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

MCPB Item # 11 5/20/10

May 14, 2010

MEMORANDUM

TO: Montgomery Country Planning Board

VIA: John Carter, Chief, Urban Design Division JAC
Urban Design Division

FROM: Karen Kumm Morris, Master Planner
Urban Design Division

SUBJECT: Mandatory Referral No. 09720-M-1: Montgomery College Bioscience Building
Mandatory Referral No. 10712-M-1: Childcare Center
Germantown Campus - I-3 Zone

STAFF RECOMMENDATION: *Approval To Transmit Comments*

1. Satisfy the Sector Plan's requirement for preservation of 46 acres of high priority forest in a variety of ways such as:
   a. shift the proposed intersection of Observation Drive Extended and the entry into the College further to the east out of the high priority forest,
   b. increase tree preservation between the proposed childcare center and Observation Drive Extended,
   c. increase reforestation along MD 118 at the headwaters of Gunner's Branch Tributary,
   d. shift the level of disturbance south of Observation Drive Extended 10 – 15 feet north towards the right-of-way to increase tree preservation (see Attachment E).
   e. expand reforestation of the Gunner's Branch Stream Valley.
2. Locate all street trees between the curb and the sidewalk. Provide street trees for the entire length of the new arterial roadway. Provide a minimum five-foot wide sidewalk on both sides of all roads.
3. Provide landscape treatment for the stormwater management pond adjacent to the Childcare Center and for the major pond along Middlebrook Road.
4. Satisfy transportation requirements to meet Policy Area Mobility Review and Local Area Transportation Review as identified in the Transportation Planning Division's Memorandum (see Attachment I).
5. Update the Master Plan to reflect the proposed improvements.

PROJECT DESCRIPTION

Location

The Germantown Campus is located on the east side of I-270 in Germantown south of MD 118 in the Montgomery College District defined by the Sector Plan (see Aerial Vicinity Map, Attachment A). The proposed Bioscience Building is located at the end of the entry road, just north of the existing water tower. A new proposed roadway, part of this application, is shown connecting the College's loop street to Middlebrook Road south of the campus. The proposed Childcare Center is located north of the water tower, across the parking lot from the new Bioscience Building. The site borders industrially-zoned property that is not part of the College.

Proposed Project

The proposed Bioscience Education Center is a 127,000 square foot facility containing classrooms, laboratories, faculty offices and a conference center. The three-story academic building is "L" shaped and defines a new quadrangle of internal open space at the southern end of the existing campus. The front of the building faces a proposed internal loop street.

The Childcare Center is a single-story, rectangular facility containing classrooms for children, a staff workroom, a conference room and office space. It is sited adjacent to an existing parking lot that will provide access, drop off and pick up spaces, and staff parking. The building is designed with a gable-roof, residential style windows and masonry facade to be a 'home-away-from-home". The new, 40 student facility replaces an existing facility inside an academic building that currently serves 20 students in classrooms not designed for daycare.

The childcare facility includes a fenced outdoor play space and patio with gate access to existing woodland for nature-oriented play and exploration. A stormwater management pond is located south of the facility.

The College also plans to build the southern portion of the new, arterial master plan roadway that connects the campus to Middlebrook Road. The new roadway's alignment curves up the hill from Middlebrook Road, following the eastern edge of the forest and becomes a divided entrance connecting to the College's loop street. In the future, the proposed roadway will have a round-about intersection and extend to the west through the forest to connect to Goldenrod Lane. A secondary street will extend east to Cider Press Place connecting to MD 355. These roadway connections will be made by developers of the Technology Park. A proposed surface parking facility is located to the east of the internal loop street. A major stormwater management facility is planned in the southern end of the property along Middlebrook Road. (see Site Plan, Attachment B).

ANALYSIS

Conforms with the Germantown Sector Plan, 2007

Compact Form - The proposed Bioscience Building and Childcare Center meet the vision of the Sector Plan by achieving a compact, urban pattern of development with the proposed location and three-story building height. The Sector Plan's urban form guidelines are:

- provide compact development that promotes campus interaction
- achieve synergy between public and private uses
- reduce the amount of disturbed land
- create an appealing and safe environment

The proposed Bioscience Building is located within the campus loop road and creates a walkable relationship with existing buildings. Future buildings to the east will further enclose the open space quadrangle and define the open space network of the campus. The synergy between public and private uses of the future Technology Park will be created when development of the Technology Park is proposed to the south of the campus. Sidewalks along both sides of all streets will be needed to ensure adequate pedestrian connections.

The proposed Childcare Center conforms to the Sector Plan's compact development principle due to its close-in, walkable location within the College campus. The single story facility functions well for the day care use. Its location in the western edge of the campus does not undermine the ultimate urban character desired by the Sector Plan.

Roadway Alignments - The proposed and future alignment of Observation Drive Extended and Cider Press Place are generally in conformance with the Sector Plan. The College intends to build the southern portion of Observation Drive Extended as an arterial roadway connecting the College to Middlebrook Road with future segments of Observation Drive and Cider Press Place built by developers of the Technology Park. In the future, a traffic circle at the intersection of Observation Drive and Cider Press Place is proposed to be built by others. The minor differences in alignment between the College's proposal and the Council's approved alignment including the future traffic circle affect the amount of preserved forest (see Attachments C and D). The College proposes a western shift in the southern road alignment to Middlebrook Road in order to increase the development area for the Technology Park and potential hospital.

The proposed arterial road section will need a sidewalk on both sides of the street to conform to the Road Code and provide pedestrian access.

Forest Preservation - The Sector Plan requires preservation of 46 acres of high priority forest and this requirement is not achieved by the proposed site plan. This issue is discussed in detail in the staff memo on the Forest Conservation Plan (FCP). The amount of acreage needed to conform is approximately three acres.

There are a number of ways to increase the forest preservation acreage and meet the Sector Plan requirement. Increased forest preservation could be achieved by:

- Shifting the proposed intersection of Observation Drive Extended and the College entrance drive further to the east out of the high priority forest. This intersection is to be developed into a traffic circle in the future by the developers of the Technology Park. If the College could consider deleting the future traffic circle, additional forest could be preserved.
- Preserving the existing high quality forest between the childcare center and Observation Drive Extended west of the water tower.
- Shifting the Level of Disturbance (LOD) line 10 to 15 feet north towards the right-of-way of Observation Drive (see Potential Locations to Increase Forest Preservation, Attachment E).

In addition, more areas could be designated for reforestation adding to the forest coverage over time. These areas could include the headwaters of the Gunner's Branch Tributary along MD 118 near the main entrance and along the stream valley buffer of this tributary.

Revisions to the College 2008 Master Plan - The College's recently updated master plan, dated June 17, 2008, does not illustrate the 2007 Sector Plan's roadway network that includes a connection to Cider Press Place. A revised college master plan should incorporate all Sector Plan roadways and compact development and future structured parking (see Montgomery College Facilities Master Plan, Attachment F).

Conforms with Policy Area Mobility Review and Local Area Transportation Review

The Transportation Planning Division finds that the proposed Bioscience Building is within a policy area where 100 percent of the new trips must be mitigated according to the Growth Policy. The project also will require a number of intersection improvements to meet the Local Area Transportation Review (LATR) test that the County will need to include in the future CIP. No significant new trips are anticipated for the Childcare Center (see Transportation Planning Division's memorandum, Attachment I).

Conforms with Draft Germantown Urban Design Guidelines

The Planning Board is currently reviewing Draft Urban Design Guidelines for Germantown that will help implement the Sector Plan's vision. The draft guidelines support the location of the proposed Bioscience Building and Childcare Center due to their walkable locations within the campus. The pedestrian environment is well accommodated by terraces, plazas and sidewalk connection on campus.

The proposed parking lot on the east side of the campus should be viewed as an interim parking solution. Ultimately, this parking area is an ideal location for a future building near the intersection of the roadways. Future campus planning should consider clustering buildings to create a compact campus served with structured parking.

Conforms with Development Standards – LSC Zone

The Germantown Sectional Map Amendment consolidated several zones (R-60. R-60/TDR and I-3 Zones) into the LSC Zone. The proposed use, an educational use, is allowed in the LSC Zone. The proposed development conforms to the development standards as follows:

Item	Required/Allowed	Proposed
Lot Area	50 acres	224.13 acres
Density	.21 FAR* (1.1 million – college, 1 million Tech Park)	.21 FAR**
Public Use Space	20%	+35% green area
Building Height	200 feet	62 feet

* established by Germantown Sector Plan 2008
** maximum density based upon College Master Plan

Layout of Building and Circulation

The proposed Bioscience Building implements part of the College's Facilities Master Plan. It provides a needed educational facility for the Germantown campus and strengthens the bioscience focus of the curriculum. The College is developing a continuum of bioscience and technology education and training from middle school to postdoctoral levels in an integrated academic, business and research environment. This includes the future Technology Park and the existing Germantown Business Incubator on campus.

The Childcare Center is a needed compliment to the academic program for faculty as well as to students. The existing program is housed within classrooms of an existing academic building and does not meet well the needs of children.

- New Building Location: The new Bioscience Building is sited on an existing parking lot at the end of the entry street. It creates a building line along the campus loop road and defines the quadrangle open space at the rear of the building.

  The new Childcare Center fronts the main, existing parking lot with rear access to a fenced playground and a natural woods area. The front door is clearly visible from the main, existing parking lot. The building footprint is 5,500 square feet.

- Parking and circulation: The proposed roadways improve circulation on campus with the circular loop road around the existing campus and with the new road extension that connects to Middlebrook Road. Additional parking is provided in a large surface lot to the east of the circular loop road. The Childcare Center is served by the existing parking lot and circulation drives. The parking in front will be marked for staff parking and child drop off spaces. The location of the parking and drop off locations does not create a conflict with the vehicle flow of the existing parking lot.

- Pedestrian Circulation: The new roadways do not provide pedestrian access on both sides of the street. The new arterial roadway, Observation Drive Extended, provides a 10 foot shared-use pathway on the east side only. This does not conform to the Road Code section 2004.08 that requires sidewalks on both sides of the street. The Sector Plan envisions development on both sides of this roadway in the southern end of the site and pedestrian access on both sides will be safe for pedestrians.

  The future extension of Observation Drive west to connect to Goldenrod Lane is shown with a future traffic circle intersection. Traffic circles are not as pedestrian friendly as a four-way intersection with stop signs. The College should consider deleting the traffic circle to be built by others.

  The Childcare Center will have a new sidewalk constructed in front of its parking spaces, and several new sidewalk connections to the student entrance and staff doorway. In the future, the sidewalk will be extended through the woods to Observation Drive.

- Public Use Space: The Bioscience Building proposes an entry and courtyard entrance that functions for cars and pedestrians identified with special paving. The rear of the building has a terrace and grass steps leading down to open spaces that are part of the College's quadrangle open space system. A series of pedestrian sidewalks connect these spaces with the rest of the campus.

- Recreation: The proposed Childcare Center provides a sizable, fenced in playground area behind the building away from the parking lot and traffic. The playground will have a variety of play equipment and a combination of shredded rubber mulch, poured in place surfaces, and wooded mulch within the natural woodland area. State license requirements will have to be met.

Landscape and Lighting

- Landscape – The Bioscience Building's landscape plan shows an attractive landscape treatment for the building and adjacent open spaces primarily relying upon deciduous shade trees to frame the building. The plans also show sufficient street tree plantings along the campus loop roadway, within the proposed parking lot, and adjacent to the entrance of the new building (see Bioscience Building Landscape Plan, Attachment G).

  The plan does not propose to plant street trees along the new arterial roadway connecting to Middlebrook Road. The new roadway should be planted with street trees to establish a tree canopy, separate pedestrians from moving traffic, and create an attractive street. The College intends for street trees in this section of the site to be the responsibility of future private development. Street trees should be an integral part of the roadway improvement and not a future improvement.

  The Childcare Center's proposed landscape plan provides a sufficient number of trees along the edge of the parking lot and within the rear of the lot to create a tree canopy setting for the facility over time. An attractive plan of canopy trees, understory flowering trees and planting beds are shown on the plans. The Stormwater Management Pond should be landscaped in order

for this area to function for bioretention and blend into the natural woodland edge (see Childcare Center's Landscape and Lighting Plan, Attachment H).

- Lighting - The lighting plan of the roadway and parking lot will use cut-off fixtures that reduce glare and direct the light down. This is important for compatibility with nearby residences.

Environment

- Stormwater management - A major detention facility is proposed in the southern end of the site near Middlebrook Road that will accommodate quantity control for the proposed building and the entire 82.3 acres in southern end of the site. Quality control will be provided throughout the site in accordance with County standards. The Childcare Center also has a proposed stormwater management facility located south of the building. Both of these facilities do not show landscape treatments and should have native plantings to create attractive facilities.

- LEED Certification - The Bioscience Building is being designed with a passive solar approach to reduce energy consumption. The intent is to pursue a LEED Silver Rating.

- Utilities - The College is relocating an existing water main in order to site the new Bioscience Building. The water main alignment is proposed south of the campus loop road cutting through the existing trees and eventually following the proposed Observation Road Extended alignment.

Compatibility

The proposed Bioscience Building, parking lot and new arterial roadway is compatible with nearby residential areas to the east of the college. The Gunner's Branch Tributary provides a buffer between the residents and the college's development. The proposed landscaping of the parking lot will help buffer views of the parking facility and the cut-off lighting will provide compatibility. The Childcare Center is also compatible with adjacent properties due to its tree preservation along the western edge of the site.

COMMUNITY COMMENTS

Staff has notified adjacent property owners and homeowner associations in the vicinity in April, 2009, when the application was submitted. Notification of the public hearing also has been sent. No community comments have been received.

CONCLUSION

Staff supports the proposed facilities but encourages the College to consider ways to minimize the amount of disturbance into the existing high quality forest. The Sector Plan requirement for 46 acres of forest conservation can be satisfied by modifying the Level of Disturbance along Observation Drive Extended and increasing other areas of forest

preservation. All roadways, including Observation Drive extended, should have sidewalks and street trees on both sides of the roadway. All stormwater management facilities should have landscaping.

Attachments

A. Aerial Vicinity Map
B. Proposed Site Plan
C. Observation Drive Extended Alignment, approved by County Council
D. Composite Observation Drive Extended
E. Potential Locations to Increase Tree Preservation
F. Germantown College Facilities Master Plan
G. Bioscience Building Landscape Plan
H. Childcare Center Landscape Plan
I. Transportation Division Memorandum

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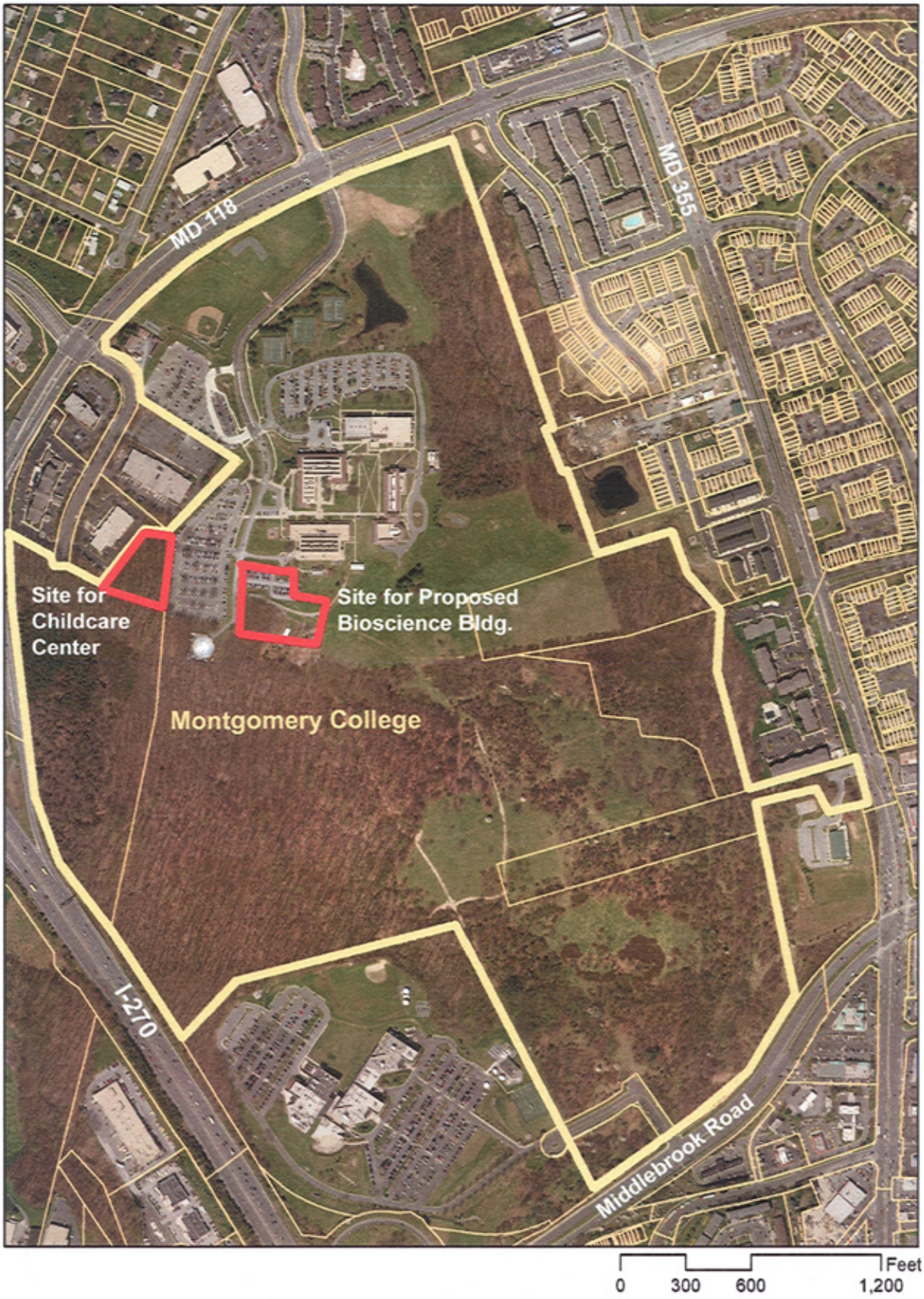
Aerial Vicinity Map

Attachment A



Proposed Site Plan

Attachment B

MONTGOMERY COLLEGE GERMANTOWN CAMPUS

MAY 2010

Attachment C

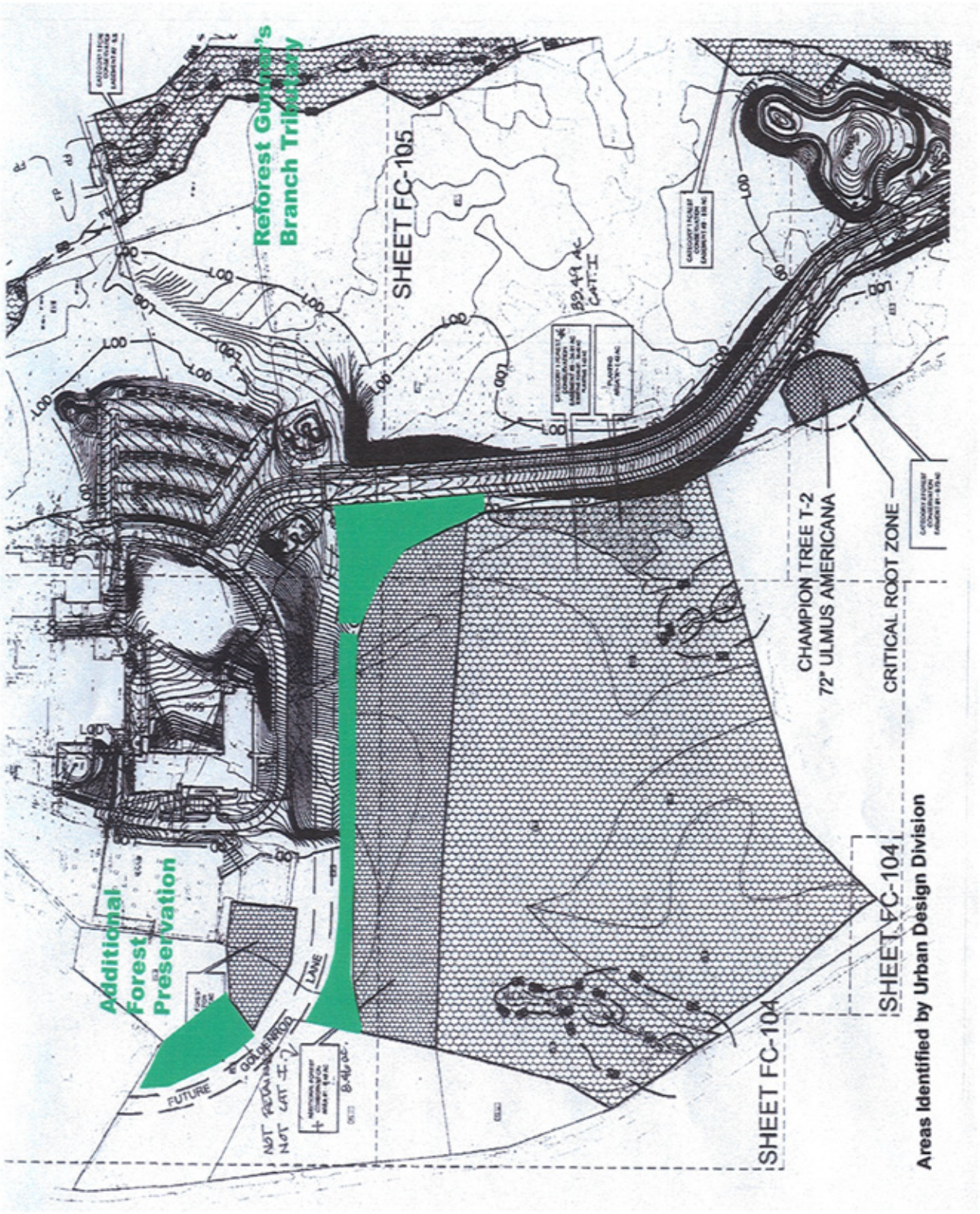
Observation Drive Extended, Council Approved

Attachment D

Composite Council Approved Observation Drive and Montgomery College Proposed Roadway Alignment

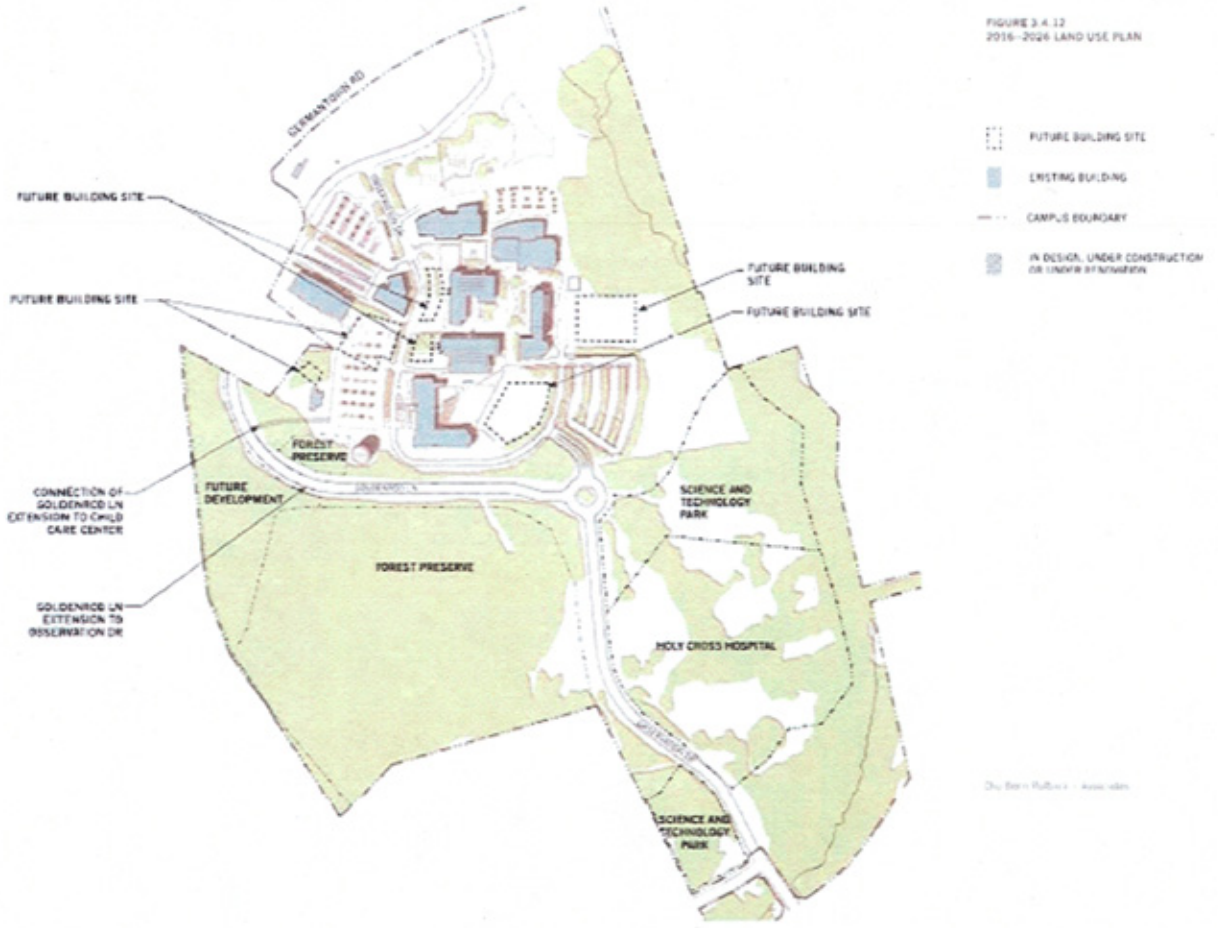
Potential Locations to Increase Tree Preservation

Attachment E



Attachment F

Montomgomery College 2006-2016 Land Use Plan



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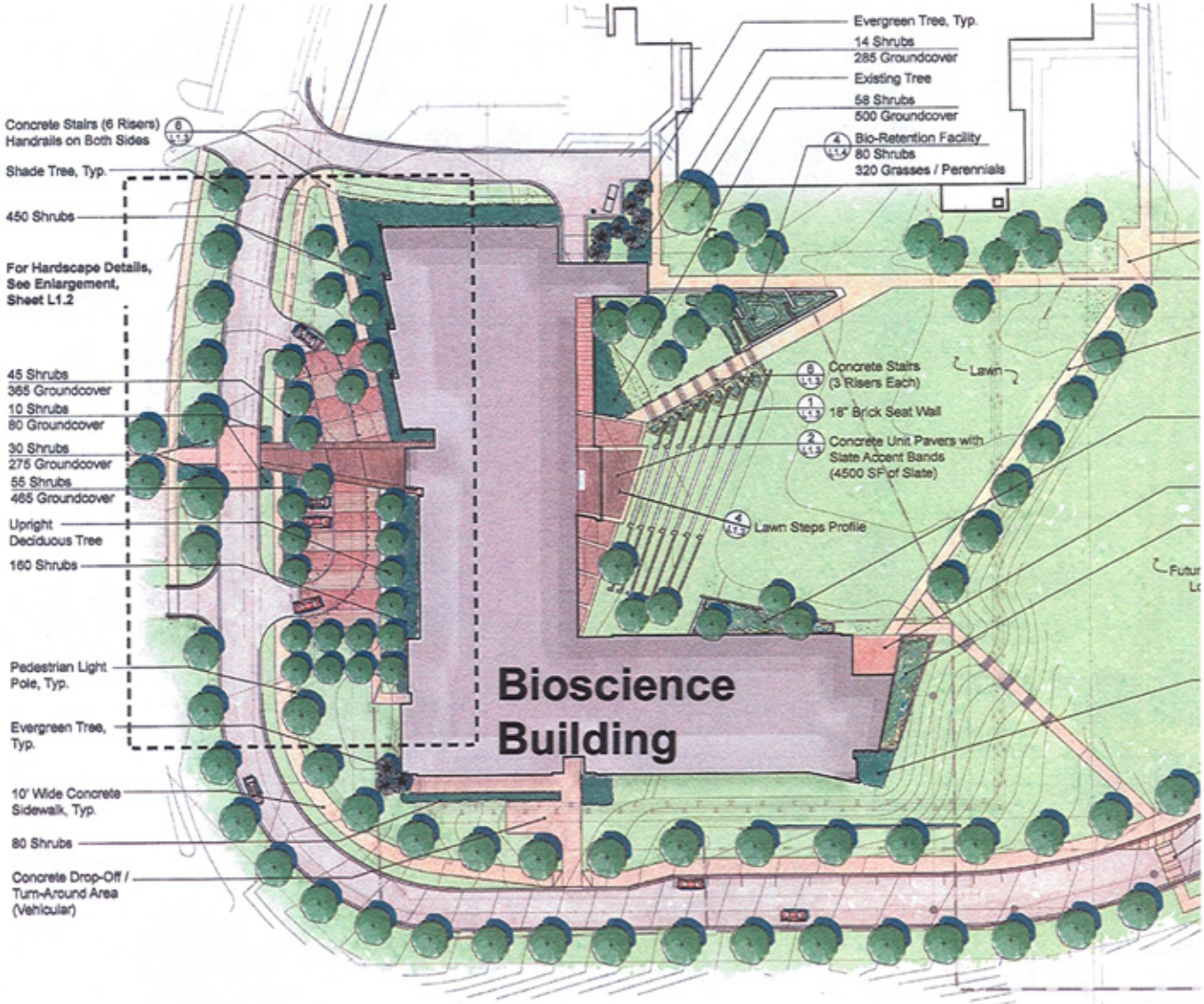
Bioscience Building Landscape Plan

Attachment G



1 **LANDSCAPE PLAN - WEST**

SCALE: 1"=30'

PLANT LIST (This Sheet)

QUANTITY	NAME	SIZE	ROOT	COMMENTS
102	Shade Tree	2 1/2"-3" Cal.	B+B	Full
10	Evergreen Tree	2 1/2"-3" Cal.	B+B	Full
1032	Shrub	30-36" Ht./Spd.	Cont.	3' O.C.
366	Bio-Retention Shrub	36" Ht./Spd.	Cont.	3' O.C.
2200	Groundcover	1 Qt.	Cont.	10" O.C.
1036	Grasses / Perennials	2 Qt.	Cont.	15" O.C.

Childcare Center Landscape Plan

Attachment H

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

February 18, 2010

MEMORANDUM

TO: Karen Kumm, Master Planner
Urban Design Division

FEB 18 2010

VIA: Shahriar Etemadi, Supervisor
Transportation Planning Division

FROM: Ki H. Kim, Planner/Coordinator
Transportation Planning Division KHK

SUBJECT: Mandatory Referral 09720-M-1
Montgomery College Germantown Campus Bioscience Education Center Project
Germantown East Policy Area

This memorandum presents Transportation Planning staff's review of the mandatory referral for the Montgomery College Germantown Campus Bioscience Education Center project. The subject mandatory referral includes a proposed 126,900 square feet of Bioscience Center, two child care facilities, a temporary parking lot, and extension of Observation Drive southward through the campus to Middlebrook Road. The Montgomery College Germantown Campus is located south of MD 118 and north of Middlebrook Road within the Germantown East Policy Area.

RECOMMENDATIONS

We have completed our review of the materials submitted for the subject mandatory referral and recommend that the Planning Board transmit the following comments to County:

1. Montgomery College shall request that the Montgomery County Executive include in the next round of Capital Improvement Program (CIP), necessary area roadway improvements to accommodate the proposed development as identified by the Local Area Transportation Review (LATR) test. The required intersection improvements include the following:

- Construct a second left-turn lane along westbound MD 27 onto southbound Observation Drive at the intersection of MD 27 and Observation Drive
- Restripe the northbound approach along Crystal Rock Drive to provide a shard left/through lane and a separate right-turn lane at the intersection of MD 118 and Crystal Rock Drive
- Restripe the southbound approach along Observation Drive to provide shared left/through/right-turn lane and a separate right-turn lane at the intersection of MD 118 and observation Drive
- Construct a second left-turn lane along eastbound Middlebrook Road onto northbound MD 355 at the intersection of MD 355 and Middlebrook Road

2. Montgomery College shall construct extension of Middlebrook Road as a four-lane arterial roadway in accordance with the Germantown Master Plan recommendation. The extension of Middlebrook Road southward through the campus to Middlebrook Road should be completed and open to traffic prior to release of building permit for the Bioscience Education Center development.

3. Montgomery College shall construct extension of Cider Press Place as a two-lane minor arterial roadway to connect MD 355 with the extended portion of Observation Drive. This improvement should be completed and open to traffic prior to release of building permit for any of the future campus buildings located south of Cider Press Place.

DISCUSSION

Site Access and Vehicular/Pedestrian Circulation

Access to Montgomery College campus is currently provided via Observation Drive which is a two lane roadway. The business portion of Montgomery College can only be accessed through Goldenrod Lane from MD 118, without any connection to the campus.

The proposed site plan for the subject Mandatory Referral includes extensions of 1) Observation Drive to connect MD 118 to Middlebrook Road and 2) Cider Press Place connecting MD 355 to the extended Observation Drive.

The Observation Drive extension is a master planned four-lane arterial roadway with bicycle lanes, sidewalks, and a shared use path. This roadway will provide both local and area wide needs, and facilitates future bus service and additional pedestrian and bicycle access. The proposed alignment of Observation Drive extension as shown on the Campus site plan is compatible with the master plan alignment.

The Cider Press Place extension is also a master planned two-lane minor arterial roadway. This roadway is needed to provide additional access point to the campus in order to support the proposed College Master Plan development. The alignment of Cider Press Place extension as shown on the campus site plan is also compatible with the master plan alignment.

Staff finds the proposed access points to the campus, as shown on the site plan, to be safe, adequate, and consistent with the master plan recommendation. Staff also finds that the internal vehicular/pedestrian circulation and bicycle accommodation as shown on the site plan to provide for a safe and adequate movement of vehicular, bicycle, and pedestrian traffic.

Local Area Transportation Review

A traffic study was submitted to determine the impact of the proposed development on area transportation system. Ten intersections were identified as critical intersections affected by the proposed Campus development and were examined in the traffic study to determine whether they meet the applicable congestion standard for this area. The congestion standard in the Germantown East Policy Area is 1,425 Critical Lane Volumes (CLV). The result of the CLV analysis is summarized in Table 1.

Table 1: Calculated Critical Lane Volume Values at Studied Intersections

Intersection	Weekday Peak Hour	Traffic Condition		
		Existing	Background	Total**
MD 27 & Observation Drive	Morning	815	1,499	1,331
	Evening	1,170	1,549	1,545
MD 118 & Crystal Rock Drive	Morning	1,038	1,108	923
	Evening	1,465	1,522	1,286
MD 118 & Observation Drive	Morning	748	1,264	1,390
	Evening	693	1,455	1,434
MD 355 & Middlebrook Road	Morning	986	1,038	1,050
	Evening	1,651	1,704	1,541
Middlebrook Road & Waring Station Road	Morning	910	910	936
	Evening	1,088	1,088	1,109
MD 118 & Aircraft Drive	Morning	901	992	1,001
	Evening	1,077	1,185	1,197
MD 118 & Goldenrod Lane	Morning	678	1,046	1,060
	Evening	775	1,258	1,265
MD 118 & MD 355	Morning	1,012	1,277	1,243
	Evening	1,304	1,216	1,234
MD 355 & Shakespeare Boulevard	Morning	1,012	1,014	1,019
	Evening	1,068	1,079	1,086
Middlebrook Road & Observation Drive	Morning	625	631	735
	Evening	582	585	631

** Total development conditions with indentified intersection improvements

As shown in the above table, all intersections are currently operating at an acceptable CLVs level of 1,425, except two intersections of MD 118/Crystal Rock Drive and MD 355/Middlebrook Road during the weekday PM peak hour. Under the background development (the existing traffic plus traffic from the approved/unbuilt developments), the following four intersections are projected to operate at unacceptable CLVs level during either the weekday AM or PM peak hours.

1. MD 27/Observation Drive
2. MD 118/Crystal Rock Drive
3. MD 118/Observation Drive
4. MD 355/Middlebrook Road

Under the total future development (the background traffic plus traffic from the site), with implementation of the intersection improvements identified by the applicant, all intersections would operate at either acceptable or better level of traffic conditions than the background development during both the weekday AM and PM peak hours. With implementation of the identified intersections improvements, this mandatory referral application meets the LATR requirements.

Staff recommends that Montgomery College requests that the Montgomery County Executive include the roadway improvements in the next round of Capital Improvement Program (CIP) to meet the requirement of LATR test for balancing the needed transportation system to accommodate additional on-campus developments.

Policy Area Mobility Review (PAMR)

The site is located within the Germantown East Policy Area where 100% of new trips must be mitigated as part of the PAMR requirements according to the Growth Policy. The traffic study includes several options to meet the PAMR requirements as listed below:

1. Pay the in-lieu fee of $11,000 per maximum site trip, totaling approximately 3 million dollar,
2. Pedestrian and bicycle improvements to existing facilities outside of the campus,
3. Providing additional transit facilities to get to/from the college, and
4. The proposed extension/new alignment of Observation Drive

As part of the transportation analysis of Germantown Master Plan Update Work in 2008, staff analyzed the PAMR mitigation impact of construction of Observation Drive as a four-lane arterial roadway southward to Middlebrook Road and found that the applicant's construction of this roadway provides balance between the proposed land use and transportation. Therefore, we have concluded that construction of extended Observation Drive by the applicant meets the PAMR requirements.

KK:tc