



**Local Map Amendment No. G-862 and G-863, Glenmont Metro Center, Supplemental Traffic Analysis**

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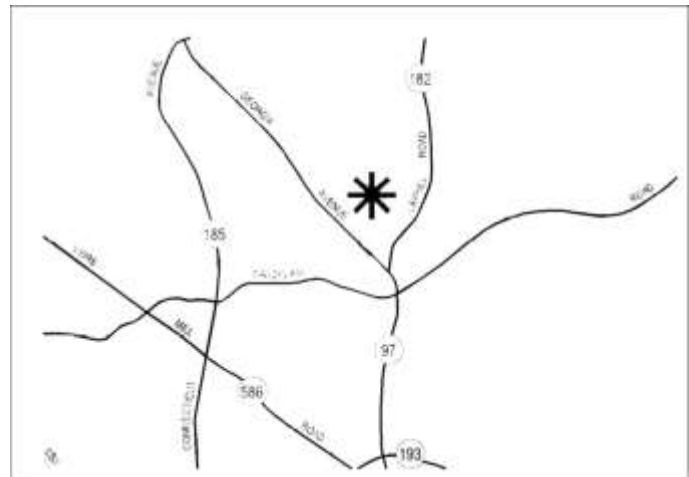
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Completed: 1/18/12

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**Description**

- Georgia Avenue and Glenallan Avenue
- 30.9 acres, RT-12.5, R-30, O-M zones
- 1997 Approved and Adopted Sector Plan for the Glenmont Transit Impact Area and Vicinity
- Council Remanded on January 15, 2008



**Summary**

- Remanded by the County Council to the Hearing Examiner to review applicant’s supplemental traffic analysis evaluating impacts of Stages 1 and 2.
- Staff recommends **approval to transmit comments** to the Montgomery County Hearing Examiner for a public hearing on February 10, 2012.

## **Recommendation**

The following conditions were recommended previously by the Planning Board as part of the Adequate Public Facilities (APF) test for transportation related to Local Area Transportation Review (LATR), to be followed at the time of Preliminary Plan. They are still applicable:

1. Limit the Preliminary Plan to maximum 1,300 multifamily dwelling units, 250 townhouse units, and 90,000 SF of retail.
2. Dedicate 75 feet of right-of-way from the centerline of Georgia Avenue (MD 97).
3. Dedicate 60 feet of right-of-way from the centerline of Layhill Road (MD 182).
4. Dedicate 45 feet of right-of-way from the centerline of Glenallan Avenue.
5. Satisfy the LATR component of the APF test at time of Preliminary Plan by contributing to the transportation improvement at the intersection of Georgia Avenue and Randolph Road. The Applicant should pay a pro-rata share of the grade separated intersection by State Highway Administration (SHA contract MO8545171).
6. Construct a new road on site parallel to Glenallan Avenue between Georgia Avenue and Layhill Road.
7. Construct an 8-foot wide shared-use path on the north side of Georgia Avenue.
8. Participate in the future Wheaton/Glenmont Transportation Management Organization.
9. Complete and make open to traffic the above-referenced transportation improvements based on the staging of the proposed development to be determined at the time of Preliminary Plan review and approval.
10. Satisfy future State Highway Administration and Department of Public Works and Transportation (now Department of Transportation) (DOT) requirements at the time of Preliminary Plan.

## **Introduction**

Glenmont Layhill, LLC filed Local Map Amendment Applications No. G-862 and No. G-863 on November 29, 2006 requesting reclassification of 30.9 acres of land located along the north side of Glenallan Avenue between Georgia Avenue and Layhill Road in Silver Spring from the R-T 12.5, R-30 and O-M Zones to the TS-R Zone. The proposed rezoning will facilitate the development of a total of up to 1,550 dwelling units, including townhouses, and low- and mid-rise multi-family buildings, some with retail on the ground floor and possible live/work units; and 90,000 square feet of retail.

Two separate applications were filed to respond to the phasing recommendations of the Glenmont Sector Plan: G-862 will facilitate the development of Stage 1 with up to 500 new dwelling units, the

replacement of up to 275 existing dwelling units, and approximately 4,000 square feet of retail space; and G-863 covers Stage 2 with up to 698 new units, the replacement of up to 77 remaining existing units and additional retail up of to 50,000 square feet. The Hearing Examiner, at the Applicant's request, consolidated the two cases for purposes of the public hearing and the Hearing Examiner's Report and Recommendation.

### **Application History**

On June 14, 2007, by a vote of 4 to 0, the Planning Board recommended approval of the applications on grounds that the proposed development would be in harmony with the recommendations of the Sector Plan, would be compatible with surrounding development, and would be in the public interest. The Planning Board noted that the final staging decisions must be made at the time of Preliminary Plan.

The Hearing Examiner held public hearings on June 26, June 29, July 16 and July 24 in 2007. In the report to the County Council, the Hearing Examiner found that most of the findings required in the Zoning Ordinance to support approval of the rezoning and the submitted Development Plan can be made affirmatively.<sup>1</sup> These include substantial compliance with the use and density recommended by the Sector Plan and compliance with the purposes, standards, and regulations of the TS-R Zone. However, the Hearing Examiner concluded that the evidence was not sufficient to demonstrate that the proposed development would not have an adverse impact on local traffic conditions, making it incompatible with the surrounding area. The Hearing Examiner believed the Applicant might be able to demonstrate that the development would not have adverse traffic impacts through additional evidence, and therefore recommended that the County Council remand the two applications to the Hearing Examiner to provide the Applicant an opportunity to present additional evidence.

On January 15, 2008, the County Council approved a resolution remanding the application to the Hearing Examiner<sup>2</sup> to allow the applicant to present additional evidence demonstrating that:

“neither Stage 1 nor the combined Stage 1 and Stage 2 would have an adverse impact on traffic in the surrounding area, including (i) a queuing analysis for the intersection of Randolph Road and Georgia Avenue, under the methodology and standards outlined in Part V.A. of the Local Transportation Review Guidelines approved and adopted by the Planning Board on July 1, 2004; and (ii) an analysis of the mitigation proposed by the Applicant for any adverse traffic impacts identified in the queuing analysis.”

In May 2008, the Applicant provided additional traffic analysis to the Hearing Examiner and Planning Staff. This analysis included updated traffic counts and data on observed queues at nine intersections within the Glenmont Metro Center area, including, the Georgia Avenue/Randolph Road intersection. The report addressed three methodologies of assessing existing, background and future traffic conditions: Critical Lane Volume (CLV) Summation technique, the Highway Capacity Manual procedures, and queuing analysis. Considering the anticipated grade-separated interchange at Georgia Avenue and Randolph Road, the analysis demonstrated that under each method studied, all nine intersections,

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<sup>1</sup> Hearing Examiner's report and recommendation

<sup>2</sup> Montgomery County Council, Resolution No. 16-424 January 15, 2008

including Georgia Avenue/Randolph Road, would operate within accepted congestion standards and queue levels.

Planning Staff reviewed the additional traffic analysis and, on June 2, 2008 sent a memorandum comprising staff's review and conclusion on the additional traffic analysis to the Hearing Examiner. Staff found the transportation network adequate to support the rezoning with conditions.<sup>3</sup> Staff's review of the additional information focused solely on the queuing for the Georgia Avenue/Randolph Road intersection and mitigation proposed by the applicant for adverse impacts identified in the queuing analysis. Staff concurred with the methodology used and the results calculated in the queuing analysis. Staff also concurred with the Highway Capacity Manual methodology for level of service for the Metro Station Policy Area Alternative Review Procedure for trip reduction measures.

Following the staff review and transmittal of comments to the Hearing Examiner, the Applicant elected not to seek a hearing on the matter due to the downturn in the economy.

In late 2011, the Applicant sought to revive the project, and after consulting with Planning Staff, on November 14, 2011, submitted an updated traffic analysis. The Hearing Examiner has scheduled a hearing on Friday, February 10, 2012 at 9:30 a.m. The discussion will be limited to the traffic impact issues, as specified in the Council's Remand.

## **Context**

The approximately 30.9-acre property currently contains 352 residential apartments distributed over 18 buildings in the R-30 zone, as well as land zoned RT-12.5, and a small property in the O-M zone. The apartments have existed in some cases for nearly 50 years. The 1997 Sector Plan described the complex as "falling into disrepair". The property contains two forest stands, open grassy common areas, playgrounds, parking lots and paved roads. There are many specimen trees in good condition located throughout the site.

The surrounding area is identified as the Glenmont Village Center in the Sector Plan, which focuses on the area around the Glenmont Metro Station and the intersection of Georgia Avenue and Randolph Road. The subject site is bordered to the north and northwest by property owned by the Washington Metropolitan Area Transit Authority (WMATA) and major roadways on all other sides. To the northwest is the terminus of the Red Line and to the north is the associated Metro maintenance/storage yard. To the east across Layhill Road is the Winexburg Manor apartment complex with 625 dwelling units on 33 acres. Diagonally confronting the subject site across Layhill Road is Glen Way Gardens, a condominium complex of 214 units on 15 acres of land.

South of the subject site is the Glenmont Metro Station with an 1,800-space parking garage, bus bays and a Kiss-and-Ride area and the Georgia Avenue Baptist Church. West of the subject site, across Georgia Avenue is the WMATA Triangle property. Construction is underway for a 1,200-space parking garage on that site with development plans for a fire station in the future.

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<sup>3</sup>David Paine Memo to the Hearing Examiner Françoise M. Carrier dated June 2, 2008

## DISCUSSION

During the Hearing Examiner's review of the proposed rezoning in 2007, the community presented testimony and evidence of lengthy back-ups on roads in the surrounding area, especially on Layhill Road, caused by congestion at the intersection of Georgia Avenue and Randolph Road. The Hearing Examiner and the County Council were persuaded that in these cases, traffic analysis based solely on CLV standard did not adequately assess traffic conditions on area roads. In addition, there was concern that the traffic analysis did not demonstrate that the Georgia/Randolph intersection would operate at an acceptable level with only non-roadway improvements in Stage 1. The Council Remand asked for an analysis of the proposal's impact on the roads in the surrounding area including a queuing analysis of the Georgia Avenue/Randolph Road intersection under applicable LATR guidelines, and an analysis of any mitigation if the queuing analysis demonstrated an adverse impact.

The applicable congestion standards are those established in the July 2011 *Local Area Transportation Review and Policy Area Mobility Review Guidelines*. (The acceptable maximum CLV value for intersections located in the Glenmont (Metrorail Station) Policy Area is 1,800). The average queue length in the weekday peak hours should not extend more than 80 percent of the distance to the adjacent signalized intersection.

With the revival of the project in 2011, staff asked the applicant to update the count and queue data to determine if the traffic volume, CLV, and the average queues have changed when compared to the results of the 2008 analysis. The applicant recalculated CLV values in 2011 at the Georgia Avenue/Layhill Road intersection and the adjacent intersections to the north at Urbana Drive and to the south at Randolph Road. The 2011 CLV values during the weekday morning and evening peak hours remained below 1,800. In addition, five of the six recalculated 2011 CLV values were slightly less than the 2008 CLV values.

The 2008 traffic analysis included a generalized (average of the four legs of each intersection) queuing analysis of the nine intersections in the impact area, and a more detailed queuing analysis of each leg of the intersection of the Georgia Avenue and Randolph Road intersection. Since the 2008 generalized average queuing analysis of the nine intersections did not raise any red flags at the nine intersections, staff did not require a more detailed queuing analysis of any intersections other than the Georgia/Randolph intersection.

The worst case queuing scenario in 2008 was the southbound approach of the Georgia Avenue at the Layhill Road intersection in the morning peak hour, observed to have a queuing distance of 420 feet. The observed queue in 2011 was only 189 feet. The southbound queues in 2008 and 2011 are both less than 80% of 547 feet, the distance to the adjacent signalized intersection.

The grade separation interchange planned for the Georgia/Randolph intersection is fully funded for construction through FY 2016. With the interchange in place, free-flow through-movement of Randolph Road at grade with Georgia Avenue would be eliminated and the green time currently allocated to through-movement for Randolph Road traffic will be reallocated for other movements along Georgia Avenue and turning movements from/to Randolph Road. This improvement allows more time for Georgia Avenue traffic at this critical intersection and will result in better conditions at the surrounding intersections.

The proposed interchange at Georgia Avenue and Randolph Road avoids the need for any additional improvements to reduce vehicular queuing at this intersection. The current funding status of the interchange satisfies the requirements as contained in the LATR Guidelines and the County's Growth Policy as to when a public improvement may be counted as appropriate mitigation. The 2011 updated traffic analysis therefore demonstrates that any queuing will meet the requirements as set forth in the LATR Guidelines.

### **Conclusion**

Based on staff's analysis of the new evidence submitted by the applicant, staff believes that the CLV values for the Georgia Avenue and Randolph Road intersection will be below the acceptable congestion standards. The queuing analysis demonstrates that projected queues at critical intersections, especially the intersections of Georgia Avenue/Randolph Road and Georgia Avenue/ Layhill Road would be acceptable based on the applicable standards for maximum queue lengths. Staff finds that, with the recommendations listed above, the transportation network is adequate to support the applications. Neither Stage 1 nor the combined Stage 1 and Stage 2 of the proposed Glenmont Metrocenter would have an adverse impact on traffic in the surrounding area.

MB:ha:

#### **Attachments:**

Notice of Public Hearing Following Remand by the Council LMA No. G-862 and G-863.

David Paine, M-NCPPC staff, memo to Hearing Examiner dated June 2, 2008.

Ed Axler, M-NCPPC staff, memo to Michael Brown dated January 17, 2012.

Francoise M. Carrier, Planning Board Chair, DRAFT letter to Martin Grossman, Office of Zoning and Administrative Hearings

OFFICE OF ZONING AND ADMINISTRATIVE HEARINGS  
FOR  
MONTGOMERY COUNTY, MARYLAND

Stella B. Werner Council Office Building  
100 Maryland Avenue, Room 200  
Rockville, Maryland 20850  
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LOCAL MAP AMENDMENT NO. G-862 and G-863

NOTICE OF PUBLIC HEARING FOLLOWING REMAND BY THE COUNCIL

Local Map Amendment No. G-862: Stage 1: Steven A. Robins and Patrick L. O'Neil, Attorneys for Glenmont Layhill Associates, LLC, Contract Purchaser, request rezoning from the RT-12.5, R-30 and O-M Zones to the TS-R Zone of the property known as Parcel A Glenmont Park, Plat Book 76, Plat 7512; Parcel B Glenmont Park, Plat Book 79, Plat 7940; Parcel C Glenmont Park, Plat Book 80, Plat 8133; Parcels D & F Glenmont Park, Plat Book 81, Plat 8386; Re-subdivision Plat Parcel G Glenmont Park, Plat Book 177, Plat 19865; Parcel E Glenmont Park, Plat Book 102, Plat 11589; and Lots 1-49 & Parcels A thru F, Block 1 Glenmont Mews, Plat Book 136, Plat 15756, located at the intersection of Georgia Avenue and Glenallan Avenue, Silver Spring, consisting of 23.8810 acres in the 13<sup>th</sup> Election District.

Local Map Amendment No. G-863: Stage 2: Steven A. Robins and Patrick L. O'Neil, Attorneys for Glenmont Layhill Associates, LLC, Contract Purchaser, request rezoning from the R-30 Zone to the TS-R Zone, property known as Parcel A Glenmont Park, Plat Book 76, Plat 7512; Parcel B Glenmont Park, Plat Book 79, Plat 7940; and Re-subdivision Plat G Glenmont Park, Plat Book 177, Plat 19865, located at the intersection of Georgia Avenue and Glenallan Avenue, Silver Spring, consisting of 7.0514 acres in the 13<sup>th</sup> Election District.

On January 15, 2008, the two applications cited above were remanded to the Hearing Examiner by the District Council's Resolution No. 16-424, to allow Applicant to present additional evidence regarding the traffic impacts of their proposals. The Applicant submitted supplemental traffic analyses in May and June of 2008, but elected not to seek a further hearing on the matter until last month. On November 14, 2011, the Applicant submitted additional traffic analysis developed after consulting with Maryland-National Capital Park & Planning Commission Staff. The Applicant now requests a hearing to address the issues specified below, as denoted in the District Council's remand of the application.

The remand resolution specifies that Applicant may present additional evidence demonstrating that neither Stage 1 nor the combined Stage 1 and Stage 2 of the proposed Glenmont Metrocenter would have an adverse impact on traffic in the surrounding area,<sup>1</sup> including:

- i. a queuing analysis for the intersection of Randolph Road and Georgia Avenue, under the methodology and standards outlined in Part V.A. of the Local Transportation Review Guidelines approved and adopted by the Planning Board on July 1, 2004; and
- ii. an analysis of the mitigation proposed by the Applicant for any adverse traffic impacts identified in the queuing analysis.

<sup>1</sup> The language of the remand resolution contains an apparent typographical error, in that it calls for a showing that neither proposal "would have a lack of adverse impact on traffic" (Resolution 16-424, p. 28), when it clearly was intended to require a showing that neither proposal would have an adverse impact on traffic, as worded above in the text of this notice.

**G-862 and G-863**

Accordingly, a hearing to consider the post-remand evidence will be held in the 2<sup>nd</sup> Floor Davidson Memorial Hearing Room, Council Office Building, 100 Maryland Avenue, Rockville, Maryland commencing on **Friday the 10<sup>th</sup> day of February, 2012, 9:30 am** or as soon thereafter as this matter can be heard. The evidence will be limited to the traffic impact issues, as specified in the Council's remand resolution.

The entire file may be reviewed in the Office of Zoning and Administrative Hearings, Monday through Friday, between the hours of 8:30 am and 4:00 pm, prior to the date of the hearing.

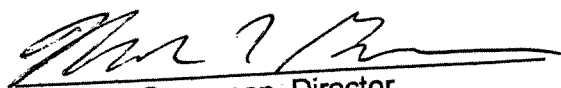
Anyone desiring to represent a group or association at the hearing must submit a pre-hearing statement in writing, no later than ten days before the hearing, indicating the name of the group, the name of the person(s) giving testimony, approximately how long the testimony will take and a statement of the grounds for the group's position. The pre-hearing statement must specifically identify any expert witnesses and summarize their testimony, must be accompanied by any reports or documents intended to be introduced at the hearing and should be sent to the address listed above. An individual wishing to give testimony does not require a pre-hearing statement unless that individual is represented by counsel. In compliance with Maryland requirements regarding the practice of law, groups or associations must have counsel unless their witnesses are members of the group or association who will offer testimony in narrative form (*i.e.*, there is no need for an attorney to conduct a direct examination).

In addition to all other requirements, any party represented by counsel must submit electronic copies of their final plans, photographs, statements of operations, pre-hearing statements, and expert reports ten days before the hearing, unless they demonstrate that this requirement would create practical difficulties. Amended electronic copies must also be submitted of any plans, photographs, statements of operations or expert reports that are modified during or after the hearing. Electronic copies must be submitted on compact discs, in Microsoft WORD format for text documents, in PDF format for plans and other non-text documents, and in JPG or PDF format for photographs.

If you need services to participate in a public hearing, please contact us as far in advance as possible by calling 240-777-6660 (TTY 240-777-7914) or emailing us at [ozah@montgomerycountymd.gov](mailto:ozah@montgomerycountymd.gov). This document is available in alternative format such as large print upon request, via the same phone numbers and email address.

Notices forwarded this 9<sup>th</sup> day of December, 2011 to:

- Applicant and Counsel
- Adjoining and confronting property owners
- Hearing participants
- Local Civic Associations
- Françoise M. Carrier, Planning Board Chair
- Ed Axler, M-NCPPC Technical Staff
- Diane Schwartz-Jones, Director, DPS



Martin L. Grossman, Director  
Office of Zoning and Administrative Hearings





**MONTGOMERY COUNTY PLANNING DEPARTMENT**  
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

June 2, 2008

**MEMORANDUM**

TO: Francoise M. Carrier, Director and Hearing Examiner  
Office of Zoning and Administrative Hearings

VIA: Shahriar Etemadi, Supervisor  
Transportation Planning

FROM: David Paine, Coordinator (301) 495-2191  
Transportation Planning

SUBJECT: Zoning Application G-862, G-863, Remanded  
Glenmont Metro Center  
Glenmont Metro Policy Area

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This memorandum is Transportation Planning staff's review of the supplemental information provided to support the proposed local map amendment adjacent to the Glenmont Metro station. For the purpose of this additional review, staff focused solely on the topic of queuing for the Georgia Avenue and Randolph Road intersection and mitigation proposed by the applicant for adverse impacts identified in the queuing analysis (Page 3 of this memo). We accept the supplemental material with modifications noted below.

With the recommendations listed here, we find the transportation network adequate to support the rezoning.

**RECOMMENDATIONS**

The following conditions were recommended previously as part of the APF test for transportation related to Local Area Transportation Review (LATR), to be followed at the time of preliminary plan. They are still applicable:

1. Limit the preliminary plan to 1,300 multifamily dwelling units, 250 townhouse units, and 90,000 SF of retail.
2. Dedicate 75 feet of right-of-way from the centerline of Georgia Avenue (MD 97).
3. Dedicate 60 feet of right-of-way from the centerline of Layhill Road (MD 182).
4. Dedicate 45 feet of right-of-way from the centerline of Glenallan Avenue.
5. The applicant must satisfy the LATR component of the APF test at time of preliminary plan by providing, or contributing to, a transportation improvement at the intersection of Georgia Avenue (MD 97) and Randolph Road. The preferred improvement would be for the Applicant to pay SHA a pro-rata share of a grade separated intersection by SHA (SHA contract MO8545171).

6. Construct a new road, parallel to Glenallan Avenue, between Georgia Avenue (MD 97) and Layhill Road (MD 182).
7. Construct an 8-foot wide shared-use path on the north side of Georgia Avenue (MD 97).
8. Participate in the future Wheaton/Glenmont Transportation Management Organization.
9. The applicant must complete and make open to traffic the above-referenced transportation improvements based on the staging of the proposed development to be determined at the time of preliminary plan review and approval.
10. The applicant shall satisfy future State Highway Administration (SHA) and Department of Public Works and Transportation (DPWT) requirements at the time of preliminary plan.

**DISCUSSION**

Local Area Transportation Review

According to the original, accepted traffic study (revised 4/07), Table 1 shows 660 and 964 additional peak-hour vehicular trips generated by both stages of the rezoning during weekday peak periods of 6:30 to 9:30 AM and 4:00 to 7:00 PM respectively.

**Table 1 – Site Trip Generation for Total Redevelopment**

Proposed Land Uses	Proposed	Weekday Peak-Hour Trips*	
		AM	PM
Townhouse Units	250	109	132
Garden Apartments	1550	444	442
Existing units (to be replaced)	(352)	(122)	(142)
Retail (non pass-by trips only)	90,000 SF	229	532
<b>Net New Vehicular Trips Proposed:</b>		<b>660</b>	<b>964</b>

\* Trip Credit is applied for proximity to metro, internal trip capture rate for a mixed use development, and pass-by trips as noted in the February 14, 2006 scope of work and February 23, 2006 supplemental letter.

In the original accepted LATR study, the Georgia Avenue (MD 97) and Randolph Road intersection was not projected to pass the Glenmont policy area standard. The Planning Board recommended that the County requires the developer to pay a pro-rata share of the grade separation project cost for the intersection to satisfy the APF test at the time of preliminary plan. At time of this writing, the project is funded for construction in the FY2008-13 CTP. We believe this key Planning Board recommendation remains valid.

- If the full development occurs, then improvements are needed to meet current policy standards.
- If the at grade improvements proposed by the applicant are made, the applicant will meet the LATR requirement and the traffic flow at the intersection of Georgia Avenue and Randolph Road will be improved.
- The grade separated improvements programmed by the State will increase traffic flow through the intersection better than proposed at grade improvements with high level of efficiency.

**SUPPLEMENTAL MATERIALS**

Queuing Analysis

A queuing analysis was performed using the methodology outlined in chapter 5.A. of the 2004 LATR Guidelines. The applicant conducted an observed traffic queue through the intersection of Georgia Avenue and Randolph Road in February 2008. The study shows that the current traffic condition at the intersection does not pass the queue test as shown in Table 2. The observation of traffic shows that the southbound and westbound approaches in the AM peak period experienced a significant queue. As observed queues cannot be made for future conditions, a software program called Synchro was used to project future roadway conditions so that a queue length could be calculated and mitigation alternatives evaluated. The queue analysis shows that with the development alone, queuing would worsen. But, the study also shows that with either at grade improvements or the grade separated interchange, the intersection congestion is lowered significantly and it would pass the queue test at Stage 1 alone or with Stage 1 and 2 build out of the project. We concur with the method used and the results calculated in the analysis.

A number of traffic counts have been conducted for the intersection of Georgia Avenue and Randolph Road in recent years for LATR studies relating to different development applications in the area. The average of four counts, representing a range of data, was validated and accepted for the LATR study for this project (dated April 2007). The supplemental counts done by Wells & Associates, utilized for the purpose of this queuing analysis, were conducted on the same day to provide a basis for the queue analysis and balanced with each other. A separate count on record, also done by Wells & Associates, conducted in February of 2006 shows a higher level of traffic flow through this intersection and is the count reported in the recent Highway Mobility Report. While higher than the supplemental material count, this count was not balanced with other intersections in the area and therefore could not be used for the queue analysis reported here. "Balancing" means that if the sum of all traffic movements departing from one intersection is not reasonably similar or comparable to volumes approaching the next intersection, then the count may not be valid. These data will not have any effect on the previously accepted LATR study.

The issue of the submitted traffic count's variability may be moot, however, due to implementation of the grade separation project of this intersection currently funded by the Maryland Department of Transportation. Grade separation would significantly improve the flow of traffic and the queuing problem that exists today.

**Table 2 – Queue analysis for Georgia Avenue and Randolph Road, Total Development**

Highest Average Approach	Link Storage Distance	80% Storage Distance	Observed Existing		Background		Total Future		Total Future with Improvements*	
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
NB	1765'	1412'	295'	1035'	346'	1176'	376'	1260'	75'	796'
SB	775'	620'	<b>623'</b>	180'	<b>621'</b>	193'	<b>740'</b>	307'	509'	243'
EB	5300'	4240'	243'	902'	254'	944'	254'	944'	130'	407'
WB	667'	534'	<b>545'</b>	163'	<b>585'</b>	203'	<b>585'</b>	203'	248'	76'

\*Reported queues with grade separation improvement. The submitted supplemental materials also show queues with at-grade improvements that are within the 80% storage distance for all approaches.

The Planning Department is also finalizing the 2008 Highway Mobility Report, which includes several travel time runs for Georgia Avenue. An excerpt from that report is included as Attachment 1, which shows considerable delay for northbound vehicles approaching Randolph Road in the PM peak period.

This supports the County's, and Applicant's, prioritization of a grade separated interchange project to relieve the congestion at this intersection.

### Highway Capacity Manual

The Highway Capacity Manual average delay calculations for intersections are not part of the development review procedures requirement by the Planning Board. However, to support their case for analysis of the transportation network, the applicant calculated level of service for the intersections in the study area utilizing the Highway Capacity Manual (HCM) methodology for level of service. The calculations were done for current conditions and then Synchro was used to project future average delay and change in average delay for different mitigation alternatives (at-grade improvements vs. grade-separation). The results shown in Attachment 2 are notably similar to CLV calculations from the accepted LATR study, with only one intersection failing. The Georgia Avenue and Randolph Road intersection fails without improvements, but would pass with either the at-grade improvements or the planned grade-separated interchange. The results are shown in Attachment 2.

### Metro Station Policy Area Alternative Review Procedure

The applicant supplied tabulations for trip reduction showing that they could meet the Metro Station Policy Area Alternative Review Procedure. This procedure allows an applicant in a Metro Policy Area to meet their APF requirement through demonstrated 50% peak hour vehicle trip reduction. A development could meet this reduction of trips through Transportation Demand Management (TDM) programs with a binding Traffic Mitigation Agreement (TMAg) that includes education programs, providing non-auto transportation facilities, monitoring and enforcement mechanism to support higher non-auto mode split. Other modes use such as taking advantage of significant bus service to the station, biking and walking are also envisioned as a way of achieving this goal. The applicant's proposed trip reduction relying on, and takes appropriate advantage of the close proximity of the site to the Metro station, connected bus services, and available walking and biking facilities. Their applicant's proposed trip reduction is based on the 2005 Development Related Ridership Survey by WMATA of Metro stations in the Washington, DC region. That study shows total transit mode shares ranging between 17% and 67% for residential sites surveyed near the Metro stations, with an average of 45%.<sup>1</sup> The applicant is also showing trip reduction measures resulted from the trip captured rate and pass-by trips associated with mixed use development of the site. This trip reduction goal could be a binding element of the Alternative Review Procedure to meet the APF requirement at the time of preliminary plan of subdivision.

We recognize that the reduction rates submitted for the Alternate Review Procedure purpose are higher than what was discussed in the LATR scope of work for the purpose of preparing the LATR study. When separated by concentric location typology, the WMATA study reports a total non-auto mode share of 38% for suburban residential locations outside of the beltway.<sup>2</sup> Still, if the Applicant chooses the Alternative Review Procedure for Metro Station Policy Areas at time of preliminary plan, we will be working with them to refine these trip reduction measures and set up a TMAg with an effective monitoring system to ensure the 50% peak hour vehicle trip reduction to meet the Adequate Public Facilities requirement.

DP:tc

mmo to Carrier re Glenmont G-862 G-863 c.doc

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<sup>1</sup> 2005 Development-Related Ridership Survey, Table 17 'Comparison of Transit Share Results from 2005 & 1989 Surveys' p.37, WMATA.

<sup>2</sup> 2005 Development-Related Ridership Survey, Table 10 'Residential Mode Share for All Trips by Concentric Location Typology' p.30, WMATA.

Table 2A  
 Glenmont Metro Center  
 Total Future Intersection HCM Level of Service Summary - Stage I

Intersection	Existing HCM		Background Stage I HCM		Total Future Stage I HCM		IF Stage I HCM w/ LATR Imp		IF Stage I HCM w/ GS Imp	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1: Georgia Avenue/Hathaway Drive	B (12.2)	A (7.3)	B (12.2)	A (7.3)	B (12.3)	A (7.4)	B (12.3)	A (7.1)	B (12.3)	A (7.4)
2: Georgia Avenue/Glenallen Avenue	C (22.5)	C (20.4)	C (22.5)	C (20.4)	C (24.4)	C (26.0)	C (24.3)	C (25.6)	C (24.5)	C (25.1)
3: Georgia Avenue/Urbana Drive	A (4.6)	A (2.7)	A (4.6)	A (2.7)	A (4.3)	A (2.8)	A (4.2)	A (2.8)	A (4.2)	A (2.8)
4: Georgia Avenue/Layhill Road (MD 182)	D (42.3)	C (25.2)	D (42.3)	C (25.2)	D (49.7)	C (25.9)	C (34.7)	C (28.5)	D (45.8)	C (29.1)
5: Georgia Avenue/Randolph Road	F (103.4)	E (56.1)	F (103.4)	E (56.1)	F (129.1)	E (70.0)	F (90.9)	E (63.7)	D (45.9)	C (33.3)
6: Georgia Avenue/Shorefield Road	A (8.3)	B (16.1)	A (8.3)	B (16.2)	A (8.6)	B (16.3)	A (9.2)	B (16.4)	A (8.1)	B (15.1)
7: Layhill Road/Glenallen Avenue	C (24.8)	C (28.8)	C (24.8)	D (40.8)	C (27.9)	D (40.7)	C (29.4)	C (27.8)	C (30.7)	C (29.8)
8: Glenallen Avenue/Randolph Road	D (47.8)	C (29.1)	D (47.8)	C (33.9)	F (87.7)	C (34.8)	D (39.7)	C (35.4)	D (39.8)	C (35.0)
9: Randolph Road/Glenmont Circle	B (13.5)	B (11.1)	B (13.5)	B (11.7)	B (14.4)	B (11.7)	B (14.5)	B (10.5)	B (14.3)	B (13.1)

Note: Number in parenthesis is delay in seconds. All improvement scenarios include limited signal system optimization.

Highway Capacity Manual  
 Level of Service Criteria for Signalized Intersections

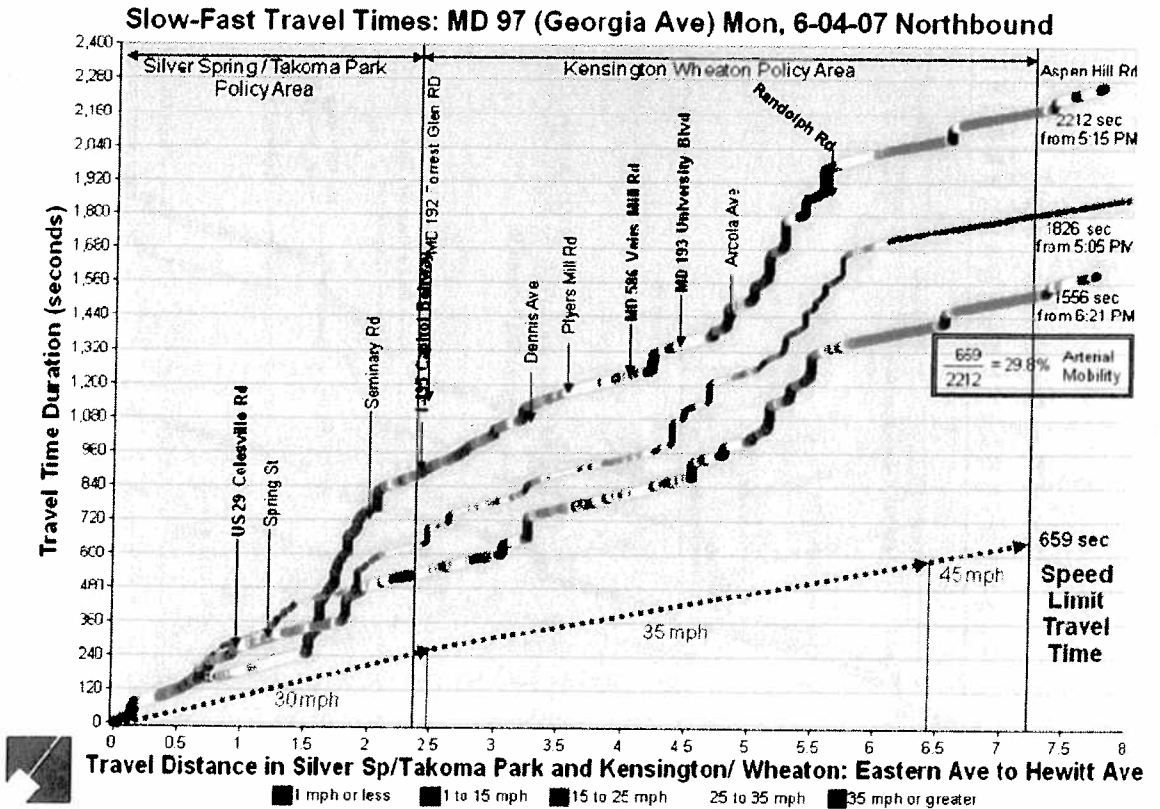
LOS	Control Delay per Vehicle (s/veh) <sup>1</sup>
A	≤ 10
B	> 10-20
C	> 20-35
D	> 35-55
E	> 55-80
F	> 80

Note: 1) Based on Exhibit 16.2 of the 2000 HCM.

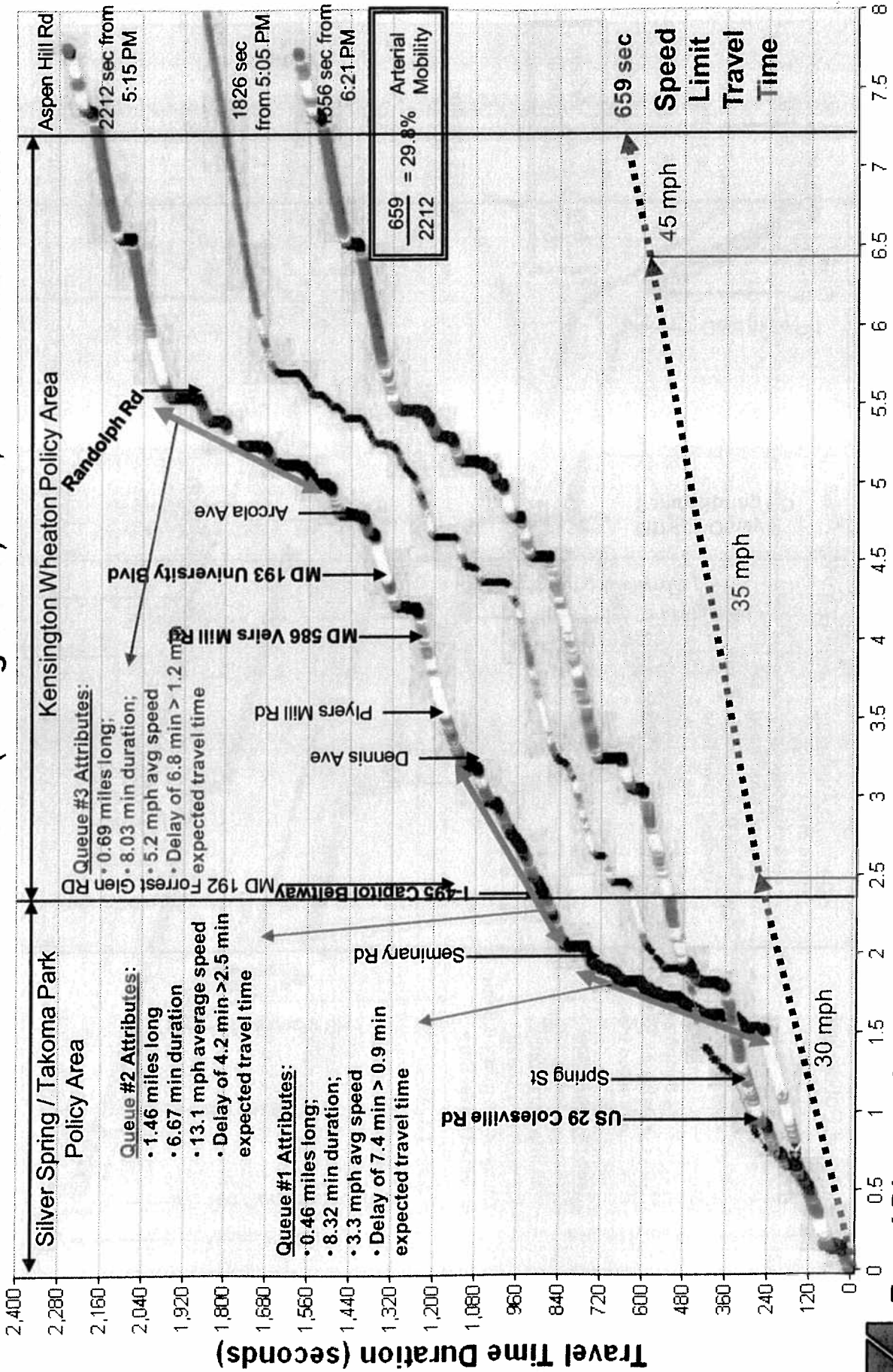
**Georgia Ave (MD 97) from Eastern Ave (D.C. Line) to Hewitt Ave:**

Four northbound samples were collected for this section of Georgia Ave (MD 97) during the peak period. A graphic display of the observed congested conditions for three of the four samples is provided in Figure 3.9. The samples began at about 5:05 pm, 5:15 pm, and 6:21 pm respectively. The slowest sample began at about 5:15 pm, and took 2,212 seconds (about 36.9 minutes) to travel a distance of about 7.2 miles, at an average speed of about 11.7 mph, compared to the posted speed limits ranging from 30 to 45 mph. The fastest run began about 6:21 pm and took 1,556 seconds (about 25.9 minutes), at an average speed of 16.7 mph. The first two samples recorded significant traffic queues beginning at Seminary Rd and extending as far south as Noyes Dr (just north of Spring St). During the slowest run, it took the probe vehicle roughly 8.3 minutes to travel this stretch of Georgia Ave (0.46 miles) at an average speed of 3.3 mph. In addition, all three samples recorded significant delays beginning at Randolph Rd, which extended as far south as University Blvd (roughly a distance of 1.2 miles). During the slowest run, it took the probe vehicle approximately 8.0 minutes to travel this 0.69 stretch of Georgia Ave, at an average speed of 5.2 mph, and a delay of about 6.8 minutes more than the approximate 1.2 minutes that it would have taken to travel that distance at the speed limit of 35 mph.

Figure 3.9: Travel Time-Distance Profile for Northbound Georgia Ave (MD 97)



# Slow-Fast Travel Times: MD 97 (Georgia Ave) Mon, 6-04-07 Northbound



**Travel Distance in Silver Sp/Takoma Park and Kensington/ Wheaton: Eastern Ave to Hewitt Ave**

■ 1 mph or less   ■ 1 to 15 mph   ■ 15 to 25 mph   ■ 25 to 35 mph   ■ 35 mph or greater

9.5 10 p  
(miles)



January 17, 2012

**MEMORANDUM**

**TO:** Michael Brown, Senior Planner  
Area 2 Planning Division

**VIA:** Khalid Afzal, Team Leader, East County Team  
Area 2 Planning Division

**FROM:** Ed Axler, Transportation Planner Coordinator  
Area 2 Planning Division

**SUBJECT:** Glenmont Metrocenter  
Local Map Amendment Applications G-862 and G-863 Remand  
Glenmont (Metrorail Station) Policy Area

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This memorandum is Area 2 transportation planning staff review of the Adequate Public Facilities (APF) transportation review of the 2008 update of the traffic analysis submitted in response to the County Council's remand of the subject Local Map Amendment Applications for the two-staged development of up to 1,550 residential units and 90,000 square feet of general retail uses. The remand resolution specified that additional evidence be presented to demonstrate that neither Stage 1 nor the combined Stage 1 and Stage 2 traffic generated by the proposed Glenmont Metrocenter would adversely impact the surrounding transportation infrastructure, including:

*"A queuing analysis for the intersection of Randolph Road and Georgia Avenue, under the methodology and standards outlined in the ... (current) ... Local (Area) Transportation Review (and Policy Area Mobility Review) Guidelines..."*

*"An analysis of the mitigation proposed by the Applicant for any adverse traffic impacts identified in the queuing analysis."*

The transportation planning staff reviewed the Supplemental Traffic Analysis dated May 6, 2008, and agreed to the conclusions of that analysis as documented in the Transportation Planning Division's letter to the Hearing Examiner dated June 2, 2008 (attached). The applicant put the project on hold in 2008 due to the economic recession, but revived in late 2011. Because of delays since 2008, the staff asked the applicant to recalculate the CLV values and queues to compare the 2008 existing conditions with those in 2011. The applicant responded by submitting the Existing Conditions Comparison Analysis dated November 14, 2011.

The Area 2 transportation planning staff reviewed the 2011 Existing Conditions Comparison Analysis, which collected traffic data during the weekday morning (6:00 to 9:30 a.m.) and evening (4:00 to 7:00 p.m.) peak periods in October 2011. The 2011 Analysis included the calculated Critical Lane Volume



(CLV) values at the Randolph Road/Georgia Avenue (MD 97) intersection and the adjacent intersections, and a detailed queuing analysis at the Georgia Avenue/Layhill Road intersection.

An adverse traffic impact is when the current applicable congestion standards in the total traffic condition are exceeded and worse than the congestion in the background traffic condition. The background condition is the existing conditions plus the trips generated from approved but un-built nearby developments, and the total condition is the background conditions plus the site-generated trips.

The applicable congestion standards are established in the July 2011 *Local Area Transportation Review and Policy Area Mobility Review Guidelines*. The CLV values must be less than the 1,800 congestion standard required for intersections located in the Glenmont (Metrorail Station) Policy Area. The average queue length in the weekday peak hours should not extend more than 80 percent of the distance to the adjacent signalized intersection.

For the queuing analysis, the worst case scenario in 2008 was the southbound approach of the Georgia Avenue at the Layhill Road intersection in the morning peak hour, observed to have a queuing distance of 420 feet. The observed queue for the same location in 2011 was only 189 feet. The southbound queues in 2008 and 2011 were both 438 feet, less than 80% of 547 feet, the distance to the adjacent signalized intersection,.

Currently, the Maryland State Highway Administration Consolidated Transportation Program Project No. MO8541, MD 97 Georgia Avenue interchange with Randolph Road, is fully funded for construction through FY 2016. The interchange would result in creating a free-flow through-movement on Randolph Road at Georgia Avenue since the green time currently utilized for the through-movement on Randolph Road would no longer be needed, and would be re-allocated to other movements such as the northbound and southbound Georgia Avenue and the turning movements from/to Randolph Road. The existing traffic signal timing at all traffic signals in the area is based on the most congested intersection in the Glenmont area, the critical Georgia Avenue/Randolph Road intersection. Constructing the interchange at this intersection would result in improvements at the upstream and downstream signalized intersections -- Randolph Road/Glenallen Road intersection and Georgia Avenue/Layhill Road intersection, in addition to those intersections upstream of Georgia Avenue/Layhill Road -- the Georgia Avenue/Glenallen Avenue and Layhill Road/Glenallen Avenue intersections). These intersections would have better progression of through-movements that would require less green time. As a result, these signalized intersections could be re-timed to redistribute the green time from the through-movements to the side streets.

The CLV values were recalculated in 2011 at the Georgia Avenue/Layhill Road intersection and the adjacent intersections to the north at Urbana Drive and to the south at Randolph Road. The 2011 CLV values during the weekday morning and evening peak hours remained below 1,800. In addition, five of the six recalculated 2011 CLV values were slightly less than the 2008 CLV values.

Staff met with citizens who described their observation of existing excessive queuing and congestion levels in the Glenmont area. In addition, transportation planning staff obtained 2008 to 2010 accident data at key Glenmont intersections reflecting the existing traffic conditions. Despite the observed existing congestion levels, the construction of the Georgia Avenue/Randolph Road interchange would result in improving the existing levels of congestion as discussed above.

In conclusion, the queues and CLV values at the nearby intersections in 2011 remain below the established APF transportation standards and, in some cases, below the 2008 CLV values. Therefore, the transportation planning staff finds that the conclusions of the 2008 Supplement Analysis are still valid, and that neither Stage 1 nor the Stage 1 and Stage 2 of the proposed Glenmont Metrocenter would have an adverse impact on traffic in the surrounding area with the construction of the Georgia Avenue/Randolph Road interchange. If the Local Map Amendment Applications are approved, another APF transportation test will be required at preliminary plan of subdivision.

January 18, 2012

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

SUBJECT: Traffic Analysis for the Glenmont Metrocenter  
Local Map Amendment Applications G-862 and G-863 Remand

Dear Mr. Grossman:

This letter is the Montgomery County Planning Board's response to the District Council's request to update the traffic impact analysis of the G-862's Stage I and combined G-863's Stages I and 2 developments on the surrounding roadway infrastructure. The transportation planning staff reviewed the 2008 Supplemental Traffic Analysis and agreed to the conclusions of that analysis at that time. Wells & Associates submitted an updated Existing Conditions Comparison Analysis dated November 14, 2011, which recalculated the CLV values and queues to compare the 2008 existing conditions with those in 2011.

The transportation planning staff in Area 2 reviewed the 2011 Existing Conditions Comparison Analysis. The Existing Conditions Comparison Analysis updated the 2008 Supplemental Traffic Analysis of the calculated Critical Lane Volume (CLV) values at the Randolph Road/Georgia Avenue (MD 97) intersection and the adjacent intersections, and the queuing analysis at the Georgia Avenue/Layhill Road intersection. Updated traffic data was collected during the weekday morning (6:00 to 9:30 a.m.) and evening (4:00 to 7:00 p.m.) peak periods in October 2011.

The traffic impacts must not exceed the congestion standards approved in the July 2011 *Local Area Transportation Review and Policy Area Mobility Review Guidelines*. The CLV values must be less than the 1,800 congestion standard required for intersections located in the Glenmont (Metrorail Station) Policy Area. The average queue length in the weekday peak hours should not extend more than 80 percent of the distance to the adjacent signalized intersection.

Mr. Martin L. Grossman, Director

January 18, 2012

Page Two

The CLV values were recalculated in 2011 at the Georgia Avenue/Layhill Road intersection and the adjacent intersections to the north at Urbana Drive and to the south at Randolph Road. The 2011 CLV values during the morning and evening peak hours with the weekday peak periods remained below the 1,800 congestion standard plus five of the six recalculated 2011 CLV values were slightly less than the 2008 CLV values.

For the queuing analysis, the worst case scenario in 2008 was the southbound approach of Georgia Avenue at the Layhill Road intersection during the peak hour within the weekday morning peak period with an observed queuing distance of 420 feet. The observed queue in 2011 was only 189 feet. The southbound queues in 2008 and 2011 were both less than 80% of the distance to the adjacent signalized intersection (i.e., 80% of 547 feet equals 438 feet).

In conclusion, the traffic conditions at the nearby intersections in 2011 continue to remain below the congestion standards as calculated in 2008. Currently, the Maryland State Highway Administration Consolidated Transportation Program Project No. MO8541, MD 97 Georgia Avenue interchange with Randolph Road, is fully funded for construction through FY 2016. The Planning Board concurs with the conclusions of the transportation planning staff and finds that neither the Stage 1 nor the Stage 1 and Stage 2 of the proposed Glenmont Metrocenter would have an adverse impact on traffic in the surrounding area.

If you have any questions, please contact Ed Axler at 301-495-4536.

Sincerely,

Françoise M. Carrier  
Chair

FMC:EA:ha:

cc: Khaild Afzal  
Glenn Kreger  
Scott Newill, State Highway Administration  
Nancy Randall, Wells and Associates  
Steve Robins, Attorney for the Applicant