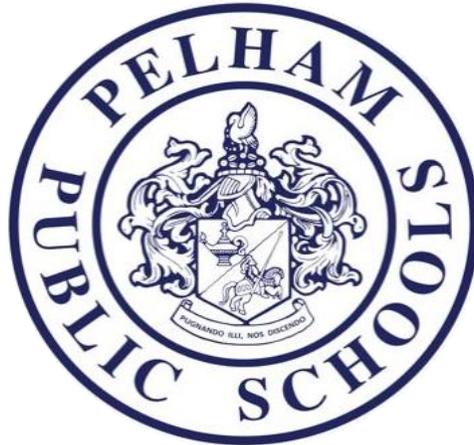


PELHAM PUBLIC SCHOOL DISTRICT

**NEW YORK STATE SMART SCHOOLS BOND ACT
PRELIMINARY INVESTMENT PLAN**



PUBLIC HEARING ON SMART SCHOOLS BOND FUNDING

There will be a Public Hearing on Smart Schools Bond Act Funding at the
Board of Education Meeting on April 17th at 8:15 pm at:

Pelham Middle School Library
Middle School Library
Pelham, NY 10803

We encourage our community to submit written comments on the Pelham Preliminary Proposed Plans.
Please email: jcatania@pelhamschools.org

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PLAN OVERVIEW

In January 2014, Governor Andrew M. Cuomo called for New York State to invest \$2 billion in its schools through a Smart Schools Bond Act (SSBA). Voters approved the Smart School Bond Act in November 2014, and as a result, the Pelham School District was allocated to receive \$502,942. The following are allowable uses of the SSBA funds:

- School Connectivity
- Connectivity Projects for Communities
- Classroom Technology
- Pre-Kindergarten Classrooms
- Replace Transportable Classrooms
- High-Tech Security Features

In collaboration with the Pelham UFSD Smart Bond Committee, The PUFSD Technology Plan Development Team and experts, this investment plan has been drafted to focus funding on the Smart Schools Bond Act allowable expenditure that includes:

- School Connectivity
- High-Tech Security Features

This document provides the district's recommendation for the use of these funds, as well as a top-level implementation plan.

PRECONDITIONS

Instructional Technology Plan Approval

All New York State public school districts are required to complete and submit a District Instructional Technology Plan survey to the New York State Education Department in compliance with Section 753 of the Education Law and per Part 100.12 of the Commissioner's Regulations. Districts that include investments in high-speed broadband or wireless connectivity and/or learning technology equipment or facilities as part of their Smart Schools Investment Plan must have a submitted and approved Instructional Technology Plan survey on file with the New York State Education Department (NYSED). The Pelham School District submitted their required Instructional Technology Plan survey to NYSED and was approved on December 30, 2015.

Internet Bandwidth

As established by the Smart Schools Bond Act Guidance, as a precondition to utilizing the SSBA funds the District must ensure there is adequate Internet bandwidth to further expand wireless connectivity for classrooms, additional technology devices for classrooms. The minimum adequate Internet bandwidth is 100Mbps per 1,000 students to support the inclusion of additional learning technology devices for the classroom.

Pelham has a managed fiber system between buildings in our school district's wide area network which provides capabilities of up to 10 Gigabit of interconnectivity. However, currently, Pelham is using only 1 Gigabit between sites for district interconnectivity. The Smart Schools Bond funding will provide for essential upgrades to the Pelham network infrastructure allowing increased connectivity to 10 Gbps.

SMART SCHOOLS BOND ACT FUNDING GOALS

In alignment with the goals set by the Pelham UFSD 2015-2018 Technology Plan, adopted by the District, the Smart Schools Investment Plan will utilize the SSBA funding allocation in the following instructional technology priorities:

1. Districtwide Network refresh including new network switching and routing equipment.
 - a. To improve the teaching and learning environment by continually upgrading access to digital resources and tools.
2. Enhance and Improve our Security cameras and Systems

PURCHASE PLAN & ALLOCATION OF FUNDS

Allowable SSBA Expenditures

Table 1. Summary of Allowable SSBA Expenditures

SSBA Budget Category Allocations	SSBA Budget Category Allocations
School Connectivity	\$329,100.00
Connectivity Projects for Communities	\$0.00
Classroom Technology	\$0.00
Pre-Kindergarten Classrooms	\$0.00
Replace Transportable Classrooms	\$0.00
High-Tech Security Features	\$155,731.5
Unallocated Funds/Non-Public Schools	\$18,110.50
TOTAL	\$502,942.00

RECOMMENDATION #1 – SCHOOL CONNECTIVITY

It is the recommendation of the Pelham Public School District Smart Bond Investment Planning Committee that the Board of Education approves the utilization of funds to refresh the Pelham Network to create a robust infrastructure with plenty of bandwidth to support demand coverage throughout the district.

Rationale

Upgraded switches, as well as consolidation, are needed, to ensure that we have enough bandwidth and robust connections within our District to maintain a more efficient level of use and integration of our resources.

The network infrastructure is vital for meeting not only the educational demands of the district but also administrative and facilities related needs. With an increasing number of applications being introduced and the continuing shift from analog to IP based devices, the reliance on the network infrastructure continues to grow. The network infrastructure is the transport mechanism for various district-wide computing systems including wireless communication, IP voice services, physical security/surveillance and building automation.

A significant component of any network infrastructure is the network switch. This project will replace all currently antiquated and unsupported Cisco Systems network switches with the latest model available in its class. Standardizing on the newest hardware release will ensure the most extended technology lifecycle. This project will result in an increase in overall network throughput speed to 10Gbps, resulting in faster transmission of data between network resources (i.e., file servers, web-based applications, etc.) and end-user devices. Faster transmission speeds help to reduce network

bottlenecks and resource contention providing a better overall experience for users. With the investment in infrastructure, the District will have an opportunity to provide more capacity and more access to a high -quality digital infrastructure which will lead to the following:

- more actively engage students as participants in their learning
- deepen student learning and the complexity of connections among subject matter
- provide students with the technology that will prepare them for higher education and careers in the 21st century
- teach students the appropriate use of technology in their role as digital citizens
- close the opportunity gap affecting children’s access to technology
- allow for online learning from anywhere in the world

Upgrade Pelham Network/Access Connections

Expand network Infrastructure at all Pelham schools to upgrade to 10 Gigabit switches, 10 Gigabit fiber uplinks between sites, server refresh, along with network management and environmental monitoring for these new devices. This is designed to increase internet and network speeds between Pelham schools from 1 Gigabit to 10 Gigabit capacities.

Cable Management

Another important facet of the network infrastructure upgrade project is the management of the many cables that connect the various hardware components. Years of moves, adds and changes within the network infrastructure can often result in a tangled web of ethernet cabling that is difficult to manage and impossible to trace. This project will eliminate disorganized cabling by ensuring that clear pathways are defined, and proper cable lengths are used. This effort will ultimately save time while troubleshooting future connectivity issues.

Cost

The expected total cost of the project is \$347,210.5, funded by Smart Schools (\$502,942).

Table 2. School Connectivity Sub-Allocation SSIP #1

SSBA Connectivity Projects for Schools Sub-Allocations	SSBA Connectivity Projects for Schools Sub-Allocations
Network/Access Costs	\$268,805.00
Outside Plant Costs	\$0.00
School Internal Connections and Components	\$60,295.00
Professional Services	\$0.00
Testing	\$0.00
Other Upfront Costs	\$0.00
Other Costs	\$ 18,110.50
TOTALS	\$347,210.5

RECOMMENDATION #2 – HIGH TECH SECURITY

It is the recommendation of the Pelham Public School District Smart Bond Investment Planning Committee that the Board of Education approves the utilization of funds to improve safety with high-tech security systems across the district to include state of the art surveillance.

Rationale

The current surveillance system has reached its end of life and analog based. The current surveillance system is comprised of multiple manufacturers recording equipment, so there is also no centralized viewing platform for video surveillance. There is a high failure/replacement rate of cameras currently. The current analog connection of each camera produces a low-quality image. With regard to legal issues and overall security operations, a much higher resolution is needed. The cameras, wiring, and recording devices all need to be upgraded to allow IP based transmissions in a high-resolution format.

Install High-Tech Exterior Security Cameras

The proposed system will allow for high resolution, 4K, IP video surveillance of critical student areas. The new software platform enables viewing of all cameras at all school locations from any location in the school district. The new video storage server will allow for at least 30 days of storage with some spare capacity and the ability to expand by adding additional servers.

Cost

The expected total cost of the project is **\$155,731.50**, funded by Smart Schools (\$502,942).

Table 3. High-Tech Security Features Sub-Allocation SSIP #2

SSBA High-Tech Security Features High-Tech Security Features Sub-Allocations	SSBA Connectivity Projects for Schools Sub-Allocations
Capital-Intensive Security Project (Standard Review)	\$142,231.50
Electronic Security System	\$0.00
Entry Control System	\$0.00
Approved Door Hardening Project	\$0.00
Other Costs	\$13,500.00
TOTALS	\$155,731.5

PROFESSIONAL DEVELOPMENT

Please note that Smart Schools Bond funds may not be used for professional development. As technology becomes more widely available and continues to change, there is a compelling need to provide ongoing professional development to support educational reform goals, New York State standards to model collaborative inquiry-based learning and to guide staff toward incorporating the global infrastructure in instruction and productivity.

The Pelham UFSD is dedicated to providing students with the technological skills to become productive members of an ever-changing global society. To meet this goal, we must support our district's staff with the skills necessary to implement best practices into their classroom. As a result, our overarching goal for professional development is:

“To continue to provide professional development to facilitate the use of technology as an integral tool to enhance teaching and learning.”

To achieve the goals in the Pelham UFSD 2015-2018 District Technology Plan, the district will focus on the following:

- Make every effort to provide ongoing and on-demand professional development for teachers, administrators, and support staff.
- Use of Superintendent’s Conference Days, workshops, tutorials, webinars, one-to-one sessions, grade level cohorts, and faculty meetings will be used to provide technology training to all staff as needed. Session facilitators include vendors, consultants, the LHRIC’s instructional technology trainers and District Staff.
- Continue our participation in the Lower Hudson Regional Information Center’s (LHRIC) Model Schools Program which offers various instructional technology workshops
- Teachers will also have opportunities to share “best practices” during internal professional development time.

Our investment in School Connectivity and infrastructure will ensure ubiquitous access to high-speed internet access and rich content for teaching and learning. Teacher and students will be able to expand learning outside the classroom via anytime and anywhere access to instructional materials.

SUSTAINABILITY

Technical Support

Please note that Smart Schools Bond funds may not be used for technical support.

The District is committed to ongoing growth, expansion, and evaluation of technology and technology resources and services. SSBA Investment Plan funds will be sustained with additional investments that the District will make through our yearly budget and other financial instruments such as IPAs with approval by NYSED and BOCES as well as grants and private funding when available. The network refresh that we are proposing will serve the district well for the next 7 to 9 years.

The district currently purchases the majority of its instructional hardware through the LHRIC. By participating in the 6360 CoSer and utilizing the 510.850 Hardware Repair Service, the District is able to use the LHRIC as a repair and maintenance resource. District and LHRIC technicians also provide break/fix support of district hardware as needed.

District equipment will be evaluated each year for its long-term compatibility, sustainability and current location in its product lifecycle to plan for future upgrades, repairs, and replacements. Major hardware upgrades/replacements will adhere to the five-year capital assets preservation plan as provided for in Education Law, section 3602(6) and section 155.1(a)(4).

PROVISIONS AND DISTRIBUTION TIMELINE

Once the Pelham UFSD Smart Schools Bond Act Investment Plans are reviewed by the state education department and then approved by the Smart Schools Review Board, equipment will be purchased in accordance with the District’s purchasing policies and budget cycles. Once the equipment arrives, the Technology Department Staff will prioritize inventory and provision of the equipment in accordance with our multiyear plan. Based on proposed quantities, equipment should be in place and operational within 60-90 days after it arrives. Projects are prioritized in the below order:

1. Upgrade Pelham network infrastructure
2. To Enhance and Improve our Security cameras and Systems

The district will include this new equipment in its inventory database and monitor it to ensure equipment is securely maintained in its designated locations. The District’s asset insurance database will be updated to reflect the additional equipment as well.

REFERENCES

To learn more about the Smart Bond Act Guidelines go to:

http://www.p12.nysed.gov/mgt/serv/smart_schools/docs/Smart_Schools_Bond_Act_Guidance_04.27.15_Final.pdf

<http://www.p12.nysed.gov/facplan/SmartSchoolsBondAct.html>