



MONTGOMERY COUNTY PLANNING DEPARTMENT

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

MCPB
Item # 7
4/08/10

March 31, 2010

MEMORANDUM

TO: Montgomery County Planning Board

VIA: John Carter, Chief *JAC*
Urban Design and Historic Preservation Division

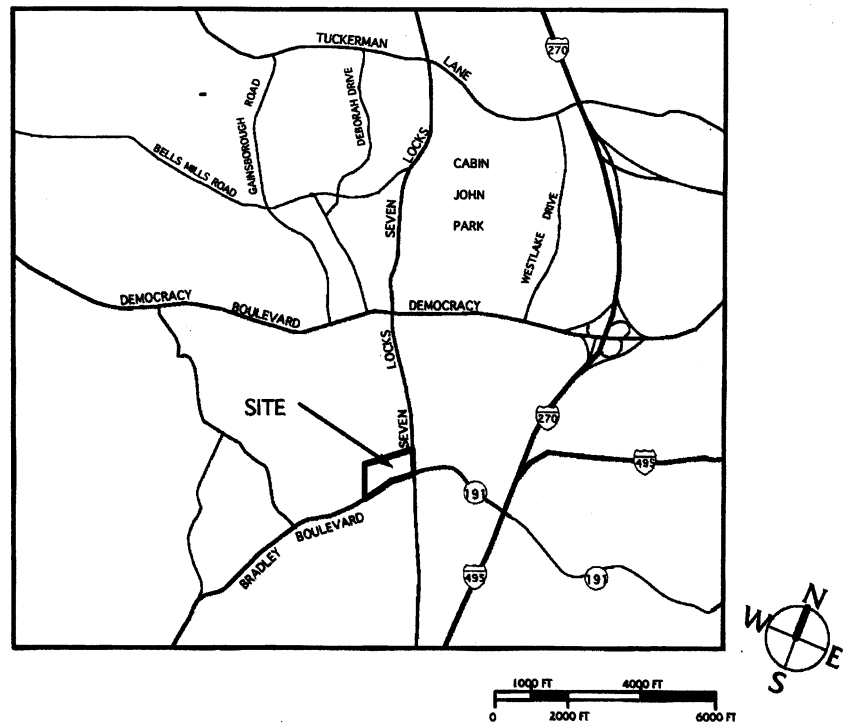
FROM: Mary Beth O'Quinn, *MBO*
Planner Coordinator (301.495.1322)
Urban Design and Historic Preservation Division

SUBJECT: Mandatory Referral No. 09736-MCPS-1: Seven Locks Elementary School
School Replacement Facility Project
9500 Seven Locks Road, Bethesda, R-200 Zone, Potomac Subregion Master Plan

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

1. Stormwater Management: Comply with conditions of Stormwater Management Concept Approval issued by the Montgomery County Department of Permitting Services.
2. Transportation: Any mandatory referral submission for future improvements at the school must include a traffic study if those improvements will increase school's student core capacity beyond 640 students.
3. Environmental
 - a. Approval of Final Forest Conservation Plan consistent with the approved Preliminary Forest Conservation Plan. (See Mandatory Referral 09726-MCPS-1, Forest Conservation Plan.)
 - b. Investigate the use of native plants as landscaping and minimize use of non-natives.
4. Pedestrian Safety
 - a. Provide the following revision to the landscape/pedestrian circulation plan to achieve adequate pedestrian safety: Shift parking spaces northward, or eliminate one parking space to allow the straight alignment of the pedestrian (student) crosswalk, with a shorter, more direct path through the surface parking area. [See Illustration below, page 13.]
 - b. Provide striped cross walks across all curb cuts along the Seven Locks Road frontage. Dimension according to the future specifications for the shared-use path; provide signage for the main pedestrian site entries;
 - c. Eliminate the pedestrian walk that adjoins the retaining wall and ends at the loading dock, along the north property boundary;
 - d. Provide a decorative, protective fence, approximately 36 inches in height, to screen the head-in parking spaces facing Seven Locks Road; fence design should provide for a railing and solid, opaque area to screen headlights and protect parking cars from bicycle intrusions or falls from the proposed bike path;

- e. MCPS should coordinate with the Montgomery County Department of Transportation (DOT) in the planning, design and construction of the shared-use bike path proposed for the subject frontage;
 - f. MCPS should discourage any parent drop-off/pick-up of students along Seven Locks Road and other neighboring streets.
5. Site Design, Landscaping and Lighting: The Landscape Plan should be revised to provide the following:
- a. Four additional shade trees along the Seven Locks Road frontage; five shade trees along the Bradley Boulevard frontage; three additional ornamental trees and foundation plantings to screen the front of the storage area façade;
 - b. Two additional bike racks located near the ball fields to accommodate weekend and evening community events.
 - c. Terrace a portion of the retaining wall that lines the bus drive aisle to modulate the scale; vary the materials/colors;
6. Building Design: Considerations during the bidding process should strive to retain these Add-Alternate building design elements:
- a. Provide a plan for retaining and restoring the Canal/Locks murals should project budget allow;
 - b. If possible, provide canopies at the bus loop and main entry for weather protection;
 - c. Eliminate chain link fencing that faces Seven Locks Road.



INTRODUCTION

Project Summary

The applicant, the Montgomery County Public Schools (MCPS) proposes modernization of the existing Seven Locks Elementary School, located at the northwest quadrant of the intersection of Seven Locks Road and Bradley Boulevard in the Potomac Subregion planning area. The project will replace the existing building entirely, reconfigure the parking lot and circulation patterns, and replace the ball fields.

The 9.98-acre site adjoins the Mater Dei School to the north, and is surrounded by single-family detached housing on the west and northwest site boundaries. The site features approximately 475 feet of frontage on the west side of Seven Locks Road and 739 feet along Bradley Boulevard. The site lies about ½ mile from the I-270/Beltway to the east.

The facility is part of the Churchill Cluster that includes the Cabin John Middle School as the receiving facility. Current enrollment for the academic years numbers 281 students, with 22 faculty members and eight support staff FTE. There are currently two re-locatable classrooms in use at the school.

The existing structure is built to 29,190 square feet. Constructed in 1964, the building's structural system was fabricated as masonry, bearing-wall structure that supports a wood truss roof framing system and a steel joist, re-enforced slab floor system. Fenestration consists of single-glazed windows with minimal insulation. The building was evaluated for the feasibility of renovation or additions to eliminate the use of portable classrooms and to bring the structure into compliance with the building code and Montgomery County's Education Facility Specifications. Specific attention was directed to providing new energy efficient mechanical and electrical systems with adequate floor-to-ceiling height required for such systems. Within the consideration of a 35-year life cycle cost analysis (that evaluated modernization of the existing facility compared with a totally new facility) the analysis demonstrated an approximate savings in favor of the new, two-story replacement facility.

Classes at Seven Locks Elementary School will be relocated to the Radnor Center prior to the beginning of construction; therefore, the proposed modernization will have no impact on school operations. The design will encourage a flexible approach that accommodates the educational programs and maximum connectivity to the surrounding physical environment.

Site

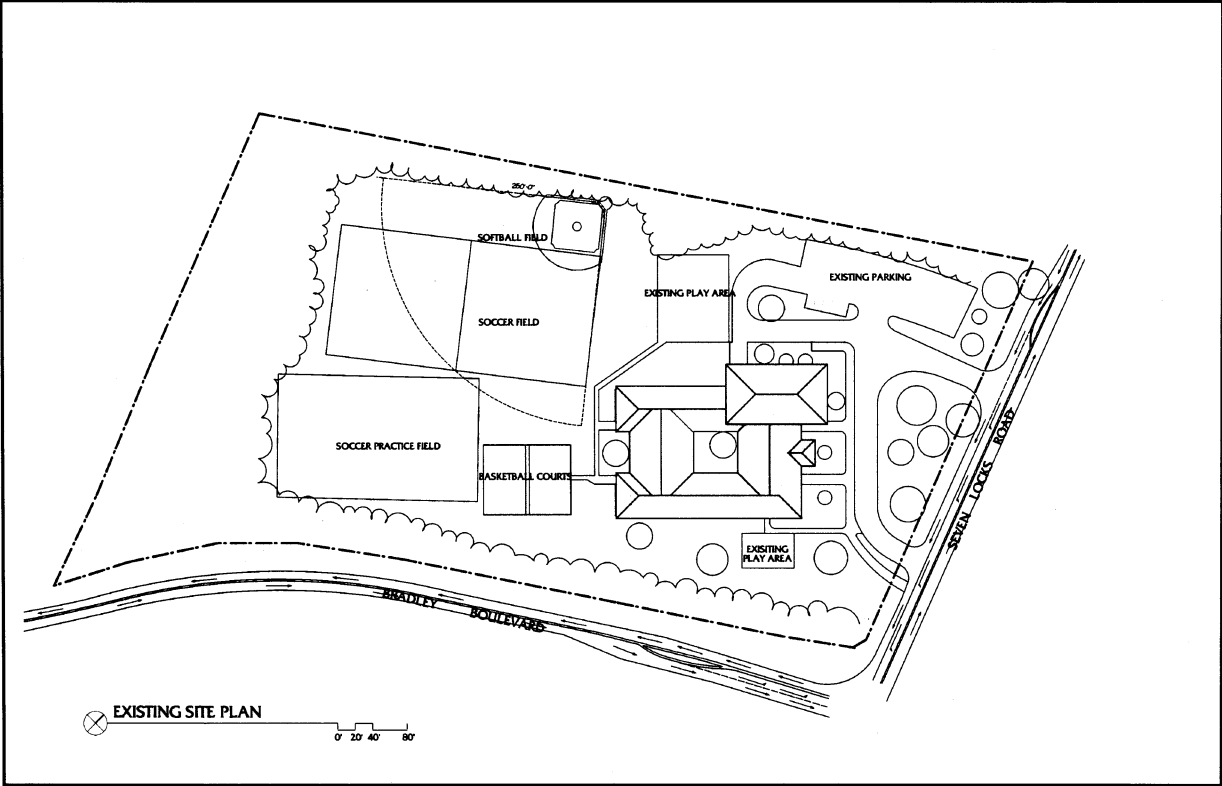
Seven Locks Elementary School is surrounded by the single-family detached residential neighborhoods of Laurel Hill, Ashleigh, Rose Hill Estates, and Smithfield, zoned R-200. The neighborhoods feature large lots with mature tree stands and attractive understory vegetation. The site is located equidistant between two extensive land tracts: the Bethesda County Club to the east, and the Cabin John Creek Park, to the west. Directly adjoining the site on the north is the Mater Dei School, to the west and northwest, residential lots. Across Seven Locks Road to the east is a Verizon facility; across the intersection is Emmanuel Lutheran Church, while south of Bradley Boulevard are residential lots that comprise the Laurel Hill subdivision.

The site itself, a parallelogram in shape, is generally flat, having been graded for the 1964 school construction. Bounded on the east by Seven Locks Road and on the south by Bradley Boulevard, there are moderately steep slopes on the west and south adjoining the residential lots. Outdoor play fields occupy the western half of the site, 2-4 feet higher in elevation than the grade of the street frontage, directing run-off toward the street. Like the surrounding residential properties, the site is zoned R-200.



The 9.98-acre property features 1.5 acres of forestation. Impervious area constitutes 2.4 acres, or 24 percent of the site. Three paved areas for vehicular service are provided: one, a dedicated “horseshoe” loop with two curb cuts for one-way bus and auto traffic, drop-off/pick-up that serves the building entrance. There is a surface parking area for 46 cars connected to the north side of the traffic loop; this area includes the two accessible parking spaces and a loading dock on the north side of the building.

The widened open space to the rear of the lot is utilized for outdoor play, soccer and softball fields; this far rear area is further defined by its topography, slopes that descend 28 feet to the adjoining lots of Smithfield Subdivision. The primary forestation area is located within the sloped areas that wrap the western and southern property boundaries, hugging the right-of-way along Bradley Boulevard, at the site’s lowest topography. The stand contains mature trees of varied species: red maple, black cherry, tulip poplar, sycamore, red oak, and locust. A number of significant trees, primarily red maples 24-34 inches in caliper, flank the rear and south lot lines.



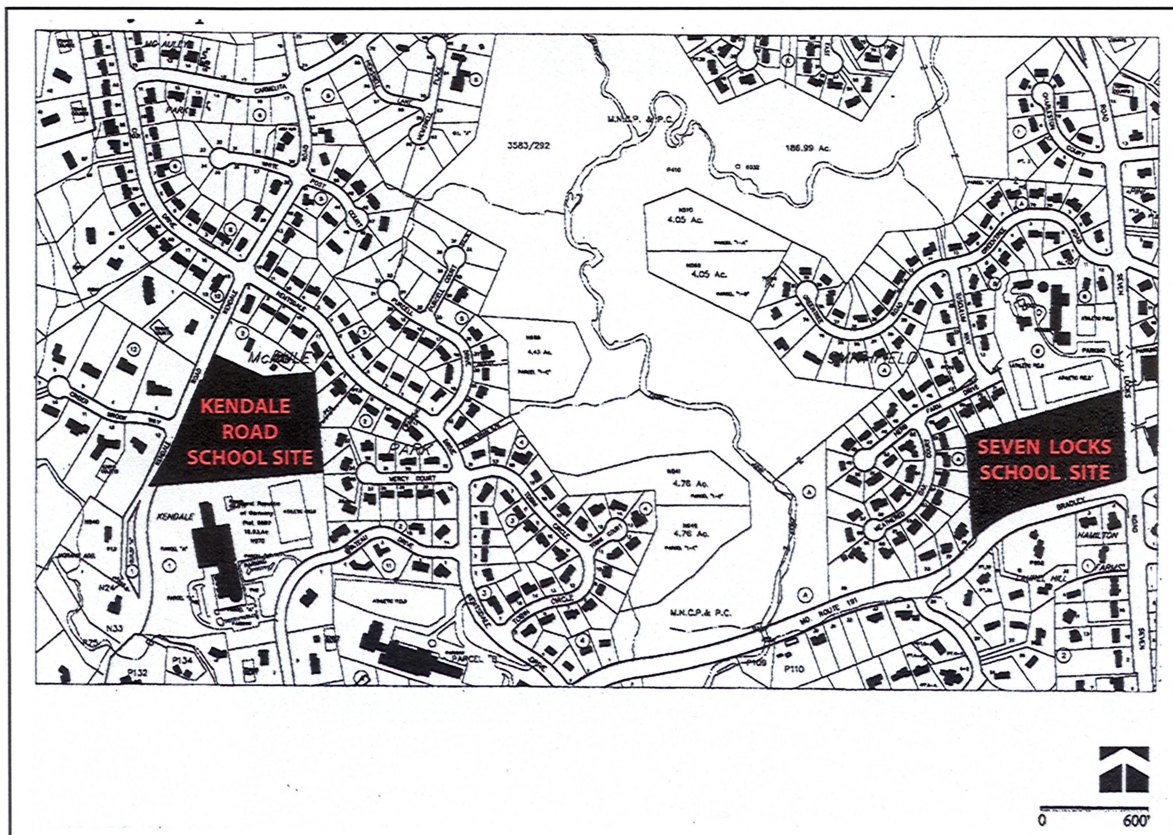
The existing Seven Locks School: 20,100 square feet with 46 parking spaces. Two portable classrooms are currently in use. The new facility plan will feature redesigned play areas, with dedicated space for the lower grades.

Previous Facility Plans

In 2005, Montgomery County Public Schools proposed a replacement for the existing Seven Locks Elementary School at a new 10- acre site on the east side of Kendale Road, opposite Crider Brook Way, and adjoining the German School on its north side. The 2005 facility plan proposed to provide teaching spaces for an initial capacity of 558 students with core spaces to support 740 students. This replacement proposal generated significant controversy, with community concerns about traffic, student safety, and problematic site access. Further concerns addressed the scale and size of the proposed structure relative to its site, along with the challenging topography requiring substantial engineering and infrastructure accommodation for storm water and flood control, road widening, and grading to allow sufficient surface parking supply.

Neighborhood residents and community associations also voiced considerable concern over the loss of the existing school site (located at 9500 Seven Locks Road), noting, “. . . there is great concern about losing the heart of the Seven Locks neighborhood. The elementary school is not only our valued school, but the main community center and the only large recreation space within walking distance for neighborhood children. We think that a sense of community is important for the families in our close-knit community.”

Subsequently, the Kendale Road design was bid and ready for construction. However, additional funding due to a rise in construction costs required County Council approval. The County Council did not approve additional funding; an alternative plan accelerated the Bells Mill ES modernization schedule so that the design for Kendale Road was instead employed for Bells Mill. The Council also agreed to modernize the Seven Locks ES at its existing site.



Description of the Project

MCPS proposes to replace the existing school and provide teaching spaces to support functions for an initial enrollment of 410 students that will expand to accommodate 640 students under the full master planned capacity. The proposed structure, with program spaces for Kindergarten through fifth grade, includes two full stories and a partial third story.

Seven Locks Elementary School: Current and Future Capacity			
Development Data	Existing Facility	2005 Proposal	Current Proposal
Lot Acreage	9.98	10.5	9.98
Lot Square Footage	434,729	459,390	434,729
Impervious Area	2.4 acres	3.5 acres	3.4 acres
Building Square Footage	29,100	68,000	65,500
Student Enrollment Current	281	na	na
Student Full Capacity	251	740	640
Master Plan Capacity	na	740	640
1st Year Capacity	na	558**	410**
Full Time Staff	24	56**	40**
Part Time Staff	13	25**	20**
Volunteers - part time, daily	20	na	na
Parking: Staff/Stud./Visitor	47	85	71
Parking: Handicapped	2	4	4
Bus Parking Full Size	5	9	6
Bus Parking Spec Educ	0	na	TBD
Hours of Operation			
School Day	M-F 8:50am - 3:05pm		M-F 8:50am - 3:05pm
Evening*	M-F 3:15pm - 4:15pm		M-F 3:15pm - 4:15pm
Weekends ¹	Community Use		Community Use

1 Site amenities are used two weekends per month for X groups for full days Saturday/Sunday. The community uses site amenities.

** During the week, community groups may use facility until 9:30 pm*

*** Estimated projections*

TBD: Special education program requirements have not been determined at this time

Architectural Program: The new addition will provide for 24 new teaching stations: 14 classrooms for grades 1-5 and four Kindergarten classrooms. The school philosophy of adaptable classrooms seeks to achieve maximum flexibility for forming varied-size groups of students, presentation formats, and access to alternative media and resources, music and art, special education facilities, and student counseling space. Staff and administrative support spaces are strategically located throughout the school to enhance visual proximity, accessibility and security. The proposed expansion design provides for these key interior program spaces:

Seven Locks Elementary School Replacement Project 2010

Architectural Program: Teaching Stations, Educational Space, Outdoor Facilities

Classrooms	24	Support Space	
Pre-Kindergarten	0	Special Education Resource Room	0
Kindergarten	4	ESOL	1
Classrooms Grades 1-5	14	Therapy/Support Room	1
Special Education Classrooms	2	Speech and Language	1
Computer lab	1	Reading Initiative	0
Music	1	Workroom	2
Instrumental Music	1	Reading & Language Arts	1
Art	1	Reading Resource Room	1
Core Facilities		Testing/Conference Room	1
Administrative Suite	1	Instructional Data Assistant	1
Health Suite	1	Staff Offices	6
Multi-purpose Room	1	Staff Lounge	1
Kitchen	1	Facilities Management	0
Instructional Media Center	1	Building Services	1
Gymnasium	1	Trash Compactor Room	1
		General Storage	4
Athletic Facilities		Recycling Room	1
Outdoor Soccer -	45,969 SF		
Indoor (Gym) -	3,700 SF		

Site Design: Site design for the replacement school features a structure of “double square” plan, inserted onto an existing flat grade at an angle in relation to Seven Locks Road. Numerous and complex program requirements dictate this puzzle-fitting of site pieces of which vehicular circulation is most demanding, necessitating a 300-linear foot retaining wall, up to 9 feet in height. The building form and its relation to the street recalls its predecessor, positioned at an angle to the right-of-way and the intersection. It is a placement, however, that is consistent with other surrounding institutional and commercial settings in the vicinity, and observes the platting patterns in the area, “completing” the pattern by validating the prevailing figure ground.

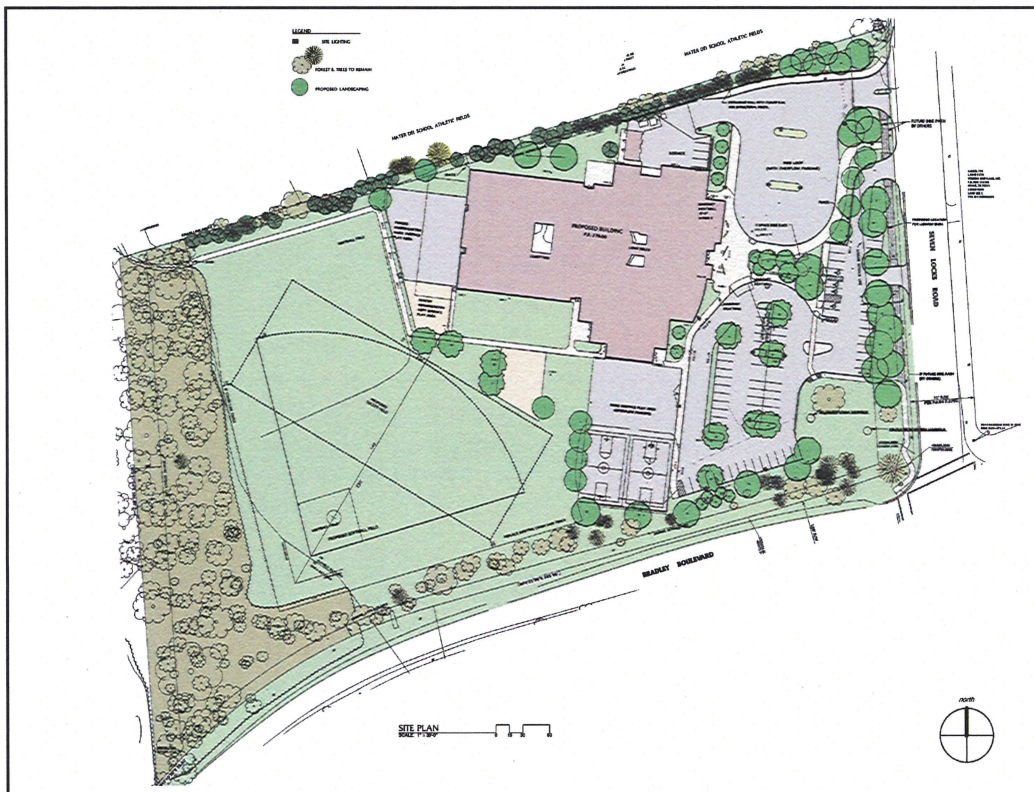
The double-plan is hinged by transverse circulation corridor that straddles the two volumes and bisects the massing by program: the 1-story “public” spaces, administration, services, music/art, and appended gymnasium define the street front “square,” while the two-story “private” classrooms, organized around a double loaded corridor define the rear “square.” A central spine directs circulation for the entry “square,” which, in its extension reaches to connect to the building entrance, further articulated by the public plaza space which forms the public street façade of the complex.

The internal spine articulates the building's main entrance, formally addressing the street and engaging the hardscaped almost-symmetric plaza. This arrangement successfully achieves the critical program task of collecting the pedestrian traffic that arrives separately: the school bus traffic and the parent auto traffic, and safely sorting the pedestrian movement toward the main points of entry.

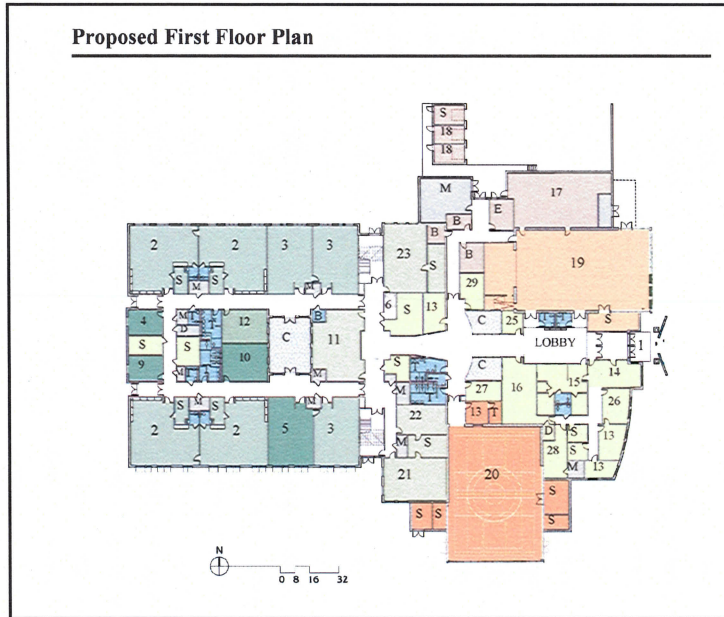
Efficient site design utilizes significant areas of paving, such as the surface parking, basketball courts, and hardscape play areas for underground stormwater conveyance; geothermal drilling locations are also considered with respect to the site layout. Softscaped, mulched play areas are proposed for lower grade outdoor play. The site design maintains the existing pedestrian path across the rear of the site that connects to the Smithfield neighborhood. The site plan provides, in accordance with MCPS policy, adequate area for five outdoor Learning Cottages (portables).

The scheme's predominant strength is its rational organization—that is, it sorts the required programmatic elements into a logical whole, maximizing proximal adjacencies, and making the arrangement fit on a tight sight. This is building and site design driven by the architectural and recreational program with an increased number of classrooms to meet rising needs, full size ball fields, and significant infrastructure such as storm water management and geothermal heating systems. The footprint of the new facility represents an increase of approximate 14,000 square feet (from 29,190 to 44,300) over the existing school building.

Over-riding all design sensibilities, however, is the surface parking and the imposition of safety and security issues associated with building access, bus traffic and automobile access. That this is a suburban school model determines the site design to an incomparable degree, essentially stacking the street frontage with the expected parking entitlement. A more urban typology with reduced parking, more dual-use program spaces, along with new, flexible development standards would point school design toward greater contextual compatibility. Still, the school's role as a vital community center, acknowledge by many residents, begs for parking and public access that is visible, safe and secure.

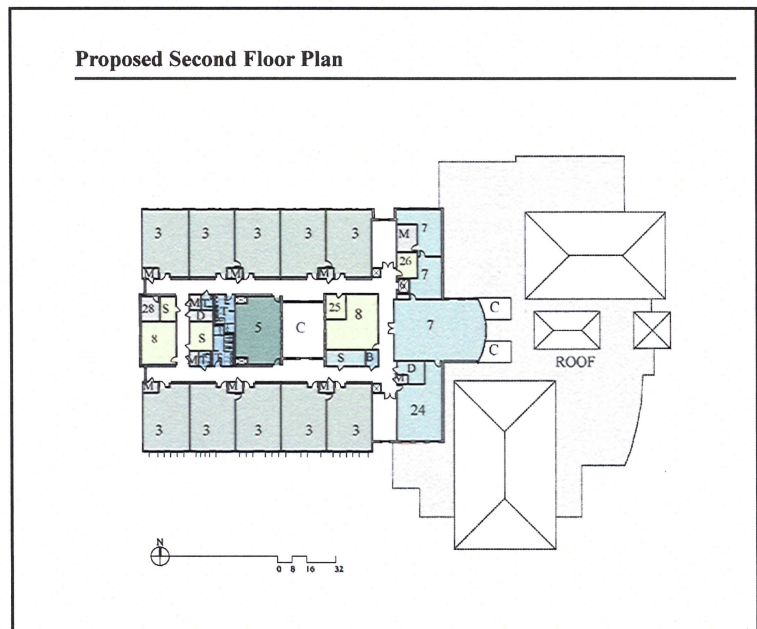


Architectural Design: The building design features a steel-framed, partial 2-story structure with double loaded corridors, and egress stairs placed at either end of the transverse, central “hinge” that articulates the building plan’s two “squares.” The stair placement facilitates access to the nearby play fields and allows, through the use of glass, natural lighting into the internal corridors.



The entry “square” allows administration presence and observation, and clearly defines the communal activities of the school day: lunch, music, art, multi-purpose room; professional service rooms offer privacy and noise control for activities such as testing and health and the staff lounge. The location of the kitchen and multi-purpose room, accessible from the north side loading dock will facilitate catering for outdoor events, picnics, fundraising activities, and ball games, in addition to the usual school lunch program. The public use spaces are at the front of the building and can be isolated from the rest of the school for after-hours use by community groups.

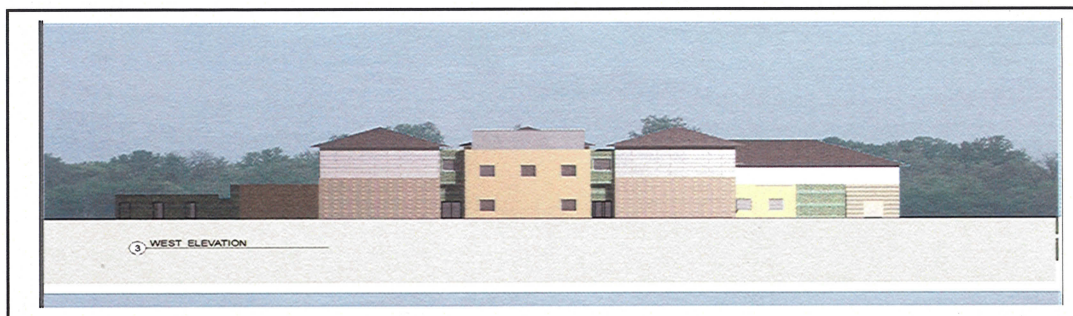
The floor plan allows optimal organization of the classroom program in the rear square: controlled access, individual, inter-connected classrooms flank the double loaded corridors, with support spaces, counseling offices, workrooms and storage as “infill” spaces. Services, such as bathroom, elevator, computer server room, are located strategically at about the midpoint of each floor providing ease of access throughout the school day. The special education classrooms are strategically located (utilizing the skylight courtyard on the 2nd floor) while the “community spaces” such as the media center, language arts room and media center for the 2nd floor massing that overlaps the front “square.”



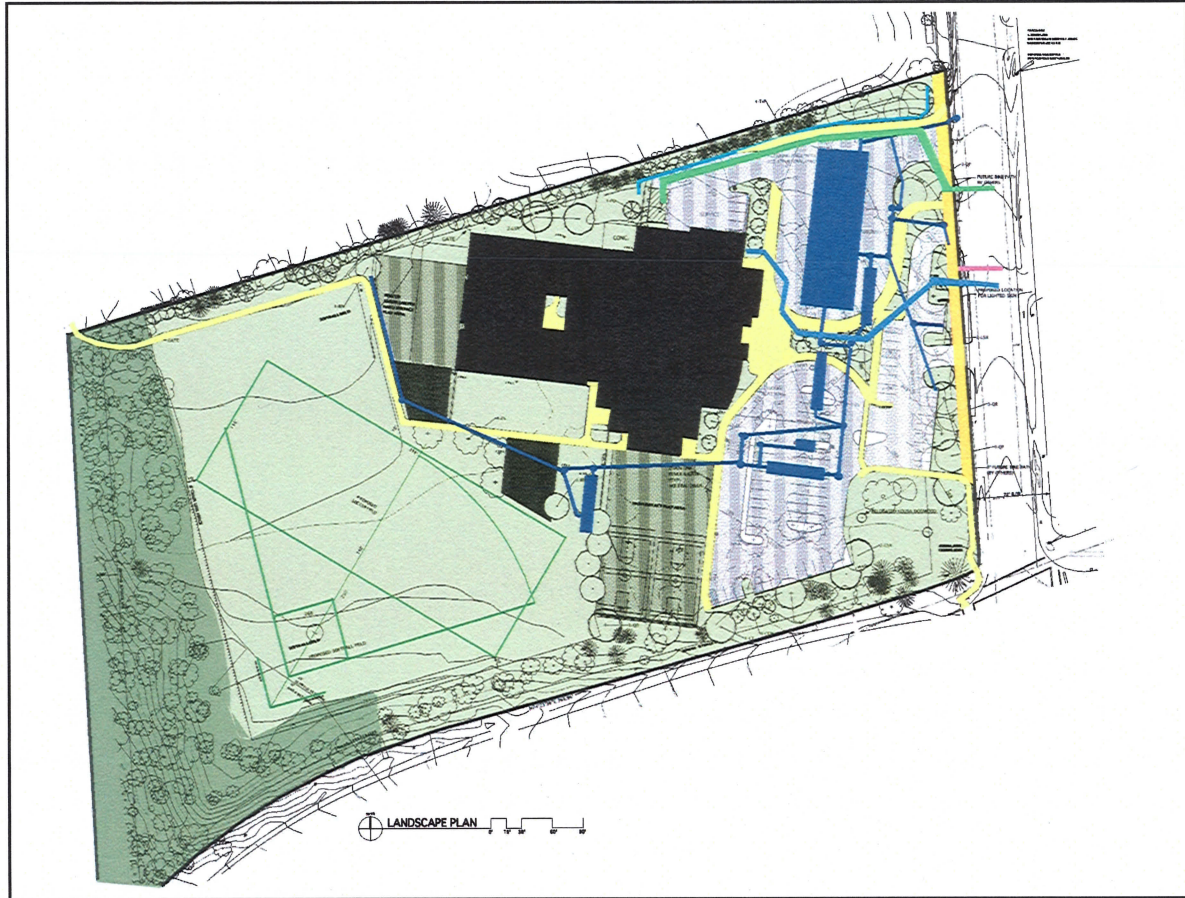
The proposed building exterior features a contrasting brick veneer pattern that articulates the massing and identifies the functional spaces of the interior. Well-placed window openings establish the façade rhythm, broken by larger expanses of glass at the stairwells that serve to bring natural lighting into the internal circulation areas. Clerestory windows are employed to provide natural lighting to locker corridors. Exterior materials were selected to evoke the current building's color and texture. The expressed roofs of the front facade also look back to the current roof shape. The building will have a canal lock theme based on the nearby Seven Locks. Interpretive displays will be mounted inside and the entrance piece will evoke the lock gates.



These thoughtful aspects of this design solution achieves multiple goals: use of natural lighting, allowing secure public use of the media facilities on weekends and evenings, and effective integration of the functional school program and its services. Finally, the skillful handling of materials and roof massing, the over-lap of the squares volumes, back-to-front, knits together wedges of roof lines that visually simulate a tri-partite form reminiscent of historical precedents.



Schematic Site Plan: The schematic plan below illustrates the general disposition of building area and outdoor uses. Tree protection areas at the site edges are denoted in dark green, while the play fields are depicted in lighter green. The retaining wall, which runs the length of the bus drive aisle to the loading dock (turquoise); Utilities: storm water (dark blue); water supply (light blue); power, (bright green); gas (pink).



Energy Efficiency, Utilities and Infrastructure: The proposed structure will be registered and certified for silver or higher rating in conformance with LEED (Leadership in Energy and Environmental Design) standards for sustainable design. One of the primary factors pursued via design decisions addresses conservation of energy, as seen in the following:

- *Building Orientation and Configuration:* The classroom corridors are sited in a north-south orientation to maximize natural light and minimize heat gain; south-facing facades will be fitted with sun screens to shade the rooms from direct, heat gain. Light wells and a court yard bring daylight into interior rooms. All regularly inhabited rooms will have access to daylight.
- *Building Materials & Disposal of Demolition Materials:* A Construction Waste Management Plan will be implemented. The project will utilize material with recycled content (up to 20%), regional materials (up 20%), and certified wood.
- *Energy Conservation and HVAC:* Building design will utilize 100% green power. There will be a geothermal system, with wells located under the playing fields (Tops of the wells are 4' below grade). In addition, the building is heavily insulated and uses low-e glass. Mechanical systems will optimize energy performance, achieving a 21 percent improvement over the ASHRAE/IESNA

baseline. The mechanical systems will achieve the Enhanced Refrigerant Management LEED point. Direct digital automatic temperature control will monitor all new HVAC equipment.

- *Site Utilities:* Site utilities upgrades include a new stormwater management system for both quantity and quality control; all services will be upgraded, including new gas line connections, electrical supply upgrade and new transformer; Water supply will be provided via an 8-inch water line connected to the existing 10" water main on Seven Locks Road. This connection will service the on-site fire hydrant as well. From the hydrant a 6" line connects to the north end of the building adjacent to the service area.
- *Technology Infrastructure and Security:* The building design features an upgraded power feed, public address system, fire suppression system, fiber-optic cable system, switching system, data/voice network/Ethernet system, and a bidirectional broadband system for full spectrum broadcast. Security and safety provisions include a visitor management system that offer office staff the ability to monitor and control visitor access, with a computer based sign-in system. Motion and contact sensors at all exterior doors will be monitored by MCPS Department of Safety and Security.

Landscape and Lighting: The submitted Landscape Plan proposes tree save throughout the site; the Landscape Plan should be revised to include the following:

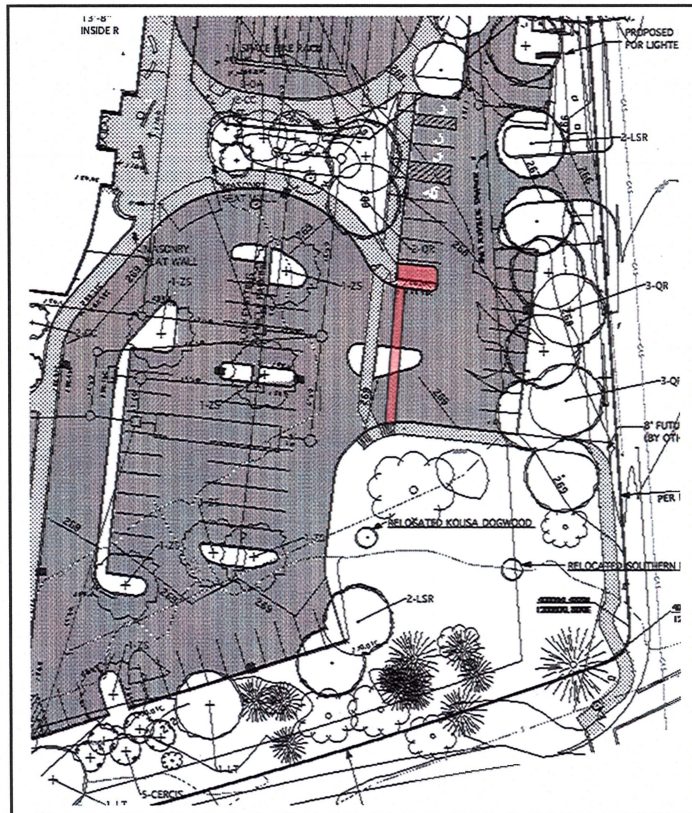
- a. Provide striped cross walks across all curb cuts along the Seven Locks Road frontage. Dimension according to the future specifications for the shared-use path; provide signage for the main pedestrian site entries;
- b. To enhance student pedestrian safety, eliminate the pedestrian walk that adjoins the retaining wall and ends at the loading dock, along the north property boundary;
- c. Four more shade trees along Seven Locks Road and five more along Bradley Boulevard;
- d. Ornamental trees and foundation plantings at the storage area front façade;
- e. Provide two clusters of three shade trees near the Kindergarten play areas;
- f. Shade trees should be a large leaf species such as a red oak and a size of 2.5-3.0 inch caliper at the time of planting.

The lighting plan proposed standard single shoebox fixtures on 16-foot high poles. Photocell fixtures are proposed as wall mounted lighting on the exterior walls. The lighting plan shows no light spill at the south and east property boundaries; however, it is recommended that the lighting fixtures near the north property ROW at the entrance be equipped with cut-off shields to prevent light spillage beyond the site boundaries. Photometric readings should be provided for light levels of 0.01 foot-candles at residential property boundaries.

Hours of Operation: School hours are from 8:50 a.m. to 3:05 p.m.; staff hours are from 7:30 a.m. to 4:00 p.m. These facilities are also available for community use. After hours activities scheduled through the Montgomery County Use of Public Facilities program generally conclude by 9:30 p.m., and may be scheduled for two weekends per month.

Vehicular and Pedestrian Circulation: The site design intends to improve vehicular and pedestrian circulation to and from the school by creating two separate means of ingress/egress to the site. This scheme effectively partitions the bus drop-off/pick-up by incorporating the bus circulation loop within the dual-function north parking area that accommodates overflow parking for evening and weekend events. The south parking area functions as the parent/student drop-off, also providing 74 parking spaces arranged within two surface spaces served by separate ingress and egress drive aisles. These two curb cuts are separated by the central landscape area (90' street frontage) that, with the building entrance articulation forms the street façade. Each of the counter-clockwise one-way vehicular loops offers direct building access to its respective wings.

Pedestrian access from Seven Locks Road is provided via lead sidewalks that follow the form of each of the major traffic island: one from the north side along the edge of the bus circulation and the other, an angled path that crosses the parent drop-off/pickup vehicular circulation. Both sidewalks direct pedestrian traffic to the centralized plaza that frames the building portico. To enhance pedestrian safety, staff recommends that the south sidewalk crossing the parent drop off/parking be offset eastward about 8-10 feet to create a straightened path, augmented by a larger refuge island. This minor adjustment will increase the visibility of pedestrians, both to drivers and other pedestrians. [See illustration below.]



Shared Use Bicycle and Pedestrian Path: Staff recommends that MCPS coordinate with MCDT on the design, planning and construction of the proposed path along the Seven Locks Road frontage. It is critical that an interim pedestrian path be provided for neighborhood children and adults if the path installation is delayed beyond the completion of the replacement school facility. Staff further recommends the provision of a decorative fence to separate the head-in parking spaces and their occupants from moving bicycles and pedestrians. It should be noted that 3 full parking spaces and a portion of six other spaces are located within the zoning setback line. The decorative fence recommended above, should be so designed to screen the visual effect of the parking from the street. [See Illustration above.]

Noise: The project is in compliance with the Montgomery County Noise Ordinance, Section 31(b) of the County Code and should not impose objectionable noise levels upon the surrounding area.

Stormwater Management (SWM): Stormwater management is a significant issue on this site, due to steep slopes and lack of storm water management measures employed for some of the surrounding development. The site design proposed provides for on-site channel protection measures and quantity control via underground detention located underneath the surface parking and bus-drop off area; on-site

water quality control via a storm filters and sand filters. (See Attachment, letter from the Department of Permitting Services.

ANALYSIS

Relationship to the Master Plan

The 2002 *Approved and Adopted Potomac Subregion Master Plan* recognizes that:

Public schools are an essential component of community life and an integral part of community structure. Montgomery County's public schools are divided into clusters of elementary, middle, and high schools, with cluster boundaries drawn to serve their surrounding residential communities, while maintaining a balanced socio-economic student population.

Likewise, the plan continues:

The Board of Education programs funds for school modernizations through its capital budget, with funds set aside to improve the quality of existing schools and to building new schools. The Board of Education also modifies service areas to balance enrollment with facility space. As growth has varied in each of the Subregion's four community areas, so has school capacity.

The plan carries no specific recommendations regarding Seven Locks Elementary School, nor for the Elementary School classification in general.

Development Standards in the R-200 Zone – Regulatory Analysis

Chapter 59	Development Standard	R-200 Zone Requirement	Plan Proposed
59-C-1.322	<u>Lot size - min.</u>		
	Lot Area - minimum	20,000 sf [0.46 ac.]	434,587 sf [9.98 ac.]
	Lot Width at Street - min.	100 feet	477 feet
	Lot frontage	25 feet	1,214 feet
59-C-1.322	<u>Building Setbacks -min.</u>		
	Front yard setbacks	40 feet	190 feet
	Side yard - one side	12 feet	27 feet
	Side yard - sum of both sides	25 feet	220 feet
	Rear yard	30 feet	372 feet
59-C-1.322	<u>Building Height - max¹</u>	50 feet	36 feet
59-C-1.322	<u>Building Coverage -max</u>	25% [108,646 sf]	10% [44,300 sf]
59-C-2.81	<u>Parking Setbacks</u>		
	Front	40 feet	*
	Side/sum of both sides	12/25 feet	42/103 feet
	Rear	30 feet	607 feet
	Green space - parking	5%	6%
	Green space - Lot		69%
	<u>Parking supply</u>	75 typical	74 spaces
<p><i>* Note: Nine (9) parking spaces, (12% of parking supply) are located partially or fully within the Zoning Setback Area.</i></p>			

Transportation Analysis

Transportation Planning staff reviewed the Mandatory Referral traffic study for APF purposes for the proposed plan and recommends approval with conditions. Relevant comments are excerpted below. (See *Transportation Planning Memorandum*, attached.)

The consultant for the applicant submitted a traffic study that presented traffic-related impacts of the new school with a core capacity for 640 students (an additional 354 students over current enrollment of 389 students) during the weekday morning and afternoon peak-periods. Staff review of the above traffic study indicated that the study complied with the requirements of the LATR/PAMR Guidelines and the traffic study scope provided by the staff.

Analysis presented in the traffic study indicates that under Total Traffic (i.e., Build) Conditions, CLV at the study intersections would be below the applicable congestion standard for the respective policy areas. Mandatory Referral No. 09736-MCPS-1 therefore satisfies the LATR and PAMR requirements of the APF test.

Several solutions to the traffic concerns and even considered a new entrance/exit off of Bradley Blvd, a state road, which did not work due to inadequate site distances. The MCPS, working with the Planning Department and MCDT proposed the most reasonable solution for vehicular site access.

Forest Conservation

The plan proposes to retain 1/50 acres of forest located in two tree stands, in conformance with the Chapter 22, Forest Conservation Law. The forests are designated high priority for retention because of specimen trees. All forest on the site will be retained and protected under a Category I Conservation Easement. The plan proposes the removal of six trees, which requires a Maryland State variance. Staff recommends approval of the variance request. The existing woodland in this area, at the lowest topographical point, consists primarily of red maples, with some tulip poplars. A significant number of trees measure greater than 24 inches in caliper.

COMMUNITY OUTREACH

MCPS developed the plans for the replacement facility based on specific education facility specifications. MCPS staff conducted five work sessions beginning in September 2008 with members of the Seven Locks Facility Advisory Committee that included parents, neighborhood residents, Seven Locks Elementary School officials, faculty and staff, and PTA members. In addition, members of the West Montgomery Citizens Advisory Board, the West Bradley Citizens Association and the Deerfield-Weathered Oak Citizens Association attended. Minutes from the Advisory Committee meetings were distributed and reviewed. Advisory Committee meetings were held on the following dates:

- September 25, 2008
- October 14, 2008
- October 30, 2008
- November 18, 2008
- November 29, 2009 (Maryland State Highway issues)

No public comments were received at the time of the writing of this memorandum.

CONCLUSION

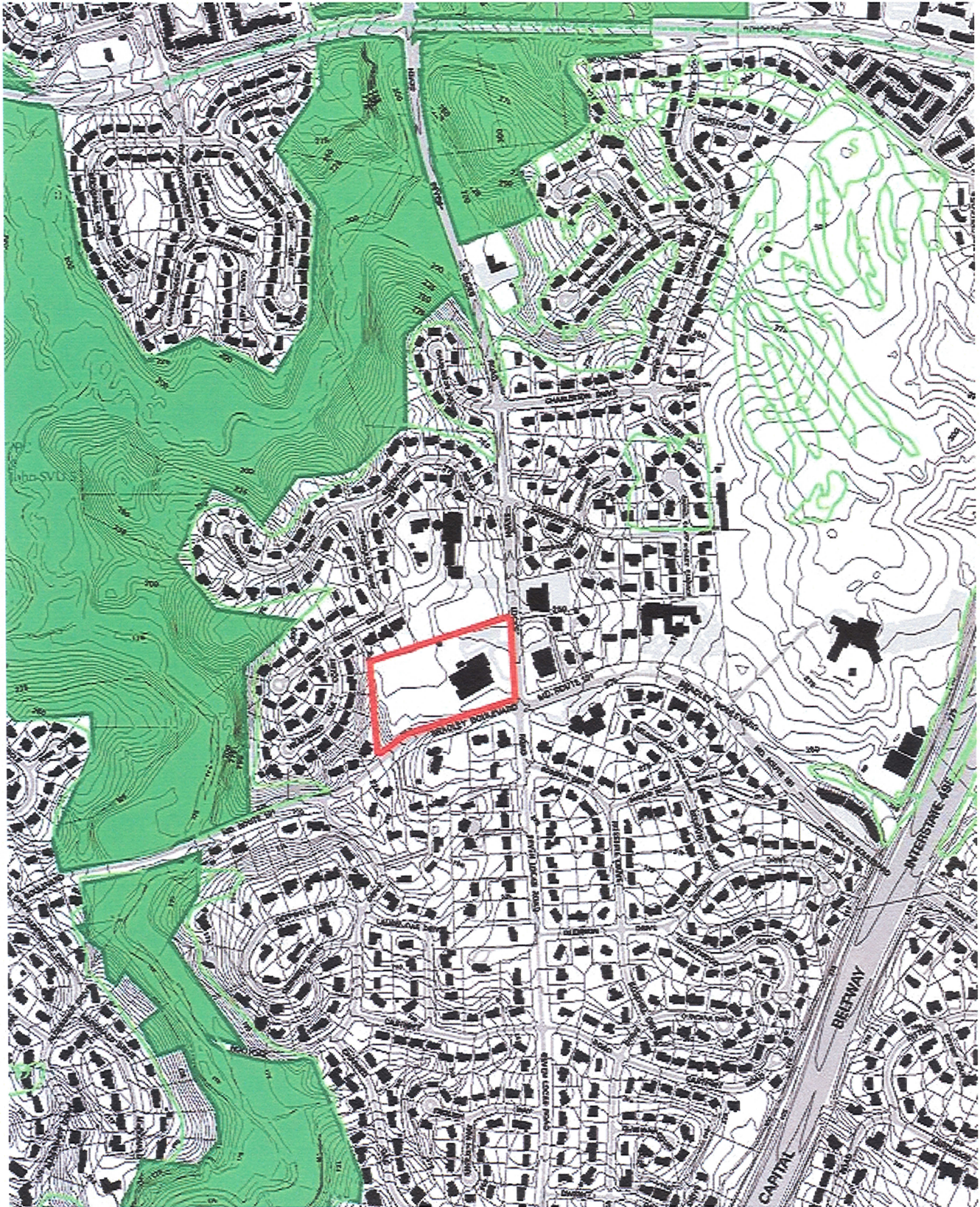
Staff recommends approval of the Mandatory Referral to replace the existing Seven Locks Elementary School with a new facility. Staff recommends that the Planning Board approve transmittal of the comments summarized on pages 1 and 2 of this memorandum to Montgomery County Public Schools.

MBOQ: m:\o'quinn\sevenlocks\ staff report attachments

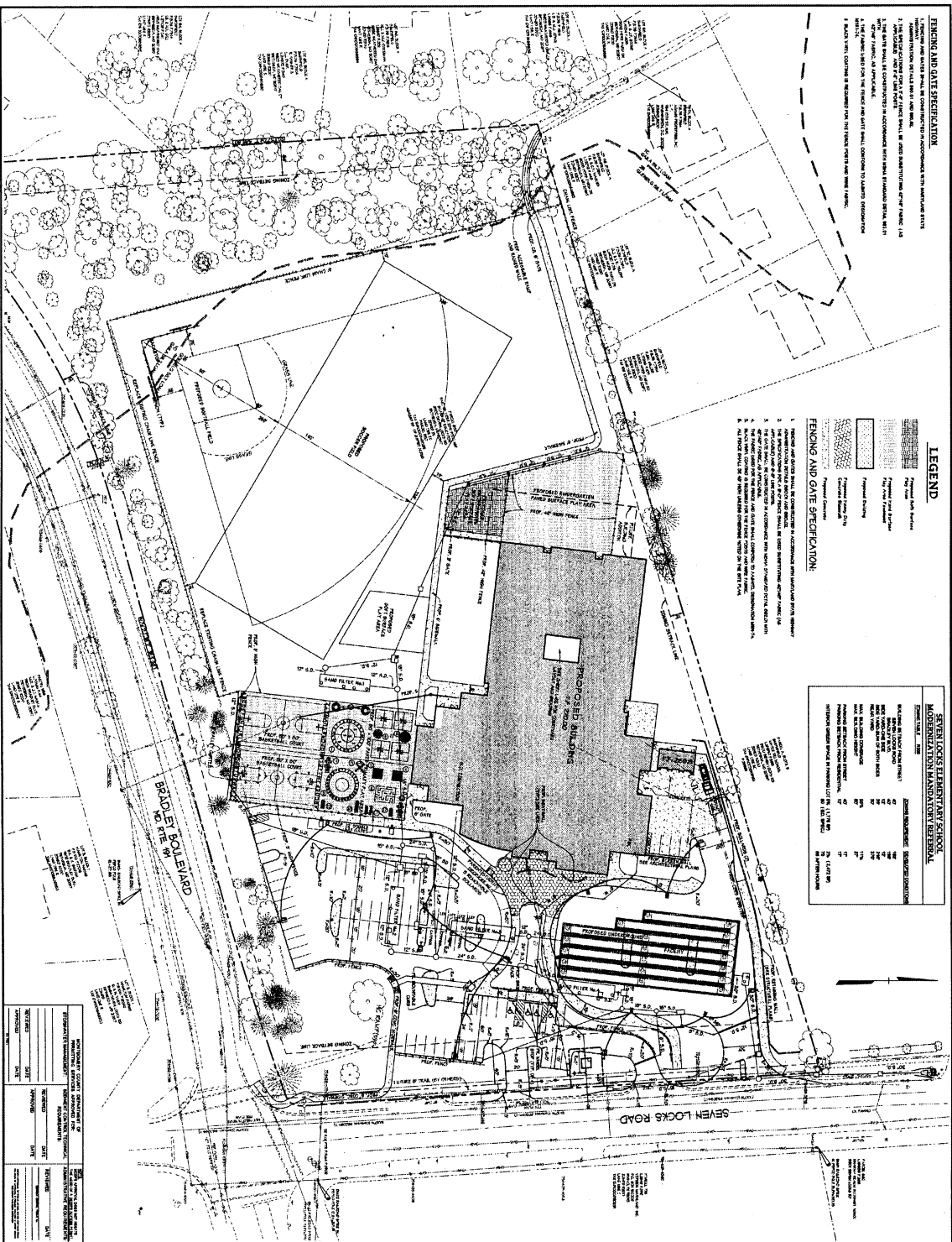
Attachments:

1. Vicinity map
2. Existing Conditions Plan
3. Site Plan
4. Landscape Plan
5. Photometric Lighting Plan
6. Grading Plan
7. Traffic Queuing Plan
8. Green Memorandum (Environmental Planning)
9. Move Memorandum (Transportation Planning)
10. Department of Permitting Services, Stormwater Concept Approval
11. Public Notice

Seven Locks Elementary School
Attachment #1: Vicinity Map



Seven Locks Elementary School Attachment #3: Site Plan



FENCING AND GATE SPECIFICATION

1. FENCING AND GATE SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPLICABLE STATE REGULATIONS, DETAILS AND CODES.
2. THE FENCING SHALL BE 6 FEET HIGH AND SHALL BE CONSTRUCTED OF 4" X 4" POSTS AND 2" X 4" RAILS WITH 1/2" GALVANIZED STEEL WIRE MESH.
3. GATES SHALL BE 10 FEET WIDE AND SHALL BE CONSTRUCTED OF 4" X 4" POSTS AND 2" X 4" RAILS WITH 1/2" GALVANIZED STEEL WIRE MESH.
4. ALL FENCING SHALL BE 10 FEET FROM THE PROPERTY LINE UNLESS OTHERWISE NOTED.

LEGEND

Proposed Building	Proposed Building
Proposed Parking	Proposed Parking
Proposed Landscaping	Proposed Landscaping
Proposed Fencing	Proposed Fencing
Proposed Gate	Proposed Gate
Proposed Driveway	Proposed Driveway
Proposed Sidewalk	Proposed Sidewalk
Proposed Path	Proposed Path
Proposed Tree	Proposed Tree
Proposed Shrub	Proposed Shrub
Proposed Lawn	Proposed Lawn
Proposed Retention Wall	Proposed Retention Wall
Proposed Storm Drain	Proposed Storm Drain
Proposed Utility	Proposed Utility
Proposed Easement	Proposed Easement
Proposed Right-of-Way	Proposed Right-of-Way
Proposed Boundary	Proposed Boundary
Proposed Survey	Proposed Survey
Proposed Existing	Proposed Existing
Proposed Proposed	Proposed Proposed

FENCING AND GATE SPECIFICATION:

1. FENCING AND GATE SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPLICABLE STATE REGULATIONS, DETAILS AND CODES.
2. THE FENCING SHALL BE 6 FEET HIGH AND SHALL BE CONSTRUCTED OF 4" X 4" POSTS AND 2" X 4" RAILS WITH 1/2" GALVANIZED STEEL WIRE MESH.
3. GATES SHALL BE 10 FEET WIDE AND SHALL BE CONSTRUCTED OF 4" X 4" POSTS AND 2" X 4" RAILS WITH 1/2" GALVANIZED STEEL WIRE MESH.
4. ALL FENCING SHALL BE 10 FEET FROM THE PROPERTY LINE UNLESS OTHERWISE NOTED.

SEVEN LOCKS ELEMENTARY SCHOOL MODERNIZATION MATERIALS SCHEDULE

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	REMARKS
1	ASPHALT DRIVEWAY	10,000	SQ. YD.	
2	CONCRETE DRIVEWAY	5,000	SQ. YD.	
3	CONCRETE SIDEWALK	2,000	SQ. YD.	
4	CONCRETE PATH	1,000	SQ. YD.	
5	CONCRETE RETENTION WALL	100	LINEAL FT.	
6	CONCRETE UTILITY	50	LINEAL FT.	
7	CONCRETE EASEMENT	10	LINEAL FT.	
8	CONCRETE RIGHT-OF-WAY	5	LINEAL FT.	
9	CONCRETE BOUNDARY	5	LINEAL FT.	
10	CONCRETE SURVEY	5	LINEAL FT.	
11	CONCRETE EXISTING	5	LINEAL FT.	
12	CONCRETE PROPOSED	5	LINEAL FT.	

DATE	DESCRIPTION	BY	CHECKED

SITE PLAN CIRCULATION PLAN UTILITY PLAN

SCALE: 1" = 30'

DATE: 11/11/11

PROJECT NO: C-018

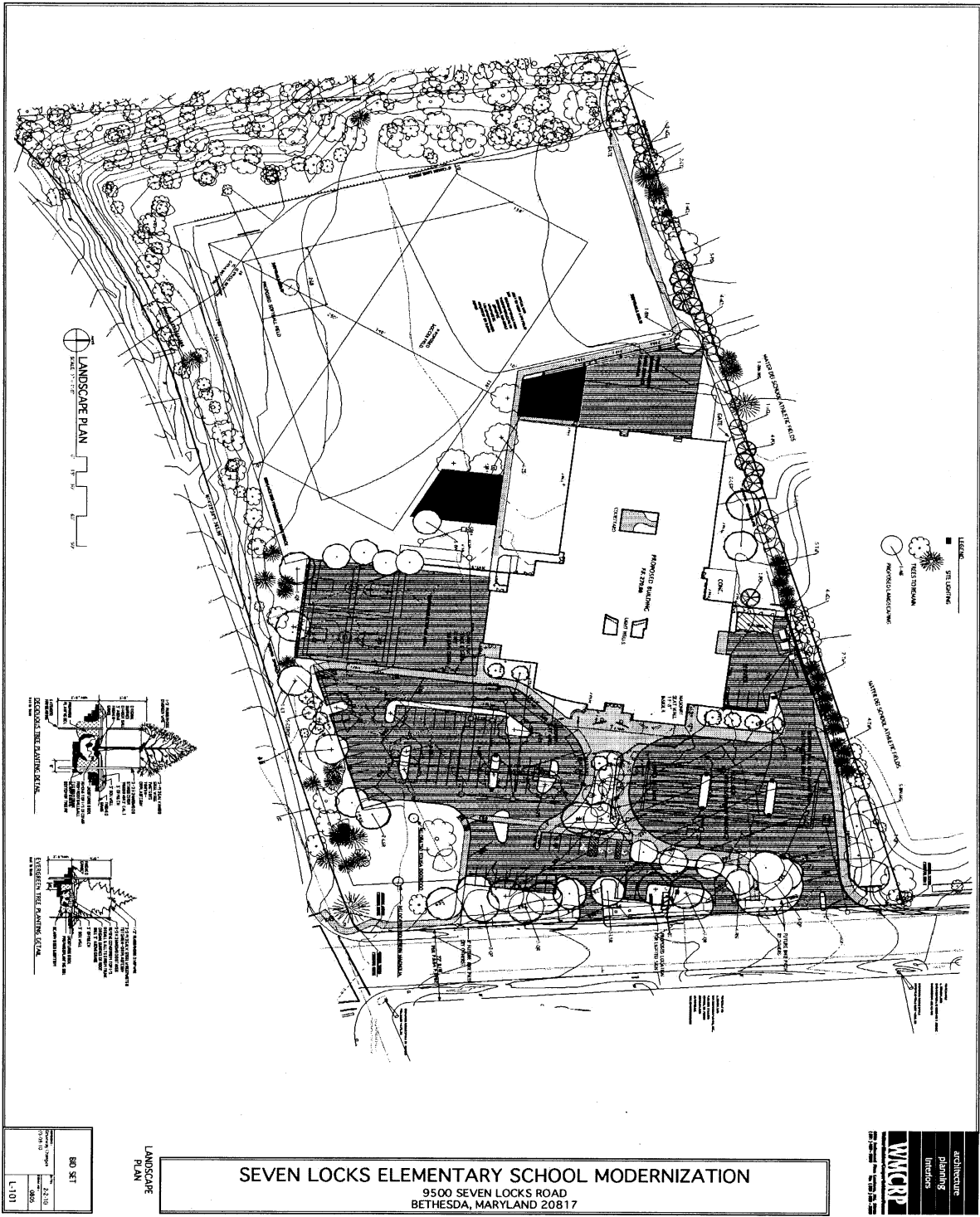
SEVEN LOCKS ELEMENTARY SCHOOL MODERNIZATION

9500 SEVEN LOCKS ROAD
BETHESDA, MARYLAND 20817

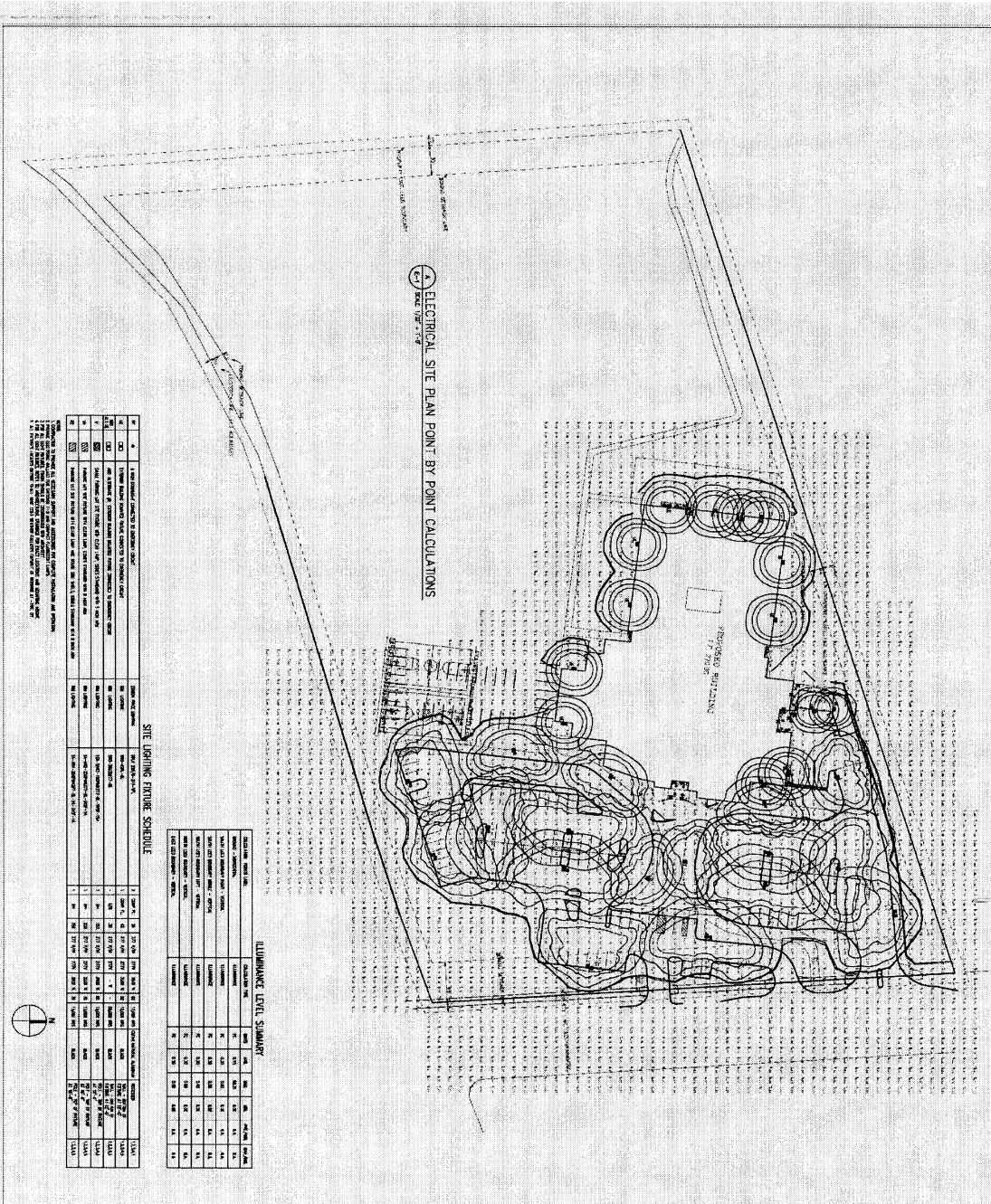
WPCRP

ARCHITECTURE
PLANNING
ENGINEERING

Seven Locks Elementary School Attachment #4: Landscape Plan



Seven Locks Elementary School Attachment #5: Photometric



100' ELECTRICAL SITE PLAN POINT BY POINT CALCULATIONS

TABLE 1: LIGHTING FIXTURE DATA

NO.	TYPE	MANUFACTURER	MODEL	WATTAGE	FOOT CANDLE @ 10'	FOOT CANDLE @ 20'	FOOT CANDLE @ 30'
1	RECESSED	OSRAM	OSRAM	100	1.0	0.25	0.15
2	RECESSED	OSRAM	OSRAM	150	1.5	0.375	0.225
3	RECESSED	OSRAM	OSRAM	200	2.0	0.5	0.3
4	RECESSED	OSRAM	OSRAM	300	3.0	0.75	0.45
5	RECESSED	OSRAM	OSRAM	400	4.0	1.0	0.6
6	RECESSED	OSRAM	OSRAM	500	5.0	1.25	0.75
7	RECESSED	OSRAM	OSRAM	600	6.0	1.5	0.9
8	RECESSED	OSRAM	OSRAM	700	7.0	1.75	1.05
9	RECESSED	OSRAM	OSRAM	800	8.0	2.0	1.2
10	RECESSED	OSRAM	OSRAM	900	9.0	2.25	1.35
11	RECESSED	OSRAM	OSRAM	1000	10.0	2.5	1.5

SITE LIGHTING PROBE SCHEDULE

NO.	TYPE	MANUFACTURER	MODEL	WATTAGE	FOOT CANDLE @ 10'	FOOT CANDLE @ 20'	FOOT CANDLE @ 30'
1	RECESSED	OSRAM	OSRAM	100	1.0	0.25	0.15
2	RECESSED	OSRAM	OSRAM	150	1.5	0.375	0.225
3	RECESSED	OSRAM	OSRAM	200	2.0	0.5	0.3
4	RECESSED	OSRAM	OSRAM	300	3.0	0.75	0.45
5	RECESSED	OSRAM	OSRAM	400	4.0	1.0	0.6
6	RECESSED	OSRAM	OSRAM	500	5.0	1.25	0.75
7	RECESSED	OSRAM	OSRAM	600	6.0	1.5	0.9
8	RECESSED	OSRAM	OSRAM	700	7.0	1.75	1.05
9	RECESSED	OSRAM	OSRAM	800	8.0	2.0	1.2
10	RECESSED	OSRAM	OSRAM	900	9.0	2.25	1.35
11	RECESSED	OSRAM	OSRAM	1000	10.0	2.5	1.5

ILLUMINANCE LEVEL SUMMARY

LOCATION	MIN. FC	MAX. FC	AVERAGE FC
CLASSROOM	1.0	10.0	3.0
OFFICE	1.0	10.0	3.0
RECEPTION	1.0	10.0	3.0
STAIRS	1.0	10.0	3.0
PARKING LOT	1.0	10.0	3.0
LANDSCAPE	1.0	10.0	3.0
TOTAL	1.0	10.0	3.0

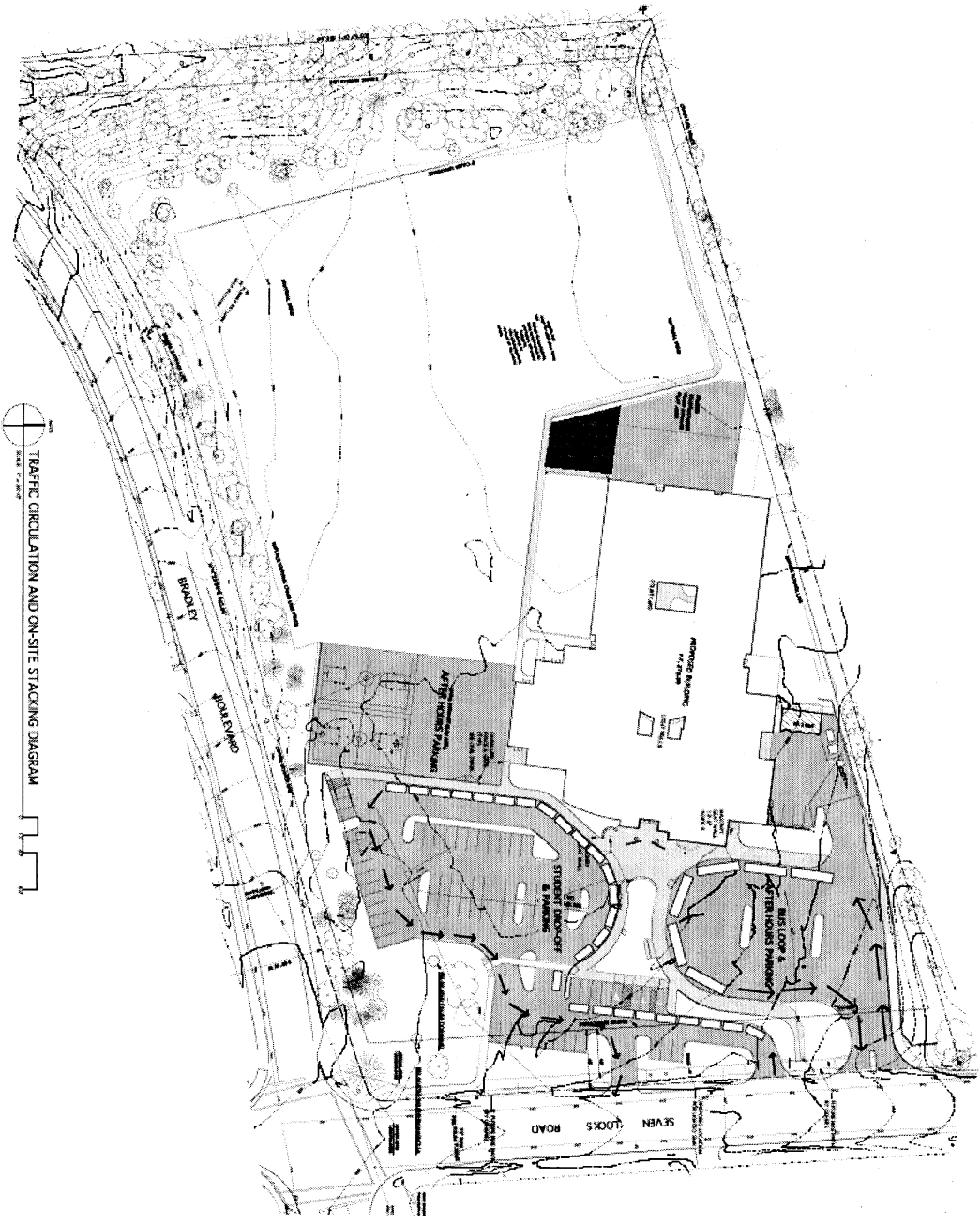
NO SET
E-1

SEVEN LOCKS ELEMENTARY SCHOOL MODERNIZATION
9500 SEVEN LOCKS ROAD
BETHESDA, MARYLAND 20817

WAI MPE Consulting Engineers
WEIGAND ASSOCIATES, INC.
17300 BENTLEY AVENUE, SUITE 200 GAITHERSBURG, MARYLAND 20877
TELEPHONE 301-291-5500 FACSIMILE 301-291-5501 WWW.WAINET.NET

MMGRP
MEMBER OF THE
MCCORMICK & CO. GROUP

Seven Locks Elementary School
Attachment #7: Traffic Queue



TRAFFIC CIRCULATION AND ON-SITE STACKING DIAGRAM

DATE	BY
11-11-10	MMCRP
11-11-10	MMCRP
11-11-10	MMCRP
11-11-10	MMCRP

STACKING
DIAGRAM

SEVEN LOCKS ELEMENTARY SCHOOL MODERNIZATION
9500 SEVEN LOCKS ROAD
BETHESDA, MARYLAND 20817





MEMORANDUM

TO: Mary Beth O'Quinn, Urban Design and Historic Preservation Division
VIA: Stephen Federline, Supervisor, Environmental Planning
FROM: Amy Lindsey, Environmental Planning
DATE: March 15, 2010
SUBJECT: MR2009736
Seven Locks Elementary School

RECOMMENDATION:

Environmental Planning staff recommends transmittal of the Mandatory Referral with the following comments:

- 1. Please investigate the use of native plants as landscaping. The use of non-natives should be minimized.**

BACKGROUND

Seven Locks Elementary School is on a 9.98-acre parcel located in the Potomac Subregion planning area at the corner of Seven Locks Road and Bradley Boulevard and includes the existing school, parking lot and ballfields. The property is directly adjacent to Mater Dei School to the north and residential properties to the northwest and west. The proposed plan is to replace the existing building, reconfigure the parking lot, and replace the ballfields.

ISSUES

Sustainability

Montgomery County has a number of goals that work towards the higher goal of creating a sustainable community. These goals include reducing the carbon footprint of proposed development, promoting walkability, reducing urban heat island effect, and protecting air and water quality. In order to meet the countywide goals, individual projects will have to positively contribute to creating sustainable development. Public projects should lead the way in promoting sustainability, as the public will reap the rewards in the long term, and give example to private development and future leaders of its multiple benefits.

Carbon footprint The carbon footprint can be divided into three basic categories – embodied energy, transportation energy, and building energy emissions. Embodied energy is the emissions created in the creation and transportation of the building materials and the construction of the

project. Locally-sourced and recycled material will be used to construct the new building and a construction waste management plan will divert 75% of materials from disposal.

Transportation energy is the energy associated with vehicular traffic to and from the project. Potomac is largely an automobile-dependant area, with little access to mass transit. This school is designed primarily for schoolbus and automobile use, as there are few sidewalks in the area. While there is a Ride-On bus route available on both Bradley Boulevard and Seven Locks Road, transportation of elementary school students does not generally involve mass transit. A bike rack is provided to encourage bike usage.

Building energy emissions are created in the normal operation of a building including lighting, heating cooling and ventilation, operation of computers and appliances, etc. Schools tend to be a fairly intensive energy use, as the lighting requirements are generally more intensive and numerous computers are often in use. The facility is designed with the classroom wings oriented north-south to maximize daylighting and minimize heat gain. A geothermal field is located under the playing fields, to further minimize energy requirements. The County is pursuing a number of LEED credits related to the goal of reduced energy emissions, including enhanced commissioning and energy performance optimization.

Walkability This project is located at the intersection of two arterial roads, with crosswalks across both. There is a sidewalk running along Seven Locks Road which is currently interrupted by the school frontage. The County is currently planning a bike path along Seven Locks Road, so the sidewalk will not be connected at this time. There is no sidewalk along the frontage of Bradley Boulevard to the east or west of the school, so no sidewalk is proposed for this area. There is a path to the residential area to the northwest and west of the school which will be replaced with a new one in the same location. This path allows students from this neighborhood to walk to the school and ballfields. The proposed plans contribute to walkability as much as possible, given the surrounding property configurations and the overall pattern of development.

Urban heat island effect Heat island effect is an urban and suburban problem that results from the large quantity of impervious surfaces radiating appreciably more heat into the atmosphere than natural surfaces. It can significantly affect air quality, water quality and livability in developed areas. Tree cover, green walls, and vegetated and reflective roofs can diminish a projects contribution to the overall heat island. This project incorporates a reflective roof and increases the tree cover in and around the parking area. While the total tree cover over the parking lot is considerably less than 30%, this is due to the compact design and small median areas. A less compact design would involve more impervious area and would be less desirable.

Air quality A discussion of air quality substantially overlaps with the carbon footprint section as air quality is affected by emissions from buildings, transportation and tree cover. Approximately 59 trees of various sizes will be removed through the construction process, and approximately 114 trees are proposed to be planted. All forest on-site will be retained.

Water quality Water quality in urban and suburban areas is largely determined by the amount of impervious surfaces and amount of stormwater management provided. The amount of tree cover also influences water quality, as it intercepts rainfall and allows for evapotranspiration. This school has a compact, efficient design, which minimizes imperviousness. While the size of the facility is nearly tripling, the impervious area is only increasing by 50%. The effects of

impervious cover could be further reduced through the use of a vegetated roof, permeable paving, and other microscale stormwater facilities. The stormwater management concept includes underground storage pipes for channel protection volume and sand filters for water quality control.

REGULATORY FRAMEWORK

Environmental Guidelines

The applicant submitted and received approval of a Natural Resources Inventory/Forest Stand Delineation (NRI/FSD) number 420090940 on January 29, 2009. There are 1.50 acres of forest on-site and numerous large and specimen trees, mostly along the west and south property lines. There are also steep slopes within the forested area.

The property is within the Middle Mainstem subwatershed of the Cabin John watershed: a Use Class I/I-P watershed. The *Countywide Stream Protection Strategy* (CSPS) identifies this subwatershed as having fair water quality.

Forest Conservation

This property is subject to the Chapter 22A Montgomery County Forest Conservation Law and a Forest Conservation Plan has been submitted for approval. There are 1.50 acres of forest in two separate stands on the subject property. Both forest stands are considered high priority for retention, due to steep slopes and specimen trees. Through the redevelopment of this school, all forest will be retained and a Category I easement will be placed over all areas of forest retention.

The applicant proposes to remove six trees requiring a variance under Section 1607(c) of the Natural Resources Article, MD Ann. Code. These trees include: a 28" white pine in poor condition, a 21" Virginia pine in good condition, a 31" white pine in poor condition, a 36" yellow poplar in good, a 34" sugar maple in good condition, and a 32" white pine. Staff recommends approval of the variance as part of the forest conservation plan. A more detailed discussion on the variance is included in the Environmental Planning report to the Planning Board.

Stormwater Management

A Stormwater Management concept plan was approved by the Department of Permitting Services (DPS) on May 18, 2009. If the applicant is not issued a stormwater permit from DPS by May 4, 2010, they will have to comply with the new stormwater management Environmental Site Design (ESD) requirements. The ESD requirements become applicable statewide on that date. If the applicant is issued a stormwater permit prior to May 4, 2010, then the project will be grandfathered.

Green Building

This project will need to comply with County Council Bill 17-06, Montgomery County Green Buildings Law. MCPS is seeking LEED (Leadership in Energy and Environmental Design) Silver Certification for this project.



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

March 16, 2010

MEMORANDUM

TO: Mary Beth O'Quinn
Urban Design Division

VIA: Shahriar Etemadi, Supervisor
Move/Transportation Planning Division

FROM: Cherian Eapen, Planner/Coordinator
Move/Transportation Planning Division
301-495-4525

SUBJECT: Mandatory Referral 09736-MCPS-1
Seven Locks Elementary School Modernization/Gymnasium Addition Project
(School Replacement Project)
9500 Seven Locks Road
Montgomery County Public Schools
Potomac Policy Area

This memorandum presents Transportation Planning staff's review of the subject mandatory referral for Seven Locks Elementary School modernization/gymnasium addition (school replacement) project. The school is located at 9500 Seven Locks Road in Bethesda, and is within the Potomac 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 Montgomery County Public Schools (MCPS):

1. Any mandatory referral submission for future improvements at the school must include a traffic study if those improvements will increase school's student core capacity beyond 640 students.

DISCUSSION

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

Seven Locks Elementary School is located within the northwest corner of Seven Locks Road and Bradley Boulevard in Bethesda, immediately to the south of the private Mater Dei School. Access to Seven Locks Elementary School is currently from Seven Locks Road, which a north-south arterial along the eastern property boundary of the school. No access is provided to Bradley Boulevard, an east-west arterial, which forms the southern boundary of the school property. The intersection of Seven Locks Road and Bradley Boulevard is signalized.

A shared-use path currently exists along the south side of Bradley Boulevard to the west of Seven Locks Road to Persimmon Tree Road, which continues along Oaklyn Drive to Avenel Farm Drive. A shared-use path also exists along the west side of Seven Locks Road to the south of Bradley Boulevard. This shared-use path switches to the east side of Seven Locks Road south of River Road and continues to MacArthur Boulevard. Currently, there are no sidewalks along school frontage.

The Seven Locks Road/Bradley Boulevard intersection is served by RideOn route 36, which runs between Bethesda Metro Station and River Road/Bradley Boulevard intersection. This bus route has stops at the Seven Locks Road/Bradley Boulevard intersection.

Land use in the vicinity of the school primarily residential. The area also supports several institutional and religious uses.

School Access, Circulation, Hours of Operation, and Parking

Currently, vehicular access to the school is exclusively from Seven Locks Road via two driveways. The northern driveway is approximately 400 feet north of Bradley Boulevard and serves both inbound/outbound passenger vehicles and inbound school buses. The southern driveway is restricted to outbound movements only and is the egress point for buses. The southern driveway is approximately 165 feet north of Bradley Boulevard.

Buses and parent/visitor/staff vehicles currently enter the school via the northern driveway. Parent vehicles circulate through the parking lot to the north of the school building, drop-off/pick-up students on the north side of the school building, and exit the school via the northern driveway. The buses circulate in a counter-clockwise direction via the bus loop to the front of school building and drop-off/pick-up students in front of the school building. Left turns are prohibited at the driveways between the hours of 8:30 a.m. – 9:30 a.m. and 3:00 p.m. – 3:30 p.m. This restriction does not apply to school buses.

The school replacement/modernization project proposes to revise current school access and on-site traffic circulation schemes by providing separate school bus and parent drop-off/pick-up loops and a new parent/visitor/staff parking lot. Under the proposed scheme, the new bus loop is proposed to the northeast corner of the school property and the parent drop-off/pick-up loop/parking lot is proposed to the southeast corner of the school property. Staff believes that

the proposed new bus and parent drop-off/pick-up loops will adequately serve the school.

The new north driveway proposed along Seven Locks Road will function as access to the new bus loop/school service area. All bus turn movements will be permitted at this new driveway. Under the new access scheme, the existing northern driveway is proposed to be modified to an inbound only driveway to facilitate ingress to the school drop-off/pick-up area and parking lot for parents, visitors, and staff. Additionally, the existing southern driveway is proposed to be relocated to the north, further away from Bradley Boulevard by approximately 100 feet, to facilitate egress for parents, visitors, and staff. This driveway will continue to be signed for no left-turns between the hours of 8:30 a.m. – 9:30 a.m. and 3:00 p.m. – 3:30 p.m.

The school replacement/modernization project includes a sidewalk along Seven Locks Road between the proposed new southern school driveway and Bradley Boulevard, and a lead-in sidewalk from Seven Locks Road to the school building entrance. The proposed new sidewalk connection will connect the school to existing shared-use paths along Bradley Boulevard and Seven Locks Road. (It is noted that Montgomery County Department of Transportation (DOT) currently has a facility planning study for pedestrian and bicycle improvements along Seven Locks Road between Montrose Road and Bradley Boulevard. Details are provided below.)

Seven Locks Elementary School is open between 8:50 a.m. and 3:05 p.m.

Parking at the school is currently provided to the north of the school building. A total of 50 parking spaces, including two handicapped spaces are currently provided at the school. The school replacement/modernization project will increase parking by 24 spaces and will provide a total of 74 parking spaces at the school, including four handicapped spaces.

School Enrollment and Capacity

Students at Seven Locks Elementary School are enrolled in Grades K through 5. The school currently has an enrollment of approximately 281 students. The proposed school replacement/modernization project will increase school's program capacity from approximately 251 students to 410 students. The traffic study however was completed for a core capacity of 640 students identified for the school, and thus considers impact from 359 additional students.

Master Plan Roadway/Bikeway Facilities

The 2002 Approved and Adopted *Potomac Subregion Master Plan* includes the following nearby roadway and bikeway facilities:

- Bradley Boulevard (MD 191), as a two-lane arterial (A-39) with a recommended minimum right-of-way width of 100 feet and an off-road bikeway (shared-use path, PB-5) between Capital Beltway (I-495) to the east and Persimmon Tree Road to the west. The 2005 Approved and Adopted *Countywide Bikeways Functional Master Plan* updates the above bikeway recommendation for Bradley Boulevard with a dual-bikeway (shared-use path and signed shared roadway), DB-4, between Wisconsin Avenue (MD 355) to the east and Persimmon Tree Road to the west.

- Seven Locks Road, as two-lane arterial (A-79) with a recommended minimum right-of-way width of 80 feet between Rockville City limits to the north and Bradley Boulevard to the south and an off-road bikeway (shared-use path, PB-15) between Rockville City limits to the north and Capital Beltway (I-495)/River Road to the south. The 2005 Approved and Adopted *Countywide Bikeways Functional Master Plan* updates the above bikeway recommendation for Seven Locks Road with a dual-bikeway, DB-3 (shared-use path and signed shared roadway or bike lanes), between Wooten Parkway to the north and MacArthur Boulevard to the south.

Nearby Transportation Project

Montgomery County Department of Transportation (DOT) is currently in the process of developing preliminary design plans (35% design) for the Seven Locks Road sidewalk and bikeway improvement project. The project is in Facility Planning Phase 2.

The sidewalk and bikeway project will provide pedestrian and bicycle improvements along Seven Locks Road between Montrose Road/I-270 to the north and Bradley Boulevard to the south. Currently, there are no off-road facilities that meet current County standards along this corridor. The proposed project will include a dual bikeway as recommended in the 2005 Approved and Adopted *Countywide Bikeways Functional Master Plan*, which will provide for both on-road and off-road bicycle facilities. The project is considering a shared-use path along the west side and a sidewalk along the east side of Seven Locks Road. The facility planning study is scheduled for completion in February 2011.

Adequate Public Facilities Review

A traffic study was required for the subject mandatory referral since Seven Locks Elementary School generated **30** or more total peak-hour trips during the typical weekday morning (6:30 a.m. – 9:30 a.m.) and evening (4:00 p.m. – 7:00 p.m.) peak periods and impacted two specific intersections identified in the *LATR/PAMR Guidelines* for Potomac Policy Area.

The consultant for the applicant submitted a traffic study that presented traffic-related impacts of the school with core capacity for 640 students (i.e., additional 359 students over current enrollment of 281 students) during the weekday morning and afternoon peak-periods. Staff review of the above traffic study indicated that the study complied with the requirements of the *LATR/PAMR Guidelines* and the traffic study scope provided by the staff.

Based on trip generation data collected at the existing school, the study estimated that the increase in school enrollment to the 640 student maximum would generate 181 additional peak-hour trips during the morning peak period and 185 additional peak-hour trips during the evening peak period. The trip generation data for the school is summarized in Table 1.

**TABLE 1
SUMMARY OF TRIP GENERATION
SEVEN LOCKS ELEMENTARY SCHOOL
SCHOOL REPLACEMENT/MODERNIZATION PROJECT**

Trip Generation	Morning School Peak-Hour			Evening School Peak-Hour		
	In	Out	Total	In	Out	Total
Trip Generation – Current Enrollment (281 students)	78	61	139	76	66	142
Per Student Trip Rate	0.28	0.22	0.50	0.27	0.24	0.51
Trip Increase (359 students)	101	80	181	97	88	185
Trip Generation – Proposed Core Capacity (640 students)	179	141	320	173	154	327

Source: Seven Locks Elementary School traffic study, STS, Ltd., June 18, 2009.

- Local Area Transportation Review

A summary of the capacity/Critical Lane Volume (CLV) analysis results for the study intersections for the weekday morning and afternoon school peak-hours as presented in the traffic study 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 study intersections would be below the applicable congestion standard for the Potomac Policy Area (1,475 CLV). The mandatory referral therefore satisfies the LATR requirements of the APF test.

- Policy Area Mobility Review

To satisfy the PAMR requirements of an APF test, Potomac Policy Area require mitigation of 40 percent of “new” trips generated by a use.

Trip generation data collected at Seven Locks Elementary School as part of the traffic study indicated that the morning peak-hour trip generation rate at the school is approximately 46 percent lower than the trip generation rate included in the *LATR/PAMR Guidelines* for private schools with Grades K through 8. Staff therefore finds MCPS to be satisfying the PAMR requirement for the policy area, primarily through bussing of students to the school. The mandatory referral therefore satisfies the PAMR requirements of the APF test.

**TABLE 2
SUMMARY OF CAPACITY CALCULATIONS
SEVEN LOCKS ELEMENTARY SCHOOL
SCHOOL REPLACEMENT/MODERNIZATION PROJECT**

Intersection	Traffic Conditions					
	Existing		Background		Total	
	AM	PM	AM	PM	AM	PM
Seven Locks Rd/Democracy Blvd	1,044	1,157	1,053	1,199	1,060	1,201
Seven Locks Rd/Bradley Blvd	1,256	1,142	1,256	1,142	1,317	1,180
Bradley Blvd/Kentsdale Dr	871	765	871	765	925	820
Seven Locks Rd/Existing North Drwy	711	1,016	711	1,016	--	--
Seven Locks Rd/Proposed North Bus Drwy	--	--	--	--	683	978
Seven Locks Rd/Existing South Drwy	645	992	645	992	--	--
Seven Locks Rd/South Drwy ¹	--	--	--	--	862	1,153

Source: Seven Locks Elementary School traffic study, STS, Ltd., June 18, 2009.

Note: Analysis based on morning and evening school peak-hours of 8:00 a.m. – 9:00 a.m. and 2:45 p.m. – 3:45 p.m.

Congestion Standard for Potomac Policy Area: 1,475 CLV

¹ The south driveway considered as a single driveway under Total (Build) Traffic Conditions.

SE:CE:tc

cc: Callum Murray
Ki Kim
Jim Tokar
Greg Leck
Sarah Navid
Jean Gries
Corren Giles
Mike Nalepa

mno to MBOQ re SLES 09736-MCPS-01.doc



DEPARTMENT OF PERMITTING SERVICES

RECEIVED
MAY 26 2009

Carla Reid
Director

Isiah Leggett
County Executive

May 18, 2009

CENTURY ENGINEERING, INC.
10710 GILROY ROAD
HUNT VALLEY, MD 21031

Mr. Robert Bathurst, P.E.
Century Engineering
10710 Gilroy Road
Hunt Valley, MD 21301

Re: Stormwater Management **CONCEPT** Request
for Seven Locks Elementary School
Preliminary Plan #:
SM File #: 235350
Tract Size/Zone: 9.98 / R-60
Total Concept Area: 4.5 Acres
Lots/Block:
Parcel(s): 850
Watershed: Cabin John Creek

Dear Mr. Bathurst:

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 consists of on-site channel protection measures via underground storage pipes with 10-year control due to the existing downstream storm drain capacity. On-site water quality control is proposed via four separator sand filters. Onsite recharge is not required for redevelopment.

The following **item** 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. Water quality is to be flow split to the sandfilters. Flow splitters are to be designed based on the water quality volume elevation within each facility. Self-flushing interior trash racks are to be provided. Weir walls within the structures are not to be used.
6. Provide a DPS approved flow control device such as the Hydrobrake or Reg-u-Flow for the CPV underground pipe facility as the required orifice size is less than 2 inches.

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.

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

If you have any questions regarding these actions, please feel free to contact Ellen Rader at 240-777-6336.

Sincerely,



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

RRB:dm CN.235350.SevenLocksES2.EBR

cc: C. Conlon
M. Pfefferle
SM File # 235350

QN -on-site; Acres: 4.5
QL - on-site; Acres: 4.5
Recharge is not provided



MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND
PLANNING COMMISSION
8787 Georgia Avenue
Silver Spring, MD 20910-3760

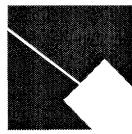
Mandatory Referral Planning Board Hearing

Case No. 09736-MCPS-1

Seven Locks Elementary School Replacement Facility

A Mandatory Referral has been filed for the Seven Locks Elementary School with the Department of Planning, in conformance with Section 7-112, the Regional District Act. The hearing is tentatively scheduled for April 8, 2010, in the Auditorium at 8787 Georgia Avenue in Silver Spring. Public testimony will be taken at the hearing.

If you have any questions regarding this project or wish to see the proposed plans, please contact me, Mary Beth O'Quinn, by telephone at (301) 495-1322 or E-mail: Marybeth.oquinn@mncppc-mc.org.



MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND
PLANNING COMMISSION
8787 Georgia Avenue
Silver Spring, MD 20910-3760

Mandatory Referral Planning Board Hearing

Case No. 09736-MCPS-1

Seven Locks Elementary School Replacement Facility

A Mandatory Referral has been filed for the Seven Locks Elementary School with the Department of Planning, in conformance with Section 7-112, the Regional District Act. The hearing is tentatively scheduled for April 8, 2010, in the Auditorium at 8787 Georgia Avenue in Silver Spring. Public testimony will be taken at the hearing.

If you have any questions regarding this project or wish to see the proposed plans, please contact me, Mary Beth O'Quinn, by telephone at (301) 495-1322 or E-mail: Marybeth.oquinn@mncppc-mc.org.



MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND
PLANNING COMMISSION
8787 Georgia Avenue
Silver Spring, MD 20910-3760

Mandatory Referral Planning Board Hearing

Case No. 09736-MCPS-1

Seven Locks Elementary School Replacement Facility

A Mandatory Referral has been filed for the Seven Locks Elementary School with the Department of Planning, in conformance with Section 7-112, the Regional District Act. The hearing is tentatively scheduled for April 8, 2010, in the Auditorium at 8787 Georgia Avenue in Silver Spring. Public testimony will be taken at the hearing.

If you have any questions regarding this project or wish to see the proposed plans, please contact me, Mary Beth O'Quinn, by telephone at (301) 495-1322 or E-mail: Marybeth.oquinn@mncppc-mc.org.



MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND
PLANNING COMMISSION
8787 Georgia Avenue
Silver Spring, MD 20910-3760

Mandatory Referral Planning Board Hearing

Case No. 09736-MCPS-1

Seven Locks Elementary School Replacement Facility

A Mandatory Referral has been filed for the Seven Locks Elementary School with the Department of Planning, in conformance with Section 7-112, the Regional District Act. The hearing is tentatively scheduled for April 8, 2010, in the Auditorium at 8787 Georgia Avenue in Silver Spring. Public testimony will be taken at the hearing.

If you have any questions regarding this project or wish to see the proposed plans, please contact me, Mary Beth O'Quinn, by telephone at (301) 495-1322 or E-mail: Marybeth.oquinn@mncppc-mc.org.