

Smart Schools Investment Plan - 2016-17 Version (Original) - Mount Sinai 201608

SSIP Overview

Institution ID

800000037627

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

Ken Jockers

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

631-870-2815

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

kjockers@mtsinai.k12.ny.us

2. Please indicate below whether this is the first submission, a new or supplemental submission or an amended submission of an approved 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**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
- ☒ Teachers
- ☒ Students
- ☒ Community members

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

- ☐ Yes
- ☐ No
- ☒ N/A

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.
- ☒ 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 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.
- ☒ The district prepared a final plan for school board approval and such plan has been approved by the school board.
- ☒ The final proposed plan that has been submitted has been posted on the district's website.

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SSIP Overview

- 5a. Please upload the proposed Smart Schools Investment Plan (SSIP) that was posted on the district's website, along with any supporting materials. Note that this should be different than your recently submitted Educational Technology Survey. The Final SSIP, as approved by the School Board, should also be posted on the website and remain there during the course of the projects contained therein.

Mount Sinai Preliminary Smart Schools Investment Plan.pdf

Mount Sinai Smart Schools Investment Plan.pdf

- 5b. Enter the webpage address where the final Smart Schools Investment Plan is posted. The Plan should remain posted for the life of the included projects.

<https://www.mtsinai.k12.ny.us/common/pages/DisplayFile.aspx?itemId=13695905>

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.

2,366

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.

☐ The district plans to participate in a consortium to partner with other school district(s) to implement a Smart Schools project.

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
N/A	(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:

\$1,618,336

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	630,980
Connectivity Projects for Communities	0
Classroom Technology	777,289
Pre-Kindergarten Classrooms	0
Replace Transportable Classrooms	0
High-Tech Security Features	209,163
Totals:	1,617,432

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School Connectivity

1. In order for students and faculty to receive the maximum benefit from the technology made available under the Smart Schools Bond Act, their school buildings must possess sufficient connectivity infrastructure to ensure that devices can be used during the school day. Smart Schools Investment Plans must demonstrate that:
 - sufficient infrastructure that meets the Federal Communications Commission's 100 Mbps per 1,000 students standard currently exists in the buildings where new devices will be deployed, or
 - is a planned use of a portion of Smart Schools Bond Act funds, or
 - is under development through another funding source.

Smart Schools Bond Act funds used for technology infrastructure or classroom technology investments must increase the number of school buildings that meet or exceed the minimum speed standard of 100 Mbps per 1,000 students and staff within 12 months. This standard may be met on either a contracted 24/7 firm service or a "burstable" capability. If the standard is met under the burstable criteria, it must be:

1. Specifically codified in a service contract with a provider, and
2. Guaranteed to be available to all students and devices as needed, particularly during periods of high demand, such as computer-based testing (CBT) periods.

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

Mount Sinai currently have a student population of approximately 2,500 students; at last BEDS day submission; 2,366. Mount Sinai has already put in equipment and capabilities to bring the connection to the minimum of 250 Mbps which meets the speed standard for Mount Sinai. Mount Sinai had contracted with a second ISP to increase our bandwidth to 250 Mbps overall. This project is now complete and 250 Mbps has been met. The addition of the second ISP has the added benefit for allowing for load balancing and disaster avoidance. Our current 18-19 budget includes and our 19-20 budget will include the recurring communications costs that reflect this speed. Subsequent budgets will include at least this level of connection.

- 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.

☐ By checking this box, you are certifying that the school district has an approved waiver of this requirement on file with the New York State Education Department.

2. Connectivity Speed Calculator (Required)

	Number of Students	Multiply by 100 Kbps	Divide by 1000 to Convert to Required Speed in Mb	Current Speed in Mb	Expected Speed to be Attained Within 12 Months	Expected Date When Required Speed Will be Met
Calculated Speed	2,366	236,600	237	250	250	Currently Met

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

In the connectivity projects in school buildings area of the Smart Schools the primary use of the funds will be to replace obsolete/aged wired and wireless network equipment. Part of this replacement will be replacement of the fiber backbone that connects our 3 building campus currently. The secondary use of the funds will be to allow for the growth of our connection to the Internet from the present 50 Mb to the minimum FCC requirement of 250 Mb with generous headroom for growth beyond that. The system design of the District's connection to the Internet will add a second ISP to allow for load balancing during normal operation and fault tolerance/disaster avoidance during a single ISP outage. Equipment will include Core Switches, Wireless controllers, Access Points, Wired and Wireless Security, and Firewalls.

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School Connectivity

4. 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?")

The proposed projects directly link to the District's Technology Plan in that the resulting system will allow for the diverse network connectivity that will be required to support the educational programs. Specifically our 8 notebook per Elementary classroom and iPad carts in the Elementary school will make use of the robust wireless system tied together with the wired system. Likewise our computing equipment in the Middle and High Schools will depend on the wireless and wired network system to allow communications to network resources in-District as well as out of District (Internet). Our K-12 classrooms each equipped with a Smartboard will make use of the network to bring educational resources to classroom instruction. Our wireless system will allow device mirroring (screen casting) to the Smartboard to allow easy access of materials by teacher and student. Videoconferencing capabilities will be supported district-wide.

5. 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.

Our current wireless system has allowed us to quantify our wireless performance and identify areas that need increased coverage. Our current system has grown over the years and has steadily been improved to meet our educational programs. Access points have been added or moved to customize our system to our data users. The new system will incorporate the latest wireless technology and access points that will only increase the wireless systems capability to meet current educational program demands and allow ample growth in demand for later years.

6. 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.

Please indicate on a separate row each project number given to you by the Office of Facilities Planning.

Project Number
58-02-07-02-7-999-BA1

7. 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?

Yes

- 7a. 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.

☒ I certify that I have reviewed all installations with a licensed architect or engineer of record.

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

Name	License Number
Saverio J. Belfiore - H2M	33063

9. 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.

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School Connectivity

	Sub-Allocation
Network/Access Costs	415,553
Outside Plant Costs	(No Response)
School Internal Connections and Components	145,262
Professional Services	70,165
Testing	(No Response)
Other Upfront Costs	(No Response)
Other Costs	(No Response)
Totals:	630,980

10. Please detail the type, quantity, per unit cost and total cost of the eligible items under each sub-category. This is especially important for any expenditures listed under the "Other" category. All expenditures must be eligible for tax-exempt financing to be reimbursed through the SSBA. Sufficient detail must be provided so that we can verify this is the case. If you have any questions, please contact us directly through smartschools@nysed.gov.
NOTE: Wireless Access Points should be included in this category, not under Classroom Educational Technology, except those that will be loaned/purchased for nonpublic schools.
Add rows under each sub-category for additional items, as needed.

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
Network/Access Costs	Three Core Switches consisting of this and the following seven rows: Cisco Catalyst WS-C4507R+E Switch Chassis - Manageable - 3 Layer Supported - 11U High - Rack-mountable	3	13,000	39,000
Network/Access Costs	SUP9E and MGIG upgrade for 7 slot chassis bundle (96 ports)	3	12,409	37,227
Network/Access Costs	Catalyst 4500 E-Series Redundant Supervisor 9-E	3	15,508	46,524
Network/Access Costs	Catalyst 4500 E-Series 12-Port 10GbE (SFP+)	3	16,749	50,247
Network/Access Costs	Catalyst 4500 4200W AC dual input Power Supply (Data + PoE)	6	1,857	11,142
Network/Access Costs	1000BASE-SX SFP transceiver module, MMF, 850nm, DOM	32	296	9,472
Network/Access Costs	10GBASE-LR SFP Module, Enterprise-Class	8	1,182	9,456
Network/Access Costs	1000BASE-LX/LH SFP transceiver module, MMF/SMF, 1310nm, DOM	8	587	4,696
Connections/Components	Core Switches configuration, staging and quality assurance	1	16,000	16,000

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School Connectivity

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
Network/Access Costs	Two Firewalls, BGP & Perimeter Switches consisting of this and the following four rows: Palo Alto Networks PA-3220 with redundant AC power supplies	2	10,800	21,600
Network/Access Costs	Cisco 4451 X Router 4GBE 3NIM 2SM 8G FLASH 4G	2	10,636	21,272
Network/Access Costs	AC Power Supply (Secondary PS) for Cisco ISR 4450	2	473	946
Network/Access Costs	Cisco Catalyst 3650-24T Layer 3 Switch	2	2,395	4,790
Network/Access Costs	250W AC Config 2 Secondary Power Supply	2	325	650
Connections/Components	Firewalls, BGP, & perimeter configuration, staging, quality assurance, & coordination	1	11,200	11,200
Professional Services	Core Switches & Firewalls Project Management, Design/Planning, Implementation, & Project Documentation	1	32,400	32,400
Network/Access Costs	Two Wireless Controllers consisting of this and the following one row: Aruba 7205 (US) 2-port 10GBASE-X (SFP+) Controller	2	6,099	12,198
Network/Access Costs	Aruba MM-VA-500 Mobility Master SW E-LTU	1	4,926	4,926
Connections/Components	Wireless controllers configuration, staging, quality assurance, & implementation	1	6,500	6,500
Network/Access Costs	67 Access Points consisting of this and the following two rows: Aruba AP-315 802.11n/ac 2x2:2/4x4:4 MU-MIMO Dual Radio Integrated Antenna AP	56	467	26,152
Network/Access Costs	Aruba AP-335 802.11n/ac 4x4:4 MU-MIMO Dual Radio Inte-grated Antenna 2.5+1 GbE AP	11	797	8,767
Network/Access Costs	AP-220-MNT-W3 White Low Profile Box Style Secure Large In-door AP Flat Surface Mount Kit	67	35	2,345
Network/Access Costs	Wireless Security consisting of this and the following four rows: Aruba ClearPass Cx000V VM Appliance E-LTU	1	1,877	1,877

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Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
Network/Access Costs	Aruba ClearPass NL AC 2500 CE E-LTU	1	21,121	21,121
Network/Access Costs	Aruba AW-K12-1 AirWave K-12 Bundle 1 Device License E-LTU	100	23	2,300
Network/Access Costs	Aruba ClearPass NL OB 100 USR E-LTU-On Board	3	1,643	4,929
Network/Access Costs	Aruba ClearPass NL OB 100 USR E-LTU-On Guard	1	1,055	1,055
Connections/Components	Wireless Security configuration, staging, quality assurance, & implementation	1	13,500	13,500
Professional Services	Wireless Project Management, Design/Planning, post-implementation Active Wireless Survey, admin training, First Day Support, & Project Documentation	1	21,000	21,000
Connections/Components	Modern Fiber Back-bone install consisting of this and the following eight rows: 24-F Os2 8.3 Single Mode LT Fiber outdoor (3000')	1	7,950	7,950
Connections/Components	12-F Os2 8.3 Single Mode LT Fiber outdoor (1000')	1	2,290	2,290
Connections/Components	24-Port Rack mounted Corning CCH-01U	2	328	656
Connections/Components	12-Port Rack mounted Corning CCH-02U	1	211	211
Connections/Components	Corning single mode Splce cassetts (LC-Type)	6	88	528
Connections/Components	Fusion splices (72)	1	890	890
Connections/Components	Misc. Materials/Insurance/Freight	1	324	324
Connections/Components	Labor for Installation for Fiber feed	1	62,363	62,363
Professional Services	Professional Services (architect)	1	5,265	5,265
Network/Access Costs	Three Servers consisting of this and the following twenty-one rows: HPE DL380R10 4110 2.1GHz 85W 8C 1P 8SFF	3	2,782	8,346
Network/Access Costs	HPE 4110 2.1GHz 85W 8C SILVER PROC KIT D	3	715	2,145
Network/Access Costs	HPE 16GB 2RX8 PC4-2666V-R MEMORY KIT	33	364	12,012
Network/Access Costs	HPQ 32GB MICRO SD MAINSTREAM	3	152	456

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School Connectivity

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
	FL MEDIA KI			
Network/Access Costs	HPQ 1.8TB SAS 10K SFF SC 512E DS HD	36	515	18,540
Network/Access Costs	ILO ADV SEC ELC LIC	3	458	1,374
Network/Access Costs	HPQ 500W FLEX SLOT PLAT HS POWER SUPPLY	3	186	558
Network/Access Costs	HPE DL380 GEN10 BOX1/2 CAGE BCKPL KIT	6	303	1,818
Network/Access Costs	HPE 12G SAS EXPANDER CARD DL38X GEN10	3	533	1,599
Network/Access Costs	HPQ ETHERNET 1GB 4P 366FLR ADPTR	3	182	546
Network/Access Costs	HPQ 900GB SAS 15K SFF SC DS HD	24	539	12,936
Connections/Components	Configuration, staging, and quality assurance for VM hosts, and Active Directory migration	1	17,450	17,450
Network/Access Costs	Data Backup System consisting of this and the following three rows: Synology RackStation RS3618xs SAN/NAS Storage System - Intel Xeon D-1521 Quad-core (4 Core) 2.40 GHz -12 x HDD Supported - 144 TB Supported HDD Capacity -12 x SSD Supported - 8 GB RAM DDR4 SDRAM	1	2,768	2,768
Network/Access Costs	Synology Mounting Rail Kit for Network Storage System	1	117	117
Network/Access Costs	Synology Ethernet Adapter E10G17-F2 - PCI Express 3.0 x8 - 2 Port(s) - Optical Fiber PCIE 3.0 X8	1	311	311
Network/Access Costs	Seagate IronWolf Pro ST10000NE0004 10 TB 3.5	5	427	2,135
Connections/Components	Configuration, staging, quality assurance, & implementation for Backup System	1	5,400	5,400
Professional Services	Servers & Data Backup System Project Management, Design/Planning, admin training, and project documentation	1	11,500	11,500
Network/Access Costs	Battery Backup consisting of this and the following row: UPS - small	20	275	5,500
Network/Access Costs	UPS - replacement battery	20	85	1,700

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Community Connectivity (Broadband and Wireless)

1. 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).

☐ I certify that we will comply with all the necessary local building codes and regulations.

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:	0

7. Please detail the type, quantity, per unit cost and total cost of the eligible items under each sub-category. This is especially important for any expenditures listed under the "Other" category. All expenditures must be capital-bond eligible to be reimbursed through the SSBA. If you have any questions, please contact us directly through smartschools@nysed.gov.

Add rows under each sub-category for additional items, as needed.

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
(No Response)	(No Response)	(No Response)	(No Response)	(No Response)

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Classroom Learning Technology

1. In order for students and faculty to receive the maximum benefit from the technology made available under the Smart Schools Bond Act, their school buildings must possess sufficient connectivity infrastructure to ensure that devices can be used during the school day. Smart Schools Investment Plans must demonstrate that sufficient infrastructure that meets the Federal Communications Commission's 100 Mbps per 1,000 students standard currently exists in the buildings where new devices will be deployed, or is a planned use of a portion of Smart Schools Bond Act funds, or is under development through another funding source. Smart Schools Bond Act funds used for technology infrastructure or classroom technology investments must increase the number of school buildings that meet or exceed the minimum speed standard of 100 Mbps per 1,000 students and staff within 12 months. This standard may be met on either a contracted 24/7 firm service or a "burstable" capability. If the standard is met under the burstable criteria, it must be:

1. Specifically codified in a service contract with a provider, and
2. Guaranteed to be available to all students and devices as needed, particularly during periods of high demand, such as computer-based testing (CBT) periods.

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

Mount Sinai currently have a student population of approximately 2,500 students; at last BEDS day submission; 2,366. Mount Sinai has already put in equipment and capabilities to bring the connection to the minimum of 250 Mbps which meets the speed standard for Mount Sinai. Mount Sinai had contracted with a second ISP to increase our bandwidth to 250 Mbps overall. This project is now complete and 250 Mbps has been met. The addition of the second ISP has the added benefit for allowing for load balancing and disaster avoidance. Our current 18-19 budget includes and our 19-20 budget will include the recurring communications costs that reflect this speed. Subsequent budgets will include at least this level of connection.

- 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.

☐ By checking this box, you are certifying that the school district has an approved waiver of this requirement on file with the New York State Education Department.

2. Connectivity Speed Calculator (Required)

	Number of Students	Multiply by 100 Kbps	Divide by 1000 to Convert to Required Speed in Mb	Current Speed in Mb	Expected Speed to be Attained Within 12 Months	Expected Date When Required Speed Will be Met
Calculated Speed	2,366	23,660	237	250	250	Currently met.

3. 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.

Our current wireless system has allowed us to quantify our wireless performance and identify areas that need increased coverage. Our current system has grown over the years and has steadily been improved to meet our educational programs. Access points have been added or moved to customize our system to our data users. The new system will incorporate the latest wireless technology and access points that will only increase the wireless systems capability to meet current educational program demands and allow ample growth in demand for later years.

4. 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.

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

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- 5. Describe the devices you intend to purchase and their compatibility with existing or planned platforms or systems. Specifically address the adequacy of each facility's electrical, HVAC and other infrastructure necessary to install and support the operation of the planned technology.**

The District intends to use the funds in the Classroom Learning Technology category of Smart Schools primarily to address replacement for obsolete/aged devices and equipment. We intend to replace computers, notebooks, laptops, servers, storage, data backup devices and battery backup systems that have reached or exceeded their usable life in our educational programs. We intend to replace Smartboards, printers, projectors, and presentation Speakers as these devices fail and are no longer able to be repaired/rehabilitated.

Of secondary use of the funding (less than 10%), we are proposing introduction of some new equipment to our educational programs. These will include (2) portable class-count tablet carts as well as teacher tablets for classroom instruction. Additionally we are proposing the replacement of a the Windows based Art/Music lab with Apple equipment as well all Music teacher and classroom equipment migrating to the Apple Operating System (OS).

In that the devices and equipment that the District intends to purchase is primarily replacement items for items currently in use in the District, compatibility with our educational programs and current technology systems will be made easier. The newer versions of the equipment will be purchased such that compatibility to our program and system is assured.

Attention will be placed on system compatibility for any new (not replacement) items purchased. It should also be noted tha the District will not be purchasing any item that has not already as of this date been piloted successfully in the District.

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6. 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?"

Our district strives to improve learning environments and increase student success by integrating a variety of technology tools and resources across the curriculum. A lesson that incorporates technology tends to engage and excite students more so than the traditional lecture. Having faster computers and additional tablets would help us to create an optimal learning environment to motivate even the most reluctant learner. Using these new devices, teachers could utilize a variety of tools to differentiate instruction for their students. Subscription based websites, such as Castle Learning, IXL, Raz-Kids, and Scholastic Read About allows students to work at their own ability level, focusing on their specific academic needs. Many of these web resources are available in both the school and home so students can continue their studies on their own time. Additionally, the use of computers and tablets would provide more opportunity for student based multimedia projects. Digital projects can be used across the curriculum and students of all abilities can participate. Students take ownership of their project by taking their own pictures, videos, and recording their voice. Each finished product is as unique as the student creating it. This type of project allows students to take control of their own learning, express themselves creatively, all while demonstrating their knowledge of the subject matter.

Students that are visual learners would greatly benefit from the use of document cameras. With the ability to project any object onto the screen, items such as HW assignments, books, science experiments, and math manipulatives, are quickly magnified for the entire class to see. Teachers can also use the document camera to take digital 'snapshots' of the item to be used in future lessons or uploaded to the classroom website for review.

Expanding the school and home connection, our District offers students and teachers access to Microsoft Office 365 and Google Apps for Education. These cloud-based resources have increased our curriculum capabilities by providing easy access to software on virtually any internet connected device, as well as promoting collaborative learning environments and exposing students to the digital classroom experience. These web-based tools provide an interactive platform for learning and instruction that is hard to replicate using the standard textbook and worksheets. Having access to a cart of notebooks or tablets would enable teachers to create more student centered projects using these cloud-based tools.

Our English Language Learners use technology in a variety of ways to help them participate in the general education curriculum. Web-based programs such as Castle Learning, IXL, Raz-Kids, and Scholastic Read About can target each student's area of weakness. Multimedia resources such as BrainPop and Discovery Learning reinforce both academic concepts and language acquisition in a visual and auditory way. Providing access to these web-based tools both in school and at home allows ELL students to work at their own pace and review more difficult content as many times as they need to. In addition, using the computer or tablet to create multimedia projects allows ELL students to take ownership of their work while working at a pace that works best for them. Students could practice their speaking skills by including audio recordings of themselves. The computer's translation tools would be helpful when conducting research for their project. These methods are just some of the ways that our teachers can support their ELL students. With the addition of a tablet and language acquisition related apps, the opportunity for ELL students to practice the English language widens even more.

Students with special needs must be provided services in the least restrictive environment (LRE) format. In order to level the playing field for students with disabilities functioning within the general education setting, assistive technology may be one of the solutions allowing students to work with their cohorts without the need for more restrictive measures. For example, if a student has access to a computer for written work assignments, then a scribe may not be necessary within that same scenario. It is important to factor in the world of technology and infuse it within the learning environment not only for general education students, but more importantly for students with a disability. Many students with a disability show an improvement of self esteem when given the opportunity to promote independence through technology as opposed to having them depend upon an adult for assistance. The use of an iPad for all special education staff members would allow those educators/providers to incorporate such technology in their instruction.

Students who are able to use touch screens and apps on their functional level are more prone to progress, than to use other basic levels such as a keyboard. The use of an iPad along with the SmartBoards already utilized within the district classrooms would further enhance the proper use of technology. Curriculum is more challenging now than ever before, so the ability to optimize the teaching process will in turn optimize the learning process.

Students with disabilities must spend the maximum amount of time possible within the general education setting. The purpose of "Time Out Of Regular Class (TORC)" and "Time In Regular Class (TIRC)" are extremely important when approving special education services. With that said, the use of assistive technology with the wide variety of services available actually enhances the student's ability to spend more time within the general

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education setting in a more productive manner. Some of these assistive technology devices/services often carry over into post-secondary education and/or into the work force once the student graduates from compulsory education. The district of residence ultimately has the responsibility of providing the necessary Individualized Education Plan (IEP) elements and maintenance of such services within the federal and state mandated guidelines. The ongoing need to review when assistive technology is necessary, justified, and appropriate is a task for the Committee on Special Education (CSE) or Committee on Preschool Education (CPSE). It has been apparent with past and current cases, that the use of such technology is vital for specific cases. For example, the use of an iPad and application programs, as well as augmentative communication devices/systems has been successful with autistic students and significantly speech and language impaired students. Use

of word processors, adaptive keyboards, and word prediction software have been extremely helpful for students with learning disabilities. With funding and support for such assistive technology resources, the progress and success for students with disabilities would certainly be optimized.

- 7. Where appropriate, 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.**

The equipment being purchased will enhance ongoing communication with parents and other stakeholders by allowing faster computer operation at the teacher level and faster computing and software version compatibility at the server level allowing upgrade of our Student Information System to the latest release and beyond. The majority of our classroom computers are currently 8 years old and are extremely sluggish in response time. This negatively impacts the amount of work that can be accomplished to promote an effective level of communication. New equipment will address this immediately. Videoconferencing will be greatly enhanced as well with modern computers. Teachers will not only be able to rely on the existing specialized videoconference equipment (Polycom) but will now be able to avail themselves to use of their own classroom computers through use of Skype, etc.

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8. 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."

Mount Sinai has a robust Professional Development Plan which includes a full-time Technology Staff Developer. Professional development is provided in the form of:

- Superintendent Conference Day Workshops
- Hardware and software training for the technical staff
- Approval of graduate level or in-service technology courses (for credit)
- Summer workshops (for credit/stipend)
- Out of district conferences
- Outside consultants (BOCES, Right Reason, AIMSweb, etc.)
- Release time for out-of-district observation
- A full-time staff developer provides daily support, training, scheduled workshops, etc.

Professional development opportunities for the staff are identified by the Technology Committee through observations / informal assessments and staff input (via surveys). One of the goals of this committee is to develop new strategies and projects to meet the needs of our staff and students.

Below are some of the previous professional development workshops that the district has offered to the teachers over the summer:

- iPads for K-12 teachers
- Smart Notebook for K-12 teachers
- 21st Century Web Tools for K-12 teachers
- Google Classroom for 7-12 teachers
- Google Apps for Education and Microsoft Office 365 for K-12 teachers
- Creating Multimedia Projects for K-12 teachers
- Internet Safety for K-12 teachers
- Student Response Systems for K-12 teachers

In addition to the summer, professional development for technology integration is offered during the school year on a daily basis, in either a small group or one-on-one setting. Below are some examples of the meetings that have taken place in the past:

- o Document cameras
- o Developing Smart Notebook lessons
- o iPad use
- o Google Apps for Education and Microsoft Office 365
- o Website design
- o Student response system use
- o Microsoft Office Suite assistance
- o Scanning capabilities

9. 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.

☒ By checking this box, you certify that you have contacted the SUNY/CUNY teacher preparation program that supplies the largest number of your new teachers to request advice on these issues.

- 9a. Please enter the name of the SUNY or CUNY Institution that you contacted.

SUNY Oneonta

- 9b. Enter the primary Institution phone number.

607-436-2630

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- 9c. Enter the name of the contact person with whom you consulted and/or will be collaborating with on innovative uses of technology and best practices.

Elaine Lawrence, Ph.D.

10. A district whose Smart Schools Investment Plan 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?

- ☐ Yes
☒ No

11. Nonpublic Classroom Technology Loan Calculator

The Smart Schools Bond Act provides that any Classroom Learning Technology 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.

See:

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

	1. Classroom Technology Sub-allocation	2. Public Enrollment (2014-15)	3. Nonpublic Enrollment (2014-15)	4. Sum of Public and Nonpublic Enrollment	5. Total Per Pupil Sub-allocation	6. Total Nonpublic Loan Amount
Calculated Nonpublic Loan Amount	(No Response)	(No Response)	(No Response)	(No Response)	(No Response)	(No Response)

12. 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.

☒ By checking this box, you certify that the district has a sustainability plan as described above.

13. 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.

☒ By checking this box, you certify that the district has a distribution and inventory management plan and system in place.

14. 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	0
Computer Servers	0
Desktop Computers	420,220
Laptop Computers	178,560
Tablet Computers	121,320

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	Sub-Allocation
Other Costs	57,189
Totals:	777,289

15. Please detail the type, quantity, per unit cost and total cost of the eligible items under each sub-category. This is especially important for any expenditures listed under the "Other" category. All expenditures must be capital-bond eligible to be reimbursed through the SSBA. If you have any questions, please contact us directly through smartschools@nysed.gov.

Please specify in the "Item to be Purchased" field which specific expenditures and items are planned to meet the district's nonpublic loan requirement, if applicable.

NOTE: Wireless Access Points that will be loaned/purchased for nonpublic schools should **ONLY** be included in this category, not under School Connectivity, where public school districts would list them.

Add rows under each sub-category for additional items, as needed.

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be Purchased	Quantity	Cost per Item	Total Cost
Desktop Computers	Desktop Computer	670	475	318,250
Desktop Computers	Flatscreen Display	270	135	36,450
Other Costs	Projectors	65	555	36,075
Tablet Computers	iPads in cases	258	440	113,520
Other Costs	iPad keyboards	190	40	7,600
Laptop Computers	Notebooks	251	465	116,715
Laptop Computers	Laptops	133	465	61,845
Other Costs	Printers	30	195	5,850
Other Costs	Presentation Speakers	20	120	2,400
Other Costs	Tablet Stand	20	120	2,400
Tablet Computers	iPad Mini in cases	20	390	7,800
Other Costs	Tablet Carts	2	750	1,500
Other Costs	Notebook Carts	1	1,364	1,364
Desktop Computers	Apple iMac Computers	52	1,260	65,520

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Pre-Kindergarten Classrooms

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.

Please indicate on a separate row each project number given to you 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:	0

6. Please detail the type, quantity, per unit cost and total cost of the eligible items under each sub-category. This is especially important for any expenditures listed under the "Other" category. All expenditures must be capital-bond eligible to be reimbursed through the SSBA. If you have any questions, please contact us directly through smartschools@nysed.gov.
Add rows under each sub-category for additional items, as needed.

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Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
(No Response)	(No Response)	(No Response)	(No Response)	(No Response)

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Replace Transportable Classrooms

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.

Please indicate on a separate row each project number given to you 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:	0

5. Please detail the type, quantity, per unit cost and total cost of the eligible items under each sub-category. This is especially important for any expenditures listed under the "Other" category. All expenditures must be capital-bond eligible to be reimbursed through the SSBA. If you have any questions, please contact us directly through smartschools@nysed.gov.

Add rows under each sub-category for additional items, as needed.

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
(No Response)	(No Response)	(No Response)	(No Response)	(No Response)

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High-Tech Security Features

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.

We are proposing enhancement of our current video surveillance system to add new cameras and replace obsolete/low functioning cameras. New cameras will address gaps in our current scope. There will be an emphasis on covering new areas such as exterior spaces, athletic fields, District roadways, ect.

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.

Please indicate on a separate row each project number given to you by the Office of Facilities Planning.

Project Number
58-02-07-02-7-999-005

3. Was your project deemed eligible for streamlined Review?

☐ Yes
☒ No

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

Name	License Number
Saverio J. Belfiore - H2M	33063

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)	(No Response)
Electronic Security System	194,163
Entry Control System	(No Response)
Approved Door Hardening Project	(No Response)
Other Costs	15,000
Totals:	209,163

6. Please detail the type, quantity, per unit cost and total cost of the eligible items under each sub-category. This is especially important for any expenditures listed under the "Other" category. All expenditures must be capital-bond eligible to be reimbursed through the SSBA. If you have any questions, please contact us directly through smartschools@nysed.gov.

Add rows under each sub-category for additional items, as needed.

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
Electronic Security System	AVI-HD-NVR3-PRM-48TB - 48TB	2.00	18,870	37,740

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High-Tech Security Features

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
	security server for High School & Middle School			
Electronic Security System	High School Avigilon ACC server application/licensing	1.00	7,812	7,812
Electronic Security System	AVI-5.0L-H4A-D1-IR Camera	9.00	848	7,632
Electronic Security System	AVI-3.0C-H4A-DC2 Camera	24.00	782	18,768
Electronic Security System	AVI-2.0C-H4A-DO1-IR Camera	3.00	845	2,535
Electronic Security System	AVI-2.0C-H4A-B2 Camera	1.00	675	675
Electronic Security System	AVI-2.0C-H4A-DC1 Camera	3.00	718	2,154
Electronic Security System	AVI-12.0-H4F-DO1-IR Camera	1.00	913	913
Electronic Security System	AVI-9W-H3-3MH-DP1-B Camera	2.00	1,585	3,170
Electronic Security System	AVI-9W-H3-3MH-DC1 Camera	2.00	1,500	3,000
Electronic Security System	AVI-9W-H3-3MH-DO1 Camera	1.00	1,585	1,585
Electronic Security System	AVI-12W-H3-4MH-DO1-B Camera	1.00	1,796	1,796
Electronic Security System	9C-H4A-3MH-180 Pendant Mount Camera	4.00	1,754	7,016
Electronic Security System	9C-H4A-3MH-180 In Ceiling Mount Camera	2.00	1,669	3,338
Electronic Security System	9C-H4A-3MH-180 Surface Mount Camera	2.00	1,754	3,508
Electronic Security System	AVI-8.0-H4A-BO1-IR Camera	6.00	1,268	7,608
Electronic Security System	AVI-CM-MT-WALL1	9.00	59	531
Electronic Security System	WIN-555610-S CAT5E Plenum 1000'	13.00	272	3,536
Electronic Security System	Set up server, punch down patch panels, program, move encoders and switch, pull wire, mount & aim cameras & train	424.00	103	43,672
Electronic Security System	Middle School Avigilon ACC server application/licensing	1.00	7,805	7,805
Electronic Security System	AVI-5.0L-H4A-DO1-IR Camera	2.00	976	1,952
Electronic Security System	AVI-6.0L-H4F-DO1-IR Camera	3.00	554	1,662
Electronic Security System	AVI-12W-H3-4MH-DP1-B Camera	2.00	1,796	3,592
Electronic Security System	15C-H4A-3MH-180 Pendant mount Camera	1.00	2,007	2,007
Electronic Security System	UBRP5ACGEN2U 5GHz Radio	1.00	383	383
Electronic Security System	UBAM5AC2160 5GHz Sector Antennae	1.00	295	295

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High-Tech Security Features

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
Electronic Security System	UBNBE5ACG2US Nbeam	1.00	148	148
Electronic Security System	N82E16833156513 5 port POE switch	1.00	231	231
Electronic Security System	Weather Proof Enclosure	1.00	283	283
Electronic Security System	AVI-HD-NVR3-STD-24TB - 24TB security server for Elementary School	1.00	11,597	11,597
Electronic Security System	Avigilon ACC server application/licensing for Elementary School	1.00	3,321	3,321
Electronic Security System	AVI-HD-NVR3-PRM-2 NDPS-NA Camera	1.00	388	388
Electronic Security System	AVI-3.0C-H4A-BO1-IR-B Camera	1.00	875	875
Electronic Security System	AVI-5.0L-H4A-BO1-IR Camera	1.00	976	976
Electronic Security System	AVI-5.0L-H4A-DP1-IR Camera	1.00	925	925
Electronic Security System	WIN-555610-S CAT5E Plenum 1500'	1.00	398	398
Electronic Security System	WIN-659116-07B500 Video Cable 500'	1.00	336	336
Other Costs	Professional Services (architect)	1.00	15,000	15,000

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PPU Report
