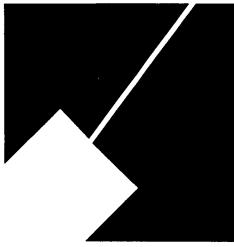


M-NCPPC



**MONTGOMERY COUNTY DEPARTMENT OF PARK AND PLANNING**

THE MARYLAND-NATIONAL CAPITAL  
PARK AND PLANNING COMMISSION

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MCPB ITEM NO.  
12-07-06

November 22, 2006

**MEMORANDUM**

**TO:** Montgomery County Planning Board

**VIA:** Richard C. Hawthorne, Acting Chief  
Countywide Planning Division

Judy Daniel, Team Leader for Bethesda-Chevy Chase/North Bethesda  
Community-Based Planning

**FROM:** Larry Cole: 301-495-4528, Transportation Planning LC

**PROJECT:** Rockville Pike (MD355)/Montrose Parkway/Randolph Road Interchange From  
Old Georgetown Road to Maple Avenue/Chapman Avenue  
Contract No. MO 8305171

**REVIEW TYPE:** Mandatory Referral No. 06812-SHA-1

**APPLICANT:** Maryland State Highway Administration (SHA)

**APPLYING FOR:** Plan Approval

**COMMUNITY-BASED PLANNING TEAM AREA:** North Bethesda-Garrett Park

Staff recommends that the Board approve the Mandatory Referral of the proposed project (see Attachment 1: Location Map, with the following comments to SHA:

**General**

1. Revise SHA's lighting policy to meet the latest AASHTO guidance on the best lighting levels for pedestrians, bicyclists, and drivers. If the cost impact of implementing such a policy would be too great for the State to bear, consider instituting a standard cost-sharing formula with local government similar to that for noise barriers.

2. Provide continuous lighting for all roadways within the limits of this project that meets current AASHTO recommendations.
3. Coordinate the design of this project with the on-going work on the White Flint Sector Plan.
4. Provide striping or concrete paving at commercial driveways to denote sidewalk and shared use trail crossings.
5. Consider providing an information panel adjacent to the sidewalk at the proposed storm water management facility explaining how the facility works to serve as a public educational tool.

### **Rockville Pike**

6. Post a sign to prohibit the pedestrian crossing on the south leg of Rockville Pike at Hubbard Drive. Widen the median on the north leg of Rockville Pike from four feet to six feet and provide a pedestrian refuge.
7. Widen the proposed shared use path on the east side of Rockville Pike north of Montrose Parkway to ten feet.

### **Rockville Pike Bridge**

8. Widen the sidewalk on the Rockville Pike Bridge to ten feet. Consider shifting the southbound roadway to the east to accomplish this objective.
9. Reduce the length of the bridge by thirteen feet by reducing the landscape panels on Montrose Parkway immediately under the bridge to six feet.
10. Concrete beams are preferred for the proposed bridge, as they would create a quieter environment for pedestrians under the bridge.
11. Provide an aesthetic treatment of the slope protection under the Rockville Pike Bridge.
12. Provide Washington Globe luminaires on pilasters on the Rockville Pike Bridge.
13. Provide an ashlar stone formwork treatment for the Rockville Pike bridge median. Consider using a single plane barrier for the east parapet of the bridge and provide a stone formwork treatment that matches the one proposed for the outside of the parapets.

### **Montrose Parkway**

14. Extend the end of the Montrose Parkway median toward Old Old Georgetown Road and move the pedestrian crossing closer to the intersection.
15. Reduce the width of the proposed landscape panels for both the sidewalk and shared use path under the bridge to six feet and pave them with cobblestones.

16. Construct the slope protection between the sidewalk/path and the bridge abutments of concrete with an aesthetic finish.

### **Old Old Georgetown Road**

17. Coordinate with staff, DPWT, and Federal Realty Investment Trust on the design of the intersection of Old Old Georgetown Road and Montrose Parkway.
18. Preserve the three large oaks along Executive Boulevard at the terminus of Old Old Georgetown Road.
19. Provide a fairly direct pedestrian connection between the end of Old Old Georgetown Road and Executive Boulevard.

### **Park and Ride Lot**

20. Continue to coordinate with the Montgomery County Division of Transit Services to ensure that there are sufficient parking spaces, safe pedestrian access, and good lighting to accommodate transit users and other current long-term users of the lot both during and after construction.

**PREVIOUS BOARD ACTION:** The proposed project is consistent with the concept approved by the Planning Board on February 28, 2002.

### **MASTER PLAN AND STAGING AMENDMENT**

The project is consistent with the recommendations of the North Bethesda-Garrett Park Master Plan and the Amendment to the Master Plan of Highways, Montrose Road Limited Amendment to Revise the Number of Lanes and Evaluate Allowing Truck Traffic on the Montrose Parkway (March 2000).

Three of the Master Plan Staging Amendment's requirements for Stage II development would be addressed by the construction of the following facilities as part of the proposed project:

- Montrose Parkway
- Montrose Parkway shared use trail
- Intersection improvements

The area south of the proposed Montrose parkway is within the proposed limits of the White Flint Sector Plan (see Attachment 2). The Staff Draft of the Plan is anticipated to be completed by April 2007 and the Planning Board Draft is anticipated to be completed by July 2007, well before construction begins on key elements of this intersection. The increasingly urban nature of the White Flint Sector Plan area should be recognized in detailed planning for this intersection and staff recommends that SHA continue to work with staff to ensure that the design of this important project promotes the goals of the Master Plan and Sector Plan.

## **PROJECT DESCRIPTION**

This project would construct a grade-separated interchange to carry Montrose Parkway under Rockville Pike (MD355) immediately south of the current intersection of MD355 with Montrose and Randolph Roads. Attachment 3 shows a schematic diagram of the roads within the proposed project limits.

A segment of Montrose Parkway would be constructed from the eastern limit of the County's Montrose Parkway West project at Old Old Georgetown Road (currently under construction) and tie into Randolph Road at Maple Avenue/Chapman Avenue. Diamond ramps (Ramps A and B) would be constructed along the east side of northbound MD355 to a traffic signal on the new segment of Montrose Parkway. A loop ramp (Ramp C) would be constructed in the northwest quadrant of the interchange to carry traffic to southbound MD355. The northernmost segment of Old Old Georgetown Road would carry traffic from southbound MD355 to Montrose Road, as it does today, and to Montrose Parkway.

The traffic signal at Montrose Road and Old Old Georgetown Road would remain. The eastern end of Montrose Road would terminate in commuter parking lots east of Old Old Georgetown Road. The parking spaces in these lots would partially replace those displaced by the construction of this project.

Ten-foot-wide shared use paths would be built along the east side of Rockville Pike and along the north side of Montrose Parkway. Five-foot-wide sidewalks would be constructed along other roads throughout the project.

## **PROJECT STATUS**

The plans for this project are at the semi-final (65%) design development stage. Since this is a design-build project, the design work by SHA and its consultants will not progress beyond this stage, but will be undertaken by the successful bidder in accordance with the contract documents.

The project is noted in the State's current draft Consolidated Transportation Program as beginning construction in FY2010. However, SHA and DPWT have recently come to an agreement to accelerate the construction of this project by two years using County funds, which would be paid back at a later date. If the new County Council concurs in this agreement and appropriates the needed funds, the project would be advertised in June 2007. Construction would be completed in January 2010.

On a project like this, utility relocation usually costs in the millions of dollars and can take two years to achieve, potentially delaying the roadway construction work. Even though this project was not fully funded for construction until FY2010, the relocation of most of the utilities has already been done in advance to avoid these problems.

## STAFF ANALYSIS

The MD355/Montrose interchange project would provide significant traffic relief in this growing area of the county. The project would also enhance the value of the Montrose Parkway West project, now scheduled to be completed in May 2008, by providing direct ties to Rockville Pike and to Randolph Road.

**Note:** The day prior to the due date for this memo, SHA told staff that an additional through lane in each direction might be required on Montrose Parkway through the interchange and that an additional turn lane might be required on Old Old Georgetown Road. These changes have not been reflected on any plans submitted to staff for review and are therefore not addressed in the comments below. Staff will comment on these issues, including the updated traffic volumes, at the Board's meeting.

### Roadway

Eleven-foot-wide travel lanes would be provided along both Rockville Pike and Montrose Parkway. The 2020 average daily traffic for each road is projected to be 94,650 and 48,450, respectively.

Four southbound and three northbound lanes would carry Rockville Pike over the proposed Montrose Parkway. Montrose Parkway would have two through lanes in each direction.

Ramps A and B on the east side of Rockville Pike would provide access to and from northbound Rockville Pike. Access from southbound Rockville Pike to Montrose Parkway would be provided via Old Old Georgetown Road. Access to southbound Rockville Pike from the Parkway would be via Ramp C, to be built between Old Old Georgetown Road and the Pike.

Since Old Old Georgetown Road has a cul-de-sac at its southern end, constructed when Old Georgetown Road was relocated to turn eastward many years ago, the segment south of Montrose Road currently only serves to provide rear access to Mid-Pike Plaza and other businesses fronting on the road. With the construction of Montrose Parkway, the segment between the Parkway and Montrose Road would be expanded from its current three lanes to seven lanes, including auxiliary lanes.

### The Intersection of Montrose Road and Old Old Georgetown Road

When the original planning was done for this project, the Parkway was not funded for construction, so the project was designed to include a relocation of existing Montrose Road at its western end. That design had a 75-degree angle between relocated Montrose Road and Old Old Georgetown Road.

When the Parkway was funded, the design was changed to reflect a tie-in to the Parkway. The greater angle of the skew between the Parkway and Old Old Georgetown Road appears not to have been considered however, and is now at a 62-degree angle. This skew would not be in accordance with Section 50-26(e)(1) of the County Code, which states, "*Streets shall be laid out so as to intersect as nearly as possible at right angles. A proposed intersection of two (2) new streets at an angle of less than seventy (70) degrees will not be acceptable.*" While the

Subdivision Ordinance does not govern the design of this intersection, it is a statement of the County's policy in regard to intersection design. Since both Montrose Parkway and Old Old Georgetown Road are County roads, the operation and maintenance of the intersection, and remediation of any design problems, will likely become the County's responsibility after the completion of the State's construction.

The American Association of State Highway and Transportation Officials (AASHTO) states, *"Intersecting streets should meet at approximately a 90-degree angle. The alignment design should be adjusted to avoid an angle of intersection of less than 60 degrees."* The proposed design would have an angle just above the AASHTO minimum. Such a skewed configuration would be undesirable under most circumstances, but it is particularly so when the roads carry high traffic volumes. There is also another factor at this intersection that causes a concern.

Trucks will be prohibited from using Montrose Parkway for most of its length, but will be permitted to use the Parkway through the interchange since direct through movement between Montrose and Randolph Roads will no longer be possible. Therefore, eastbound trucks would be have to use Montrose Road, turn right to go south on Old Old Georgetown Road, and then turn left to continue east on Montrose Parkway. (The opposite movements would be required for westbound trucks.) Both of those turns would be acute angle turns (see Attachment 4). (The angle of the existing intersection of Old Old Georgetown Road and Montrose Road is 77 degrees.) Double rights and double lefts would be required at each intersection, although SHA's latest traffic numbers show that three southbound left turn lanes might be required on Old Old Georgetown Road at the Parkway. The angle of the intersection and the multiple turn lanes would push the crosswalk and the median end of the east leg of the Parkway much further back from the intersection than it would otherwise be. The crosswalk would also be longer. (This is discussed below in Pedestrian Accommodation.)

Staff believes that SHA should consider relocating the segment of Old Old Georgetown Road between Montrose Road and the Parkway to be perpendicular to the Parkway (see Attachment 5). As noted above, the utility pole relocations have already been done for this project and therefore a couple of poles would likely have to be moved again. However, staff believes that the need for efficient and safe operation of the roadways in this area demands that such realignment be given serious consideration.

A realignment of this segment of Old Old Georgetown Road would create an offset with the existing southern segment of Old Old Georgetown Road. The southern segment has a much lower traffic volume and staff believes that a better overall traffic operation for the north and east legs of the intersection would be sufficient to warrant the change.

SHA's response to the above staff comment is as follows:

*Relocating the segment of Old Old Georgetown Road between Montrose Road and Montrose Parkway to be perpendicular to the Parkway would offset this relocated leg by 100' +/- from the leg of Old Old Georgetown Road south of Montrose Parkway. The Old Old Georgetown Road southern leg movements through this intersection would be undesirable since a right in / right out condition would be warranted impacting anyone wanting to go west on Montrose Parkway and Montrose Road. This right in/right out would be within 100 feet of the main intersection. In*

*addition to the intersection issues, recently relocated utilities would be impacted, the anticipated park and ride lot would need to be reduced, and SWM Pond 2 would need to be re-sized.*

*It should be noted that AASHTO states the following in Chapter 9 Intersections (2001 Edition pg.585): "Although a right-angle crossing is normally desired, some deviation from a 90-degree angle is permissible. Reconstructing an intersection to provide an angle of at least 60 degrees provides most of the benefits of a 90-degree intersection angle while reducing the right of way takings and construction costs often associated with providing a right-angle intersection."*

*If and when Mid-Pike Plaza is redeveloped, the issues noted above would be re-considered and changes incorporated as deemed appropriate at that time.*

As a reply to SHA's response, staff believes that a final decision on this issue must happen before this project is built. The site of the proposed intersection is partly a parking lot and partly a little-used road. While there would be an additional expense to relocate a couple of utility poles to effect the recommended realignment of Old Old Georgetown Road as part of this project, the cost would be dwarfed by having to reconstruct the proposed intersection in the future with almost 100,000 cars passing through it on an average day on Montrose Parkway.

In addition to resolving the traffic problems outlined above, realigning the segment of Old Old Georgetown Road north of the Parkway would accommodate a future extension of the road into a redeveloped Mid-Pike Plaza site that would be in accordance with the illustrative plan shown in the North Bethesda/Garrett Park Master Plan (see Attachment 6). Federal Realty has submitted a concept for such a redevelopment to staff for discussion that would require only a minor modification to accommodate the extension. With the extension, another cul-de-sac could be constructed to terminate access from the existing Old Old Georgetown Road to Montrose Parkway. The new road would provide additional local circulation opportunities and have access to Old Georgetown Road, which the existing Old Old Georgetown Road does not have.

With the current plan, SHA has proposed to close the Mid-Pike Plaza entrance onto Old Old Georgetown Road because of its proximity to the new intersection with Montrose Parkway. Staff believes that our earlier proposal to SHA could be modified to tie Old Old Georgetown Road south of the Parkway via an interim road to the new intersection (see Attachment 7). Access for the business on the southern segment of Old Old Georgetown Road would be maintained, as would rear access for Mid-Pike Plaza. Staff recommends that SHA continue to work with Federal Realty, DPWT, and our staff to resolve the various traffic, access, and site development issues.

## **Bicyclist Accommodation**

### Rockville Pike

Five-foot-wide bike lanes would be provided on Rockville Pike.

A ten-foot-wide shared use path would be built along the east side of Rockville Pike from the southern end of the project, 400 feet north of Old Georgetown Road (MD187), tying into the path just constructed by the Sterling residential development. Because of tight right-of-way

constraints, the offset from the curb would generally be just two feet. Staff has two areas of concern in this segment.

At the traffic signal at the entrances to Mid-Pike Plaza (west side) and Guardian Realty (former Mervis Diamond Importers, east side), a greater offset from the roadway is needed. The proposed design would adjust the alignment of the path to more easily tie into the proposed handicap ramps but would direct path users toward the roadway almost at the beginning of Ramp A.

Because of an especially tight right-of-way constraint, SHA has proposed that 150 feet of the path be directly adjacent to the curb along the Ramp A, part of which would also be bordered on the backside by a retaining wall. Staff is concerned that the proposed alignment would direct path users toward the roadway right where the buffer would be removed. SHA staff has said that they will improve this alignment as much as possible.

North of the interchange, the width of the path along the east side of Rockville Pike would be reduced to eight feet, separated from the curb by a four-foot-wide landscape panel, replacing the existing path constructed as part of the Montrose Crossing development. A two-foot-high wall would be constructed between the path and the adjacent parking lot. Rather than replacing the existing section in kind however, staff recommends that this segment be constructed to be ten feet wide, matching the width used through the rest of the project, leaving a two-foot-wide landscape panel. The greater width would better accommodate the higher volumes of pedestrians with bicyclists on the shared use path.

### Montrose Parkway

No on-road bike accommodation along Montrose Parkway is recommended in the Master Plan and none would be provided.

A ten-foot-wide shared use path would be built along the north side of Montrose Parkway with a fifteen-foot-wide landscaped offset from the curb.

## **Pedestrian Accommodation**

### Rockville Pike

Pedestrian accommodation along Rockville Pike would be via the proposed five-foot-wide sidewalk on the west side of the road and the shared-use path on the east side of the road, as outlined above. The sidewalk would be separated from the curb by a five-foot-wide landscape panel. For segments that do not have much potential to be replaced by a developer-funded streetscape at a later date, staff recommended to SHA that the sidewalk width be increased to six feet so that two pedestrians could comfortably walk side-by-side in an area that is becoming densely developed. We also recommended that the landscape panel be increased to eight feet. SHA has responded that this will be done where possible.

The northern project limit is at Hubbard Drive and the entrance to the Montrose Crossing development. This is a signalized intersection that does not have a crosswalk on the south leg of Rockville Pike. The northbound left turn lane would have curbed two-foot-wide medians on each



side of the lane; the right median is proposed to prevent traffic from westbound Montrose parkway traffic that is turning north on Rockville Pike from crossing four through lanes to get to the left turn lane. Combined with the skew of Hubbard Drive and the shopping center entrance, it would be difficult to get a safe pedestrian crossing on the south leg of Rockville Pike and staff concurs that one should not be provided. However, staff recommends that a sign be posted to prohibit the pedestrian crossing on the south leg of Rockville Pike and to direct pedestrians to the safer crossing on the north leg. SHA has responded positively to this comment. To improve the safety of the north leg, ***staff also recommends that the median be widened from four feet to six feet and that a pedestrian refuge be provided.*** While SHA has responded that this work would be outside the project limits, that is true only by a matter of feet since they are working on the south leg. Since we agree that it would be undesirable for pedestrians to cross the south leg, the north leg needs to be made as attractive as possible to encourage pedestrians to cross there.

On the proposed bridge over Montrose Parkway, only a 5'-8"-wide sidewalk is proposed on the west side of Rockville Pike, immediately adjacent to the curb. (The east side accommodation would be provided via the shared use path that goes down to Montrose Parkway and back up again.) AASHTO recommends that an additional two feet of sidewalk width be provided beyond the normal width where there is a lateral obstruction, such as the bridge parapet, as well as an additional two feet where the sidewalk is adjacent to the curb. ***Staff believes that the proposed narrow sidewalk is insufficient given the level of development in this area and recommends that the width of the bridge sidewalk be increased to ten feet.***

Rockville Pike south of the Parkway is recommended to have a ten-foot-wide "build-to" line, which new buildings along the Pike would abut. The streetscape for these new buildings would be 25 to 35 feet wide, similar to what was just recently constructed in front of the Sterling condominium at the northeast corner of Old Georgetown Road and Rockville Pike. The proposed sidewalk would directly lead to Mid-Pike Plaza. While no official proposal for the redevelopment of the shopping center has been submitted, a concept for discussion has been received. The 25- to 35-foot-wide streetscape to be provided by such a redevelopment would tie into a 5'-8" sidewalk on the bridge, a condition that staff believes would be extremely undesirable and would not encourage pedestrian movement between the two sides of the Parkway. In response to staff comments, SHA has said that the sidewalk width on the bridge could be increased by one foot (to 6'-8"), and that the five-foot-wide bike lane provides a buffer from traffic, but staff believes that the ten-foot-wide sidewalk is still desirable.

The profile of Montrose Parkway is very constrained and any increase in width of the bridge might require an extensive redesign. Over the bridge however, the median is fourteen feet wide, would be concrete, and does not have a specific purpose. Staff believes that SHA should consider shifting the southbound roadway slightly over the bridge, narrowing the median to provide the additional width for the sidewalk without increasing the width of the bridge.

The decision of whether to use concrete or steel beams would be left up to the successful bidder, but staff believes that concrete beams are preferred for the proposed bridge, as they would create a quieter environment for pedestrians under the bridge.

At the Mid-Pike Plaza/Guardian Realty intersection, staff recommends that dual handicap ramps be constructed to provide a greater offset and better alignment of the path. Dual ramps would also meet ADA Best Practices and would provide shorter crossings of Rockville Pike. Staff also

recommends that a six-foot-wide pedestrian refuge be provided in the median to be reconstructed on the north leg of Rockville Pike at this intersection. SHA has responded positively to these comments.

#### Montrose Parkway

Pedestrian accommodation along Montrose Parkway would be via the proposed five-foot-wide sidewalk on the south side of the road, separated from the curb by ten-foot-wide landscape panel, and the ten-foot-wide shared-use path on the north side of the road, separated from the curb by a fifteen-foot-wide landscape panel.

Old Old Georgetown Road would be significantly widened between Montrose Road and Montrose Parkway to accommodate the traffic exchange between the two as well as to provide access to Ramp C to southbound Rockville Pike. There would be two southbound left turn lanes on Old Old Georgetown Road to go eastbound on Montrose Parkway. Staff believes that the median has been cut back more than is necessary to accommodate this movement and that the median end should be brought closer to the intersection to provide a safer pedestrian crossing. (Note that the resolution of this comment depends on the possible realignment of Old Old Georgetown Road.)

#### Old Old Georgetown Road

Pedestrian accommodation along Old Old Georgetown Road would be via the proposed five-foot-wide sidewalk on each side of the road, separated from the curb by five-to-ten-foot-wide landscape panels. The existing sidewalk on the west side of Old Old Georgetown Road north of Montrose Road does not have a landscape panel and would remain at the curb.

The sidewalk along the east side of Old Old Georgetown Road north of Montrose Parkway will serve mostly the proposed relocated parking facility. A five-foot-wide landscaped offset is proposed, but staff recommends that this be widened to eight feet to provide a better buffer from the proposed seven-lane roadway. SHA has stated that this will be done where possible.

#### Randolph Road

Montrose Parkway would tie into Randolph Road at the intersection of Chapman and Maple Avenues. The reconstruction of Maple Avenue as an extension of Chapman Avenue has been submitted for Mandatory Referral review by DPWT and will likely be scheduled for the Board's review in January or February. That project will increase the traffic through this intersection since it will provide a connection through the LCOR development to the existing segment of Citadel Avenue to the south. It will also increase pedestrian traffic with the redevelopment of properties along Maple Avenue.

The current design of the intersection does not include a crosswalk on the east leg of Randolph Road at the intersection, but such a crosswalk is needed to accommodate future development. Subsequent to staff's review, SHA has agreed to provide this crosswalk.

## Medians

In our review of the previous set of plans, staff recommended that SHA raise the medians to deter mid-block crossings by pedestrians. We recommended that where narrow medians could not be avoided, jersey-type barriers with inset decorative panels be used. SHA responded that the use of concrete median barriers was inappropriate for this project. Staff continues to believe that the design of the project needs to deter unsafe mid-block crossings by pedestrians.

Fencing has recently been installed on the narrow median on Veirs Mill Road (MD586) at the Wheaton Metro Station, and fences will be installed on New Hampshire Avenue (MD650) and on University Boulevard (MD193) at the Takoma-Langley Park crossroads shortly to accomplish this goal. Wisconsin Avenue (MD355) in Bethesda has wide mounded medians to deter pedestrian crossings. DPWT also recently constructed an attractive stone-faced median barrier on Marinelli Road at the White Flint Metro Station to prevent mid-block crossings.

Almost 900 feet of the Rockville Pike median within the limits of this project would be two-feet to four-feet-wide, too narrow to accommodate mounded medians and the two-foot-wide medians would be too narrow to accommodate a fence. In a discussion with SHA staff, we agreed that the most likely place where unsafe mid-block crossings by pedestrians would occur across Rockville Pike would be between the Parkway and the south side of Hubbard Drive. Staff recommends that fencing or some other barrier be provided between Old Old Georgetown Road and Ramp C to deter unsafe mid-block crossings by pedestrians across the Pike. SHA has said that they will evaluate this.

## **Park and Ride Lot**

There is an existing Park-and-Ride lot in the southwest quadrant of the Rockville Pike/Montrose Road/Randolph Road intersection. The lot is mostly on State-owned land, but partly on land leased from Federal Realty, owners of the Mid-Pike Plaza. The shopping center in turn leases parking spaces from the State. This trading of spaces is done because of the curving property line between both owners. Montgomery County operates the Park-and-Ride lot as part of the North Bethesda Transportation Management District (TMD) under an agreement with the State. The TMD sells a limited number of daily parking passes but the lot is mostly devoted to long-term users purchasing monthly parking permits: employees of NIH using their shuttle buses, transit patrons, and buses for both the National Institutes of Health and the French International School.

During the Mandatory Referral review of this project, staff has not been able to get matching numbers from the State and County on the number of spaces that would remain during and after construction, however the project would require the removal of several hundred spaces during construction, and fewer spaces would remain after construction. While the ultimate design of the replacement lot needs to be worked out by the Design-Build contractor, the contract documents will require that a certain number of spaces be provided in the replacement park-and-ride lot. County staff have assured us that they are satisfied with SHA's plans to date, which indicate that several hundred spaces will remain for Park and Ride lot use after construction is completed.

Staff recommends that SHA continue to coordinate with the County to ensure that there are sufficient parking spaces to accommodate transit users and the current long-term users of the lot

both during and after construction. Safe pedestrian access and good lighting need to be provided both during and after construction.

## **Landscaping**

Conceptual landscape plans have been provided to staff for review. The species of the plant materials to be used for this project have not been specifically called out but are noted as “large canopy tree”, “forest plantings”, etc. The details of these items would be worked out with the design-build contractor. Staff is in general agreement with the proposed landscaping scheme. Individual staff recommendations are noted in the recommended Board comments above.

Washington Globe luminaires and stone formwork aesthetic treatment for vertical concrete surfaces will be used for this project to match those used on the Montrose Parkway West project.

***Staff recommends that the proposed median on Rockville Pike over the bridge should have an ashlar stone aesthetic treatment to soften its look and to hide grit thrown from the roadway.*** The median is proposed to be fourteen feet wide, but if the above recommendation to shift the roadway is followed, the median would be approximately ten feet wide.

The bridge is proposed to have a stone formwork aesthetic treatment on the outside of the bridge, but ***staff recommends that this treatment be used for the inside faces of the bridge parapets also to improve the visual environment for pedestrians and drivers along Rockville Pike.***

The west parapet is proposed to be a vertical face wall, but the east parapet would have a jersey-barrier-type shape since there would be no sidewalk immediately adjacent to it. This typical section would be similar to the Jones Mill Road Bridge over Rock Creek that was constructed by DPWT a few years ago, with aesthetic treatments on both the inside and outside faces. ***Staff recommends that SHA consider using a barrier that has a single plane so that an aesthetic panel can be more easily accommodated.***

***Staff recommends that pilasters be provided at the ends of the bridge and for mounting any streetlights on the bridge.*** (No lights are currently proposed, but the issue of lighting is addressed below.) SHA staff has responded negatively to our comments for aesthetic treatments on the bridge, saying that no such treatment exists along the Rockville Pike corridor now. But the Sterling building just completed two blocks away has a significant streetscape and the other nearby developments in the pipeline will also have significant streetscape elements. Rather than continue this momentum at a relatively small cost, and help to bridge both literally and figuratively the 1,000-foot distance between the ramps along Rockville Pike, this project runs the risk of deadening the vitality in this area.

This interchange would present a significant break in the streetscape of Rockville Pike. Staff believes that the visual presence of the interchange should also be minimized by providing a higher level of landscaping than normal in the proposed commuter parking facility and adjacent to the Ramps A and B on the east side of Rockville Pike. The County Code would require a ten-foot-wide buffer between the parking lot and the right-of-way line and a landscape panel with street trees every twenty-five parking spaces. Staff recommends that the buffer between the parking lot and the sidewalk be planted with a second row of street trees matching that between

the sidewalk on the east side of Ramp C. Staff also recommends a second row of street trees on the west side of Ramps A and B. SHA has responded positively to these comments.

### Under the Bridge

Consistent with the rest of the typical section of Montrose Parkway for this project, the proposed five-foot-wide sidewalk on the south side of the road would be separated from the curb by a ten-foot-wide landscape panel, and the ten-foot-wide shared-use path on the north side of the road would be separated from the curb by a fifteen-foot-wide landscape panel. Staff is concerned that there would be insufficient light under the bridge to sustain plant life and that these areas would become unsightly. While having such wide landscape panels are desirable for the higher speed segments of the Parkway, the speeds through the interchange should be lower, given the traffic signals on either side, and the cost to provide such panels is much higher since they would require a longer bridge. ***Staff recommends that the landscape panels for both the sidewalk and shared use path under the bridge be reduced to six feet and that these panels be paved with cobblestones to reduce maintenance and to deter pedestrians and bicyclists from using these areas.*** While the intent of staff's comment was to reduce unnecessary expense, SHA's response to a draft of this memo was that the wider landscape panels had been maintained to provide room for additional road widening, a widening that may now be constructed as part of this project. Staff is now concerned that the landscape panels could end up being too narrow rather than too wide. The above recommendation reflects the plans as they now stand but may have to be revised to reflect SHA's stated need for a wider roadway.

***Staff also recommends that the slope protection between the sidewalk/path and the abutments be concrete with an aesthetic finish to provide a good environment for users under the bridge.***

### Landscaping at Potential Stormwater Management Sites

Old Old Georgetown Road ends in a cul-de-sac just north of the Old Georgetown Road/Executive Boulevard intersection. The project proposes to move the cul-de-sac to the north by 150 feet to provide room for storm water management. The alignment for the sidewalk connection between this intersection and Old Old Georgetown Road is very circuitous but SHA staff have said that this is conceptual only, that the design-build contractor will determine the final alignment. Another concern is the three 35-inch-diameter oak trees along Executive Boulevard, which staff believes should be saved if at all possible since they form part of one of the best streetscapes in this part of the county. SHA has responded that they will consider adding a contract incentive for the contractor to save these trees.

Two other potential storm water management locations are at the northern end of the project in the fork between Rockville Pike and Old Old Georgetown Road and in the northeast corner of Montrose Parkway and Old Old Georgetown Road. Both of these areas are highly visible and will have significant foot traffic, staff recommends that they be landscaped to be park-like in character. ***Staff also recommends that SHA consider providing a sign panel adjacent to the sidewalk explaining how the storm water management facility works to serve as a public educational tool.***

## **Environmental/Forest Conservation**

### Forest Conservation

The Maryland Department of Natural Resources (DNR) has authority through the Maryland Forest Conservation Act for forest conservation on state highway projects. Since this is a state highway project, the Forest Conservation Plan was reviewed and approved through DNR who issued two Roadside tree permits to remove trees for the construction of this road intersection.

This project is exempt from the Forest Conservation Plan and was reviewed by staff under section 5-103. The plan will impact 3.51 acres of forest and 23 individual specimen trees on the subject site. Approximately 0.99 acres of the existing forest and seven specimen trees to be removed are located about 700 feet southwest from Maple Avenue at Randolph Road and Rockville Pike. The remaining acreage and trees are located on the southwest corner of the intersection of Rockville Pike and Randolph Road and a small amount on the north side of Randolph Road.

Maryland DNR requires that all trees removed to be replanted with 1" caliper trees within 1 year of the permit date and as specified in a replanting plan for the subject project. The 3.5 acres of forest removed must be replaced within one year of project completion with native trees at a location to be determined.

### Environmental Guidelines

Since this is in an urbanized previously developed area, there are no steep slopes, erodible soils, wetlands, special protection areas, streams, or rare endangered or threatened species present.

### Water Quality

This project proposed for the intersection of Rockville Pike and Montrose Parkway is on a ridge separating the Rock Creek watershed from the Cabin John watershed. Most of the road will be built in the Old Farm Branch sub watershed, with poor stream and habitat conditions. Since this project is in a Watershed Restoration area in a Use I stream category (as defined by the Maryland Department of the Environment), storm water management measures should meet the highest standards with on-site infiltration maximized through the use of the most recent technology. SHA has responded that they will comply with the latest Maryland Department of the Environment requirements.

### **Lighting**

Lighting would be provided for the roadway, sidewalk, and shared use trail along Montrose Parkway, including Washington Globe luminaires, consistent with the Montrose Parkway West project, now under construction by DPWT. SHA's lighting policy does not call for continuous lighting, but the County has agreed to provide the additional funding required.

Continuous lighting would not be provided for Rockville Pike, however. Lighting plans have not been included in the set provide to staff for review, but SHA staff have said that lighting would be provided only at the ends of the ramps. This would be consistent with SHA's policy to

provide lighting only at intersections and generally only signalized intersections. As the ramps are at least 300 feet away from the sidewalk on the bridge however, the main light source for pedestrians on the bridge would be the headlights from passing cars.

SHA's lighting policy is at odds with the safety needs of the general public, particularly so in urban areas. Most of the Montgomery County's pedestrian fatalities occur on State highways. A significant percentage of those fatalities have occurred during the early morning and evening hours in areas when the low level of lighting was indicated as a factor.

The American Association of State Highway and Transportation Officials (AASHTO) is the agency that provides policy guidance to its members, including the State of Maryland. AASHTO published the latest edition of its Roadway Lighting Design Guide in October 2005. To quote from its guidance on "streets and highways other than freeways (including walkways and bicycle ways)":

*"The literature is replete with data demonstrating the value of fixed lighting for facilities without access control and the resulting benefits to the public. Some of the elements that warrant the lighting of urban streets and highways are traffic volumes (both vehicles and pedestrians), at-grade intersections, turning movements, signalization, and varying geometrics. The need for street and highways lighting in areas with frequent inclement weather should be considered. In addition to its safety benefits, lighting may serve as a crime deterrent, may aid law enforcement agencies, may contribute to user comfort, and often contributes to community pride. These benefits may serve as a basis for the local government agency to pay an appreciable percentage of the cost of, or wholly finance, the installation, maintenance, and operation of the lighting facilities."* AASHTO recommends continuous lighting for commercial areas, and higher levels than normal are recommended to be considered.

Currently, more than 100,000 vehicles per day pass through the existing intersection. Even if one considered the Montrose Parkway interchange as part of a freeway, the 2020 ADT of more than 140,000 vehicles per day far exceeds AASHTO's recommendation to provide complete interchange lighting for urban interchanges with greater than 10,000 ADT for all ramp traffic. ***The lighting design for Rockville Pike is completely inadequate and violates the requirement for "best engineering practices" included in Maryland's Bicycle and Pedestrian Access Act of 2001,*** excerpted below:

## Maryland Bicycle and Pedestrian Access Act

### PUBLIC POLICY

The General Assembly finds that it is in the public interest for the State to include enhanced transportation facilities for pedestrian and bicycle riders as an essential component of the State's transportation system, and declares that it is the policy of the State that:

- 1) Access to and use of transportation facilities by pedestrians and bicycle riders shall be considered and best engineering practices regarding the needs of bicycle riders and pedestrians shall be employed in all phases of transportation planning, including highway design, construction, reconstruction, and repair as well as expansion and improvement of other transportation facilities;

Earlier legislation, Maryland's Bike/Ped Access 2000 Bill, was passed ten years ago and required that an inventory be done to determine what pedestrian and bicycle improvements were needed to provide access to transit stations. A joint effort between SHA and the Maryland Transit Administration (MTA) to comply with the requirements of this law set a walking distance of 0.6-mile and a biking distance of two miles as the bounds for the study. Staff worked with SHA, MTA, and DPWT on this study in 2000 and 2001, but most of the construction funds were cut. The White Flint Metro Station and the planned Montrose Crossing MARC station is within a half-mile of the project site and the possible second entrance to the White Flint Metro Station would be within about 700 feet. MD355 is also a well-traveled transit corridor with several bus stops within the project limits.

In summary on the issue of lighting, staff believes that the lighting design for Rockville Pike and the ramps is inadequate and that the design of all roadways within the limits of this project should have continuous lighting that meets current AASHTO recommendations.

We also believe that SHA's lighting policy should be revised to meet the latest AASHTO guidance on the best lighting levels for pedestrian, bicyclists, and drivers. If the cost impact of implementing such a policy is a concern, SHA should consider instituting a standard cost-sharing formula with local government similar to that for noise barriers, which require a 20% local cost match. The attainment of the most appropriate lighting level is too important to public safety to be held hostage to cost considerations.

### **Noise Walls**

No noise walls would be constructed, as there are no residences that would be adversely affected by the project.

### **Historical**

The Montrose Schoolhouse is located along existing Randolph Road just west of Chapman Avenue. The property is on the County's Master Plan for Historic Preservation and is on the National Register of Historic Places. The roadway in front of the schoolhouse would be relocated to become part of Montrose Parkway. A portion of the shared use trail along the north side of Montrose Parkway would be constructed across the southeast corner of the school property. The schoolhouse itself is owned by Peerless Rockville; the land that the school sits on is owned by the State of Maryland.

The vehicular access to the schoolhouse, which is currently used as a day-care facility, would be relocated. The current access is via a driveway on Randolph Road. The proposed access is via a driveway connected to a portion of the parking lot of the Montrose Crossing development, a portion that is also owned by the State and leased to the shopping center.

Since the subject project would be constructed by the State, the agency in charge of determining the effect of the proposed construction on the property is the Maryland Historical Trust. The Trust has found that the proposed changes would have no adverse effect on the property.



Staff has the following comments:

- The historic setting of the schoolhouse should be disturbed as little as possible.
- The existing shade trees along the front property line should be preserved to the greatest extent possible.
- Reforestation in the vicinity of the school should recreate a forested setting for the school with a mix of shade trees and flowering trees.
- The relocation of the school entrance driveway should be completed before roadway construction begins so the school can continue to operate without interruption.
- A Historic Area Work Permit application should be submitted for any future changes to the schoolhouse grounds.

SHA has responded positively to the first four bullets, but responded only “Comment noted.” to the last. Staff notes that the legal issues involved with County requirements on State projects sometimes further clarification.

### **Parks**

There are no parks in or adjacent to the project.

### **PUBLIC OUTREACH**

An Alternates Public Workshop was held during the planning phase and a Public Hearing was held in December 2001. A Public Informational Meeting is scheduled for December 6, 2006. Staff will summarize the comments made at that meeting at the Board’s meeting.

Notices of the Planning Board’s meeting were sent to area citizens associations.

### **FUTURE PARKWAY EXTENSIONS**

This project would connect on the west to the County’s Montrose Parkway West project, now under construction. Phase II of the State’s work would construct the proposed Montrose Parkway over the CSX tracks between Chapman Avenue and Parklawn Drive. This phase of the project is not funded for design or construction and is on hold.

The County’s Montrose Parkway East project would construct the parkway between Parklawn Drive and Veirs Mill Road. This project is currently at the 30% design stage and is anticipated to be reviewed by the Planning Board in March 2007.

Close coordination between the above two projects is especially needed in the vicinity of Parklawn Drive. It is anticipated that the State’s Phase II project would have at least \$10M less in property impacts if both projects are done with a unified design.

LC:ba

# Rockville Pike (MD355/Montrose Interchange)



Attachment 1

Map Compiled On 11-15-2006 at 08:51 AM  
 Map Scale: 1 inch = 500 feet or 1:6000

0 500 Feet



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 Transportation Planning Unit  
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Property  
 Montgomery County

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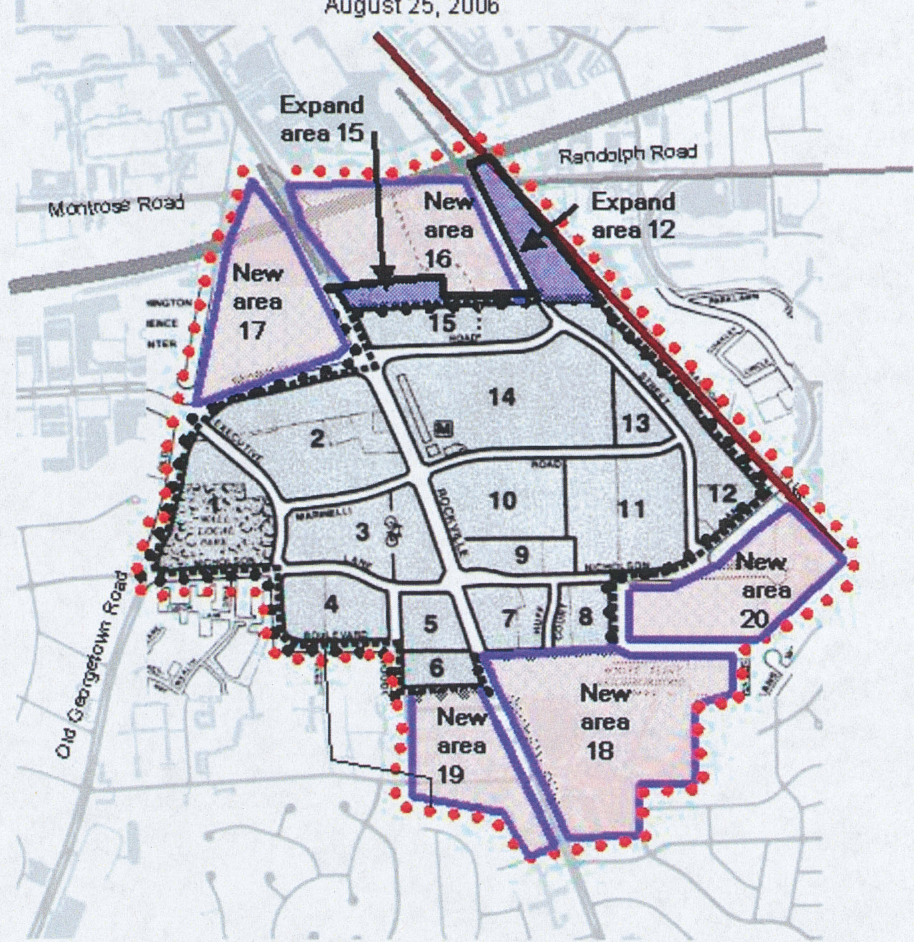
FINAL

(after internal review including other divisions)

2006-2007 Sector Plan Update Focus

### Proposed Boundary & Analysis Areas

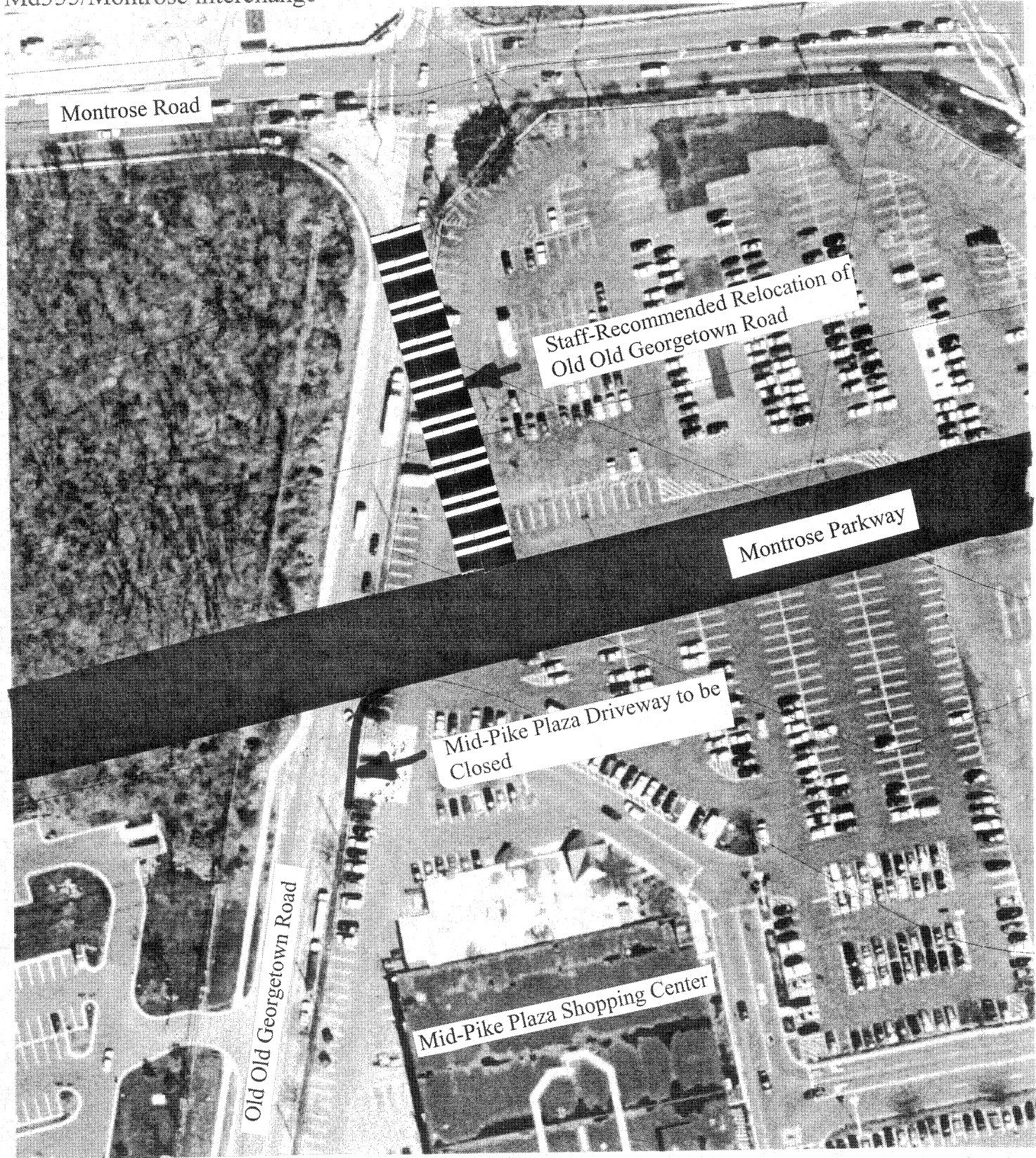
August 25, 2006



- Existing Analysis Area
- Existing Analysis Area Expanded
- New Analysis Area
- Existing White Flint Sector Plan Boundary
- Proposed White Flint Sector Plan Boundary

August 25, 2006  
 prepared by M-NCPPC, The Montgomery County Planning Department  
 Community-Based Planning Division  
 Contact Margaret K. Rinko RLA AICP CNU, WhiteFlintPlan@mcppo-mc.org 301 495 4555  
 www.WhiteFlintPlan.org

Md355/Montrose interchange



Staff-Recommended Relocation of  
Old Old Georgetown Road

Montrose Parkway

Mid-Pike Plaza Driveway to be  
Closed

Old Old Georgetown Road

Mid-Pike Plaza Shopping Center

Intersection Configuration with Old  
Old Georgetown Road Offset

Attachment 5

Map Compiled On 11-21-2006 at 02:18 PM  
Map Scale: 1 inch = 100 feet or 1:1200

0 100 Feet



The Maryland-National Capital Park and Planning Commission  
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**WHITE FLINT WEST ILLUSTRATIVE PLAN**

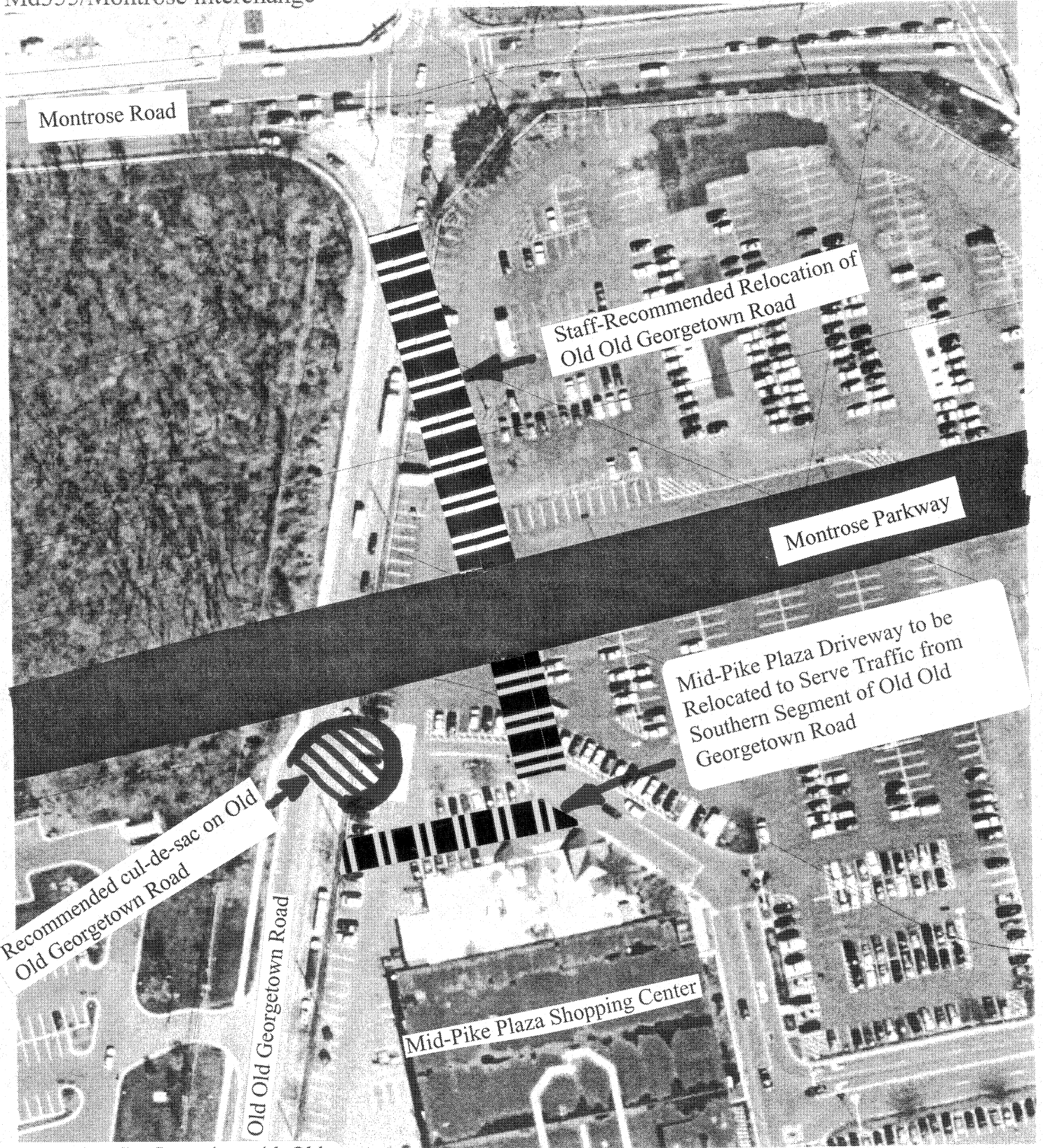
**FIGURE 43**

New Road to tie into Realigned segment of Old Old Georgetown Road to the north



page  
130

Md355/Montrose interchange



Intersection Configuration with Old Old Georgetown Road Realignment Through Mid-Pike Plaza

Attachment 7

Map Compiled On 11-21-2006 at 02:18 PM  
 Map Scale: 1 inch = 100 feet or 1:1200

0 100 Feet



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