

## Bloomfield Smart Schools Investment Plan (SSIP) Overview

What is the 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.

1072 students and staff.

District's total Allocation of Smart Schools Bond Act funds: \$802,089

Budget Sub-allocations by category that you are submitting for approval at this time.

School connectivity	\$216,187
Connectivity Projects for Communities	NA
Classroom Technology	\$235,550
Pre-Kindergarten Classrooms	NA
Replace Transportable Classrooms	NA
High-Tech Security Features	NA
Unallocated Funds	\$350,352

### Timeline

- The district developed and the school board approved a preliminary Smart Schools Investment Plan
- 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.
- The school board conducted a public 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 was provided through local media and the district website for at least 2 weeks prior to the meeting.
- The district prepared a final plan for school board approval and such plan has been approved by the school board.

## School connectivity

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.

We are replacing existing CAT5 wiring with CAT6 wiring. We are also replacing all wireless access points. The current access points have reached their end of life and the district would benefit from newer access points with more controller capabilities.

2. Briefly describe the linkage between the district's District Instructional Technology Plan and the proposed projects. There should be a direct link between this question and your response to Part E, Question 1.

The district plans to use digital connectivity and technology to improve teaching and learning by:

- Fostering collaboration between students and between students and teachers.
- Encouraging and supporting project based learning.
- Developing digital literacy skills.
- Proving teachers with the tools to project documents, websites, software and other instructional materials.
- Ensuring college and career readiness by teaching our students about the cloud, managing files in the cloud, data security, and online safety.

By ensuring we are meeting and maintaining industry standards, as well as FCC requirements for connectivity, our students and staff will have access to robust wireless connections that support the seamless integration of instruction, learning, and technology.

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 district currently meets this standard. We have 200 Mbps for our 912 students.

4. If the district wishes to have students and staff access the Internet from wireless devices within the school building or in a 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.

We currently monitor the bandwidth usage in the district by taking random snapshots using graphical analysis monitoring tools at different times during the day. The technology staff also

conducts periodic upload and download speed tests to ensure the fiber and wireless are performing at their industry standard prescribed rates.

5. Office of Facilities Planning will have to conduct a preliminary review of all capital projects, including connectivity projects. Project number:
6. Was your project eligible for an expedited review process? Indicate name and license number of the architect or engineer of record.

network/access costs	\$88,582
outside plant costs	
school internal connections and components	\$30,141
professional services	\$97,464
testing	
other upfront costs	
other costs	

Other costs

The sub-allocations on this table must equal the Total allocation for this category in the overall SSIP budget.

## Classroom Learning Technology

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.

The district currently meets this standard. We have 200 Mbps for our students.

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 WiFi 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.

We currently monitor the bandwidth usage in the district by taking random snapshots using graphical analysis monitoring tools at different times during the day. The technology staff also conducts periodic upload and download speed tests to ensure the fiber and wireless are performing at their industry standard prescribed rates.

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.

Our plan was submitted and the district received email approval on 9/22/2015. The official letter was received 10/2/2015.

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

Our major initiative is a 1:1 digital learning program for our secondary schools. For this initiative the district will be providing chromebooks to every secondary student. Bloomfield CSD is a Google Apps for Education (GAFE) district and students and staff have been using GAFE for the last four years. There has been ongoing professional development in these years. Several teachers have been modeling the use of GAFE, including Google Classroom, for their peers. Teachers have also begun flipping their classrooms and are using the classroom time to engage the students with project based learning. For this to be successful the students need access to technology. At the moment, the availability of laptop carts and a computer lab are driving the

lesson plans of the teachers. We want to flip this so that the use of technology is driven by the lesson plan because students already have the technology in their hands.

The students are quick learners and often support each other. Bloomfield has started training students to run a help desk next year in addition to being in-classroom supports for both their peers and teachers. For at least the first year the chromebooks will stay in the building and to accommodate the storage and nightly charging, storage carts will be purchased. After the first year the district is considering letting the upper grades take home the devices but charging carts will still be necessary for the the other grades.

The district has a robust secondary technology program. The students taking these courses already have access to a CNC machine. As part of our career and college readiness preparation the district will also purchase a 3D printer and laser engraver to support the secondary technology classes. While learning to use these machines are important skills for the students, teachers in other curricular areas will also benefit from them. Teachers will be able to make requests for the technology classes to create objects to enhance their curriculum such as historical artifacts or scientific models.

5. Describe how the proposed technology purchases will:
  - a. enhance differentiated instruction
  - b. expand student learning inside and outside the classroom
  - c. benefit students with disabilities and English language learners; and
  - d. contribute to the reduction of other learning gaps that have been identified in the school 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 Section E, Question 2, and Section E Question 3).

As part of a universal design approach to differentiated instruction, and supporting students with disabilities, we make use of the variety of assistive technology tools that are developed for use with Google Chrome and Google Apps for Education. These include speech-to-text and text-to-speech applications, the ability to enlarge print, simplify web pages, word prediction support, and access to word processing. These tools provide all of our students with the ability to fully participate in classroom learning activities. Having a chromebook per student makes providing access to all of these tools, as they are needed, efficient. Several students with disabilities have been piloting these tools and we know they are effective in improving student learning.

Despite the small size of the district, students have access to a variety of college credit bearing courses. However, there are students that may want to access additional courses that the district cannot provide. By providing students with their own chromebook, it eliminates one

barrier to providing access to an online course should the student want to take one of these courses.

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

Currently, our sixth grade team collaborates with two other districts. They share flipped classroom videos and lesson plans and the students collaborate with each other on learning projects through the use of Google applications. This serves as a model for how teachers could collaborate regionally. As a small rural district, these types of partnerships are invaluable, especially to our secondary teachers, who are often the only teacher of a particular course or subject area.

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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. This should be aligned with Section F, Question 1 of the district's Instructional Technology Plan.

With advances in current technology, professional development can happen in many different formats. The district encourages staff to build personal learning networks and include a variety of professional development formats as part of their personal professional development plan. The goal of all district sponsored professional development is to create training opportunities that are easily accessible, develop a common language among users regarding technology lexion, and promote the integration of technology into rich and rewarding learning experiences for our students. The focus of our professional development has been, and will continue to be:

- re-thinking how teachers use classroom instructional time and the flipped classroom model
- using Google Apps for Education and the many associated tools to create collaborative learning experiences
- rethinking how students demonstrate their learning
- using technology to support all learners in the classroom using principles of Universal Design.

In addition to our district sponsored professional development teachers attend professional development at the Wayne-Finger Lakes Teacher Center, Wayne-Finger Lakes BOCES, and

NYSCATE. Staff also are encouraged to participate in professional webinars and use social media to broaden their learning as well.

8. District's 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.

This meeting was held on October 30, 2015. Information from that meeting has been incorporated into our professional development plan for teachers.

9. NA - no non-public schools within our district
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 as 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.

The district maintains an extensive replacement plan for all areas of technology and this replacement plan was used in developing this plan. In developing the district's SSIP we looked at how to best leverage state-aided hardware funds, BOCES aid on technology purchases, and tried to maintain a consistent overall technology budget amount supported by district funds.

The technology budget already provides funds for technology related professional development. The support charge for the wireless controller contract is already funded within the district budget as are the maintenance contracts for the high school technology program equipment.

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.

All devices are tagged and inventoried when received by the district. The district uses a commercial software product for managing all technology equipment. It is connected with our help desk ticket system. Packing slips are kept with a copy of the district PO. Staff members that have mobile technology assigned to them sign for each piece of technology with the device's serial number and asset tag noted on the sheet. As technology is assigned to

students, students and parents will be required to sign for the device. All mobile devices are accounted for at the end of the school year.

Interactive whiteboards	
computer servers	
desktop computers	
laptop computers	\$152,750
tablet computers	\$32,000
other costs	\$50,800

Specify what is included under other costs

3D printer and laser engraver  
additional charging carts for the chromebooks