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Office of the Superintendent of Schools
MONTGOMERY COUNTY PUBLIC SCHOOLS
Rockville, Maryland

February 14, 2012

MEMORANDUM

To: Members of the Board of Education

From: Joshua P. Starr, Superintendent of Schools

Subject: Alternative Financing and School Modernization Approach

**Executive Summary**

Montgomery County Public Schools (MCPS) and school districts across the country are investigating cost-effective ways to fund capital projects in the current fiscal environment. One avenue that schools systems are exploring is alternative financing, such as performance contracting and public-private partnerships.

In addition, MCPS continues to address maintaining and updating aging facilities through school modernization. New code and regulation changes present challenges to find the most efficient and effective way to sustain MCPS facilities.

**Alternative Financing**

Alternative financing, such as performance contracting and public-private partnerships, could allow MCPS to reduce the backlog of various capital projects. MCPS has participated in alternative financing through a public-private partnership for the installation of artificial turf at Richard Montgomery and Walter Johnson high schools. Other small scale projects funded through state energy loan programs include a geo-exchange system at Richard Montgomery High School, lighting retrofit projects at various schools throughout the school system, and an automated occupancy sensor system at Roberto W. Clemente Middle School.

However, there are potential drawbacks to this type of financing. The following demonstrates a number of issues that should be considered before moving forward with performance contracting:

- While it is difficult to project the cost comparison, it is anticipated that the alternative financing delivery will be more costly than through the use of conventional General Obligation bonds.

- It is unclear at this point whether the financing costs may be repaid with General Obligation bonds. If financing costs must be paid back with current revenue, it will have direct impact on the operating budget.
- Because MCPS is not a funding body, any alternative financing plans will require county and state approvals.

Other jurisdictions in Maryland have evaluated the use of alternative financing to fund larger capital projects. For example, in 2005, Charles County Public Schools and Harford County Public Schools explored alternative financing for school construction projects, and both concluded that the proposed capital projects could be carried out at lower cost and with less risk using conventional bond financing.

**School Modernization Approach**

In 2003, MCPS contracted with VFA, Incorporated (VFA), a facilities assessment company, to examine the cost to maintain, renew, and update MCPS facilities compared to the cost to modernize facilities. This study was conducted to provide a basis for long-term planning to protect MCPS' investment in its school facilities. The VFA study noted that typically over a 40-year period, all of the building components in a school facility—with the exception of structural elements, such as concrete, steel, and masonry—must be replaced at least once. Based on this timeline, VFA found that for facilities 40 years of age or older, it was more cost effective to modernize than to upgrade through building system replacements.

The VFA study also found that an adequately funded systemic maintenance program becomes a cost-effective way to maintain facilities if the schools recently have been built or modernized and sufficient funding is provided for systemic maintenance projects. In contrast, facilities built when inferior construction methods were in place are more difficult to maintain in good condition even when more funds are dedicated to systemic maintenance projects. In effect, further investment in these older facilities gradually becomes a losing proposition and is not cost effective.

A feasibility study is conducted for every major capital project to explore possible options, develop cost estimates based on those options, study existing conditions of the site and facility, and conduct a life-cycle cost analysis to determine the most cost-effective option. It has been our experience that attempts to renovate older buildings result in poor efficiencies of the building systems and higher maintenance and operation costs over the life cycle of the building, compared to replacement of older buildings through modernization.

MCPS must continue to modernize its oldest facilities due to inferior construction methods at the time they were constructed or renovated, as well as new code and regulation requirements that significantly impact the building envelope. The requirements in building codes and regulations have changed significantly over the years and continue to evolve with an emphasis on their sustainability and environmental impacts. In many cases, required mechanical systems with significantly larger ducts cannot fit into the ceiling spaces of older buildings due to low floor

heights. New stormwater management regulations require surface treatments that need more land than ever before. Both local and state agencies have adopted regulations that require publicly funded projects to meet or exceed a Silver rating in Leadership in Energy and Environmental Design through the United States Green Building Council.

In order to achieve efficiencies where possible, MCPS utilizes prototype designs at both the elementary and middle school levels. For example, at the middle school level, the proposed Clarksburg/Damascus MS #2, Forest Oak, Lakelands Park, Rocky Hill, Shady Grove, and Takoma Park middle schools have utilized repeat designs. At the elementary school level, the proposed Clarksburg Village Site #1, William B. Gibbs, Jr., Great Seneca Creek, and Little Bennett elementary schools are repeat designs as well. Where applicable, we will continue to construct elementary and middle schools using repeat designs in order to realize potential cost savings.

In order to address our older facilities, a school assessment methodology, the Facilities Assessment with Criteria and Testing (FACT), was established in Fiscal Year (FY) 1993. School conditions were measured on numerous parameters and a total score was established to determine the order in which facilities would be modernized. To date, 31 elementary schools, 7 middle schools, and 8 high schools have been modernized based on their FACT scores. In 2011, 53 additional facilities were assessed—34 elementary schools, 11 middle schools, 3 special education centers, 4 elementary holding centers, and 1 alternative program center—and have been scored using an updated FACT methodology.

The code and regulation changes are difficult—if not impossible, in some cases—to accommodate when renovating buildings originally built during the 1950s to the 1970s. However, improved construction methods will enable our newer facilities to be sustained in good condition for a longer period of time than older facilities. Therefore, in order to adopt a long-term view on preserving its investment in school facilities, the Board of Education revised its policy on the modernization of schools. Board Policy FKB, *Modernization/Renovation*, was significantly revised and accordingly, on December 7, 2010, Policy FKB was renamed, *Sustaining and Modernizing Montgomery County Public Schools (MCPS) Facilities*. The shift in policy emphasis reflects a change in the long-range vision for MCPS school facilities.

The MCPS Capital Improvements Program (CIP) already includes capital projects directed at sustaining facilities in good condition. For example, the Planned Life-Cycle Asset Replacement Project funds numerous types of building system improvements. In addition, the Building Modifications and Program Improvements Project funds needed modifications tied to educational program needs. These programs are in addition to more specialized projects that support particular building system upgrades, including the Heating, Ventilation, and Air Conditioning (HVAC) Replacement and Roof Replacement projects.

**Conclusion**

While alternative financing offers the benefit of providing funds for a capital project that a school system cannot afford, alternative financing has long-term cost and risk impacts along with unanswered questions that need to be addressed. Therefore, my recommendation is to continue to evaluate alternative financing methods for school construction projects, and if the situation presents itself to utilize alternative financing in the future and would benefit the school system, it should be considered. Future opportunities for MCPS to utilize alternative financing could potentially include small HVAC projects and lighting retrofits where energy efficiency could offset the monthly finance payment; additional artificial turf installations at other fields throughout the county; and infrastructure projects that would be difficult to complete in the MCPS CIP.

Additionally, the current modernization approach is the most cost-effective way to modernize our older facilities built prior to the 1980s. It is my recommendation that we continue our current modernization approach and evaluate the most cost-effective method to modernize our school buildings based on the feasibility study findings. Future modernizations will focus on routine work orders and systemic replacements to extend the life cycle of the building.

Present at the table for today's discussion are Mr. James Song, director, Department of Facilities Management and Dr. David Lever, executive director, Maryland Public School Construction Program, Interagency Committee on School Construction.

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