



## **EAST RAMAPO CSD**

### **East Ramapo Central School District**

***“A Unified Community Educating the Whole Child”***

## **PRELIMINARY SMART SCHOOLS INVESTMENT PLAN**

### **PHASE I (2016-2017)**

### **PHASE II (2017-2018)**

If our East Ramapo Community would like to submit written feedback on the  
ERCSD NYS Smart Schools Bond Act Preliminary Proposed Plan, please email:

[smartbond@ercsd.org](mailto:smartbond@ercsd.org)

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

NYSED SSBA FAQs 07/16/15: <http://www.p12.nysed.gov/mgtserv/documents/FAQsforSmartSchoolsBondAct.pdf>

NYSED SSBA FAQs 10/27/15: <http://www.p12.nysed.gov/mgtserv/documents/SSBAQuestionsASBO102615edited102815AL.pdf>

NYSED SSBA Guidelines: [http://www.p12.nysed.gov/mgtserv/smart\\_schools/docs/Smart\\_Schools\\_Bond\\_Act\\_Guidance\\_04.27.15\\_Final.pdf](http://www.p12.nysed.gov/mgtserv/smart_schools/docs/Smart_Schools_Bond_Act_Guidance_04.27.15_Final.pdf)

NYSED SSBA Website: <http://www.p12.nysed.gov/facplan/SmartSchoolsBondAct.htm>

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## **I. PLAN OVERVIEW**

As we move further into the 21<sup>st</sup> century, school districts find themselves increasingly challenged to keep pace with advances in instructional technology – advances ranging from the variety of applications, platforms, and functions available to schools, on the one hand, to the infrastructure capacity of classrooms to allow these advances to take hold. Add to that the increasingly advanced skills and nimble adaptations to new technologies that our students bring with them to the classroom, and we find a widening gap between what might be possible technologically in our schools and what is offered. Our children are “digital natives,” having grown up with mobile technology and access to a world of information at their fingertips. Many learn how to swipe the screen of a smartphone before they can walk. It is incumbent upon school systems to modernize our facilities and classrooms so educators, students and parents can fully leverage technology to enhance the educational experience to meet 21<sup>st</sup> century expectations.

Technology has the potential to increase student engagement and responsibility for learning, boost student achievement, and change student-teacher relationships. Technology can facilitate increased interaction between students, parents, and teachers, and help extend learning beyond the school day and into the home. Additionally, technology helps students gain and improve the skills they need to compete for in-demand jobs in the 21<sup>st</sup> century economy. For educators, educational technology can enable teachers and school leaders to access professional learning content and experiences through online venues and has the potential to elevate the caliber of even the most seasoned professionals.

In November 2014, New York State’s voters approved the Smart Schools Bond Act (SSBA). The East Ramapo Central School District (ERCSD) was allocated a total of \$6,105,668. These funds must be expended in ways that are aligned with the district’s Technology Plan, which was approved by NYSED in October 2015. In order to realize the goals of our Technology Plan, we propose to use the Smart Schools Bond funds for the following projects:

1. Upgrade network infrastructure (internet service upgrades, fiber, switches, routers, etc.), and internal connections and components (Wi-Fi APs, switches, routers, etc.)
2. Upgrade the ERCSD security network, cameras, and emergency notification system
3. Increase classroom technology resources in the ERCSD public schools
4. Increase classroom technology resources in the district’s nonpublic schools through the technology loaner program

## **II. TECHNOLOGY INFRASTRUCTURE PRECONDITIONS**

As a precondition to utilizing the SSBA allocations, the District has ensured that there is adequate bandwidth to further expand wireless connectivity for classrooms, additional technology devices for classrooms and upgrading the ERCSD security network and cameras. There is adequate bandwidth in excess of 100 Mbps per 1,000 students to sustain the increase of more classroom devices. ERCSD has managed fiber between buildings on the schools district's private network which provides up to 10 Gigabit of interconnectivity. Currently ERCSD has 1 Gigabit between sites for district interconnectivity but with the proposed SSBA allocations for upgrades to district's network infrastructure this will increase to 10 Gigabit between schools.

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). Our district submitted our required Instructional Technology Plan survey to NYSED in September 2015 and received approval in October 2015.

## **III. SMART SCHOOL INVESTMENT PLAN GOALS AND PURCHASE PLAN AND ALLOCATION OF FUNDS**

### **Phase I (2016 – 2017)**

#### **Category 1: School Connectivity**

Phase I of our Smart School initiative will focus on two areas that are in most need of improvement: high-speed broadband connectivity of our buildings and a high-tech security system. In order to access the Smart Schools funds, districts must ensure that they possess sufficient connectivity infrastructure to ensure that instructional technology devices can be used during the school day. Currently ERCSD has 1 Gigabit between schools for district interconnectivity. With the proposed Smart Schools allocations for upgrades we aim to increase this interconnectivity to 10 Gigabit between schools.

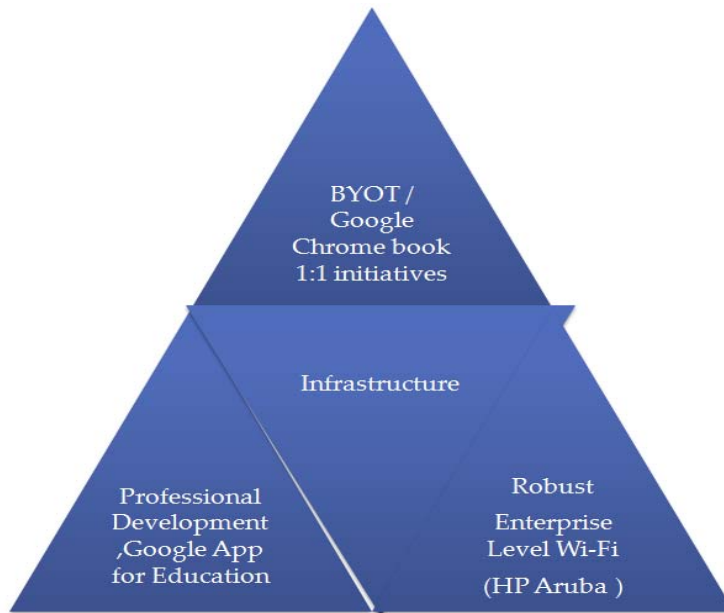
**PROPOSED INVESTMENT PLAN: PHASE I (2016-17)**

Smart School Allowable Expenditures by Budget Category

Budget Category	Sub-Allocation
School Connectivity	\$2,500,000
High-Tech Security Features	\$1,245,000
Classroom Technology	\$0
Unallocated Funds (*)	\$2,360,668
Total	\$6,105,668

(\*)Unallocated funds will be used in Phase II of the Investment Plan.

TABLE 1



**PHASE I: School Connectivity**

**Goal 1: Upgrade and sustain existing managed fiber connectivity between buildings**

East Ramapo Central School District has managed fiber between buildings on the school district’s private network which provides up to 10 Gigabit of interconnectivity. Currently East Ramapo has 1 Gigabit between sites for district interconnectivity but with the proposed SSBA allocations for upgrades to the ERCSD network infrastructure this will increase to 10 Gigabit between schools.

**Goal 2: Upgrade existing infrastructure**

The district will upgrade the network infrastructure by installing Cisco Core switching equipment at all 14 school buildings. This will enable the district to increase connectivity and provide access to high speed internet for rich content delivery in the classroom and improve instructional resources.

**Goal 3: Upgrade and expand Wi-Fi capabilities**

Our present Wi-Fi capabilities in our schools are woefully inadequate. Presently our schools do not have sufficient Wi-Fi connectivity to allow for the use of 1:1 devices by our students. A portion of the funds allocated in the School Connectivity budget category will be used to build a robust Wi-Fi infrastructure with enhanced mobile device management to provide students with greater access to rigorous and rich online educational content through a BYOD model and 1:1 Google Chrome book district-wide initiative. This will ensure access to online content anytime and anywhere.

**SSBA Funds Sub-Allocation Category: School Connectivity**

SSBA Connectivity Projects for Schools	Sub-Allocation
Network/Access Costs (ISP, Internet Service upgrades, Fiber, Switches, routing equipment, etc.)	<b>\$150,000</b>
Outside Plant Costs (Wiring)	<b>\$ 130,000</b>
School Internal Connections and Components (Wi-Fi Access points, Switches, CAT6 cabling & wiring etc)	<b>\$2,000,000</b>
Professional Services (Architect/Engineer, PM)	<b>\$220,000</b>
Testing (cost of testing infrastructure)	<b>\$ 0</b>
<b>TOTALS</b>	<b>\$2,500,000</b>

**PHASE I: High-Tech Security Features**

**Goal 4: Upgrade Technology-based Security Features**

The District’s present inventory of security cameras has an average age of over 8 years old. These cameras, and the software that enables them, is quickly becoming obsolete. We propose investing in a VoIP solution that will include PA Capabilities to support an IP intercom system, this thorough upgrade of our security features, and extending the coverage of the High Definition Cameras on our premises will ensure a safe environment for students and school community in general. Our initiative will furnish the installation, equipment, engineering, licensing, and start up labor for access control and surveillance system, as outlined in our SSBA goals and detailed below:

- Main entrance electronics security system, including addition of new IP cameras for each elementary and intermediate school building and administration building; replacement of existing cameras in secondary school buildings; installation of new HP Dual VM session servers for storage of digital security data and media (each server with 60 terabytes of storage), visitor management system, and Access Control Manager server software licenses for doors.
- Installation of **new access control panel and door equipment** at 20 access control doors at secondary school buildings, including new electronic locks, card readers, new door contacts, and request-to-exit motion sensor.
- Unified system for PA, phones, desktops, cellular devices for emergency notifications, and announcements.

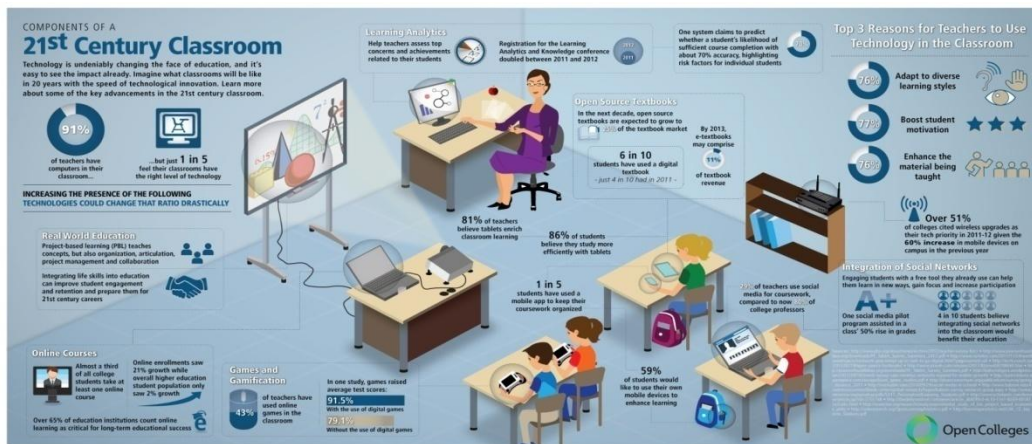
**SSBA Funds Sub-Allocation Category: High-Tech Security Features**

<i>SSBA High-Tech Security Features</i>	Sub -Allocation
Main Entrance Electronics Security System (Streamlined Review)	<b>\$740,000</b>
Main Entrance Entry Control System (Streamlined Review)	<b>\$140,000</b>
One button emergency notification and paging system (Streamline Reviewed)	<b>\$365,000</b>
<b>TOTAL</b>	<b>\$1,245,000</b>

## PHASE II (2017 – 2018)

Phase II of our plan will commence upon the completion of the School Connectivity activities. We anticipate the start of Phase II to be the summer of 2017.

Phase II will be characterized as building our inventory of technology instructional resources in both public and nonpublic school classrooms. In accordance with NYSED Guidance on Smart Schools Bond Act, we will base our calculations on the nonpublic school enrollment in the base year at the time of enactment (2014). The number of nonpublic school students in 2014 was approximately 22,000. (The number of public school students was approximately 8,500.)





**PROPOSED INVESTMENT PLAN: PHASE II (2017-18)**

Smart School Allowable Expenditures by Budget Category

<b>Budget Category</b>	<b>Sub Allocation</b>
School Connectivity	\$0
Classroom Technology (**)	\$2,011,360
Unallocated Funds (*)	\$349,308
<i>SSIP Investment Plan Phase I Executed</i>	<i>\$3,745,000</i>
<b>SSBA TOTAL ALLOCATION</b>	<b>\$6,105,668</b>

(\*) Unallocated funds will be used equitably as needed.

TABLE 2

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(\*\*) 8,497 Public School District students plus 22,447 Non-Public Students = 30,944 students. 30,944 students divided by SSIP Classroom Technology budget amount of \$2,000,000 equals \$64.63 SSBA funding per pupil allocation. SOURCE-NYSED FAQs 10/27/15 Page 7 Question 28.  
[http://www.p12.nysed.gov/mgtserv/documents/SSBAQuestionsASBO102615\\_updated\\_1\\_21\\_16.pdf](http://www.p12.nysed.gov/mgtserv/documents/SSBAQuestionsASBO102615_updated_1_21_16.pdf)

**Goal 5: Increase the inventory of classroom technology devices for ERCSD Public Schools**

The district plans to purchase Dell Chrome books for classroom use, as well as other allowable classroom technology resources. While the purchase of these devices is 1.5 to 2 years away, we anticipate the cost of the Chrome books to be approximately \$300/each. Given that the public school student population is approximately 28% of the total student population (public plus nonpublic), we calculate that about \$560,000 of the classroom technology funds will go to the public schools.

**Goal 6: Provide classroom technology devices loans to nonpublic schools**

The district will establish a technology equipment loan protocol for the nonpublic schools that will allow each school to borrow classroom technology that is within the NYSED guidelines for approvable devices. With approximately 22,000 students in 2014, the nonpublic schools will receive about 72% of the funding for classroom technology, or about \$1,440,000.

**SSBA Funds Sub-Allocation Category: Classroom Technology**

Classroom Technology	Sub -Allocation
Public school allocation	<b>\$552,305</b>
Nonpublic school allocation	<b>\$1,459,055</b>
TOTAL	<b>\$2,011,360</b>

**PROFESSIONAL DEVELOPMENT**

As technology becomes more widely available and continues to change, there is a compelling need to provide on-going professional development to support educational reform goals, New York State standards and Common Core Standards, to model collaborative inquiry-based learning and to guide staff toward incorporating the global infrastructure in instruction and productivity.

The Smart Schools Bond Act does not provide allocations for Professional Development. ERCSD will continue providing resources and funding based on its approved budgets to support and promote activities for technology professional development for staff, teachers and administrators. Furthermore, we will explore and engage in any other grant opportunity to supply additional opportunities for technology professional development and ensure our staff, teachers and administrators can efficiently use the technology and effectively promote student achievement, teaching and learning.

In an effort to enhance faculty knowledge of instructional technology the District has committed to providing a minimum of two hours annually of targeted professional development regarding instructional technology during Superintendent's Conference Days and building level meetings for all faculty beginning September of 2015. Professional development hours outside of the District will be publicized and funded through the Curriculum and Instruction and Management information system departments beginning September 2015.

All professional development associated with technology will respond to needs identified in the district wide survey and identified by the Technology Committee. A system of ongoing evaluation of professional development needs associated with technology will be accomplished by administering the Clarity survey annually to identify areas of growth and continued needs. The survey conducted in

2015 identified Communication, Collaboration, Critical Thinking, Creativity and Digital Citizenship as key areas. The survey will continue to require parent and student participation.

## **SUSTAINABILITY**

The District is committed to working upgraded and new devices purchased through the Smart Schools Bond Act into the equipment replacement cycle already in place. Each year, over the next 4 years, we will allot our standard amount of funds for the normal repair costs of a percentage of the total devices. After 4 years the devices will be replaced and/or reallocated in order to ensure the equipment stays current and new technology is supported.

## **INVESTMENT PLAN TIMELINE**

Once the ERCSD Smart Schools Bond Act Investment Plan is 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 within the next five years. Once equipment arrives, the Technology Department staff will prioritize inventory and provision of the equipment in accordance with our multi-year 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 ERCSD network infrastructure
2. Upgrade the ERCSD security network and cameras
3. Expand the ERCSD wireless equipment in place
4. Install approved door hardening project
5. Add laptops and other devices to existing classroom technology
6. Implement Nonpublic School device loaner program

The District will include this new equipment in its existing inventory database and monitor it to ensure equipment is securely maintained in its designated locations.