MEMORANDUM

November 2, 2012

TO: Education Committee

FROM: Essie McGuire, Senior Legislative Analyst

SUBJECT: **Worksession – Special Appropriation to the FY13 Capital Budget and Amendment to the FY13-18 Capital Improvements Program, Montgomery County Public Schools, Technology Modernization, $2,042,000 E-rate Program Funds**

Today the Education Committee will hold a worksession to review a special appropriation to the FY13 Capital Budget and amendment to the FY13-18 Capital Improvements Program (CIP), Montgomery County Public Schools (MCPS), Technology Modernization, of $2,042,000 in Federal E-rate Program Funds.

The Board of Education requested this appropriation on September 11, 2012. A draft appropriation resolution is attached on circles 1-2. The County Executive recommended approval of this appropriation (transmittal attached beginning on circle 3) but also raised several qualifying questions he requests the Council address.

The Council introduced this appropriation request on October 23 and was scheduled to hold a public hearing on October 30. As the Council's session that day was cancelled due to Hurricane Sandy, the public hearing has been rescheduled to November 6. At the time of this printing, two speakers have signed up to testify.

BACKGROUND

Promethean Boards are the primary whiteboard components of interactive classroom technology systems which include other elements such as student response units. MCPS began implementing an interactive technology initiative in school year 2008-2009, acquiring 2,600 board systems and installing them in about two-thirds of all secondary classrooms. This initial phase was funded primarily by Federal E-rate reimbursement and financed over several years. MCPS made the final payment on the secondary classroom Promethean Boards in FY12.

E-rate funds are available through the Federal Communications Commission (FCC). This program allows school and library systems to claim Federal funds on local dollars paid for telecommunications expenses, such as telephone and network connections. Schools pay the total

bill for covered expenses, then claim additional funding based on FARMS enrollment and whether the district is urban or rural. These funds are received annually, and the Council has appropriated them as part of the Technology Modernization capital project.

On September 6, Superintendent Joshua Starr informed Council President Roger Berliner that MCPS intended to seek Board of Education approval of contracts and Council appropriation of Federal funds to expand the Promethean Board interactive technology initiative; this letter and an update memorandum to the Board are attached at circles 12-18.

On September 11, the Board of Education approved this initiative and requested a special appropriation of $2,042,000 for the FY13 capital budget for the Technology Modernization project (Board of Education transmittal and resolution attached at circles 6-9). The source of funds for this appropriation is Federal E-rate Program funds. The purpose of this funding request is to implement the Promethean Board technology systems in all elementary schools and complete installing wireless networks in all schools.

PROGRAMMATIC OVERVIEW

MCPS has provided extensive background materials and explanation detailing the purpose of the initiative and its relationship to the school system's instructional priorities. A helpful two page synopsis (circles 10-11) provides an overview of the technology approach and funding issues. MCPS also responded to Council staff's questions about the appropriation request (circles 19-24) and to the questions raised in the County Executive's transmittal to the Council (circles 25-27). Chief Technology Officer Sherwin Collette will attend the worksession to provide an overview for the Committee and discuss the initiative in more detail.

Concept: MCPS describes this initiative as building "essential components of our next generation learning infrastructure" (circle 10). The FY13 funding request will support purchasing Promethean Board systems for all elementary schools and completing wireless networks for all schools. MCPS emphasizes its shift to digital curriculum and content. The Education Committee recently discussed some of these practices in the context of the Curriculum 2.0 implementation, which includes online curriculum, teaching materials, and training.

MCPS sees the Promethean Board systems as the vehicle to implement digital and interactive curriculum, facilitate classroom practices that support students with language and special education needs, and to bring new digital content and virtual experiences into the classroom. MCPS states that these board systems are flexible in that they can adapt to a wide range of programs and other devices both now and in the future. As such, MCPS is not concerned that they will become obsolete but instead will be a platform to which other devices and uses can build and connect going forward as technology and digital curriculum continue to evolve.

MCPS views completing wireless connectivity as critical for teachers and students to access the new digital curriculum and resources and to connect classroom and personal mobile devices in the future. In addition, local and state required assessments are increasingly requiring online access in classrooms.

Equity: At this time, these technology elements are not uniform across the system, giving schools very different levels of ability to access and use technology. This situation has created inequity among elementary schools in particular, where some have been able to secure grant or PTA funding for an interactive whiteboard system and others have not. In addition, the lack of standard technology infrastructure will present increasing problems going forward as MCPS seeks to implement more of its system-wide curriculum and resources online and electronically.

As noted, Promethean systems are in place in two-thirds of all secondary classrooms. At the elementary level, 34 schools have no Promethean systems and 80 have fewer than 10. Only 11 of the 25 high schools and 31 of the 132 elementary schools have wireless connectivity.

Training: On circle 21, MCPS describes the training plan for teachers and other staff to use the new technology. MCPS states that professional development will coincide with the installation schedule, and that much of the training will be available through instructional specialists at the school who can support teachers during their planning time. It appears that the intent also is to connect the technology training to specific classroom and curriculum elements to integrate the technology into lessons and daily work. **The Committee may want to hear more detail from Mr. Collette on the training plan and how MCPS will work to ensure that teachers are able to comfortably and effectively use the technology and maximize the benefit of this investment.**

FUNDING ISSUES

The total cost for this initiative is $14.5 million, anticipated to be paid over five years at approximately $2.9 million per year. The total cost for the Promethean systems is $8.9 million, and the wireless network cost is $5.6 million.

E-rate funds support some, but not all, of the total cost of the initiative. As seen in the table on circle 11, MCPS will use $900,000 of its current revenue appropriation in FY13 for this purchase, and anticipates using $1.1 million of current revenue each year in FY15-17. MCPS states that this $1.1 million is identified within the current approved six-year funding level for the Technology Modernization project and that MCPS does not anticipate requesting additional current revenue for this purpose. The funding plan does require that the E-rate funds be added on top of the yearly appropriation in all years (FY13-17) of the plan.

MCPS' funding request is entirely consistent with the Council's recommendation for FY13-14. In its action on the FY13-18 CIP this spring, the Council explicitly stated its assumption that the school system would be able to add E-rate funds to the annual appropriation amount for FY13-14. **The Council also explicitly stated that this approach would not be assumed beyond FY14, and that the Council would have to reassess the fiscal situation in FY15 before determining how potential E-rate funds would be integrated into Technology Modernization funding in the outyears.**

Multi-year financing is not in and of itself an unusual or problematic approach; this funding plan is very similar to how MCPS purchases and finances replacement computers

through the technology modernization program, for example. It does, however, raise the issue of how funds will be available in the later years of the plan.

During the first round of Promethean Board purchases, MCPS had a four-year payment plan. MCPS stated to the Council in discussions at the time that if there was not sufficient funding available to support the payments in later years, it would reprioritize available funding to accommodate the payment obligation. In discussions this spring, however, when the FY12 payment was due, the school system raised serious objections to the Council's and Executive's request that the school system reprioritize $1.3 million of technology modernization funding to conserve limited current revenue due to overall budget constraints.

The Council cannot bind itself or future Councils except through law. Budgetary actions are by nature annual and must often change, for better or for worse, in response to immediate fiscal conditions. **In Council staff's view, it is critical that the Council and MCPS clarify now the expectations for FY15 and beyond to avoid conflict in case of future budget constraints. If MCPS has identified these technology purchases as such a high priority, it must be similarly willing to accept responsibility for accommodating future payment obligations in any fiscal or budgetary climate, even if reductions in other technology purchases may be required as a result.**

Council Staff Recommendation

In Council staff's view, MCPS has presented a thorough and reasonable explanation of the proposed technology framework that the Board of Education has determined is necessary to support its curriculum and educational priorities. **Council staff recommends approval of the special appropriation of E-rate funds totaling $2,042,000 in FY13 if MCPS confirms its understanding that the Council does not at this time commit to specific funding approaches for either E-rate or current revenue for FY15 and beyond, and that as a result MCPS will need to accommodate future payment obligations in FY15 and beyond through reprioritization, if necessary.**

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COUNTY COUNCIL
FOR MONTGOMERY COUNTY, MARYLAND

By: County Council

SUBJECT: Special Appropriation to the FY13 Capital Budget and
Amendment to the FY13-18 Capital Improvements Program
Montgomery County Public Schools
Technology Modernization MCPS (No. 036510), $2,042,000
Federal E-rate Program

Background

1. Section 308 of the County Charter provides that a special appropriation is an appropriation which states that it is necessary to meet an unforeseen disaster or other emergency, or to act without delay in the public interest. Each special appropriation shall be approved by not less than six Councilmembers. The Council may approve a special appropriation at any time after public notice by news release. Each special appropriation shall specify the source of funds to finance it.

2. Section 302 of the County Charter provides that the Council may amend an approved capital improvements program at any time by an affirmative vote of six Councilmembers.

3. The Board of Education requested a special appropriation for the Montgomery County Public Schools' Technology Modernization FY13 capital project as follows:

Project Name	Project Number	Amount	Source of Funds
Tech Mod	036510	$2,042,000	Federal E-Rate Program
TOTAL		$2,042,000	Federal E-Rate Program

4. The Board of Education requested a supplemental request of $2,042,000 in E-Rate funds for the Technology Modernization Project. The E-Rate funds from the Federal Communication Commission's Schools and Libraries Program provide incentives for the use of technology in schools by providing rebates on Internet and telecommunication service costs. MCPS proposes to use these funds to enter into a lease/purchase agreement with Dell Marketing, LP to acquire Promethean Boards and learning/response systems for elementary schools without them. MCPS also proposes to use a portion of the funds to

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expand wireless networking connectivity to elementary and high schools without wireless service.

5. Notice of public hearing was given and public hearing was held.

6. The County Council declares this request is in the public interest to be acted upon without delay as provided for under special appropriation requirements described in Article 3, Section 308 of the Montgomery County Charter.

Action

The County Council for Montgomery County, Maryland approves the following action:

A special appropriation to the FY13 Capital Budget and an amendment to the FY13-18 Capital Improvements Program are approved for the Montgomery County Public Schools as follows and as shown on the attached project description form.

Project Name	Project Number	Amount	Source of Funds
Tech Mod	036510	$2,042,000	Federal E-Rate Program
TOTAL		$2,042,000	Federal E-Rate Program

This is a correct copy of Council action.

_____
Linda M. Lauer, Clerk of the Council

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070460

Isiah Leggett
County Executive

MEMORANDUM

RECEIVED MONTGOMERY COUNTY COUNCIL
2012 OCT 12 PM 3: 32

October 11, 2012

TO: Roger Berliner, President, County Council

FROM: Isiah Leggett, County Executive

SUBJECT: Special Appropriation #10-E13-CMCPS-3 to the FY13 Capital Budget
             and the FY13-18 Capital Improvements Program
             Montgomery County Public Schools
             Technology Modernization (No. 036510)
             Education Rate (E-Rate) Program, $2,042,000

        I recommend a special appropriation to the FY13 Capital Budget in the amount of
$2,042,000 for the Montgomery County Public Schools (MCPS) to receive funding under the Education Rate
(E-Rate) Program for the Technology Modernization project.

        E-Rate is the Federal Communication Commission's Schools and Libraries Program that
provides incentives for the use of technology in schools by offering rebates on Internet and
telecommunication services. In FY13, MCPS will expend E-rate funds in the amount of $2,042,000 to pay
for the bulk of the first of five financing payments for Promethean interactive whiteboards (for elementary
schools without them) and for wireless networking equipment, software, and services (for elementary and
high schools without wireless service). These five payments total $2,908,296 each year from FY13-17 and
the difference between the payments and the yearly E-Rate reimbursement will be absorbed by the
Technology Modernization project's approved current revenue. In FY 2013, Montgomery County Public
Schools indicates they will be redirecting $866,296 in funds that have already been appropriated by the
Council to fund this initiative.

        I support MCPS expanding technological resources to all of its classrooms. While the Board
of Education should have the final say regarding the appropriate technology for MCPS, the Council and I
have a fiduciary responsibility to ensure that taxpayer dollars are spent prudently. As the Council discusses
this request, and before the Board takes final action on approval of this contract, I believe the following
issues should be addressed:

- Questions regarding the long-term and short-term fiscal stability of Promethean World have been
  raised and widely reported in the British financial press. At the beginning of this month, Promethean
  World suffered a second significant downturn in their stock values in just three months, resulting in
  stock valuations plummeting by 90%. While Promethean World reported adequate fund balances to
  cover their shorter term losses, they alerted their investors to the long-range nature of their financial
  problems. The Promethean Board technology is proprietary and alternative means of providing the
  whiteboard service to classrooms if the company were to go out of business would require investment
  in alternative hardware and software. I am concerned that MCPS' investment of taxpayer dollars into

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these whiteboards may not be viable or sustainable in the long term due to the company's significant and, by the company's own assessment, long-term, financial difficulties.

- This financial instability is of particular concern given the financing mechanism proposed by the Board of Education, which is a five-year lease through Dell Corporation. Montgomery County Public Schools staff should be able to provide details of the lease provisions and whether the County is protected should this product, related software, or support no longer be available.

- Additionally, given the rapid and constant evolution of technology, does this five year lease lock MCPS into proprietary technology that may be obsolete before we finish paying for it?

- Has MCPS fully explored alternative means of providing this same service to the classroom that is more nimble and adaptable to changing technology?

Again, I agree with the Board and the Superintendent that the interactive and student driven learning that this kind of technology provides is valuable and worthy of comprehensive implementation. However, I think it is incumbent on us all to ensure that the above issues are fully addressed prior to a further investment in this particular product

I appreciate your prompt consideration of this action.
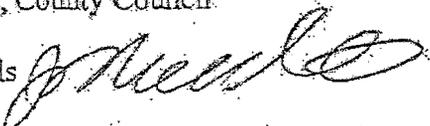
IL:jm

Attachment: Board of Education Request

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

September 14, 2012

MEMORANDUM

To: The Honorable Isiah Leggett, County Executive
          The Honorable Roger Berliner, President, County Council

From: Joshua P. Starr, Superintendent of Schools

Subject: Transmittal—Fiscal Year 2013 Supplemental Appropriation Request for
          Technology Modernization

          Board of Education Meeting Date: September 11, 2012

          Type of Action:

          | X | Supplemental Appropriation

          | | Transfer

          | | Notification

JPS:JS:ak

Attachment

Copy to:
  Mr. Bowers
  Mrs. Hurley
  Montgomery County Office of Management and Budget

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

September 11, 2012

MEMORANDUM

To: Members of the Board of Education

From: Joshua P. Starr, Superintendent of Schools

Subject: Approval of Contracts and Fiscal Year 2013 Supplemental Appropriation Request
           for Technology Modernization

Background

The transformation in instructional content that is underway has resulted in fundamental changes
in the nature of instructional materials and how these materials are accessed and used. This is
underscored by the shift from printed textbooks to interactive and electronic text and digital
instructional content. Through digital curricula, instructional resources, and interactive
whiteboard and mobile technologies, Montgomery County Public Schools (MCPS) has begun to
transform its learning environments.

These changes are facilitating important shifts in teaching and learning. As a result, MCPS has
begun to create learning environments that integrate robust wireless networks to facilitate
differentiated and personalized learning using mobile computing devices and interactive
whiteboard technologies. These learning environments allow teachers to integrate digital
instructional resources and enable students to be collaborative learners.

While MCPS expanded the implementation of the Promethean interactive whiteboards and
related instructional technologies to 65 percent of all secondary classrooms during the 2008–
2009 school year, funding for a similar effort in elementary schools has not been available. As a
result, the implementation of Promethean interactive technologies at the elementary school level
has been the result of grant and Parent Teacher Association funding initiated by individual
schools or through building modernization and additional projects. Thirty-four elementary
schools have no Promethean interactive whiteboards and 80 elementary schools have fewer than
10 Promethean interactive whiteboards. Similarly, only 31 of the 132 elementary schools have
full-building wireless connectivity, and only 11 of our 25 comprehensive high schools have

comparable full-building wireless network coverage. All middle schools have full-building wireless networks—a result of prioritization to support the middle school reform initiative. However, more than 80 percent of these schools require upgrades at this time.

In support of the district's ongoing efforts to improve teaching and learning, MCPS will purchase Promethean interactive technologies for approximately 2,000 elementary classrooms and enter into a finance agreement with Dell Financial Services L.L.C. to fund this purchase. In addition, MCPS will purchase Cisco wireless networking equipment, software, and services for all schools and enter into a finance agreement with Banc of America. The absence of a systemic funding mechanism has perpetuated the perception of an inequitable distribution of these technologies.

The Technology Modernization (Tech Mod) Program approved by the County Council in the Fiscal Year (FY) 2013–2018 Capital Improvements Program (CIP) and the FY 2013 Capital Budget enables us to complete the implementation of the Promethean interactive technology across elementary schools and also implement wireless networks across all schools. The County Council's approval of the Tech Mod Program assumed that in the first two years of the CIP, the school system would be able to add federal Education Rate (E-Rate) funds to the annual project appropriation, and that the Board of Education would request supplemental appropriations to expend the E-Rate reimbursement funds to support technology priorities. It is important that we are able to use these E-Rate funds to address technology priorities of the district, including Promethean interactive technologies and wireless networks.

E-Rate, the Federal Communication Commission's Schools and Libraries Program, provides incentives for the use of technology in schools by offering rebates on Internet and telecommunication service costs. Since E-Rate's inception 13 years ago, MCPS has used its rebates to support improving student access to technology by purchasing technology hardware and software. These rebates apply to expenditure costs the district incurs for Internet, telephone (land lines and wireless) services, and network connections.

The County Council approved the expenditure of E-Rate funds in the MCPS CIP beginning in FY 2010. The current projection of E-Rate reimbursement receipts for FY 2013 is $2,042,000 and $1,800,000 for FY 2014 through FY 2017. A supplemental appropriation of $2,042,000 is necessary to complete the implementation of Promethean interactive technologies across all elementary school classrooms and to implement secure wireless networks across all schools. FY 2013 E-Rate funds are available from already qualified, eligible E-Rate services that will be received this year. Therefore, I recommend that the Board of Education approve the following resolution.

WHEREAS, Board of Education approval is required to purchase Promethean interactive classroom technology systems for approximately 2,000 elementary school classrooms at a total cost of $8,949,719, and to finance the purchase with Dell Financial Services L.L.C. for a five-year period; and

WHEREAS, Board of Education approval is required to purchase Cisco wireless networking equipment, software, and services for schools at a total cost of $5,591,758, and to finance the purchase with Banc of America for a five-year period; and

WHEREAS, When the County Council approved the Technology Modernization Program in the Fiscal Year 2013–2018 Capital Improvements Program and the Fiscal Year 2013 Capital Budget, the federal Education Rate funds were assumed to be an additional source of funding for the Technology Modernization Program in Fiscal Years 2013 and 2014 and that the Board would request a supplemental appropriation to expend these funds; and

WHEREAS, Federal Education Rate funds in the amount of $2,042,000 are available as Fiscal Year 2013 appropriation to provide the additional funding necessary to roll out Promethean interactive technology across all elementary schools and to implement wireless networks across all schools; now therefore be it

Resolved, That the Board of Education approves the purchase of Promethean interactive classroom technology systems (pursuant to the state of Maryland contract 050B7800023) at a total cost of $8,949,719; and be it further

Resolved, That the Board of Education finances this purchase of Promethean interactive classroom technology for a five-year period ($1,789,944 per year for Fiscal Years 2013–2017) with Dell Financial Services L.L.C.; and be it further

Resolved, That the Board of Education approves the purchase of Cisco wireless networking equipment, software, and services (pursuant to a Montgomery County Public Schools Request for Proposal, #7067.4) at a total cost of $5,591,758; and be it further

Resolved, That the Board of Education finances the purchase of Cisco wireless networking equipment, software, and services for a five-year period ($1,118,352 per year for Fiscal Years 2013–2017) with Banc of America; and be it further

Resolved, That the Board of Education requests a Fiscal Year 2013 supplemental appropriation in the amount of $2,042,000 to expand federal Education Rate funds received in Fiscal Year 2013 to support implementation of these essential technology infrastructure priority improvements; and be it further

Resolved, That the purchase of the equipment is dependent on County Council approval of the supplemental appropriation; and be it further

Resolved, That a copy of this resolution be transmitted to the county executive and the County Council.

JPS:LAB:SAC:sjk

Technology Modernization -- No. 036510

Category	Montgomery County Public Schools	Date Last Modified	May 22, 2012
Subcategory	Countywide	Required Adequate Public Facility	No
Administering Agency	Public Schools	Relocation Impact	None
Planning Area	Countywide	Status	On-going

22,589

EXPENDITURE SCHEDULE ($000)

Cost Element	Total	Thru FY11	Est. FY12	Total 6 Years	FY13	FY14	FY15	FY16	FY17	FY18	Beyond 6 Years
Planning, Design, and Supervision	247,647	98,182	18,178	131,287	20,547	22,088	22,758	22,538	21,358	21,998	0
Land	0	0	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	0	0	0	0	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	247,647	98,182	18,178	131,287	20,547	22,088	22,758	22,538	21,358	21,998	0

FUNDING SCHEDULE ($000)

	Total	Thru FY11	Est. FY12	Total 6 Years	FY13	FY14	FY15	FY16	FY17	FY18	Beyond 6 Years
Current Revenue: General	132,449	19,631	4,239	108,579	15,793	18,642	8,989	21,959	21,278	21,918	0
Current Revenue: Recordation Tax	106,532	73,251	10,573	22,708	4,754	3,446	13,769	579	80	80	0
Federal Aid	8,666	5,300	3,366	0	0	0	0	0	0	0	0
Total	247,647	98,182	18,178	131,287	20,547	22,088	22,758	22,538	21,358	21,998	0

DESCRIPTION

22,589   2,042

The Technology Modernization (Tech Mod) project is a key component of the MCPS strategic technology plan, Educational Technology for 21st Century Learning. This plan builds upon the following four goals: students will use technology to become actively engaged in learning, schools will address the digital divide through equitable access to technology, staff will improve technology skills through professional development, and staff will use technology to improve productivity and results.

An FY 2005 appropriation was approved to roll-out the implementation of the technology modernization program. The County Council, in the adopted FY 2005-2010 CIP reduced the Board of Education's request for the outyears of the FY 2005-2010 CIP by $10.945 million. An FY 2006 appropriation and amendment to the FY 2005-2010 CIP was approved to continue the rollout plan. An FY 2007 appropriation was approved to continue this level of effort project. The expenditures for FY 2007 reflect three years of finance payments, as originally planned, in addition to the current year refreshment costs. The expenditures in the outyears represent the ongoing costs of a four-year refreshment cycle. An FY 2008 appropriation was approved to continue this project.

The Board of Education, in the Requested FY 2009 Capital Budget and FY 2009-2014 CIP, included additional funding for new intiatives for the Technology Modernization program. On May 22, 2008, the County Council approved an FY 2009 appropriation as requested by the Board of Education; however, the County Council reduced the expenditures earmarked for the Middle School Initiative program for FY 2010-2014. In FY 2009, MCPS purchased and installed interactive classroom technology systems in approximately 2/3 of all secondary classrooms. The total cost is projected at $13.3 million, financed over a four-year period ($3.4M from FY 2009-2012). The funding source for the initiative is anticipated to be Federal e-rate funds. The Federal e-rate funds programmed in this PDF consist of available unspent e-rate balance: $1.8M in FY 2010, $1.8M in FY 2011, and $327K in FY 2012. In addition, MCPS projects future e-rate funding of $1.6M each year (FY 2010-2012) that may be used to support the payment obligation pending receipt and appropriation. No county funds may be spent for the initiative payment obligation in FY 2010-2012 without prior Council approval.

This PDF reflects a decrease in the FY 2010 appropriation and FY 2010-2012 expenditures as requested by the Board of Education. The decrease in expenditures will temporarily extend the MCPS desktop replacement cycle from four to five years. An FY 2011 appropriation was approved; however, it was $1.011 million less than the Board of Education's request. The appropriation will continue the technology modernization project and fund one additional staff position for this project. During the County Council's reconciliation of the amended FY 2011-2016 CIP, the Board of Education's requested FY 2012 appropriation was reduced by $3.023 million due to a shortfall in Recordation Tax revenue. An FY 2012 supplemental appropriation of $1.339 million in federal e-rate funds was approved; however, during the County Council action, $1.339 million in current revenue was removed from this project resulting in no additional dollars for this project in FY 2012. An FY 2013 appropriation was requested to continue the technology modernization project and return to a four-year replacement cycle starting in FY 2013; however, the County Council, in the adopted FY 2013-2018 CIP reduced the request and therefore, the replacement cycle will remain on a five-year schedule.

APPROPRIATION AND EXPENDITURE DATA		
Date First Appropriation	FY03	($000)
First Cost Estimate Current Scope	FY00	0
Last FY's Cost Estimate		216,755
Appropriation Request	FY13	20,547
Appropriation Request Est.	FY14	22,088
Supplemental Appropriation Request		*2,042*
Transfer		0
Cumulative Appropriation		116,360
Expenditures / Encumbrances		99,105
Unencumbered Balance		17,255
Partial Closeout Thru	FY10	16,050
New Partial Closeout	FY11	0
Total Partial Closeout		16,050

COORDINATION ($000)	FY 13	FYs 14-18
Salaries and Wages:	1893	9465
Fringe Benefits:	807	4035
Workyears:	20.5	
102.5		

MAP
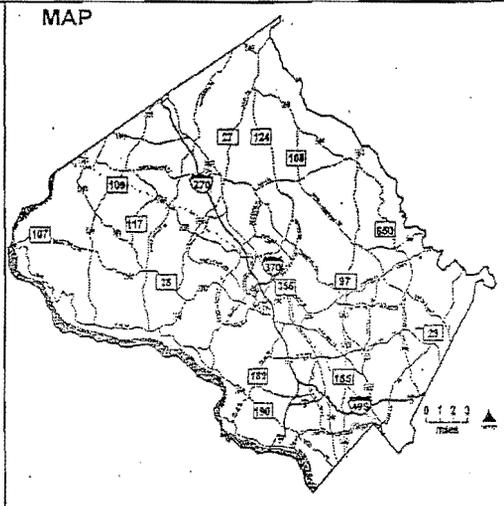
Understanding our Technology Priorities for 2012-2013

Through digital curricula, instructional resources, and interactive whiteboard and mobile technologies, Montgomery County Public Schools (MCPS) has begun to transform its learning environments. These changes are facilitating important shifts in teaching and learning that better enable differentiated and personalized learning. The absence of a systemic funding mechanism has resulted in an inequitable distribution of these core instructional technologies. To address the inequity in student access to core instructional technologies, the Montgomery County Board of Education passed a resolution on September 11, 2012, approving the purchase of:

- Interactive whiteboard technology for every elementary school classroom and;
- Wireless networks for every school in MCPS.

Why are we doing this?

We are eliminating the disparity in student access to core instructional technologies. Parent and staff feedback has consistently raised concerns regarding the inequity in the availability of these technologies.

- We are building out the infrastructure to facilitate greater flexibility in accessing digital content, curriculum, and instructional resources.
- The installation of wireless networks in all schools allows us to begin integrating mobile technologies in all classrooms—including the ability for students and staff to bring their own devices to school.
- These technologies directly support students with different needs, including special education students and students who speak different languages by integrating digital and multisensory modalities into student-centered learning experiences.
- This project would level the technology playing field across the district, providing a strong foundation for the growing use of technology in the MCPS instructional program.
- Together these are two essential components of our next generation learning infrastructure.
- Installation will begin during this school year and will be completed by the start of the 2013-2014 school year. Professional development planning has begun and a variety of professional development opportunities will be coordinated for elementary school staff as each schools' installation is scheduled.

What will this effort cost?

Discounted pricing and financing enables us to complete the implementation of Promethean interactive technology across all elementary schools and the implementation of wireless networks in every school.

- The total cost for both projects is $14,541,476.
- The cost to implement the Promethean technologies in 2000 elementary classrooms is $8,949,719 financed at zero percent over five years—annual payment of $1,789,944.
- The cost to implement secured wireless networks across all schools is $5,591,757 financed at zero percent for five years—annual payment of $1,118,352.
- The total annual payment for both efforts is $2,908,296 for each of the next five years.
- This is more than $5,000,000 in pricing discounts, interest savings, and training and equipment credits.

How are we paying for this?

The funding for these projects is part of the Fiscal Year (FY) 2013-2018 Technology Modernization (Tech Mod) budget in the Capital Improvements Program and E-rate funds that will be received by MCPS.

- We are financing these purchases in the same manner we purchase computers for Tech Mod.

- No request for additional local resources from the county, beyond those in the FY 2013-2018 Tech Mod budget, will be required to fund these projects because of the availability of E-Rate funds.
- The County Council's May 2012 approval of the Tech Mod Program assumed that in the first two years of the Tech Mod CIP, the school system would be able to add E-Rate funds to the annual project appropriation.
- A supplemental appropriation by the County Council is needed for MCPS to expend the E-Rate funds.

Years	General Revenue	Education Rate (E-rate)
Fiscal Year 2013	$900,000	$2.04 million
Fiscal Year 2014	$0	$3.2 million
Fiscal Years 2015-2017	$1.1 million (per year)	$1.8 million (per year)

Are there any concerns about using E-rate funds for this project?

The E-Rate program was established by the Telecommunications Act of 1996 to help schools and libraries obtain affordable telecommunications and Internet access. The program is funded by the Universal Service Fund—an assessment on telecommunication companies not the federal budget. The program is administered by the Universal Services Administration Company (USAC) for the Federal Communication Commission.

- The intent of the E-Rate Program is to strengthen student access to advanced information and telecommunications technology and to ensure these technologies are effectively utilized.
- The E-Rate Program provides discounts (through reimbursements) to school systems to obtain affordable telephone, Internet access, and other telecommunications services.
- MCPS pays vendors the full cost for approved eligible services and is reimbursed by filing the appropriate forms and documentation for eligible services with the USAC.
- These E-Rate funds are reimbursements MCPS receives from eligible expenditures on telecommunication services.
- MCPS and districts across the country historically have used the reimbursements to invest in technologies that strengthen students' ability to access and use digital learning resources. This is not a new approach and is consistent with the spirit of the E-Rate program.

How will these technologies be procured?

MCPS procurement practices comply with State law, save the district money, result from locally initiated solicitations, and also leverages the combined purchasing power of multiple state and federal entities, when appropriate.

- In its 2009 report, the Maryland General Assembly's Office of Legislative Audits noted that "MCPS has instituted certain best practices that should enhance the cost effectiveness of its procurements. These include piggybacking onto contacts already procured by the State and other local governments, and participating in cooperative purchasing organizations."
- Purchasing from contracts that result from multi-entity and state solicitations save MCPS by reducing the cost of the procurement and enabling the district to negotiate deeper discounts.
- The Promethean interactive technologies will be purchased under current and existing contracts executed by two statewide organizations—The State of Maryland and the Maryland Education Enterprise Consortium.
- These statewide contracts were put out for competitive bid and qualifying vendors were identified. They are used routinely by MCPS and other school systems to computers, peripherals, and technology services.
- By contrast, the wireless technologies and services will be purchased from a contract that resulted from an MCPS initiated request for proposals.

🖊 MCPS MONTGOMERY COUNTY PUBLIC SCHOOLS

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September 6, 2012

RECEIVED
MONTGOMERY COUNTY
COUNCIL

Malcolm Baldrige
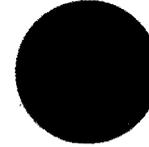National Quality Award
2010 Award Recipient

The Honorable Roger Berliner, President
Montgomery County Council
Stella B. Werner Council Office Building
100 Maryland Avenue
Rockville, Maryland 20850

070010

Dear Council President Berliner:

Next Tuesday, I will recommend that the Board of Education approve contracts that will enable Montgomery County Public Schools (MCPS) to greatly expand the use of Promethean and wireless technology in our school buildings to enhance student learning. Importantly, we will not be asking the Montgomery County Council for new local funding for this project, but we will be seeking approval from the Council for a supplemental appropriation to use federal E-Rate dollars to partially fund these purchases. The balance of the funds needed for the project will come from the Technology Modernization Capital Improvements Program the Council approved in May.

As you saw last week at the new Flora M. Singer Elementary School, Promethean boards have become an essential learning tool and an excellent way to engage young learners. This interactive technology allows instruction designed to draw each student into hands-on interaction with the curriculum. In addition, the interactive software and library of instructional resources provide teachers with ready-made interactive learning activities for students. These interactive technologies are facilitating equitable classroom practices, encouraging student-driven learning rather than teacher-directed instruction, and increasing student conversation and collaborative feedback.

I am pleased to share with you that the six-year Technology Modernization Program, approved by the County Council in the FY 2013–2018 Capital Improvements Program (CIP), and funding for the project in the FY 2013 Capital Budget enable us to begin this implementation of Promethean interactive technology in all elementary schools and wireless networks across all schools. The County Council's approval of the Technology Modernization Program assumed that in the first two years of the program, the school system would be able to add E-Rate funds to the annual project appropriation, and that the Board of Education would request supplemental appropriations to expend the E-Rate reimbursement funds in the future to support technology priorities. The amount of the supplemental appropriation for FY 2013 is $2,042,000.

We have secured discounted pricing and financing to install the Promethean Boards in all elementary schools and wireless networks in all schools. The total cost of this effort is $14,541,477. The total annual payment for both deployment efforts will be $2,908,296 per year for each of the next five years.

Office of the Superintendent of Schools

850 Hungerford Drive, Room 122 ♦ Rockville, Maryland 20850 ♦ 301-279-3381

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The acquisition of these interactive whiteboard and wireless technologies will be procured through the existing agreements that were competitively re-bid and awarded during the past six months. I am recommending that the Board of Education approve this expenditure and contract at its meeting on September 11, 2012. We anticipate sending the supplemental appropriation request to you shortly thereafter.

The Board and I, and, most importantly, our students will appreciate the Council's prompt consideration of our request so that we may begin installing these excellent tools in our classrooms this school year.

I am enclosing a memorandum, dated September 6, 2012, that I sent to the Members of the Board of Education, which provides additional background information that may be helpful. As always, we appreciate your support for the students of Montgomery County Public Schools and are available to answer any questions you may have.

Sincerely,

Joshua P. Starr, Ed.D.
Superintendent of Schools

JPS:sln

Enclosure

Copy to:
　Members of the County Council
　Members of the Board of Education
　Mr. Bowers
　Dr. Schiavino-Narvaez
　Dr. Statham
　Mr. Edwards
　Mr. Collette

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

September 6, 2012

MEMORANDUM

To: Members of the Board of Education

From: Joshua P. Starr, Superintendent of Schools

Subject: Update on Technology Priorities

Executive Summary

The purpose of this memorandum is to provide an update on plans to complete the implementation of Promethean interactive technology across elementary schools and wireless networks across all schools between November 2012 and April 2013. Through substantial discounts and zero percent financing, we can take this systemic step forward to strengthen our technology infrastructure to better support teaching and learning in a digital age. Because dramatic changes in the accessibility of digital content are facilitating important shifts in teaching and learning, it is critical to create learning environments that integrate robust wireless networks to facilitate differentiated and personalized learning using mobile computing devices and interactive whiteboard technologies. These learning environments allow teachers to use digital curriculum to empower students to be collaborative, critically thoughtful learners. Moving forward, these technologies are an essential part of the foundation of the district's learning infrastructure. The six-year Technology Modernization (Tech Mod) Program, approved by the County Council in the Fiscal Year (FY) 2013–2018 Capital Improvements Program (CIP) and the FY 2013 Capital Budget, and the use of federal Education Rate (E-Rate) funds enable us to deploy these technologies this year.

Background

While Montgomery County Public Schools (MCPS) expanded the implementation of Promethean interactive whiteboards and related instructional technologies to 65 percent of all secondary classrooms during the 2008–2009 school year, funding for a similar effort in elementary schools has not been available. As a result, the implementation of Promethean interactive technologies at the elementary level has been the result of grant and Parent Teacher Association funding initiated by individual schools or through building modernization and additional projects. The absence of a multiyear and systemic funding has perpetuated the perception of an inequitable distribution of these technologies. Thirty-four elementary schools have no Promethean interactive whiteboards and 80 elementary schools have fewer than 10 Promethean interactive whiteboards.

Similarly, creating wireless networks in our schools is a key element in our overall infrastructure improvement strategy for providing greater access to digital curricular resources and instructional technology directly in our classrooms. Currently, only 31 of the 132 elementary schools have full-building wireless connectivity, and only 11 of our 25 comprehensive high schools have similar full-building wireless coverage. Although all middle schools have full- building wireless networks—a result of prioritization to support the middle school reform initiative—more than 80 percent of these schools require upgrades at this time.

Adding these technology tools are important because MCPS is beginning to introduce content and curriculum that either are digital or are quickly transitioning to digital media. This transformation is accelerating a shift from printed textbooks to interactive, digital curriculum and instructional materials. Moreover, this digital shift also is reshaping how and from where these instructional materials are accessed, used, and shared. To facilitate flexible ways of accessing digital content and curriculum, as well as to connect communities of learners across classrooms and around the world, core technology components must be present.

Through interactive whiteboard and mobile technologies MCPS has begun to transform our learning environments to enable timely access to our digital curriculum and instructional resources. These technologies facilitate ready access to video conferencing and virtual fieldtrips with experts and students around the world and incorporate interactive simulations that support Science, Technology, Engineering, and Mathematics (STEM) learning. This interactive technology allows instruction designed to draw each student into hands-on interaction with the curriculum.

How we respond to and plan for integrating the key instructional technologies is crucial to our long-term success in meeting the needs of a new generation of learners. Promethean interactive whiteboards and integrated assessment and instructional resources are a core component in providing students access to digital content and deepening student engagement. In addition, the interactive software and library of instructional resources provide teachers with ready-made interactive learning activities for students. Unlike their competitors, Promethean Ltd.'s primary focus is on developing solutions for the K-12 education market. In addition to interactive classroom technologies, MCPS teachers benefit from professional development supported by Promethean trainers, access to materials from a variety of publishers, the integration of assessment systems and devices, and a national repository of instructional resources.

These interactive technologies are facilitating equitable classroom practices, encouraging student-driven learning rather than teacher-directed instruction, and increasing student conversation and collaborative feedback. Completing this systemic implementation across all elementary schools will ensure that all elementary school students—including special education students and students for whom English is a second language will have access to these learning tools and to engaging instruction. Our experiences to date demonstrate that Promethean interactive classroom technologies are having a tremendous impact in engaging all students, including students with disabilities who have transitioned to less restrictive settings. Through these assistive and adaptive uses of Promethean learning technologies, special education students are able to fully engage in these interactive learning environments. For these students, both engagement and a willingness to respond in a setting with an audience of peers have improved markedly. In many cases, students who previously were reluctant to demonstrate their knowledge now volunteer enthusiastically.

Similarly, implementing a districtwide wireless technology infrastructure It will paves the way for the integration and expansion of mobile technologies in our classrooms—including the potential for staff and students to bring their own devices to school. This type of mobile learning environment enhances teachers' efforts to provide differentiated learning and flexible formative and performance-based assessment of student learning. While the proposed wireless network is designed to be a private network, the integrated identity, network, and device management systems will enable the wireless network to segregate guest devices and access.

Plan for FY 2013

Discounted pricing and financing has been secured, pending Board of Education approval, which will enable us to both complete the implementation of Promethean interactive technology across all elementary schools and also to implement a wireless network in every school. The total cost of these implementation efforts is $14,541,477. The total annual payment for both deployment efforts will be $2,908,296 per year for each of the next five years. The attached table summarizes the budget and expenditure totals during these five years of the Tech Mod Program CIP.

These costs will be programmed as part of our infrastructure and hardware expenditures in the Tech Mod Program CIP. The acquisition of these interactive whiteboard and wireless technologies will be procured through the existing agreements that were competitively re-bid and awarded during the past six months. Spending and contracting consent from the Board of Education will be requested at its meeting on September 11, 2012. Prioritizing and programming these infrastructure and hardware costs in this manner provides a systemic way to address significant gaps in students' access to updated digital curricular and instructional resources and technology.

The cost to purchase Promethean technologies for 2,000 elementary classrooms is $8,949,719. This amount will be financed at zero percent over five years, with an annual payment of $1,789,944. All Promethean technologies (interactive whiteboards and learning response systems) included in the purchase are the newest available versions. Because Promethean does not sell directly to school systems, the purchase and financing will be executed through Dell and Dell Financial Services L.L.C., Promethean's reseller for MCPS. The cost to implement secured wireless networks across all schools is $5,591,758. This amount also will be financed at zero percent for five years, with an annual payment of $1,118,352. All Cisco technologies (access points, controllers, and management systems) are their newest available products. All interactive whiteboards and wireless network equipment will be available at the time the contract is executed. Installation will occur during a four-month period in coordination with each school.

Tech Mod Program is Essential for a Robust Technology-Enabled Learning Infrastructure

Adequate funding for the Tech Mod Program is the cornerstone for transforming our infrastructure, classroom spaces, and learning environments for teaching and learning in the digital age. The six-year Tech Mod Program approved by the County Council in the FY 2013–2018 CIP and funding for the project in the FY 2013 Capital Budget provides the funds necessary to complete this work.

Much of the funding for the plan will come from federal E-rate funds. In fact, the County Council's approval of the Tech Mod Program assumed that in the first two years of the Tech Mod CIP, the school system would be able to add E-Rate funds to the annual project appropriation, and that the Board of Education would request supplemental appropriations to expend the E-Rate reimbursement funds in the future to support technology priorities. The availability of the E-Rate funds means that we do not have to request additional local resources from the county to fund these initiatives.

These revised budget expenditures outlined for the Tech Mod Program will significantly strengthen the school system's ability to maintain a relevant and competitive instructional program. This is a first step in reprioritizing the Tech Mod Program budget to respond to the growing demand of mobile computing and extending learning opportunities beyond the school walls. To prepare students to succeed in college and career pursuits, MCPS schools must have the ability to use instructional resources and pedagogical strategies that incorporate the technology that is part of daily life outside the classroom. Sustaining appropriate funding for the Tech Mod Program is essential to transforming our learning environments for teaching and learning in the digital age.

If you have questions, please contact Mr. Larry A. Bowers, chief operating officer, at 301-279-3626 or Mr. Sherwin Collette, chief technology officer, at 301-279-3581.

JPS:sjk

Attachment

Copy to:
  Mr. Bowers
  Dr. Schiavino-Narvaez
  Dr. Statham
  Mr. Edwards
  Mr. Collette

Summary of Revenue and Expenditures FY2013-2017

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Board Requested	$ 21,846,609	$ 25,455,575	$ 26,804,614	$ 26,557,955	$ 3,997,215
Council Approved Budget	$ 20,547,000	$ 22,088,000	$ 21,758,000	$ 22,558,000	$ 21,558,000
E-Rate Projections: Priority 1 Telecommunications	$ 2,041,192	$ 1,800,000	$ 1,800,000	$ 1,800,000	$ 1,800,000
E-Rate Projections: Priority 2 Internal Connections	$	$ 1,400,000	$	$	$
Revenue Subtotal	$ 22,588,192	$ 25,288,000	$ 24,558,000	$ 24,558,000	$ 21,558,000
Tech Mod Project Payments: Computers, Printers, Staff, Networks, and Software	$ 19,336,409	$ 22,379,704	$ 21,649,704	$ 21,429,704	$ 20,249,704
Cisco/Promethean Annual Payment	$ 2,908,296	$ 2,908,296	$ 2,908,296	$ 2,908,296	$ 2,908,296
Variance	$ 343,487.00	$	$	$	$

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Office of the Chief Operating Officer
MONTGOMERY COUNTY PUBLIC SCHOOLS
Rockville, Maryland

October 24, 2012

MEMORANDUM

To: Ms. Essie McGuire, Senior Legislative Analyst, County Council

From: Larry A. Bowers, Chief Operating Officer

Subject: Responses to Questions about the Technology Modernization Supplemental

Attached are responses to questions about the technology modernization supplemental. If you
have any questions, please contact me at 301-279-3626 or Mr. Sherwin Collette, chief
technology officer, at 301-279-3582.

LAB:SC:lsh

Attachment

Copy to:
  Members of the Board of Education
  Dr. Starr
  Mr. Collette
  Ms. Hughes

**County Council request for Information Regarding
the Technology Modernization Supplemental**

I. Promethean Boards

1. Please detail what the $8.9 million will purchase (such as system components, software, warranty or technical support, etc).

The plan is to purchase 2,000 Promethean boards (their newest 500 series—87 inch that was released in 2011); 1,600 student response systems (900 that integrate text responses, mathematics equation editor and QWERTY keyboard); 300 slates that enable interaction with the boards from anywhere in the room; 1,200 document cameras that integrate with the board and project digital images of student work or exhibits/experiments and allow for annotation of these images; 1,001 licenses to run the student response system on designated mobile computers or tablets; and a dedicated teaching and learning staff person to support the professional development efforts.

The Promethean board and its components are covered under a five-year warranty. The warranty provides for the replacement of any defective part without additional cost if it is not repairable. The projector is covered by a separate three-year warranty that provides for replacement of the projector or its bulb at cost (no markup). As a function of the purchase, the software is licensed for school and home use by staff and students and software upgrades are provided at no additional cost. Promethean provides call-in technical support and onsite support also is available depending on the nature of the service need or issue. The student response systems carry one-year warranties and the document camera carries a three-year warranty.

2. What is the anticipated lifespan of the Promethean Board systems and the related components? Given the scope of this investment, how can MCPS be sure that this system will not be eclipsed by new technology in the near future?

At the time of the earlier purchases, we projected at least a 7- to 10-year lifespan and believe that to be true today. Montgomery County Public Schools (MCPS) has had no lifespan or replacement issues with the Promethean boards that we have been using for six years. Even though newer versions of the Promethean interactive whiteboard are available, the core functionality and capabilities of the earlier versions still are dominant features of this system. Specifically, the use of the board as a portal to access multimedia digital, interactive resources from a vast library of content vendors/providers and on the Internet—including interactive simulations, virtual fieldtrips, and Web conferences with field experts—all but ensure that this piece of technology will serve as a foundational component of the interactive classroom for many years to come.

3. **What is the anticipated budget for user training, and how will that be funded?**

Because the professional development will be facilitated primarily by instructional technology specialists in the Office of the Chief Technology Officer and augmented by core groups of teachers in each school, we do not anticipate a separate budget need to implement and integrate these technologies into classroom instruction. In addition, content and staff development specialists from other offices have been trained and will be available to support teachers in designing lessons that effectively integrate the interactive technology and assessment systems.

4. **What is the training plan for teachers and other staff? The transmittal indicates that the equipment will be in place before the next school year. What is the timeframe for conducting training?**

Professional development on the use of the software, the integrated assessment devices, and the use of the slate will coincide with the installation schedule. Instructional technology specialists who support teachers integrate the interactive whiteboard software with the new curriculum in elementary schools will provide direct support to teachers as the technology is installed in schools. This support will begin during teachers' planning time. The specialists will model the use of the interactive technology, help teachers design and create lessons, and support teachers throughout their daily work. This approach, which has proven to be successful in the past, will serve as a vital component of our professional development model. We will work with administrators and school leadership teams to customize professional development sessions to fit within existing structures for staff meetings and planning time.

In addition, MCPS has three continuing professional development credit-bearing courses that focus on using the Promethean technology to create engaging and interactive learning experiences. These courses are being offered now and will continue to be hosted in schools throughout the county from now through next school year.

Finally, a variety of online, self-paced learning modules are being developed in partnership with classroom teachers and content specialists to provide a library of just-in-time lessons and professional development resources. Teachers also will be able to attend voluntary face-to-face training next summer and webinar trainings.

5. **How has MCPS involved teachers and other end users in the planning and development process for this initiative? Will there be ongoing opportunity for user input and feedback?**

From the beginning, we have identified and recruited teachers who have been interested in being early adopters and models for their colleagues. They have become partners in the planning and implementation process. Over the last several years, we have designed and facilitated specialized trainings to a group of teacher leaders who have in turn developed model lessons, served as instructors for the credit-bearing courses, provided input and feedback to us as we work to develop additional supports, and mentored new teachers in their buildings. Moreover, as we meet with schools prior to the installations to plan, we engage

teachers and administrators in assessing the particular needs of each school to better tailor the professional development offerings and schedule. Feedback and input also is gathered from regular meetings with a districtwide teacher advisory group and the Councils on Teaching and Learning.

II. Wireless Networks

1. **How does the proposed $5.6 million to implement wireless networks relate to the County's multi-agency FiberNet project and funding? Will the availability of FiberNet nodes in or near all schools affect or benefit the Promethean implementation? What technology is currently supporting the boards and what is the cost of connection?**

The plan to implement wireless networks across all schools in MCPS is not related directly to the FiberNet project and funding. However, connecting our elementary schools to the FiberNet is a vital part of providing our staff and student access to digital instructional resources that integrate more video, sophisticated graphical tools, and rich media. This broadband connectivity will make the wireless networks we implement more functional and able to carry and support more data traffic. Since the Promethean boards are used to access, present, and interact with these types of media-rich content, higher speed connectivity will be beneficial. Currently, computers to which the Promethean boards are connected are linked to our network by wired Ethernet cables and are part of the existing wired infrastructure of each school.

2. **Please provide specific examples of why a wireless network is necessary in a school, particularly an elementary school. For example, what kinds of instructional activity cannot be accomplished now that a wireless connection would make possible?**

Creating wireless networks in our schools is a key element in our overall infrastructure improvement strategy for providing greater access to digital curricular resources and instructional technology directly in our classrooms. Currently, only 31 of the 132 elementary schools have full-building wireless connectivity. Adding these technology tools is important because MCPS is beginning to introduce content and curriculum (Curriculum 2.0) that either are digital or are quickly transitioning to digital media. This transformation is accelerating a shift from printed textbooks to interactive, digital curriculum and instructional materials. Further, this digital shift also is reshaping how and from where these instructional materials are accessed, used, and shared. Today, this is especially true in our elementary schools as a result of our new digital curriculum. To facilitate flexible ways of accessing digital content and curriculum, as well as to connect communities of learners across classrooms and around the world, core technology components (wireless and interactive) must be present.

Implementing a districtwide wireless technology infrastructure paves the way for the integration and expansion of mobile technologies in our classrooms—including the potential for staff and students to bring their own devices to school. This type of mobile learning environment enhances teachers' efforts to provide differentiated learning and flexible formative and performance-based assessment of student learning. With wireless access throughout the elementary school, students are able to move about the building with their devices, access digital content from any learning space, and create products that can be

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shared seamlessly with other students and their teachers. Moreover, the local and state assessments taken by elementary school children (and across all school levels) are transitioning to an online environment and will require accessibility from classrooms.

In addition to the broader range of direct teaching and learning options that become available for our teachers and students, community members and visitors to our schools will have self-provisioned access to the Internet (securely separated from our schools' data). This enables Parent Teacher Associations and guest speakers to easily access their data and information to support our schools and more effectively engage broader community support.

III. Funding

1. **The submitted funding information indicates that $1.1 million of Current Revenue will be necessary to support this proposal in FY15-17. Is this assumption based on the currently approved level of funding in the CIP in FY15-17, or is there an assumption that additional current revenue will be requested for this purpose?**

   Yes, the assumption is based on the currently approved level of funding in the CIP in Fiscal Year (FY) 2015–2017. No request for additional local resources (Current Revenue) from the county, beyond those in the FY 2013–2018 Technology Modernization (Tech Mod) budget, will be required to fund these projects because of the availability of E-Rate funds.

2. **The funding information shows a projection of e-rate related to internal connections of $1.4 million for FY14 and no other revenue in the six years from this source. Is it possible that e-rate related to internal connections may be realized past FY14, or is this a one-year occurrence for some particular reason?**

   Our current information regarding this part of the E-Rate program indicates that there are currently no funds available to support the internal connections beyond FY 2014. Funding for the internal connections become available only after the core program funding needs are met, and the report by the administering agency, USAC, projects there will not be funding available for internal connections beyond FY 2014. They have reversed these projections before but their current position is that funding for internal connections will not be available.

3. **When the Council approved the FY13-18 CIP for Technology Modernization in the spring, it stated its intent that any e-rate funds for FY13-14 could be added to increase the appropriation in those two fiscal years only. The Council stated that it would reassess this approach in FY15 and did not make a presumption about how e-rate funds would affect the appropriation past FY14. The funding plan for this proposal seems to rely on e-rate funds above the currently approved appropriation in FY15-17. If current revenue is not sufficient at that time to maintain currently approved funding levels in the out years of the CIP, how will the school system accommodate this payment obligation?**

   If current revenue is not sufficient to maintain currently approved funding levels in the outyears of the CIP, the school system will have to reassess our overall expenditures in the

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Tech Mod Program. Since the primary expenditure is the purchase of equipment, the delay of the replacement of certain equipment would have to be considered.

4. Has MCPS received assurances regarding the financial status of Promethean World PLC? Is MCPS at any risk with this investment if there are future difficulties with the Promethean company?

On behalf of Promethean World PLC, its chief financial officer, Mr. Neil Johnson, has assured MCPS that despite the stock's current performance, the company still is positioned well financially. Specifically, he points to the fact that the company has no bank debt; has money in the bank; has a substantial line of credit from which it has not drawn; has access to a wider investment community and the ability to raise funds should the business ever need to support acquisitions or support growth strategies; and has taken steps to reduce operating costs and the overall size of the company from a staffing standpoint to better position itself moving forward and in weathering this protracted economic downturn. Fifty-one percent of the company's stock is owned by the founder and other board and senior management team members. The following statement was provided by Mr. Johnson:

> Promethean has a premium listing on the London Stock Exchange (LSE). Accordingly, the regulatory rules with which the company must comply are strict—including a requirement to announce 'price sensitive' information to the market, and in particular if the company were ever in financially difficulty. The Directors are well aware of these disclosure obligations but have no cause to believe that the company needs to make any announcement in relation to its financial health—indeed they believe that the Company's financial position is robust.

While it is not ideal if Promethean or any other current vendor experiences financial difficulties in the future that caused them to cease operation, MCPS would not be at risk because of this expenditure. At the time of purchase, MCPS will receive all of the products ordered—only our payments are disbursed over time and are payable to Dell Financial Services. As noted previously, all the technology we are purchasing is the latest generation on the market and we will have access to the software code in the event the company ceases operation. While new products would not be available, our staff is trained to support the technology and a secondary market of contractors who service these types of products also will be available, including the audio and projector manufacturers.

Our ability to use the Promethean technologies as envisioned also will not be affected. The power of the interactive whiteboard is that it enables us to access, integrate, and use software, learning resources, content, and other desktop and mobile technologies from virtually any other vendor. In this way, it is not a limiter in restricting use to only its products. Rather it is a facilitative and integrative technology that enables us to help teachers simplify and better orchestrate how technologies from different providers can be brought together to support a variety of whole and small group pedagogical approaches and lesson designs. None of this is compromised by a shift in Promethean's viability in the market. Our vision for connected learning environments in which wireless and interactive technologies are enabling us to better engage, differentiate, and assess learning remains intact.

Office of the Chief Operating Officer
MONTGOMERY COUNTY PUBLIC SCHOOLS
Rockville, Maryland

October 24, 2012

MEMORANDUM

To: Ms. Jennifer Hughes, Director, Montgomery County Office of Management and
           Budget

From: Larry A. Bowers, Chief Operating Officer

Subject: Response to Questions about the Purchase of Promethean Boards

This memorandum is in response to the questions you and your staff have raised. These
questions highlight four concerns: Promethean's financial outlook and the implications for the
school system if they are no longer in business; the financing mechanism; potential limitations of
the Promethean technology; and whether the school system has considered technology
alternatives that are more nimble and adaptable to keep pace with future changes. In bringing
this recommendation forward, we have taken great care to ensure that our plans and assumptions
are viable in both the short and long terms.

We have monitored Promethean's financial performance (as we do with other major suppliers) as
well as the educational technology market's performance. In response to our inquiry and on
behalf of Promethean World PLC, its chief financial officer (CFO), Mr. Neil Johnson, has
assured Montgomery County Public Schools (MCPS) that despite the stock's current
performance, the company is positioned well financially. Specifically, the Promethean CFO
points out that the company has no bank debt; has money in the bank; has a substantial line of
credit from which it has not drawn; has access to a wider investment community and the ability
to raise funds should the business ever need to support acquisitions or support growth strategies;
and has taken steps to reduce operating costs and the overall size of the company from a staffing
standpoint to better position itself moving forward and in weathering this protracted economic
downturn. Fifty-one percent of the company's stock is owned by the founder and other board
and senior management team members. The following statement was provided by Mr. Johnson:

> Promethean has a premium listing on the London Stock Exchange (LSE). Accordingly,
> the regulatory rules with which the company must comply are strict—including a
> requirement to announce 'price sensitive' information to the market, and in particular if
> the company were ever in financially difficulty. The Directors are well aware of these
> disclosure obligations but have no cause to believe that the company needs to make any
> announcement in relation to its financial health—indeed they believe that the Company's
> financial position is robust.

In response to the concerns about the financing mechanism, while it is obviously not ideal if Promethean or any other current vendor experiences financial difficulties in the future, MCPS would not be at risk because of this expenditure. MCPS is not leasing the Promethean products. We are purchasing these products and financing the purchase through Dell Financial Services at zero percent interest. As such, there is no added liability or risk to MCPS or the county from the financial terms of the transaction. At the time of purchase, MCPS will receive all of the products ordered—only our payments are disbursed over time and are payable to Dell Financial Services.

All the technology we are purchasing is the latest generation on the market, and we will have access to the software code in the event the company ceases operation. To illustrate further, the Promethean interactive whiteboard is their newest 500 series (87 inch) that was released in 2011 and incorporates both pen and touch technology—much like popular tablets today. Similarly, the last software upgrade was released in June 2012, and the student response systems were upgraded around December 2011. While new products would not be released if Promethean ceased operations, our staff is trained to support the technology and a secondary market of contractors who service these types of products also remains, including the audio and projector manufacturers.

In response to the concerns about the limitations of the Promethean technology, the existing versions of the Promethean software and other software we use with the Promethean technologies enable us to move forward without being handicapped by or misjudging the impact of Promethean's position in the market. Moreover, Promethean's software is no more proprietary than other well-known and recognizable products such as Microsoft Windows, RealPlayer, iTunes, Adobe Photoshop, Mac OS X, WinZip, and some versions of UNIX. Software development kits (SDKs) have been available for Promethean since 2008. SDKs provide a programmable bench for application development that extends interoperability and integration of custom solutions and other available solutions. Although Promethean's software is made only by Promethean and is therefore defined as proprietary, this does not mean that their products do not interoperate and integrate with other software and hardware technologies the district's students and staff require.

In response to suggestions that other technology is better positioned for future changes, taken together, the integration of robust wireless networks and interactive technologies are an essential part of the foundation of the district's learning infrastructure for the future. This type of infrastructure creates an agile, flexible, and carefully considered path forward and context for integrating a variety of mobile and tablet technologies and multimedia-rich learning resources from a broad range of content providers. The technology choices we are making now set the stage for the district to embrace and evolve with a broad range of blended, flipped, and other reform-based pedagogical approaches and designs for learning.

Our ability to use the Promethean technologies as envisioned will not be affected. The power of the interactive whiteboard is that it enables us to access, integrate, and use software, learning resources, content, and other desktop and mobile technologies from virtually any other vendor

and in a variety of educational approaches. In this way, it is not a limiter in restricting use to only its products. Rather, it is a facilitative and integrative technology that enables us to help teachers simplify and better orchestrate how technologies from different providers can be brought together to support a variety of whole and small group instructional approaches and lesson designs. None of this is compromised by a shift in Promethean's viability in the market. Our vision for connected learning environments in which wireless and interactive technologies are enabling us to better engage, differentiate, and assess learning remains intact.

If you have questions, please contact me at 301-279-3626 or Mr. Sherwin Collette, chief technology officer, at 301-279-3581.

LAB:SC:lsh

Copy to:
  Members of the Board of Education
  Dr. Starr
  Mr. Collette
  Ms. McGuire

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