

### Montgomery County Planning Department the maryland-national capital park and planning commission

MCPB Item No. 8 Date: 01-10-13

### Rock Creek Forest Elementary School, Mandatory Referral, 2013014

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 Parag Agrawal, Area 1 Senior Planner, parag.agrawal@montgomeryplanning.org, 301-495-4621

 Parag Agrawal, Area 1 Acting Division Chief, robert.kronenberg@montgomeryplanning.org, 301-495-2187

Completed: 12/21/2012

### Description

Review of the Rock Creek Forest Elementary School modernization plan

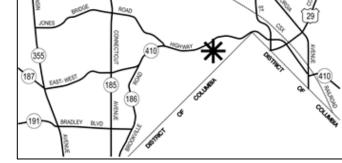
Address: 8330 Grubb Road, Chevy Chase, MD

Staff Recommendation: Approval to transmit comments to Montgomery County Public Schools.

Applicant: Montgomery County Public Schools

Date submitted: 11/01/2012

### Summary



This is a review of the Rock Creek Forest Elementary School modernization project (MR 2013014) located at 8330 Grubb Road in Chevy Chase. The Montgomery County Public Schools (MCPS) has plans to replace the existing one-story Rock Creek Forest Elementary School. The 7.9 acre overcrowded school site is zoned R-60. The existing building totals 54,522 square feet with a capacity of 310 students. There are 578 students currently enrolled. The proposed new building contains 98,000 square feet and is designed for a core capacity of 740 students.

Staff recommendations on the Preliminary Forest Conservation Plan are reviewed in a separate report. The Planning Board must take action on the Preliminary Forest Conservation Plan during the hearing, which is held jointly with the review of this Mandatory Referral.

### Recommendations

APPROVAL to transmit the following comments to the Montgomery County Public Schools (MCPS):

- Any mandatory referral submission for future improvements at the school must include a traffic study if those improvements will increase the school's student core capacity beyond 740 students.
- Move the sidewalk at the southwest corner to the back of the ramp at the Grubb Road proposed driveway, to keep the sidewalk at the same grade around the curve.
- Increase the width of the median refuge area for the Grubb road driveway to at least 6 feet.
- Move the sidewalk at the west corner to the back of the ramp at the Colston Drive proposed driveway, to keep the sidewalk at the same grade around the curve.

### I. PROJECT DESCRIPTION

The applicant, MCPS is proposing to replace the existing Rock Creek Forest Elementary School building, located at 8330 Grubb Road in Chevy Chase, with a new school building. The school property is approximately 7.9 acres in area and is bounded on the northeast by Grubb Road, on the northwest by Colston Drive, on the southeast by Blaine Drive, and on the southwest and southeast by one-family homes. The immediate neighborhood has a mixture of one-family homes, multiple-family homes, retail and religious buildings. The school is located in the North and West Silver Spring Master Plan area. A significant percentage of the school students reside north of East-West Highway. The feasibility study and the life cycle cost analysis were conducted by MCPS to evaluate the renovation of the existing facility compared with a totally new facility. The analysis revealed that due to the conditions of the existing facility and because of the cost to bring the existing building into compliance with code requirements, the most cost-effective modernization option is to demolish the existing building and to construct a replacement building on the site.

### Vicinity Map



### Neighborhood Photographs



Church located at the intersection of Grubb Road and Colston Drive



Rock Creek Village Condominiums at Grubb Road located directly across from the school



Shopping Center located at the intersection of Grubb Road and Washington Avenue



One-Family homes at Blaine Drive

### A. Existing School Building

The school site currently consists of an existing 54,522 square foot school building, paved driveways, a bus loop, parking for approximately 40 cars, plays areas and ball fields. The existing building was built in 1950, with additions built in 1953, 1977, 1989, and 1992. The one-story school has a capacity of 310 students; however the current enrollment is 578 students. Six relocatable classrooms on-site provide the needed teaching stations. The school's play fields that are on the western part of the site are also used by the community. Vehicular access to the school site is currently from Grubb Road and Blaine Drive. The bus loop has separate ingress and egress from Grubb Road. Staff parking and student drop-off are served by an entrance from Blaine Drive. The pedestrian building access from Blaine Drive is not ADA compliant.

### **B.** Proposed School Building

The Montgomery County Public Schools (MCPS) is proposing to replace the existing school building with a new 98,000 square foot building that will provide adequate teaching spaces and will update the school's interior layout. The new school will have a capacity for 740 students. To reduce the footprint and conserve open space, the classroom wing has three stories: one story up from the main level, and one story down. MCPS also plans to modernize the existing play fields located towards the western section of the site. On-site traffic circulation is designed to provide safer access to the school for pedestrians and to maximize on-site parking to minimize the overflow parking onto adjacent streets. Vehicular access to the school will be provided from Colston Drive and Grubb Road; pedestrian access is proposed from Blaine Drive. The bus loop will have ingress and egress from Colston Drive and the student drop-off will be served from Grubb Road. The layout will have on-site bus loading for 10 buses, a student drop-off lane, and approximately 100 on-site parking spaces. Existing and proposed sidewalks will connect the school to the neighboring residential communities. Sidewalks along Grubb Road, Colston Drive and Blaine Drive will be maintained and improved. A new walkway extending from the corner of Grubb Road and Colston Drive leads to the primary entrance of the building.

### **Existing School Building Images**



School entrance at Grubb Road



Parking area at Blaine Drive

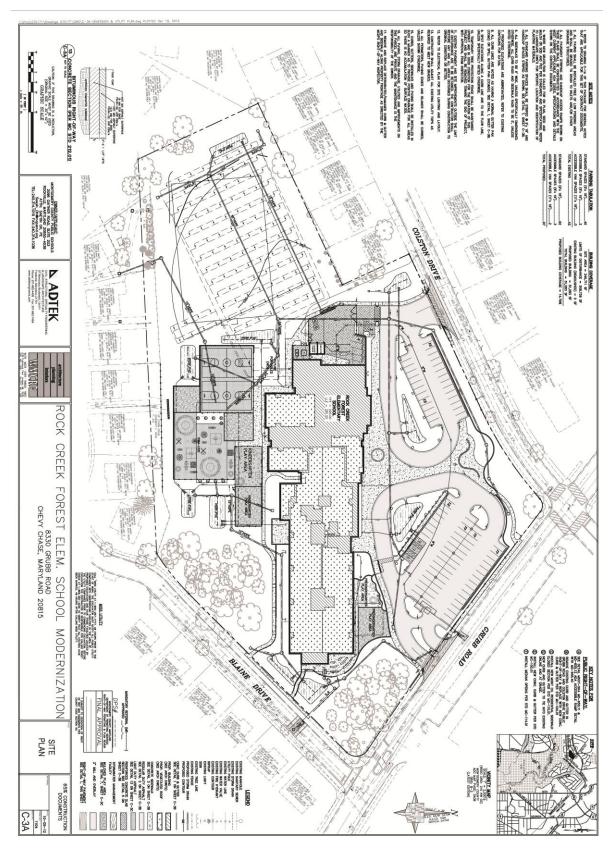


Pedestrian access from Colston Drive



Bus Loop from Grubb Road

### **Proposed School Site Plan**



### **II. ANALYSIS**

### A. Conformance with the Master Plan

The proposal is consistent with the vision for the community as expressed in the North and West Silver Spring Master Plan adopted in 2000. Adequate, safe and efficient pedestrian access to the elementary school is provided as the walkers will not have to cross any parking lots or driveways to reach the school front entrance. The school modernization project is compatible with the surrounding area. The Master Plan recommends providing easy bike and pedestrian connections to all neighborhood parks and community facilities.

### **B.** Conformance with the Development Standards

The site is zoned R-60. The following chart depicts the requirements of this zone. As submitted and shown on this chart, the new school will satisfy the requirements for the R-60 zone.

Development	Min/ Max Required	Provided	Applicable Zoning	
Standard			Provision	
Minimum Lot Area	6,000 sq ft (.206 acres)	7.9 acres	§59-C-1.322(a)	
Minimum Lot Width at Front Building Line	60 ft.	424' on Colston Drive and 432' on Grubb Drive	§59-C-1.322(b)	
Minimum Lot Width at Street Line	25 ft.	424' on Colston Drive and 432' on Grubb Drive	§59-C-1.322(b)	
Minimum setback Setback from Street	25 ft.	128' from Colston Drive and 98' from Grubb Road	§59-C-1.323(a)	
Minimum side Setback from adjoining lot	8 ft.	43' from Blaine	§59-C-1.323(b)(1)	
Minimum Rear Yard Setback	20 ft.	173'	§59-C-1.323(b)(2)	
Maximum Building Height	35 ft.	33'	§59-C-1.327	
Building Coverage	35 percent	15 percent	§59-C-1.328	
Parking Requirement	Not Specified	100 parking spaces will be provided		

### **C.** Transportation

Rock Creek Forest Elementary School is located along the west side of Grubb Road, which is a two-lane arterial between Lyttonsville Road to the north and Washington, D.C. line to the south. In the vicinity of the school, Grubb Road has a posted speed limit of 25 mph. The area is served by RideOn Routes 1 (along Grubb Road) and 11 (along East-West Highway) running between Silver Spring and Friendship Heights Metro Stations and Metrobus Routes J1, J2, J3, and J4 (along East-West Highway) running between Silver Spring and Bethesda Metro Stations. RideOn Route 1 has stops along the school frontage and the closest bus stop along East-West Highway is approximately 650 feet from the school.

The school is also bounded by Colston Drive and Blaine Drive that are both secondary residential streets and have their approaches to Grubb Road, STOP-sign controlled. Marked crosswalks are provided across all legs of the Grubb Road/Colston Drive intersection. An adult crossing guard is present at this intersection during both peak morning and afternoon periods. A crosswalk is also provided across Grubb Road with a median refuge area just north of Blaine Drive. Sidewalks currently exist along both sides of Colston Drive and Blaine Drive along the school frontage.

### Local Area Transportation Review

As shown in the Attachment 6: Transportation Memorandum, the capacity analysis presented in the traffic study indicated that under Total Traffic (i.e., Build) Conditions, CLV at the intersections would be below the applicable congestion standard for the Silver Spring/Takoma Park Policy Area (1,600 CLV). This mandatory referral therefore satisfies the LATR requirements of the APF test.

### **D. Environment**

### Leadership in Energy and Environmental Design (LEED) Certification

This project is being designed to achieve a LEED for Schools Silver rating with the potential of achieving a LEED for Schools Gold rating. Some of the sustainable aspects of the project include the following:

- Managing stormwater to reduce runoff quantity.
- Diverting construction waste from landfills that can instead be salvaged for reuse or recycled.
- Maximizing daylight in classrooms.
- Installing water conserving and low flow plumbing fixtures.
- Most of the roof will be vegetative; the other parts will have reflective roofing materials.
- Energy performance will substantially surpass current American Society of Heating, Refrigerating & Air-Conditioning Engineers (ASHARE) standards.

- Low emitting materials and finishes will be used to improve indoor environmental quality.
- Individual lighting and thermal climate controls for building occupants.

### Forest Conservation Law

The proposal is subject to Chapter 22A Montgomery County Forest Conservation Law. Staff recommendations on the Preliminary Forest Conservation Plan are reviewed in a separate memorandum to the Planning Board. The Planning Board should take action on the Preliminary Forest Conservation Plan during the hearing, which is held jointly with the review of this Mandatory Referral.

### Stormwater Management

The stormwater management concept plan for Rock Creek Forest Elementary School has been approved by the Department of Permitting Services (see attachment 7). The new stormwater management systems provide for both quantity and quality control measures on site using the most current environmental site design methodology. The stormwater management concept plan proposes to meet required goals by the use of micro filters, bio-swale and green roof.

### **III. COMMUNITY OUTREACH**

MCPS held five community meetings during the feasibility study phase and five community meetings were held at schematic design phase. All the meetings were well attended and included parents, neighborhood residents, school officials, project architects, and faculty members. In the community meetings three different options for school modernization were discussed. Demolition of the existing building was part of all the three options. Traffic circulation patterns were widely discussed in these community meetings. Community expressed the preference to have the bus loop on Colston Drive and have the student drop off loop coming from Grubb Road.

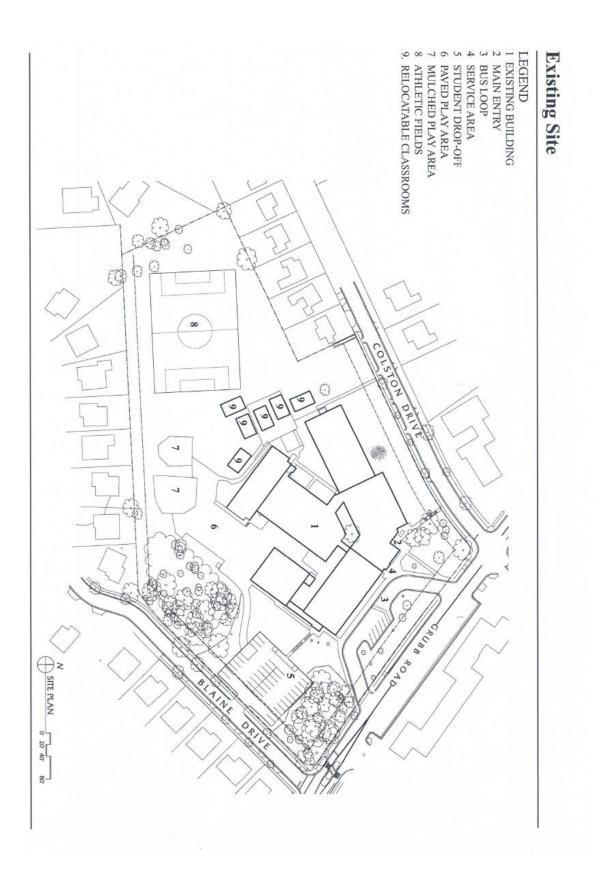
After receiving the Mandatory Referral and Forest Conservation Plan applications, the Planning Department staff notified via mail adjoining and nearby property owners and other interested parties of the submittal and invited comments. Staff did not receive any comments or requests for information during its review of the proposal.

### **IV. CONCLUSION**

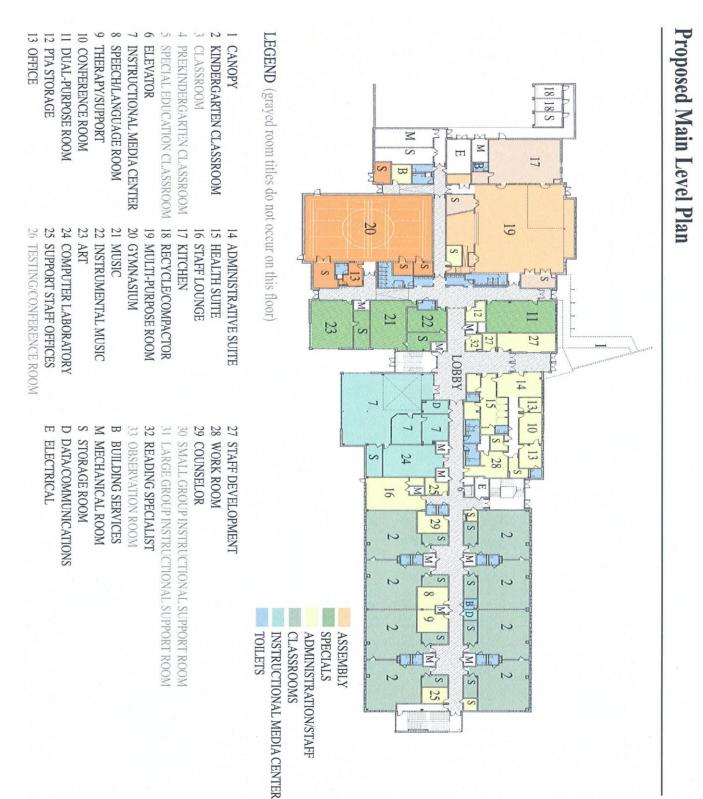
Based on the information provided by the applicant and the analysis contained in this report, staff concludes that new school building is compatible within its site context, meets the applicable standards, and is consistent with the goals and recommendations of the North and West Silver Spring Master Plan adopted in 2000. Staff recommends approval of the Mandatory Referral with comments at the front of this report to be transmitted to the MCPS.

### **V. ATTACHMENTS**

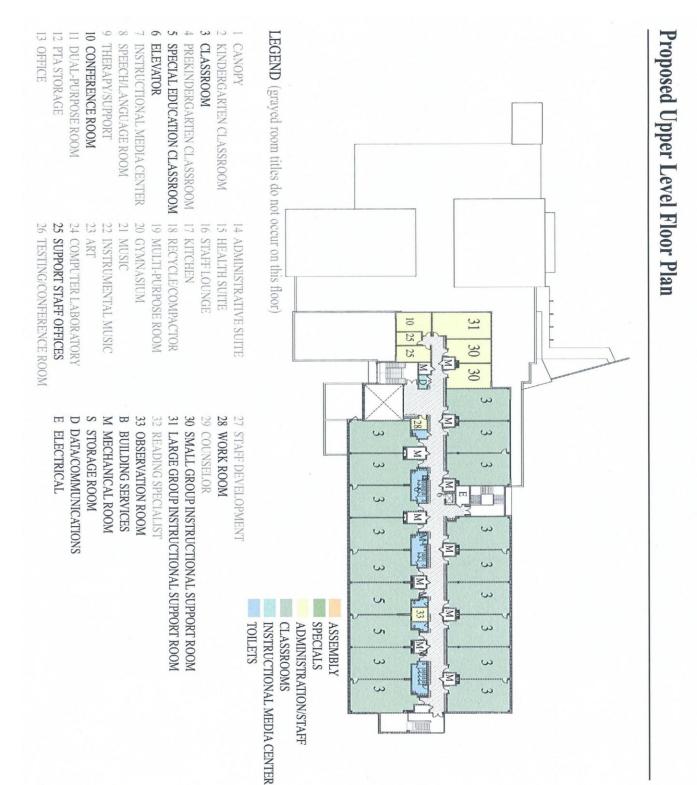
- 1. Existing School Site Plan
- 2. Proposed Main Level Plan
- 3. Proposed Upper Level Floor Plan
- 4. Proposed Lower Level Floor Plan
- 5. Proposed Elevations
- 6. Transportation Planning Memorandum, dated November 29, 2012
- 7. Stormwater Management Concept Approval, dated June 8, 2012



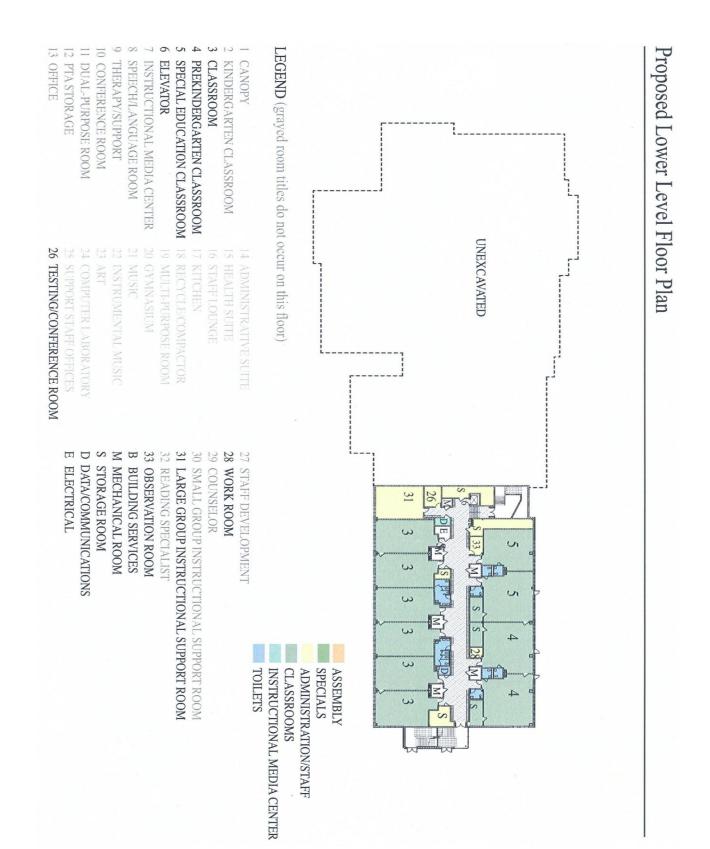
### **Attachment 2: Proposed Main Level**



### **Attachment 3: Proposed Upper Level**

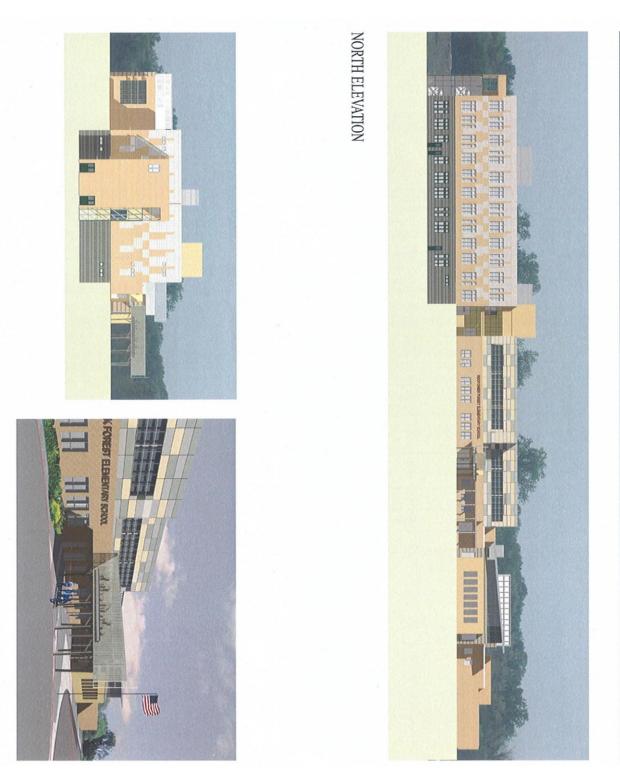


### **Attachment 4: Proposed Lower Level**



### **Attachment 5: Proposed Elevations**

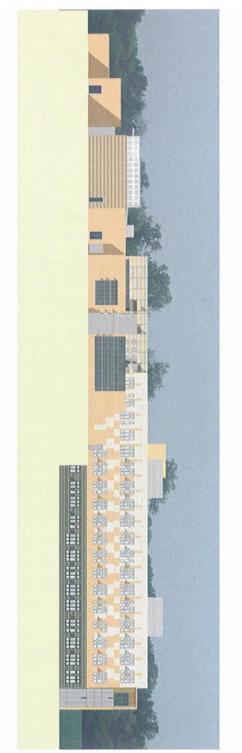




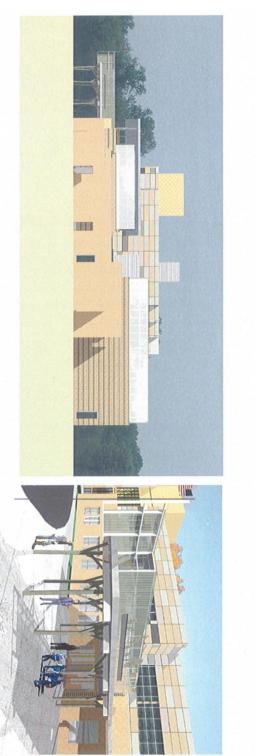
**Proposed Elevations** 

### MAIN ENTRANCE

# **Proposed Elevations**



## SOUTH ELEVATION



### MAIN ENTRANCE

WEST ELEVATION

### **Attachment 6: Transportation Planning Memorandum**

November 29, 2012

### MEMORANDUM

TO:	Parag Agrawal
FROM:	Cherian Eapen
SUBJECT:	Mandatory Referral No. MR 2013-014 Mandatory Referral for Rock Creek Forest Elementary School Modernization Project Montgomery County Public Schools ("Applicant") 8330 Grubb Road, Chevy Chase Silver Spring-Takoma Park Policy Area

This memorandum presents review of the mandatory referral submission for the modernization project at Rock Creek Forest Elementary School located at 8330 Grubb Road in Chevy Chase, within the Silver Spring-Takoma Park Policy Area. The modernization project involves demolition of the existing school building and constructing a replacement building with new access schemes on the site.

### RECOMMENDATIONS

Based on the review of the materials submitted for the subject mandatory referral, it is recommended that the following comments be transmitted to Montgomery County Public Schools (MCPS) by the Planning Board:

1. Any mandatory referral submission for future improvements at the school must include a traffic study if those improvements will increase the school's student core capacity beyond 740 students.

### DISCUSSION

### School Location, Area Land Uses, Roadway/Transportation Facilities, and Public Transit

Rock Creek Forest Elementary School is located along the west side of Grubb Road (assuming Grubb Road to be north-south), at 8330 Grubb Road in Chevy Chase, between East-West Highway (MD 410) to the north and Washington Avenue to the south. The State of Maryland and Washington, D.C. border is further south, approximately 600 feet from Washington Avenue.

Land use in the immediate area is primarily residential except for a small commercial center to the northeast corner of Grubb Road/Washington Avenue intersection and a church to the northwest corner of Grubb Road/Colston Drive intersection.

Grubb Road is a two-lane north-south arterial between Lyttonsville Road to the north and Washington, D.C. line to the south. In the vicinity of the school, the roadway has a posted speed limit of 25 mph; additionally, sidewalks are provided along both sides of the roadway. East-West Highway to the north of

the school is a four-lane divided east-west major highway with a shared-use path along its north side. The East-West Highway intersection with Grubb Road is signalized. Marked crosswalks with count-down pedestrian signals are provided across all legs of this intersection. Additionally, two adult crossing guards are present at the intersection during both peak morning and afternoon periods. To the south of the school, Washington Avenue is a two-lane primary residential street between Grubb Road to the southwest and East-West Highway and Porter Road to the northeast. At the Grubb Road/Washington Avenue intersection, the Washington Avenue approaches to Grubb Road are STOP-sign controlled. Both Colston Drive and Blaine Drive are secondary residential streets and has their approaches to Grubb Road STOP-sign controlled. Colston Drive has speed humps between Grubb Road to the east and East-West Highway to the west and has a posted speed limit of 25 mph. Marked crosswalks are provided across all legs of Grubb Road/Colston Drive intersection. An adult crossing guard is present at this intersection during both peak morning and afternoon periods. A crosswalk is also provided across Grubb Road with a median refuge area just north of Blaine Drive. Four-foot wide sidewalks currently exist along both sides of Colston Drive and Blaine Drive along school frontage. On-street parking is prohibited along the Grubb Road except for buses.

The existing lead-in sidewalks/pedestrian access to the school will be further enhanced with a new leadin sidewalk from the Grubb Road/Colston Drive intersection to the main entrance of the school.

The area is served by RideOn Routes 1 (along Grubb Road) and 11 (along East-West Highway) running between Silver Spring and Friendship Heights Metro Stations and Metrobus Routes J1, J2, J3, and J4 (along East-West Highway) running between Silver Spring and Bethesda Metro Stations. RideOn Route 1 has stops along school frontage and the closest bus stop along East-West Highway is approximately 650 feet from the school.

### School Capacity, Access, Circulation, and Parking

Rock Creek Forest Elementary School currently has capacity for 310 students, but serves a total of approximately 581 students. Once the school modernization project is completed, the school will have core capacity for 740 students, and is projected to have an enrollment of approximately 745 students.

Access to the school is currently from Grubb Road and Blaine Drive. The driveways along Grubb Road consist of a northern inbound only driveway and a southern outbound only driveway, which provides for a counter-clockwise in/out access loop for school buses circulating through the site. Access to the bus circulation loop is restricted to buses only between 9:00 a.m.-9:30 a.m. and 3:15 p.m.-3:30 p.m. The driveway along Blaine Drive provides access to a staff/visitor parking lot, which also function as the parent drop-off/pick-up circulation loop. Several parents were also observed to drop-off/pick-up their children along Grubb Road and Colston Drive during the morning and afternoon school peak-hours.

The school modernization project will change the current school access and circulation scheme. The project will provide for a new counter-clockwise direction school bus drop-off/pick-up loop and circulation area and parking to the north of the proposed new school building off Colston Drive and a new parking lot and parent drop-off/pick-up and circulation area to the front of the school off Grubb Road.

Currently, there are 42 parking spaces at the school. The modernized school will have a total of 97 parking spaces (including five handicapped-accessible spaces) on the school property. Of this, 63 parking spaces will be located to the front of the school and 34 parking spaces will be located to the north of the

school.

### Adequate Public Facilities Review

A traffic study was submitted for the subject mandatory referral since the proposed school modernization project was estimated to generate **30** or more additional peak-hour trips during the typical weekday morning and/or evening peak periods.

The consultant for the Applicant submitted a traffic study (dated April 3, 2012) that presented trafficrelated impacts for the school with an expected future enrollment of 745 students (i.e., 164 additional students over the current enrollment of approximately 581 students) during the weekday morning and afternoon peak-periods. Review of the above traffic study indicated that the study complied with the requirements of the *LATR/PAMR Guidelines* and the traffic study scope developed for the project.

Based on trip generation data collected at the existing school, the study estimated that increase in school enrollment to 745 students would generate 98 additional peak-hour trips during the morning school peak period and 55 additional peak-hour trips during the afternoon school peak period. The trip generation summary for the school is presented in Table 1.

### TABLE 1 SUMMARY OF TRIP GENERATION ROCK CREEK FOREST ELEMENTARY SCHOOL SCHOOL MODERNIZATION PROJECT

Trip Generation		Morning School Peak-Hour			Evening School Peak-Hour		
		Out	Total	In	Out	Total	
Trip Generation – Current Enrollment (581 students) Per Student Trip Rate	183 0.31	159 0.28	342 0.59	93 0.16	90 0.16	183 0.32	
Trip Increase (164 students)	48	50	98	26	29	55	
Trip Generation – w/Anticipated Future Enrollment (745 students)	231	209	440	119	119	238	

Source: Rock Creek Forest Elementary School Traffic Study. Street Traffic Studies, Ltd., April 3, 2012.

Note: Trip estimates are based on morning and evening school peak-hours of 8:30 a.m. – 9:30 a.m. and 3:15 p.m. – 4:15 p.m.

### • Local Area Transportation Review

A summary of the capacity/Critical Lane Volume (CLV) analysis results for intersections included in the traffic study for the weekday morning and afternoon school peak-hours is provided in Table 2.

As shown in Table 2, the capacity analysis presented in the traffic study indicated that under Total Traffic (i.e., Build) Conditions, CLV at the intersections would be below the applicable congestion standard for the Silver Spring/Takoma Park Policy Area (1,600 CLV). The mandatory referral therefore satisfies the

### LATR requirements of the APF test.

### TABLE 2 SUMMARY OF CAPACITY CALCULATIONS ROCK CREEK FOREST ELEMENTARY SCHOOL SCHOOL MODERNIZATION PROJECT

	Traffic Conditions					
Intersection	Existing		Background		Total (Build)	
	AM	РМ	AM	PM	AM	РМ
East-West Hwy/Grubb Rd	1,059	897	1,076	920	1,110	939
Grubb Rd/Colston Dr	413	333	421	354	471	382
Grubb Rd/School Exit (Existing)	307	262	327	282		
Grubb Rd/School Drwy (Proposed)					406	325
Grubb Rd/Blaine Dr	429	237	437	258	273	228
Grubb Rd/Washington Ave	326	309	334	319	346	325
Blaine Dr/School Drwy (Existing)	232	63	232	63		
Colston Dr/School Drwy (Proposed)					83	59
Colston Dr/Ellingson Dr	87	76	87	76	87	76
	- 57	,0	07	,0	57	70

Source: Rock Creek Forest Elementary School Traffic Study. Street Traffic Studies, Ltd., April 3, 2012.

Notes: Analysis based on morning and evening school peak-hours of 8:30 a.m. – 9:30 a.m. and 3:15 p.m. – 4:15 p.m.

Congestion Standard for Silver Spring/Takoma Park Policy Area: 1,600 CLV

### Policy Area Mobility Review

To satisfy the PAMR requirements of an APF test, the Silver Spring/Takoma Park Policy Area require mitigation of 5 percent of new trips generated by a use.

Trip generation data collected at the Rock Creek Forest Elementary School as part of the traffic study indicate that the morning peak-hour trip generation rate for the school (i.e., 0.59 trips per student) is approximately 36 percent lower than the trip generation rate included in the *LATR/PAMR Guidelines* for private schools with Grades K through 8 (which is 0.92 trips per student). Staff therefore finds MCPS to be achieving at least 36 percent trip mitigation at the school, primarily through bussing of students to the school. The mandatory referral therefore satisfies the PAMR requirement of the APF test.

Attachment 7



DEPARTMENT OF PERMITTING SERVICES

Isiah Leggett County Executive Diane R. Schwartz Jones Director

June 8, 2012

Geoff Campbell, RLA ADTEK Engineers, Inc. 97 Monocacy Blvd., Unit H Frederick, MD 21701

Re: Stormwater Management *CONCEPT* Request for Rock Creek Forest Elementary School SM File #: 242459 Tract Size/Zone: 7.95 Ac./R-60 Total Concept Area: 6.77 Ac. Lots/Block: 15-22 / I (eye) Watershed: Lower Rock Creek

Dear Mr. Campbell:

Based on a review by the Department of Permitting Services Review Staff, the stormwater management concept for the above mentioned site is **acceptable**. The stormwater management concept proposes to meet required stormwater management goals via ESD to the MEP, by the use of micro-biofilters, bio-swale, and green roof. Due to insufficient storm drain capacity ten year control is also provided.

The following **items** will need to be addressed **during** the detailed sediment control/stormwater management plan stage:

- 1. Prior to permanent vegetative stabilization, all disturbed areas must be topsoiled per the latest Montgomery County Standards and Specifications for Topsoiling.
- 2. A detailed review of the stormwater management computations will occur at the time of detailed plan review.
- 3. An engineered sediment control plan must be submitted for this development.
- 4. All filtration media for manufactured best management practices, whether for new development or redevelopment, must consist of MDE approved material.
- 5. The grass swale that is proposed may be used for conveyance but may only be used as stormwater management for linear projects (i.e. roads). You may over-compensate in other areas as long as you don't exceed the one year volume.
- 6. Provide access to all structures per MCDPS requirements.
- 7. The green roof will be a minimum of 4" thick and will cover a minimum of 29,927 square feet. This must be designed by a professional with green roof experience. Additional green roof may be added at design.
- 8. Green roof areas are shown as not draining to additional ESD structures. Please provide copy of mechanical roof drain schematic profile showing where the green roofs drain.

<sup>255</sup> Rockville Pike, 2nd Floor • Rockville, Maryland 20850 • 240-777-6300 • 240-777-6256 TTY www.montgomerycountymd.gov



This list may not be all-inclusive and may change based on available information at the time.

Payment of a stormwater management contribution in accordance with Section 2 of the Stormwater Management Regulation 4-90 is not required.

This letter must appear on the sediment control/stormwater management plan at its initial submittal. The concept approval is based on all stormwater management structures being located outside of the Public Utility Easement, the Public Improvement Easement, and the Public Right of Way unless specifically approved on the concept plan. Any divergence from the information provided to this office; or additional information received during the development process; or a change in an applicable Executive Regulation may constitute grounds to rescind or amend any approval actions taken, and to reevaluate the site for additional or amended stormwater management requirements. If there are subsequent additions or modifications to the development, a separate concept request shall be required.

If you have any questions regarding these actions, please feel free to contact David Kuykendall at 240-777-6332.

Sincerel

Richard R. Brush, Manager Water Resources Section Division of Land Development Services

RRB: tla CN242459 Rock Creek Forest Elementary School.DWK

cc: C. Conlon SM File # 242459

ESD Acres:	6.77
STRUCTURAL Acres:	6.77
WAIVED Acres:	0.00