Map Amendment No. H-143) and include them in the record. Please confirm receipt.

Regards,
David Murray

14 December 2021

To: Montgomery County Planning Board
From: David Murray, Garrett Park
Subject: 4910-4920 Strathmore Local Map Amendment No. H-143

To the Chair and Members:

Thank you for the opportunity to comment on Local Map Amendment No. H-143.

I strongly support transit-oriented development at the former Saint Angela Hall site, because we urgently need more housing. Unfortunately, transit-oriented development is not what this applicant's site plan delivers. What the applicant proposes is transit-proximate development that is unequivocally oriented toward automobile travel. The applicant fails to capitalize on nearby transit and instead promises more than 300 parking spaces and three automobile entrances onto Strathmore Avenue, which would threaten pedestrian and cyclist safety.

When it transmits it comments to the Montgomery County hearing examiner, the Planning Board should recommend limiting the site to one access point on Strathmore Avenue and requiring parking to be placed to the rear of the care facility. Endorsing the site plan as proposed — even tacitly — would contradict the overall vision that the Planning Board has championed for Montgomery County through Thrive, the Growth and Infrastructure Policy, and recently adopted master plans.

Limit the site to one entrance from Strathmore Avenue

The staff memo mistakenly relies on the existing site condition to justify its endorsement of three access points. Because the site's use is changing, the Planning Board should review the site's access to Strathmore Avenue *de novo*, based on the site's proposed new use, on the site's needs, and on modern safety and design principles, while taking into account master plans adopted since the existing structures and access were approved.

- The Bicycle Master Plan calls for "greater consolidation of driveways as part of facility planning and development approvals along master-planned bikeways." The Bicycle Master Plan rightly notes that "Driveways create a conflict area between bicyclists and motorists, and stronger policies are needed to require greater driveway consolidation." Strathmore Avenue has a master planned bikeway. Thus, the proposal for three entrances from Strathmore Avenue is inconsistent with the Bicycle Master Plan as well as common sense.

- The applicant's traffic study forecasts that the project will generate less than two car trips per minute even during the peak hour, so the three entrances to the development from Strathmore appear to exceed the site's needs and create unnecessary risk for pedestrians and cyclists. Accordingly, the site should have just one access point from Strathmore Avenue.

- The staff memo's reliance on fire department requirements to justify three access

points deserves further examination of alternatives. Symphony Park, which has a similar number of units, has just one access point from Strathmore Avenue. If more than fire department entrance is required for 4910-4920, the site could provide one access point for the public and two additional access points for fire department use only, or the site could have one access point for ingress and egress and two access points that are designed for ingress only. Such approaches would provide equivalent fire department access similar to what the applicant has proposed while prioritizing pedestrian and cyclist safety.

Require the parking lots to be placed behind the residential care facility, away from Strathmore Avenue

Located as proposed, the care facility's two parking lots will be prominent features for people approaching it on Strathmore Avenue from either Rockville Pike or Beach Drive.

- As the chair and Planning Staff have noted, parking should never be the dominant feature of buildings. "What we keep asking to do is bring the building to the street and don't put parking in front of the building," the Chair said during a September meeting.

- Strathmore Avenue is the only east-west street that runs from Rockville Pike to Connecticut Avenue between Montrose Avenue and the Beltway. As such, it is one of this area's main streets. Trying to hide parking lots behind shrubbery is not sufficient; this approach is heavily — though ineffectively — used in commercial areas and is not appropriate for Strathmore Avenue. Accordingly, the care facility's parking lots should be moved behind the building.

If Montgomery County is to achieve its climate and economic development goals, transit orientation must be an ideal that imbues site plans, especially for sites that are as close to Metrorail stations as this site is. Planning Staff has excused this site plan's shortcomings by noting that the site plan is consistent with existing structures in the area. But much of the existing housing in this area was built decades ago, when the County was built around the car. If developers continue to build in a manner similar to existing structures, the County will continue to put the car at the center of the built environment. To change the County's car orientation, the Planning Board should insist that sites near transit be oriented toward transit.

I recognize that the question before the Planning Board today only involves the rezoning request. However, the staff memo endorses some of the site plan's most troubling features, including the site's excessive automobile access points and the site's excessive parking. I urge the Planning Board to recommend that the hearing examiner place stricter conditions on the zoning approval to promote pedestrian and cyclist safety and further the County's climate goals.