



Educational Support Center
One Raider Lane • Horseheads, NY 14845
(607) 739-5601, x4263 • Fax (607) 795-2435

DATE: December 8, 2015
TO: Board of Education
RE: Final SMART Bond Investment Application

There were two changes made to the Preliminary Plan submitted at the October 29th meeting.

1. Question 5a (page 1) requests all pertinent documentation be uploaded to the SMART Schools website as part of the application. We added the October Board Of Education PowerPoint file in addition to the Preliminary Plan. This detail does not appear on the printed version of the Plan.
2. Question 6 (page 2) requests an estimate of the number of staff and students that will benefit from this Investment Plan. The original number was 1,524; the total high school students, high school staff, and district wing staff. This was changed to 4,822. This represents the total students and staff in the district. The rationale is that some of the high school upgrades are in the "core" data room which feeds the outlying buildings. Any modifications or improvements made to this specific data room will have a positive effect on the other buildings as well.

Also, there were no questions submitted from the community regarding our posting of the Preliminary Plan for the 30 day period following the October Board meeting.

Thank you.

Gregg Moyer
Technology Director

cc: T. Douglas, K. Buzzetti, C. Benedict, M. Coghlan
R. Garrison, J. Robbins

HORSEHEADS CSD

Smart Schools Investment Plan -

SSIP Overview

Status Date: 08/14/2015 00:53 PM

1. Please enter the name of the person to contact regarding this submission.

Gregg Moyer

- 1a. Please enter their phone number for follow up questions.

607-739-5601 x4245

- 1b. Please enter their e-mail address for follow up contact.

gmoyer@gstboecs.org

2. Please indicate below whether this is the first submission, a new submission or an amended submission of a Smart Schools Investment Plan.

First submission

3. 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.

By checking this box, you certify that the school district has an approved District Instructional Technology Plan survey on file with the New York State Education Department.

District Educational Technology Plan Submitted to SED and Approved (Checked)

4. Pursuant to the requirements of the Smart Schools Bond Act, the planning process must include consultation with parents, teachers, students, community members, other stakeholders and any nonpublic schools located in the district.

By checking the boxes below, you are certifying that you have engaged with those required stakeholders. Each box must be checked prior to submitting your Smart Schools Investment Plan.

Parents (Checked)

Teachers (Checked)

Students (Checked)

Community members (Checked)

- 4a. If your district contains non-public schools, have you provided a timely opportunity for consultation with these stakeholders?

Yes

5. Certify that the following required steps have taken place by checking the boxes below: Each box must be checked prior to submitting your Smart Schools Investment Plan.

The district developed and the school board approved a preliminary Smart Schools Investment Plan (Checked)

The preliminary plan was posted on the district website for at least 30 days. The district included an address to which any written comments on the plan should be sent. (Checked)

The school board conducted a hearing that enabled stakeholders to respond to the preliminary plan. This hearing may have occurred as part of a normal Board meeting, but adequate notice of the event must have been provided through local media and the district website for at least two weeks prior to the meeting (Checked)

The district prepared a final plan for school board approval and such plan has been approved by the school board (Checked)

The final proposed plan that has been submitted has been posted on the district's website. (Checked)

- 5a. Please upload the proposed Smart Schools Investment Plan (SSIP) that was posted on the district's website. Note that this should be different than your recently submitted Educational Technology Survey.

HORSEHEADS CSD

Smart Schools Investment Plan -

SSIP Overview

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6. Please enter an estimate of the total number of students and staff that will benefit from this Smart Schools Investment Plan based on the cumulative projects submitted to date.

4,822

7. An LEA/School District may partner with one or more other LEA/School Districts to form a consortium to pool Smart Schools Bond Act funds for a project that meets all other Smart School Bond Act requirements. Each school district participating in the consortium will need to file an approved Smart Schools Investment Plan for the project and submit a signed Memorandum of Understanding that sets forth the details of the consortium including the roles of each respective district.

(No Response)

8. Please enter the name and 6-digit SED Code for each LEA/School District participating in the Consortium.

Partner LEA/District	SED BEDS Code
(No Response)	(No Response)

9. Please upload a signed Memorandum of Understanding with all of the participating Consortium partners.

(No Response)

10. Your district's Smart Schools Bond Act Allocation is:

\$2,929,862

11. Enter the budget sub-allocations by category that you are submitting for approval at this time. If you are not budgeting SSBA funds for a category, please enter 0 (zero.) If the value entered is \$0, you will not be required to complete that survey question.

	Sub-Allocations
School Connectivity	2,841,966
Connectivity Projects for Communities	0
Classroom Technology	0
Pre-Kindergarten Classrooms	0
Replace Transportable Classrooms	0
High-Tech Security Features	87,896
Totals:	2,929,862.00

HORSEHEADS CSD

Smart Schools Investment Plan -

School Connectivity

Status Date: 08/14/2015 00:53 PM

- 1. Briefly describe how you intend to use Smart Schools Bond Act funds for high-speed broadband and/or wireless connectivity projects in school buildings.**

Infrastructure in the High School is very old with most dating back to 1998-1999. Some improvements have been made over time such as sporadic switching replacement, but many switches still need to be replaced. Data equipment rooms are not secure, not ventilated, and not covered by backup power. Most cabling is 1998-1999 vintage. In the mid 2000's wireless infrastructure was added. While it is in use today, it is not robust enough to handle large concentrations of IP needing devices. The wireless controllers are aging and do not support some of the wireless network cards being delivered in today's laptops and tablets.

Updated infrastructure will allow the building to introduce newer technologies and larger quantities of technology that fit into our curriculum. This can include high concentrations of district sponsored technology or personal device use that is tied to curriculum planning. Performance of these devices is key to successful implementation in a classroom setting. Slow performance and system crashes do much detriment to effective use of technology by staff and students. The infrastructure must be universally robust, meaning every classroom, hallway, office area, meeting area, and adjacent grounds.

- 2. Briefly describe the linkage between the district's District Instructional Technology Plan and the proposed projects. (There should be a link between your response to this question and your response to Question 1 in Part E. Curriculum and Instruction "What are the district's plans to use digital connectivity and technology to improve teaching and learning?")**

All of the plans to use digital connectivity require access to the network, the Internet, or district servers. Very little content is stored locally on a computer in a classroom. The District has a growing requirement to access this content. The content can take many forms. For example, web based content has been and is currently being developed at the local GST BOCES. Nearly all content desired from new software products is web based. Collaboration tools, for both staff and students, are web based. By introducing these sorts of instructional tools, there is an inherent need to make sure all portions of the supporting connectivity infrastructure, particularly wireless, can support the district now and into the future. Storage of data for these tools may be cloud based, or in some cases server based, but all require network and Internet access.

The trend is to move away from local content to web based content. Also, the face of content is evolving from text to video and multimedia and analog to digital. These information modes are what today's students are familiar with and comfortable with. Instructional content delivery and professional development delivery must reflect this evolution. Transporting video and multimedia data is inherently bandwidth intensive, however. Having the capacity to include any combination of potential devices in varied instructional settings accessing bandwidth intensive content is absolutely critical to future learning.

- 3. To ensure that districts maximize the return on their investment in education technology and devices, Smart Schools Bond Act funds used for technology infrastructure investments must increase the number of school buildings that meet or exceed the Federal Communications Commission minimum speed standard of 100 Mbps per 1,000 students.**

Please describe how you will use SSBA funds to meet this standard.

The high school houses the most staff, students, and IP based devices in the district. The high school also houses nearly all the district offices. In reality, about 40% of the district's current devices are in this one complex. The high school also has the greatest likelihood of adding substantial numbers of additional IP based devices in the next few years. This will skew the minimum speed standard as the growth occurs. The district needs to be poised to be able to permit larger numbers of devices making Internet based access requests. This includes an ever increasing pool of device types as we move from traditional desktop and laptop devices to also include handheld devices and specialty devices that are introduced thru FOSS, STEM, and Makerspace concepts. The plan is to increase infrastructure capacity 10 to 40 times (IE 1GB to 10GB or 40GB).

- 3a. If a district believes that it will be impossible to meet this standard within 12 months, it may apply for a waiver of this requirement, as described on the Smart Schools website. The waiver must be filed and approved by SED prior to submitting this survey.**

(No Response)

HORSEHEADS CSD

Smart Schools Investment Plan -

School Connectivity

Status Date: 08/14/2015 00:53 PM

4. If the district wishes to have students and staff access the Internet from wireless devices within the school building, or in close proximity to it, it must first ensure that it has a robust Wi-Fi network in place that has sufficient bandwidth to meet user demand.

Please describe how you have quantified this demand and how you plan to meet this demand.

Wireless infrastructure planning intends to incorporate heavy saturation and capacity coverage in all areas: instructional, office, meeting, hallways, and the immediate exterior grounds. In addition, key external locations such as the high school bleacher area and its surrounding area will require saturation. Heavy saturation will cover access that may occur in one classroom at a slightly different time than the adjacent classroom or classroom down the hall. It is also realistic to think that heavy saturation will be required for simultaneous classroom access with IP based devices based on maximum classroom student size (25) and the possibility of more than one device per student. Other supporting devices such as projectors, printers, and specialty devices can be wireless IP as well. This will increase the need to ensure that wireless saturation and throughput is maximized.

5. As indicated on Page 5 of the guidance, the Office of Facilities Planning will have to conduct a preliminary review of all capital projects, including connectivity projects.

Project Number
070901060009025
070901060001020

6. Certain high-tech security and connectivity infrastructure projects may be eligible for an expedited review process as determined by the Office of Facilities Planning.

Was your project deemed eligible for streamlined review?

No

- 6a. Districts that choose the Streamlined Review Process will be required to certify that they have reviewed all installations with their licensed architect or engineer of record and provide that person's name and license number. The licensed professional must review the products and proposed method of installation prior to implementation and review the work during and after completion in order to affirm that the work was code-compliant, if requested.

(No Response)

7. Include the name and license number of the architect or engineer of record.

Name	License Number
Jeff Robbins, Hunt Engineers & Architects	35151

8. If you are submitting an allocation for School Connectivity complete this table. Note that the calculated Total at the bottom of the table must equal the Total allocation for this category that you entered in the SSIP Overview overall budget.

HORSEHEADS CSD

Smart Schools Investment Plan -

School Connectivity

Status Date: 08/14/2015 00:53 PM

	Sub- Allocation
Network/Access Costs	0
Outside Plant Costs	0
School Internal Connections and Components	2,841,966
Professional Services	0
Testing	0
Other Upfront Costs	0
Other Costs	0
Totals:	2,841,966.00

9. Please specify what is included under Other Costs above.

HORSEHEADS CSD

Smart Schools Investment Plan -

Community Connectivity (Broadband and Wireless)

Status Date: 08/14/2015 00:53 PM

1. Briefly describe how you intend to use Smart Schools Bond Act funds for high-speed broadband and/or wireless connectivity projects in the community.

(No Response)

2. Please describe how the proposed project(s) will promote student achievement and increase student and/or staff access to the Internet in a manner that enhances student learning and/or instruction outside of the school day and/or school building.

(No Response)

3. Community connectivity projects must comply with all the necessary local building codes and regulations (building and related permits are not required prior to plan submission).

(No Response)

4. Please describe the physical location of the proposed investment.

(No Response)

5. Please provide the initial list of partners participating in the Community Connectivity Broadband Project, along with their Federal Tax Identification (Employer Identification) number.

Project Partners	Federal ID #
(No Response)	(No Response)

6. If you are submitting an allocation for Community Connectivity, complete this table. Note that the calculated Total at the bottom of the table must equal the Total allocation for this category that you entered in the SSIP Overview overall budget.

	Sub-Allocation
Network/Access Costs	(No Response)
Outside Plant Costs	(No Response)
Tower Costs	(No Response)
Customer Premises Equipment	(No Response)
Professional Services	(No Response)
Testing	(No Response)
Other Upfront Costs	(No Response)
Other Costs	(No Response)
Totals:	

7. Please specify what is included under Other Costs above.

(No Response)

HORSEHEADS CSD

Smart Schools Investment Plan -

Classroom Learning Technology

Status Date: 08/14/2015 00:53 PM

1. As a precondition to any purchase of devices using a Smart Schools allocation, a district must increase the number of school buildings that meet or exceed the Federal Communications Commission minimum speed standard of 100 Mbps per 1,000 students.

Please describe how your district already meets or is planning to meet this standard within 12 months of plan submission.

(No Response)

- 1a. If a district believes that it will be impossible to meet this standard within 12 months, it may apply for a waiver of this requirement, as described on the Smart Schools website. The waiver must be filed and approved by SED prior to submitting this survey.

(No Response)

2. If the district wishes to have students and staff access the Internet from wireless devices within the school building, or in close proximity to it, it must first ensure that it has a robust Wi-Fi network in place that has sufficient bandwidth to meet user demand.

Please describe how you have quantified this demand and how you plan to meet this demand.

(No Response)

3. All New York State public school districts are required to complete and submit an 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 educational technology purchases 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.

(No Response)

4. Describe the devices you intend to purchase and their compatibility with existing or planned platforms or systems.

(No Response)

5. Describe how the proposed technology purchases will:

- > enhance differentiated instruction;
- > expand student learning inside and outside the classroom;
- > benefit students with disabilities and English language learners; and
- > contribute to the reduction of other learning gaps that have been identified within the district.

The expectation is that districts will place a priority on addressing the needs of students who struggle to succeed in a rigorous curriculum. Responses in this section should specifically address this concern and align with the district's Instructional Technology Plan (in particular Question 2 of E. Curriculum and Instruction: "Does the district's instructional technology plan address the needs of students with disabilities to ensure equitable access to instruction, materials and assessments?" and Question 3 of the same section: "Does the district's instructional technology plan address the provision of assistive technology specifically for students with disabilities to ensure access to and participation in the general curriculum?")

(No Response)

6. Where appropriate, briefly describe how the proposed technology purchases will enhance ongoing communication with parents and other stakeholders and help the district facilitate technology-based regional partnerships, including distance learning and other efforts.

(No Response)

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Smart Schools Investment Plan -

Classroom Learning Technology

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7. Describe the district's plan to provide professional development to ensure that administrators, teachers and staff can employ the technology purchased to enhance instruction successfully.

Note: This response should be aligned and expanded upon in accordance with your district's response to Question 1 of F. Professional Development of your Instructional Technology Plan: "Please provide a summary of professional development offered to teachers and staff, for the time period covered by this plan, to support technology to enhance teaching and learning. Please include topics, audience and method of delivery within your summary."

(No Response)

8. Districts must contact the SUNY/CUNY teacher preparation program that supplies the largest number of the district's new teachers to request advice on innovative uses and best practices at the intersection of pedagogy and educational technology.

(No Response)

9. The Smart Schools Bond Act provides that any district hardware purchases made using Smart Schools funds shall be lent, upon request, to nonpublic schools in the district. However, no school district shall be required to loan technology in amounts greater than the total obtained and spent on technology pursuant to the Smart Schools Bond Act and the value of such loan may not exceed the total of \$250 multiplied by the nonpublic school enrollment in the base year at the time of enactment. Accordingly, a district Smart Schools Investment Plan that proposes the purchase of technology devices and other hardware must account for nonpublic schools in the district.

Are there nonpublic schools within your school district?

- 9a. All students attending nonpublic schools in your District are eligible to receive loans of classroom technology equal on a per pupil basis to the per pupil amounts spent on classroom technology for public school students (up to \$250/pupil.)

See:

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

Describe your plan to loan purchased hardware to nonpublic schools within your district. The plan should use your district's budget for classroom devices to calculate the nonpublic student loan amount, within the framework of the guidance.

(No Response)

- 9b. A final Smart Schools Investment Plan cannot be approved until school authorities have adopted regulations specifying the date by which requests from nonpublic schools for the purchase and loan of Smart Schools Bond Act classroom technology must be received by the district.

(No Response)

10. To ensure the sustainability of technology purchases made with Smart Schools funds, districts must demonstrate a long-term plan to maintain and replace technology purchases supported by Smart Schools Bond Act funds. This sustainability plan shall demonstrate a district's capacity to support recurring costs of use that are ineligible for Smart Schools Bond Act funding such as device maintenance, technical support, Internet and wireless fees, maintenance of hotspots, staff professional development, building maintenance and the replacement of incidental items. Further, such a sustainability plan shall include a long-term plan for the replacement of purchased devices and equipment at the end of their useful life with other funding sources.

(No Response)

HORSEHEADS CSD

Smart Schools Investment Plan -

Classroom Learning Technology

Status Date: 08/14/2015 00:53 PM

11. Districts must ensure that devices purchased with Smart Schools Bond funds will be distributed, prepared for use, maintained and supported appropriately. Districts must maintain detailed device inventories in accordance with generally accepted accounting principles.

(No Response)

12. If you are submitting an allocation for Classroom Learning Technology complete this table. Note that the calculated Total at the bottom of the table must equal the Total allocation for this category that you entered in the SSIP Overview overall budget.

	Sub-Allocation
Interactive Whiteboards	(No Response)
Computer Servers	(No Response)
Desktop Computers	(No Response)
Laptop Computers	(No Response)
Tablet Computers	(No Response)
Other Costs	(No Response)
Totals:	

13. Please specify what is included under Other Costs above.

(No Response)

HORSEHEADS CSD

Smart Schools Investment Plan -

Pre-Kindergarten Classrooms

Status Date: 08/14/2015 00:53 PM

1. Provide information regarding how and where the district is currently serving pre-kindergarten students and justify the need for additional space with enrollment projections over 3 years.

(No Response)

2. Describe the district's plan to construct, enhance or modernize education facilities to accommodate pre-kindergarten programs. Such plans must include:

- Specific descriptions of what the district intends to do to each space;
- An affirmation that pre-kindergarten classrooms will contain a minimum of 900 square feet per classroom;
- The number of classrooms involved;
- The approximate construction costs per classroom; and
- Confirmation that the space is district-owned or has a long-term lease that exceeds the probable useful life of the improvements.

(No Response)

3. Smart Schools Bond Act funds may only be used for capital construction costs. Describe the type and amount of additional funds that will be required to support ineligible ongoing costs (e.g. instruction, supplies) associated with any additional pre-kindergarten classrooms that the district plans to add.

(No Response)

4. All plans and specifications for the erection, repair, enlargement or remodeling of school buildings in any public school district in the State must be reviewed and approved by the Commissioner. Districts that plan capital projects using their Smart Schools Bond Act funds will undergo a Preliminary Review Process by the Office of Facilities Planning.

Project Number
(No Response)

5. If you have made an allocation for Pre-Kindergarten Classrooms, complete this table. Note that the calculated Total at the bottom of the table must equal the Total allocation for this category that you entered in the SSIP Overview overall budget.

	Sub-Allocation
Construct Pre-K Classrooms	(No Response)
Enhance/Modernize Educational Facilities	(No Response)
Other Costs	(No Response)
Totals:	

6. Please specify what is included under Other Costs above.

(No Response)

HORSEHEADS CSD

Smart Schools Investment Plan -

Replace Transportable Classrooms

Status Date: 08/14/2015 00:53 PM

1. Describe the district's plan to construct, enhance or modernize education facilities to provide high-quality instructional space by replacing transportable classrooms.

(No Response)

2. All plans and specifications for the erection, repair, enlargement or remodeling of school buildings in any public school district in the State must be reviewed and approved by the Commissioner. Districts that plan capital projects using their Smart Schools Bond Act funds will undergo a Preliminary Review Process by the Office of Facilities Planning.

Project Number
(No Response)

3. For large projects that seek to blend Smart Schools Bond Act dollars with other funds, please note that Smart Schools Bond Act funds can be allocated on a pro rata basis depending on the number of new classrooms built that directly replace transportable classroom units.

If a district seeks to blend Smart Schools Bond Act dollars with other funds describe below what other funds are being used and what portion of the money will be Smart Schools Bond Act funds.

(No Response)

4. If you have made an allocation for Replace Transportable Classrooms, complete this table. Note that the calculated Total at the bottom of the table must equal the Total allocation for this category that you entered in the SSIP Overview overall budget.

	Sub-Allocation
Construct New Instructional Space	(No Response)
Enhance/Modernize Existing Instructional Space	(No Response)
Other Costs	(No Response)
Totals:	

5. Please specify what is included under Other Costs above.

(No Response)

HORSEHEADS CSD
Smart Schools Investment Plan -
High-Tech Security Features

Status Date: 08/14/2015 00:53 PM

1. Describe how you intend to use Smart Schools Bond Act funds to install high-tech security features in school buildings and on school campuses.

The current security system is old and analog based. The system is approximately 12 years old. There is a high failure/replacement rate of cameras currently which is very costly. The 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. The current floor plan will be reviewed to ensure maximum coverage of all critical areas such as entrances, parking lots, hallways, bathroom entrances, and other identified locations.

2. All plans and specifications for the erection, repair, enlargement or remodeling of school buildings in any public school district in the State must be reviewed and approved by the Commissioner. Districts that plan capital projects using their Smart Schools Bond Act funds will undergo a Preliminary Review Process by the Office of Facilities Planning.

Project Number
070901060001020
070901060009025

3. Was your project deemed eligible for streamlined Review?

No

- 3a. Districts with streamlined projects must certify that they have reviewed all installations with their licensed architect or engineer of record, and provide that person's name and license number. The licensed professional must review the products and proposed method of installation prior to implementation and review the work during and after completion in order to affirm that the work was code-compliant, if requested.

(No Response)

4. Include the name and license number of the architect or engineer of record.

Name	License Number
Jeff Robbins, Hunt Engineers & Architects	35151

5. If you have made an allocation for High-Tech Security Features, complete this table.

Note that the calculated Total at the bottom of the table must equal the Total allocation for this category that you entered in the SSIP Overview overall budget.

	Sub-Allocation
Capital-Intensive Security Project (Standard Review)	87,896
Main Entrance Electronic Security System (Streamlined Review)	0
Main Entrance Entry Control System (Streamlined Review)	0
Approved Door Hardening Project (Streamlined Review)	0
Other Costs	0
Totals:	87,896.00

6. Please specify what is included under Other Costs above.

(No Response)