#### **Smart Schools Investment Plan - East Moriches Smart Schools 2016**

SSIP Overview

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

Dr. Charles Russo

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

(631) 878-0162 ext. 444

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

crusso@emoschools.org

2. Please indicate below whether this is the first submission, a new or supplemental 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

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.
  - $\blacksquare$  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 occured 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.
  - $\blacksquare$  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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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. 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.

March 16, 2016 Public Hearing of Smart Schools Plan.pdf Smart School Preliminary Plan (School Website).pdf

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.

870

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 |
|----------------------|---------------|
| (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:

\$558,853

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                   | 116,448     |
| Connectivity Projects for Communities | 0           |
| Classroom Technology                  | 161,175     |
| Pre-Kindergarten Classrooms           | 0           |
| Replace Transportable Classrooms      | 0           |
| High-Tech Security Features           | 0           |
| Totals:                               | 277,623.00  |

#### **Smart Schools Investment Plan - East Moriches Smart Schools 2016**

School Connectivity

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- 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.

The School District presently exceeds the Federal Communications Commission's minimum speed standard of 100 Mbps per 1,000 students. At the moment, the School District has a 1,000 Mbps fiber optic internet connection shared between 787 students. Our students will have access to an internet connection which is nearly thirteen faster than the FCC minimum requirement.

- 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<br>Students | Multiply by<br>100 Kbps | Divide by 1000<br>to Convert to<br>Required<br>Speed in Mb | Current Speed<br>in Mb | Expected<br>Speed to be<br>Attained Within<br>12 Months | Expected Date<br>When<br>Required<br>Speed Will be<br>Met |
|------------------|-----------------------|-------------------------|--|------------------------|---|---|
| Calculated Speed | 787                   | 78,700                  | 78.7   | 1000                   | 1000  | Already 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.

- 1. Upgrade to a new redundant firewall system
- 2. Upgrade to a new redundant wireless network, which supports the new fast 802.11ac standard.
- 3. Upgrade the network switches in the Elementary School classrooms to support 1 Gigabit ethernet.
- 4. Upgrade the core network switches to provide more 10 Gigabit ethernet ports and future-proof 40 Gigabit ports.
- 5. Upgrade the building level Gigabit fiber network switches to provide 10 Gigabit uplink ports
- 6. Install TrippLite Server uninterruptible power supply

#### Smart Schools Investment Plan - East Moriches Smart Schools 2016

School Connectivity

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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?)

#### Question 1 in Part E. Curriculum and Instruction reads:

The primary goal of East Moriches technology initiative is the integration of meaningful technology into the entire curriculum to improve and enhance student learning. The technology initiative provides the direction for East Moriches students to attain specific learning outcomes in order to succeed in a computer dependent world. They will be prepared for effective participation and leadership in a changing, challenging world that is becoming increasingly technologically sophisticated.

Students have access, when appropriate, to instructional technology resources within their classrooms, in a separate learning lab outside the classroom, and in the school Library-media Center. This includes access to library and multimedia resources. Students also have access to computer based tool software and tool-based lessons that integrate the computer into the entire instructional program; access, when needed, to networked systems extending from the classroom to the building and beyond.

The School Connectivity project will upgrade the backbone of the school district's computer networking infrastructure, which will facilitate the integration of meaningful technology into the entire curriculum to improve and enhance student learning as stated in the Instructional Technology Plan:

- The new firewall utilizes sophisticated filtering technology, which prevents harmful content being accessed on the internet on a granular level; for example, it can block all non-educational content on a specific website (such as on-line games), but still permit access to the educational material. This need for sophisticated web filtering reflects the goal of the Instructional Technology Plan to ensure that the use of technology is meaningful and for educational purposes by blocking access to non-instructional websites. The network security and redundancy features ensure that interruptions to Internet access are minimized, which allows teachers and students to maximize the time they spend using meaningful library and multimedia Internet resources.
- The new wireless network will utilize the latest 802.11ac wireless networking protocol, which has a higher data rate and is supported by the newest generation of mobile devices. The wireless network will also retain backwards compatibility with older mobile devices, by supporting the 802.11a/b/g/n wireless networking protocols and operates on the 2.4Ghz and 5Ghz bands. This higher speed and higher capacity wireless network will enhance the goal of the Instructional Technology plan to provide students with access to instructional technology resources within their classrooms, learning labs and the school Library-media center. The backwards compatibility ensures that all existing devices are compatible and by supporting the very latest 802.11ac standard ensures that the Wi-Fi will be retain its use after the next generation of devices are available. The new wireless network's higher capacity will further the goal of the Instructional Technology plan by allowing integrating of technology for students on a one-to-one basis, which will increase participation and enhance student learning.
- Upgrading the network switches in the classrooms in the Elementary School with faster Gigabit Ethernet switches will provide an increase in speed, number of devices which can be used and support the district's 1000Mb Internet connection. The new switches will use the existing multi-mode fiber optic network, which was installed when the Elementary School was opened in 2004. The increase in speed, reliability and number of devices, which can be connected will facilitate the integration of technology into the curriculum inside the classroom by directly improving capacity to allow more faculty and student devices to be connected and at higher speed.
- The building distribution and core network switches will be upgraded to new switches which support 10-Gigabit and 40-Gigabit ports. These high speed sophisticated switches will provide future proof connectivity and connect directly to the servers. Increasing network speeds reduces the time needed for teachers and students to utilize technology resources and results in a corresponding increase in capacity, allowing a greater number of users to access the network at any one time.

The School Connectivity project hardware consists of necessary upgrades, which in addition to adding value and enhancing student learning across the entire curriculum, will enable the school district's network to support the deployment of the new Classroom Learning Technology hardware. The new School Connectivity hardware, in conjunction with the Classroom Learning Technology hardware will ensure that East Moriches students meet the goal in the Instructional Technology plan to attain specific learning outcomes in order to succeed in a computer dependent world.

#### **Smart Schools Investment Plan - East Moriches Smart Schools 2016**

School Connectivity

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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.

The School District is using the Smart Schools Bond Act funding to purchase new state-of-the-art networking and Wi-Fi equipment, which is designed to exceed the demands of every student and faculty member, each using multiple devices simultaneously to access server and internet resources.

The School District is upgrading it's wireless network to support the latest 802.11ac standard, with enterprise grade wireless access points, designed to support dense usage with extremely high data throughputs. Access points are being strategically deployed within the School District site to maximize the internal wireless network coverage. Several outdoor wireless access points are also being deployed to allow faculty and students to use mobile devices within designated school courtyard and playground areas.

The School District is upgrading the network switches in the Elementary School classrooms to support the Gigabit Ethernet standard. This will match the internal network currently used in the Middle School. Every classroom switch will support Gigabit Ethernet speeds.

The School District is upgrading it's core network switches to increase the number of 10 Gigabit Ethernet ports available for our server equipment. The new core switches will provide future-proofing, by including 40 Gigabit capable QSFP ports. The core network switches are connected to the servers using teamed 10 Gigabit Ethernet connections, to provide greater speed and redundancy.

The School District network has been designed to eliminate all possible bottlenecks and concentrate on deploying a future-proofed network backbone

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.

| Project Number |  |  |
|----------------|--|--|
|                |  |  |
|                |  |  |

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 |
|---------------------|----------------|
| JOHN MICHAEL GRILLO | 27360          |

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.

## **Smart Schools Investment Plan - East Moriches Smart Schools 2016**

School Connectivity

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|  | Sub-<br>Allocation |
|--|--------------------|
| Network/Access Costs                       | 107,054            |
| Outside Plant Costs                        | 5,180              |
| School Internal Connections and Components | 4,214              |
| Professional Services                      | 0                  |
| Testing                                    | 0                  |
| Other Upfront Costs                        | 0                  |
| Other Costs                                | 0                  |
| Totals:                                    | 116,448.00         |

| Select the allowable expenditure<br>type.<br>Repeat to add another item under<br>each type. | Item to be purchased                                    | Quantity         | Cost per Item | Total Cost |
|---|---|------------------|---------------|------------|
| Connections/Components  | Wireless Network/Firewall installation services -1 hour | 16               | 150           | 2,400      |
| Network/Access Costs  | Indoor wireless access points                           | 32               | 596           | 19,072     |
| Outside Plant Costs   | Outdoor wireless access points                          | 5                | 1,036         | 5,180      |
| Network/Access Costs  | Wireless application gateway hardware                   | 1                | 4,796         | 4,796      |
| Network/Access Costs  | Firewall hardware                                       | ewall hardware 1 |               | 16,710     |
| Connections/Components  | Copper Flexi PortModule hardware                        | 2                | 556           | 1,112      |
| Network/Access Costs Elementary Classroom Switches  |   | 40               | 357           | 14,280     |
| Network/Access Costs  | Elementary Computer Lab Switch                          | 1                | 696           | 696        |
| Network/Access Costs  | Building SFP network switches                           | 4                | 5,919         | 23,675     |
| Connections/Components  | Network swtich stacking cables                          | 1                | 702           | 702        |
| Network/Access Costs  | 40 Gb Core Network Switch                               | 1                | 14,483        | 14,483     |
| Network/Access Costs  | 10 Gb Core Network Switch                               | 1                | 5,513         | 5,513      |
| Network/Access Costs  | TrippLite Server uninterruptible power supply           | 1                | 7,829         | 7,829      |

#### **Smart Schools Investment Plan - East Moriches Smart Schools 2016**

Community Connectivity (Broadband and Wireless)

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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:                     |                |

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

#### **Smart Schools Investment Plan - East Moriches Smart Schools 2016**

Classroom Learning Technology

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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.

The School District presently exceeds the Federal Communications Commission's minimum speed standard of 100 Mbps per 1,000 students. At the moment, the School District has a 1,000 Mbps fiber optic internet connection shared between 787 students. Our students will have access to an internet connection which is nearly thirteen faster than the FCC minimum requirement.

- 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 | Multiply by | Divide by 1000 | Current Speed | Expected        | Expected Date |
|------------------|-----------|-------------|----------------|---------------|-----------------|---------------|
|                  | Students  | 100 Kbps    | to Convert to  | in Mb         | Speed to be     | When          |
|                  |           |             | Required       |               | Attained Within | Required      |
|                  |           |             | Speed in Mb    |               | 12 Months       | Speed Will be |
|                  |           |             |                |               |                 | Met           |
| Calculated Speed | 787       | 78,700      | 78.7           | 1000          | 1000            | Already Met   |

#### **Smart Schools Investment Plan - East Moriches Smart Schools 2016**

Classroom Learning Technology

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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.

The School District is using the Smart Schools Bond Act funding to purchase new state-of-the-art networking and Wi-Fi equipment, which is designed to exceed the demands of every student and faculty member, each using multiple devices simultaneously to access server and internet resources.

The School District is upgrading it's wireless network to support the latest 802.11ac standard, with enterprise grade wireless access points, designed to support dense usage with extremely high data throughputs. Access points are being strategically deployed within the School District site to maximize the internal wireless network coverage. Several outdoor wireless access points are also being deployed to allow faculty and students to use mobile devices within designated school courtyard and playground areas.

The School District is upgrading the network switches in the Elementary School classrooms to support the Gigabit Ethernet standard. This will match the internal network currently used in the Middle School. Every classroom switch will support Gigabit Ethernet speeds.

The School District is upgrading it's core network switches to increase the number of 10 Gigabit Ethernet ports available for our server equipment. The new core switches will provide future-proofing, by including 40 Gigabit capable QSFP ports. The core network switches are connected to the servers using teamed 10 Gigabit Ethernet connections, to provide greater speed and redundancy.

The School District network has been designed to eliminate all possible bottlenecks and concentrate on deploying a future-proofed network backbone

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.
- 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 will purchase:

- 100 Acer Chromebooks and charging carts
- 30 Apple iPads for the Elementary School Library and a charging cart
- 30 Apple iPads for the Special Education department and a charging cart
- 55 Microsoft Surface Book Laptops and docking stations to upgrade teacher computers
- 77 HP OfficeJet printers to upgrade classroom printers

All Windows devices will be running Microsoft Windows 10. The Apple iPads will run the IOS operating system. The Acer Chromebooks will run ChromeOS.

All mobile devices being purchase will be fully compatible with the schools new upgrade wireless network and be able to take advantanage of the high speeds and range of 802.11ac.

The Surface Books will replace the existing teacher computers and will be fully compatible with the existing interactive whiteboards in each classroom. They will be imaged with the same software as the existing computers on the network and be fully compatible with the District's Microsoft server infrastructure.

The Chromebooks are compatible with the Google Docs and Google Classroom software currently being utilized by teachers in the school district. The Apple iPads will be compatible with the Library's Book Management Software (Destiny). The Apple iPads will be compatible with the apps currently used by the special education department.

#### **Smart Schools Investment Plan - East Moriches Smart Schools 2016**

Classroom Learning Technology

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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 technology specifically for students with disabilities to ensure access to ensure access to and participation in the general curriculum?"

The District is upgrading and expanding it's wireless network to enhance the ability of students to use mobile devices. The District is installing five external wireless access points, to recover designated areas such as courtyards and outside study locations, enabling mobile devices to be utilized outside the school building.

Technology is an incredible tool for students with disabilities, allowing them to participate and interact and work independently using a wide range of assistive technologies. The District's Special Education Department works directly with the District Technology Coordinator to insure that assistive technologies are available for all students who require their use, and both departments collaborate to make sure that the technology requirements of each student's IEP are met. The 30 iPads and charging cart being purchased for the Special Education department with microphones and headsets will be used for assistive technology purposes to facilitate learning and benefit students with disabilities.

The new Chromebooks, iPads and Surfacebooks also feature internal web cameras, speakers and microphones, which will allow them to enhance the instruction of English Language Learners by utilizing voice driven educational apps.

Students in the general education population will benefit from the deployment of new Classroom Technology hardware inside classrooms, the computer labs and the Library-media center. General education students in the Middle School will have access to 100 new Google Chromebooks. The Chromebooks will feature a touch-screen, enabling students to use a stylus and their fingers to interact with the device, in addition to the integrated traditional keyboard and trackpad. The Chromebooks will support the new 802.11ac wireless networking protocol used by the new Wireless Network for greater range and throughput. In the Elementary School, general education students who receive instruction in the Library-media center will have one-to-one access to Apple iPads to access online educational resources.

All students (general population, students with disabilities and English language learners) will benefit from the new Microsoft Surfacebooks, which will be deployed as an upgrade to the existing teacher computer in each classroom. The Microsoft Surfacebooks support wireless video transmission and are compatible with the District's existing classroom projectors. This will allow teachers to instruct using their computer from any location inside their classroom. The Surfacebooks feature a keyboard which can be disconnected from the screen to increase portability and a stylus. This allows teachers to write naturally on the screen of the device and have their notes visible on the interactive whiteboard. The have a long battery life, which allows a full day of instruction on a single charge. This new ability to teach wirelessly will allow teachers to instruct from any location inside their classroom, instead of having to maintain proximity to an Interactive Whiteboard or fixed computer. This mobility will allow teachers to have closer interactions with their students and even allow students the opportunity to interact directly with the education materials presented to the class by writing on the screen of the teacher's Surfacebook.

The new OfficeJet printers are approximately three times faster than the school district's current printers. This higher print speed would allow teachers to print handouts for an entire classroom of students in less than a minute.

# 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 District wants to continue to use communication technologies, including email, the district web site, and other electronic applications to stay in touch with and to share information with parents and the rest of the community. The expanded wireless capability in conjunction with staff BYOD implementation will allow for improved staff-to-parent communications. Expanded connectivity across the district and to the internet will also support the parent portal for student learning. Student access to web-based applications will enhance student learning. Parents are strongly urged to review student progress on these applications.

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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."

On-going professional development is a critical component of the District's Instructional Technology Plan, including the Smart Schools Investment Plan. The district provides a wide range of professional development each year for our teachers, teaching assistants, and administrators. The District is committed and will continue to provide professional development on an on-going basis to the staff to allow them to utilize the technology tools and resources in the most effective manner possible.

Our PDT (professional development team), which consists of parents, teachers, and administrators, is responsive to the needs of the staff and aims to advance the effective implementation of shifting paradigms in curriculum and assessment. Pre-session and post-session surveys help to gauge the effectiveness of specific staff development activities towards reaching goals. This has given the district a means of providing additional follow-up support as needed. The professional growth opportunities provided at East Moriches Elementary have been an integral part of the success we have achieved with implementing new initiatives in curriculum, technology and assessments over the past several years. The ideals that have guided us here are thoroughness, persistence, and continuity. Revisiting topics, expanding themes, and maintaining relationships with consultants across school years helps to ensure that our instructional staff is gaining the knowledge and confidence to implement new program demands and protocols. In addition to inviting outside consultants to share their expertise with the faculty and staff, the PDT recognizes and benefits from the experience of experts within our own teaching community. In this spirit, professional development sessions include collegial collaborative sessions and opportunities for teachers who have attended outside conferences to share valuable information through turnkey sessions. A strong mentoring program supports newer staff members in their implementation of best instructional practice.

East Moriches Technology Staff Development Activities:

Training Sessions - Required training classes for teachers, aids & assistants, clerical staff and administrators on various technologies and software applications.

In-service Courses - District sponsored elective courses covering topics relating to instructional technologies that have been identified by need and/or interest.

Teacher Center - A variety of technology staff development opportunities. Mentors - Staff members who have mastered specific technologies and/or software applications and are willing to serve as turnkey trainers to colleagues.

MST Collegial Circles Discussion groups relating to the integration of the Math, Science and Technology standards into the curriculum. Conferences & Workshops - Staff will be encouraged to attend appropriate local and regional events relating to educational technologies.

- 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.
- 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

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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<br>Technology<br>Sub-allocation | 2. Public<br>Enrollment<br>(2014-15) | 3. Nonpublic<br>Enrollment<br>(2014-15) | 4. Sum of<br>Public and<br>Nonpublic<br>Enrollment | 5. Total Per<br>Pupil Sub-<br>allocation | 6. Total<br>Nonpublic Loan<br>Amount |
|-------------------------------------|--|--------------------------------------|---|--|--|--------------------------------------|
| Calculated Nonpublic Loan<br>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       | 0              |
| Laptop Computers        | 94,454         |
| Tablet Computers        | 20,175         |
| Other Costs             | 46,546         |
| Totals:                 | 161,175.00     |

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| Select the allowable expenditure | Item to be Purchased                 | Quantity | Cost per Item | Total Cost |
|----------------------------------|--------------------------------------|----------|---------------|------------|
| type.                            |                                      |          |               |            |
| Repeat to add another item under |                                      |          |               |            |
| each type.                       |                                      |          |               |            |
| Laptop Computers                 | Microsoft Surface Book               | 55       | 1,197         | 65,835     |
| Laptop Computers                 | Acer Chromebooks                     | 100      | 286           | 28,619     |
| Other Costs                      | Chromebook Charging Carts            | 4        | 1,643         | 6,572      |
| Other Costs                      | iPad Charging Carts                  | 2        | 1,404         | 2,808      |
| Tablet Computers                 | Apple iPad Air 16GB                  | 45       | 363           | 16,335     |
| Tablet Computers                 | Apple iPad Mini 2 16GB               | 15       | 256           | 3,840      |
| Other Costs                      | Apple iPad Microphone Earbuds        | 30       | 28            | 840        |
| Other Costs                      | Microsoft Surface Book Charging Dock | 55       | 164           | 9,040      |
| Other Costs                      | HP Printer                           | 70       | 330           | 23,100     |
| Other Costs                      | HP Multi-function Printer            | 7        | 598           | 4,186      |

#### **Smart Schools Investment Plan - East Moriches Smart Schools 2016**

Pre-Kindergarten Classrooms

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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 prekindergarten 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:                                  |                |

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

#### Smart Schools Investment Plan - East Moriches Smart Schools 2016

Replace Transportable Classrooms

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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:  |                |

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

#### **Smart Schools Investment Plan - East Moriches Smart Schools 2016**

High-Tech Security Features

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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.

(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. 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 |
|---------------|----------------|
| (No Response) | (No Response)  |

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                           | (No Response)  |
| Entry Control System                                 | (No Response)  |
| Approved Door Hardening Project                      | (No Response)  |
| Other Costs  | (No Response)  |
| Totals:  |                |

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

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Report