



THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
Office of the Chairman, Montgomery County Planning Board

November 12, 2004

MEMORANDUM

TO: Montgomery County Planning Board

VIA: John A. Carter, Chief, Community-Based Planning Division *JAC*

Sue Edwards, I-270 Corridor Team Leader *SE*
Community-Based Planning Division

FROM: Nellie Shields Maskal, Senior Planner, I-270 Corridor Team *Nellie*
(301) 495-4567

Michael Zamore, Senior Planner, Countywide Planning Division *MZ*

SUBJECT 1: Final Water Quality Plan for Mandatory Referral No. 04309-MCPS-1: Clarksburg/Damascus Elementary School No. 7 - 23930 Burdette Forest Road, Clarksburg Master Plan and Hyattstown Special Study Area

SUBJECT 2: Mandatory Referral No. 04309-MCPS-1: Clarksburg/Damascus Elementary School No. 7 - 23930 Burdette Forest Road, Clarksburg Master Plan and Hyattstown Special Study Area

This combined staff report provides recommendations on the Final Water Quality Plan and Mandatory Referral No. 04309-MCPS-1 for the Clarksburg/Damascus Elementary School No. 7.

SUBJECT 1: STAFF RECOMMENDATION: Final Water Quality Plan

Staff recommends approval with the following condition:

- Comply with the conditions of the Montgomery County Department of Permitting Services (MCDPS) approval for the Special Protection Area stormwater management and sediment and erosion control.

SUBJECT 2: STAFF RECOMMENDATION: Mandatory Referral No. 04309-MCPS-1

Staff recommends approval with the following comments:

1. Submit a Local Area Transportation Review study if the student enrollment of Clarksburg/Damascus Elementary School No. 7 exceeds 740 students as analyzed in the submitted traffic study for this application.

2. Consider using locally sourced sustainable or renewable materials, recommended by the U.S. Green Building Council standards for Leadership in Energy and Environmental Design (LEED), where feasible, in the proposed construction.
3. Comply with stormwater and sediment control regulations of the MCDPS.
4. Coordinate with the M-NCPPC staff to provide pedestrian connections from the upper play area to the lower park area within the park.
5. Consider the following landscaping suggestions:
 - Remove evergreen shrubs adjacent to the parking lot and replace with plants that are tolerant to the sun.
 - Plant a row of smaller grasses or a triple row of Liriope, and add Black-eyed Susans at the foundation of the school.
 - Plant two shade trees in each island in the parking area.
 - Plant a row of shrubs between the parking lot and the asphalt surface for the future "Learning Cottages."
 - Locate landscaping outside the Public Utility Easements.

PROJECT SUMMARY

The Montgomery County Public Schools intends to construct Clarksburg/Damascus Elementary School No. 7 on Burdette Forest Road near the southeast quadrant of MD 121 and future Snowden Farm Parkway in the Clarksburg Town Center (Attachment 1: Vicinity Map). The 4.75-acre school site is located adjacent to the 19-acre Kings Local Park. It is needed to accommodate growing enrollment in the Clarksburg/Damascus communities and will relieve overcrowding at Clarksburg and Cedar Grove Elementary Schools. The opening date for the new 640-student school is September 2006. A new Clarksburg Area High School will also open in 2006 with a new service area within the existing Damascus Cluster.

The building program consists of 29 teaching stations with a core capacity of 740 students. The basic design for the school includes 25 classrooms with 4 additional classrooms and a gymnasium included as an add-alternate.

This park/school site was selected among six candidate sites in August 2002. It was acquired at no cost as a condition of subdivision.

The area that now comprises Kings Local Park is about 19 acres. The park will contain (when completed) 2 adult sized soccer fields, 2 picnic shelters, a multi-age playground, a gazebo, and a pond. It will also contain softball/soccer field to be used by the school for programmed field activities. There will be hard surface trails throughout the park to allow access from the school and local communities to the facilities in the park and the Clarksburg Greenway trail.

BACKGROUND

Description of Site

The school site is located on Burdette Forest Road near Sugarloaf Chapel Drive (see Attachment 2: Site Plan). This site is currently unimproved, and it is being graded concurrently with the adjoining Kings Local Park. It is bounded on the north by future Snowden Farm Parkway (A-305), on the east by Town Center residential development, and M-NCPPC parkland on three sides. Vehicular access to the school will be from Burdette Forest Road.

Project Description

The overall building program (approximately 82,511 square feet) consists of a base building (73,165 square feet) with four additional classrooms and a gymnasium (9,346 square feet) as an add-alternate. The new building will be in full compliance with the Americans with Disabilities Act. The design establishes a core capacity of 740 students for kindergarten through grade 5. Each floor will have two break-out rooms centrally located in the classroom clusters. This design will encourage a flexible approach that accommodates changing educational programs, interdisciplinary teaching methods, and efficient and cost-effective use of space. The multi-purpose room with stage, instructional media center and gymnasium will be accessible to the community for use during non-school hours.

The school will be a partial, two-story building with a steel frame structure, with brick and metal cladding on exterior facades (see Attachment 3: Exterior Elevations). The academic classrooms are clustered such that the first level contains pre-kindergarten through grade 2, and the second level contains classrooms for grades 3-5. The administrative suite is located at the front of the building to allow supervision of the main entrance, lobby, and the bus loop. The secondary entrance on the west side can be used to access the gymnasium and multi-purpose room after school hours. Parking for these community uses is located immediately adjacent to the secondary entrance.

The building forms an enclosed courtyard that will be used as an environmental laboratory. The landscape plan depicts where pathways and landscape areas are to be placed. Portions of the courtyard are reserved for student planting areas.

There will be approximately 90 parking spaces on site for school and park use. The new building and site circulation will establish a separate loop for car and bus traffic. Student drop-off, and faculty and visitor parking will enter from Burdette Forest Road.

Play areas are established adjoining the pre-kindergarten and kindergarten areas. The area for hard surface play is located on the western and northern edge of the building. Construction is expected to take approximately 18 months.

ANALYSIS

Master Plan

The subject parcel is located in the Town Center District of the 1994 approved and adopted Clarksburg Master Plan and Hyattstown Special Study Area. The Master Plan recommends the RMX-2 Zone for the parcel. The general location of an elementary school site to serve the Town Center community is depicted in Attachment 4: Master Plan. The Clarksburg/Damascus Elementary School No. 7 is consistent with the Master Plan recommendations and policies.

Transportation

Local Area Transportation Review

Based on the Local Area Transportation Review analysis submitted for this project, staff recommends approval of the mandatory referral with the following comment:

- Submit a Local Area Transportation Review study if the student enrollment of Clarksburg/Damascus Elementary School No. 7 exceeds 740 as analyzed in the submitted traffic study for this application.

The congestion standard for the Clarksburg Policy Area is a critical lane volume of 1,450. All analyzed intersections operate at an acceptable level within the congestion standard. With the future traffic volumes from the proposed school enrollment and projected roadway improvements to be provided by area developers, the level of traffic conditions at all analyzed intersections will be acceptable.

Access and Circulation

The existing roadway system and sidewalks in the vicinity of the site will provide adequate vehicular capacity and safe pedestrian accessibility to the school. The site access points and internal vehicular and pedestrian circulation system as shown on the site plan are adequate to safely accommodate the vehicular and pedestrian activities associated with operation of the elementary school.

One access point is from the school bus loading lot, and the other to the staff and visitor parking lot from Burdette Forest Road, currently under construction by Newland. Burdette Forest Road will connect to Snowden Farm Parkway (A-305) that was recently completed as a two-lane arterial roadway with an 80-foot right-of-way. Both A-305 and MD 121 have an eight-foot bike path (Class I, a shared use path), and they provide a pedestrian connection to the school via the adjacent Kings Local Park.

Pedestrian Connection to Park Areas

The site plan consists of the school structure, several playing fields, parking, and a bus area. There will be access from the school to the park/school athletic fields and other park facilities. Staff is concerned about the pedestrian connections from the upper play area to the lower park area. There is no ability to walk easily from the park to the playing fields. The steep slope and an eight-foot fence around the soccer field and softball field prevent pedestrian connections. Without a path connection from the back

of the school to MD 121, there will be erosion from footpaths and all pedestrians will be forced to go to the street to change levels (an unlikely prospect). Staff recommends that the MCPS coordinates with the M-NCPPC to provide pedestrian connections from the upper area to the lower park area be provided within Kings Local Park.

Landscaping

The tree planting adjacent to the right-of-way is too close to the street trees within the right-of-way. If trees are not located in the right-of-way with Site Plan #8-02014, the MCPS should install street trees between the curb and the sidewalk instead of behind the sidewalk.

Staff recommends that the parking spaces be moved into the site a minimum of five feet (reduce aisle widths to 20 feet) and plant outside the PUE within the property. The proposed shrubs, leather leaf viburnums, do very well in extremely shady gardens. Staff recommends a cultivar commonly known as Willowwood Viburnum (that is tolerant to sun) or *Viburnum Pragense*. Dogwoods could be replaced with a hardier tree such as *Kolreuteria Paniclata* or golden rain tree.

Provide a full row of smaller grasses or a triple row of Liriope, and Black-eyed Susans. The MCPS can use small shrubs, such as *Willow Leaf Cotoneaster* or *Bonica Rose*, as acceptable plant material.

Finally, the MCPS should plant two shade trees per island with Liriope or Cotoneaster under the shade trees. A row of shrubs should be planted between the parking lot and the asphalt surface for the future "Learning Cottages."

Environment

Forest Conservation Law Compliance

The school site was dedicated through the Clarksburg Town Center project. The existing approved Natural Resources Inventory and Forest Stand Delineation (NRI/FSD) and the approved Forest Conservation Plan (FCP) for the Town Center project covers the school site. Separate FCP and NRI/FSD are not required.

Final Water Quality Plan

The site is located in a Special Protection Area (SPA) designated by the Clarksburg Master Plan and subject to the approval of a Preliminary and Final Water Quality Plan (WQP). A Final WQP for the school received a conditional approval by MCDPS as stated in a letter dated November 1, 2004. Staff is satisfied that environmental legislation and guidelines have been adhered to and recommend approval of the part of the WQP under its purview.

The following site performance goals will be met as specified in the Preliminary WQP and further refined in the Final WQP:

- Protect streams and aquatic habitat.
- Protect seeps, springs, and wetland areas.
- Minimize storm flow runoff increases.

- Minimize increases to ambient water temperatures.
- Minimize sediment loading.
- Minimize pollutant loading (nutrients, pesticides, and other toxic substances).
- Maintain stream base flow.

Stormwater Management

Stormwater quantity control for the school site will be provided via underground detention. The structure will provide channel protection volume for the two-year storm with a maximum detention time of 12 hours as per State standards. Quality control will be provided via a combination of stormwater structures that include grass swales, surface sand filters, underground filtration structures, infiltration structures, and water quality inlets. Recharge will be provided in an infiltration trench along the park side of the property. Flow from all areas intended for vehicular use must be pretreated before entering infiltration and filtration structures. Water quality treatment must be provided for a minimum of one-inch over the proposed impervious area. The developer will dredge the King Pond to the depth as requested by the Parks Department, as part of this WQP.

Water Quality

The project site is located within the Town Center Tributary of the Little Seneca Creek Watershed. The *Countywide Stream Protection Strategy* lists habitat conditions as “good” and subwatershed/stream conditions as “excellent.” Years of agricultural use have added fine sediment to the stream. Little Seneca Creek is classified as a Use IV-P waterway indicating its suitability as recreational trout waters and public water supply.

Site Imperviousness

The proposed project will add 3.5 acres of impervious surface to the site. Although there are no imperviousness limitations within this part of the Clarksburg SPA, staff evaluated all opportunities to reduce impervious surfaces. Staff review shows that the number of parking spaces, the bus loop and other impervious surface areas are not excessive.

Leadership in Energy and Environmental Design (LEED)

The MCPS intends for the school to be designed using LEED principles. Staff appreciates that conservation of energy is a primary design factor. The importance and consideration placed on energy conservation is reflected in the configuration and orientation of the building, the selection of materials, and the mechanical/electrical systems used. The new building will be designed to exceed ASHRAE 90.1-2001 energy requirements, BOCA Basic Energy Conservation codes, and Montgomery County energy conservation codes. The design will incorporate the ANSI/ASHRAE/IES Energy Efficient Design for New Buildings. Energy efficient design features that will be incorporated into the project are as follows:

- Air lock vestibule at entry.
- An efficient relationship of fenestration and building materials to produce an efficient building envelope.
- Double-glazed thermal break windows.
- Operable windows for natural ventilation in all classrooms.

- Solar loads controlled by the use of high performance, spectrally selective, insulating glass units.
- An HVAC system that is zoned with individual room thermostats and controlled by the MCPS Energy Management System.
- Lighting and power electrical systems that will utilize techniques of energy conservation.
- Plumbing systems that minimize the use of water including domestic hot water requirements.
- Weather-tight windows and doors.

Staff recommends that MCPS consider using locally sourced sustainable or renewable materials, recommended by the U.S. Green Building Council Standards for LEED, where feasible, in the proposed construction.

PUBLIC OUTREACH

The MCPS convened a Facilities Advisory Committee to review various schematic design options for the project beginning in June and July of 2002. Representatives from the surrounding elementary schools and Parent Teacher Associations were included. The MCPS also briefed local residents and parents on the project on December 3, 2003 at Clarksburg Elementary School. Staff mailed notices of the Planning Board hearing to the Clarksburg Civic Association and Clarksburg Town Center Advisory Committee. Staff also discussed the proposed project with the Clarksburg Civic Association Planning Committee. Staff has not received written comments from the community.

CONCLUSION

This park/school project is exemplary in its design within the Town Center residential community. The use of LEED standards and sustainable technology is an important feature of the building design. The project has received great community support for the school and learning environment. The community anxiously awaits the opening of this facility and the resulting reduction of over-capacity conditions at Clarksburg and Cedar Grove Elementary Schools.

Staff recommends approval of this mandatory referral and transmittal of comments to the MCPS.

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Attachments:

1. Vicinity Map
2. Site Plan
3. Exterior Elevations
4. Master Plan
5. Transportation Planning Memo
6. Environmental Planning Memo