Fairfield Board of Education
Proposed
Capital Non-Recurring Projects
2019 – 2020

Districtwide
I.T. Server Network Isolated Communication HVAC Controls

Districtwide
Security Infrastructure

Fairfield Warde High School
Fitts House HVAC RTU Replacement

Stratfield Elementary School
Roof Replacement

November 26, 2018

Dear Board of Education Members:

This booklet provides an overview of the following 2019-2020 Proposed Capital Non-Recurring Project Requests:

1. Districtwide I.T. Switch Replacement Project Phase 2
2. Districtwide I.T. Server Network Isolated Communication HVAC Controls Project
3. Districtwide Security Infrastructure Project
4. Dwight HVAC BMS Control Project
5. FLHS Six Tennis Courts Project
6. FWHS Fitts House 50-Ton HVAC RTU Replacement Project
7. Stratfield Partial Roof Replacement
8. TMS Flooring Replacement Project

All of the above have been included in long-term facilities planning over the last five-years and are listed in the Fairfield Public Schools' Facilities Plan.

Information for each project is provided using the 14-point format devised by the Town of Fairfield and includes:

- Justification and background information.
- A cost estimate that includes previous project information, verbal quotations, and/or written proposals.
- Photographs of projects in existing conditions.
- Photos of expected new conditions.

We hope you find this information helpful and we are confident it will answer many of your questions as we begin the budget discussions. Thank you for your continued support.

Sincerely,

Toni Jones

Toni Jones, Ed.D.
Superintendent of Schools

Fairfield Public Schools
2019-2020
Capital Non-Recurring Projects

Table of Contents

Districtwide

Information Technology Switch Replacement Project – Phase 2 $ 581,755

Background: Local Area Network switches are the backbone of any network. All receptacles for Ethernet access found in classrooms are wired back to a distribution closet, which contains racks containing switches. There is a patch panel in the rack to which the wire from the classroom receptacle is terminated. Then a cable is connected from the patch panel to the switch.

These receptacles and their ports (aka plugs) service all computers, printers, wireless access points, electronic door locks, surveillance cameras, and all things that require Ethernet access. The switches also provide low voltage power.

The district last replaced LAN switches over a three-year period in 2009-2011. Since that time, we have more than doubled the number of ports (outlets) through acquisition of refurbished equipment to maintain and expand the network. The district's original port count was approximately 8,100 in 2010. It is currently 16,608 and continues to grow annually as new equipment and features are added to the system.

The typical life span of a switch is 5-7 years.

Purpose and Justification: The current switches are approaching ten years in age. Replacement parts are becoming hard to find, and are only refurbished, not new. They cannot meet our needs for Power over Ethernet capacity nor power newer wireless access points and potentially Internet Protocol (IP) phones. They cannot support newer, faster transmission speeds.

Adding capacity or additional switches to our network requires us to connect them to each other in a way that slows down the communication between the user's computer and the source of information. The district is moving to 24/7/365 learning, where the majority of our educational resources are found through the Internet. Speed is of the essence for access to those resources, online testing, and operations (e.g. security). Educational time lost due to slow response time is time that cannot be recovered.

The current switches are managed and configured through software that is no longer supported by the manufacturer indicating that the product has reached "end of life".

Detailed Description of Proposal:

Proposal is to migrate the Ethernet switches in two phases:

1. High Schools, WFC and Central Office Administration
2. Middle Schools and Elementary schools

The order will be dependent upon requirements to support additional security devices, Wi-Fi or VOIP (phones). These new devices have new power requirements which are dependent on new switch capacity.

School's "main distribution frame" switch closets which supports access to transmission connections, referred to commonly as the MDF would be the priority for each site. Intermediate distribution closets (IDF) would be secondary.

Current projects that require the new switch capacity are:

- Expansion and upgrade of Wi-Fi access in the K-8 schools
- Expansion of security cameras
- Implementation of VOIP phone system

Costs will include the hardware, software, warranty, installation, configuration and project management.

Phase 1 Cost Estimate for the High Schools, WFC and Central Office Administration
$972,995

*Phase 2 Cost Estimate for all K-8 schools
$581,755

Total Project Cost $ 1,554,750

This cost estimate is based on currently available Cisco switch product, pre bid, and subject to availability at the time funding is available. It does not consider adding port capacity, but will provide throughput and support newer protocols required for projects on the horizon, listed above.

*E-Rate grant funding was available and approved soon after the phase one project commenced.

Reliability of Estimated Cost: We began our estimations through online sites of vendors that cater to educational pricing, and then asked our current Cisco vendor for a close to accurate estimate based on our equipment criteria.

The largest unknown would be the availability of the represented model and brand at the time of a phased implementation. We would want to secure funding for the entire project, and get commitment from the vendor for availability throughout the project. This is a key justification for bonding the project so all the funds are committed up front, and then spent as the project can be feasibly implemented.

Payback: In addition to the benefits outlined above, the new switch hardware runs more efficiently than the current equipment, which in theory reduces power consumption.

Additional Costs: A site survey will be performed to insure fiber and other connectivity between closets is sufficient for the newer product. Cost estimated at $20,000.

Annual Smart Net operating system and technical support costs for critical switches will be an additional charge. We do not expect, nor need to put Smart Net on all devices, only those critical or cost prohibitive to spare.

Additional Use or Demand on Existing Facilities: Because newer switches have a smaller footprint, impact on existing closets will be positive - allowing growth without the cost of additional racks.

Alternates to this request: If we do nothing, we will reach capacity limitations in the switch rack locations and be unable to expand or use newer technologies to support IoT (The Internet of Things) such as wireless connectivity.

Safety and Loss Control: All equipment will be locked in secure spaces until deployed.

Environmental Conditions: Newer equipment is more energy efficient, so it will save energy costs. The hardware takes up less physical plant than older equipment.

Insurance: FPS insurance will cover damage/replacement costs. The equipment comes with a limited lifetime warranty.

This page Intentionally left blank

Districtwide

Information Technology Switch Replacement Project – Phase 2 **$ 581,755**

Details

Proposal is to migrate the Ethernet switches in the remaining nine Elementary Schools.

The school's "main distribution frame" switch closets, referred to commonly as the MDF, would be the priority for each site as the switch closet that supports access to transmission connections (demarcation points). Intermediate distribution closets (IDF) would be secondary.

Current projects that require the new switch capacity are:

- Expansion and upgrade of Wi-Fi access and video capacity in the K-5 schools
- Expansion of security cameras
- Implementation of VOIP phone system

Costs:

Costs will include the hardware, software, warranty, installation, configuration and project management and is estimated at a total of $581,755.

This cost estimate is based on currently available Cisco switch product, post bid, and subject to availability at the time funding is available. It does not consider adding port capacity, but will provide throughput and support newer protocols required for projects on the horizon, listed above. There is concern that the cost of the switches may increase in 2019.

E-Rate grant funding was available and approved at the time of the phase one project commencement.

Reliability of Estimated Cost:

Although this entire project was bid, a price escalation may occur Jan 2019.

Payback:

In addition to the benefits outlined, the new switch hardware runs more efficiently than the current equipment, which in theory reduces power consumption.

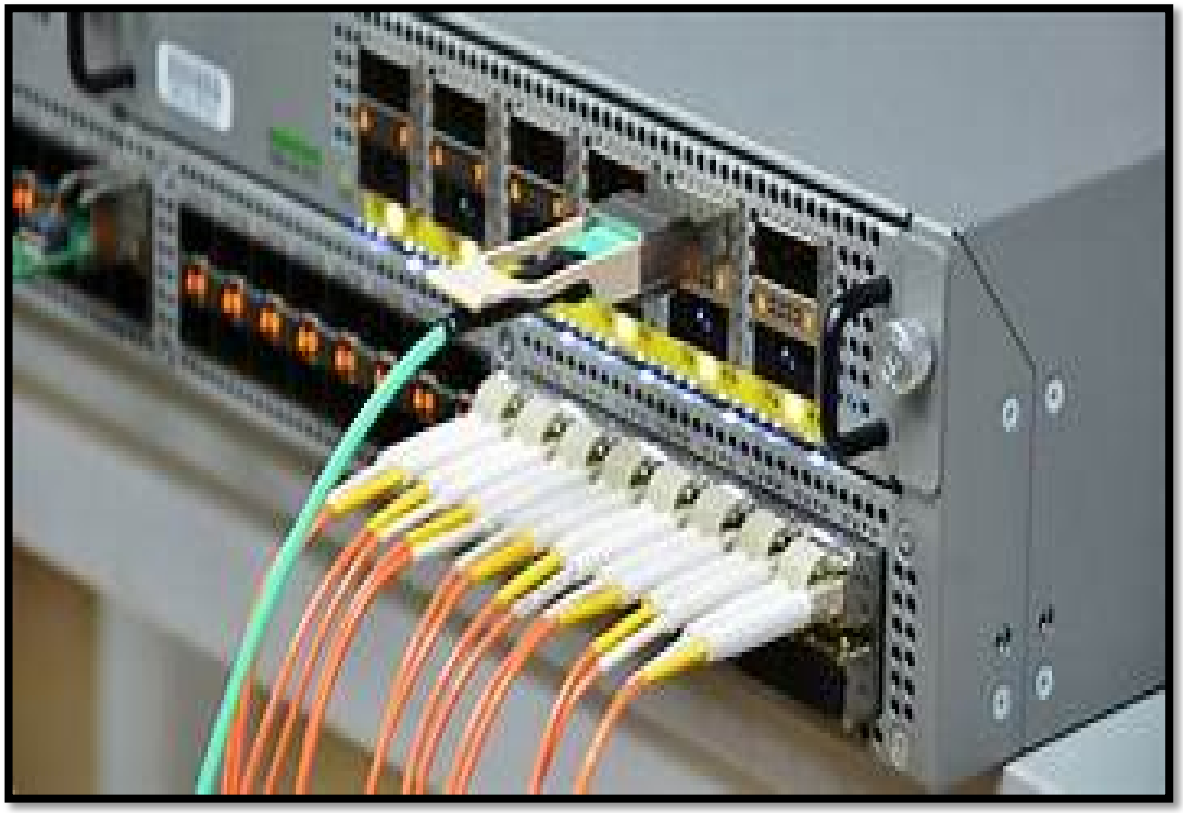
Additional Costs:

A site survey will be performed to insure fiber and other connectivity between closets is sufficient for the newer product. Cost estimated at $ 20,000.

Annual Smart Net operating system and technical support costs for critical switches will be an additional charge (see chart for cost per switch). We do not expect, nor need to put Smart Net on all devices, only those critical or cost prohibitive to spare.

Total project costs for this phase two work **$ 581,755**

End of Life Switch Conditions



New Switch Conditions

Districtwide

I.T. Server Network Isolated Communication HVAC Controls Project $ 275,000

Background: The existing HVAC Controls BMS (Building Management System) from 1991 is currently using software that connects with the District's Information Technology network. Each time the HVAC Controls BMS is logged into from a desktop and/or notebook computer by our internal Maintenance Staff and/or two-three professional contractors (acting on our behalf as HVAC preventative maintenance and Controls Integration contractors) the potential for a high security risk to the District's Information Technology network is opened.

This request is for funding the upgrading of the existing current HVAC Controls BMS to eliminate the security risk. The new systems will segregate the HVAC Controls BMS within the network.

Purpose & Justification: The condition of the existing HVAC Controls BMS is antiquated and in need of upgrading. Without this new upgrade, the District's Information Technology network is vulnerable and a high security risk.

Detailed Description: This expenditure would cover the total cost of the project. This would include all labor and material, all 17 school locations upgraded, HVAC BMS computers, and all start up and testing. These funds would also cover all construction administration costs for a professional licensed engineer to manage the upgrades and work with the bid awarded licensed HVAC Controls contractor. This would also include a contingency for unforeseen conditions that might be uncovered during the construction activities.

Estimated Cost: The cost of this funding request is $275,000. This number is based on a professional engineering estimate for services and a professional HVAC Controls contractor review estimate for material and labor services for the District.

Long Range Costs: This new HVAC Controls BMS is expected to last 15 years. Long-range costs would only relate to general HVAC Controls BMS Integration preventative maintenance.

Demand on Existing Facilities: This project would eliminate the security risk to the District's Information Technology network. It will also reduce the maintenance costs due to the new system working better than the old existing system, new equipment energy use techniques, as well as newer technology with up to date configurations.

Security, Safety and Loss Control: This project would enhance safety and control by drastically reducing the risk of outside interaction when the HVAC Controls BMS are logged into the HVAC equipment at any of our 17 school building locations.

Environmental Considerations: Not applicable.

Funding, Financing & SDE Reimbursement: This project would not proceed without funding approval. There are no State or Federal regulations that require this project to be undertaken. This project is not eligible for reimbursement through the State Department of Education, Bureau of School Facilities.

Schedule, Phasing & Timing: The schedule is to have all this work done in the summer of 2019 and completed for the new school year.

Other Considerations: The work will be bid out by the Town Purchasing Department using the District's professional engineered documents, drawings, and specifications. All work will be performed by outside professional licensed contractors.

Alternates to the Request: The alternate to this request is to do nothing. This alternative will delay this needed replacement and further delay other similar projects scheduled in the BOE future planning. This security risk would remain and keep our District Information Technology network vulnerable.

This page Intentionally left blank

Districtwide

I.T. Server Network Isolated Communication HVAC Controls Project **$ 275,000**

Details

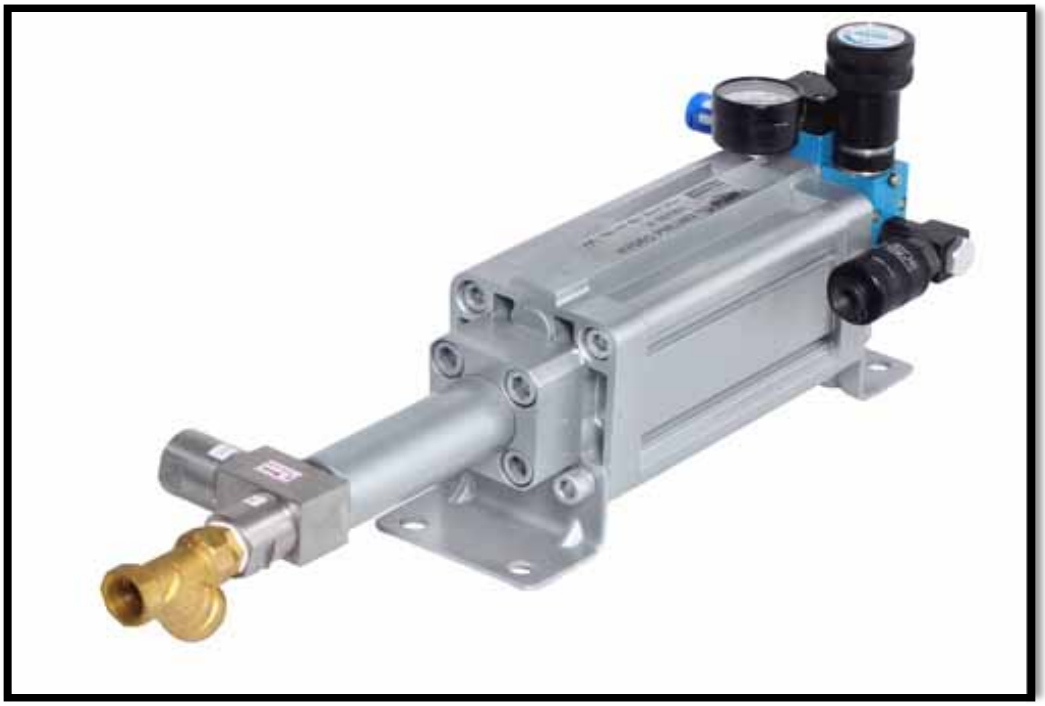
Engineer of Record:
van Zelm Engineers
Farmington, CT

Licensed contractor to provide labor and materials
Prepared by:
Controlled Air, Inc.
Branford, CT

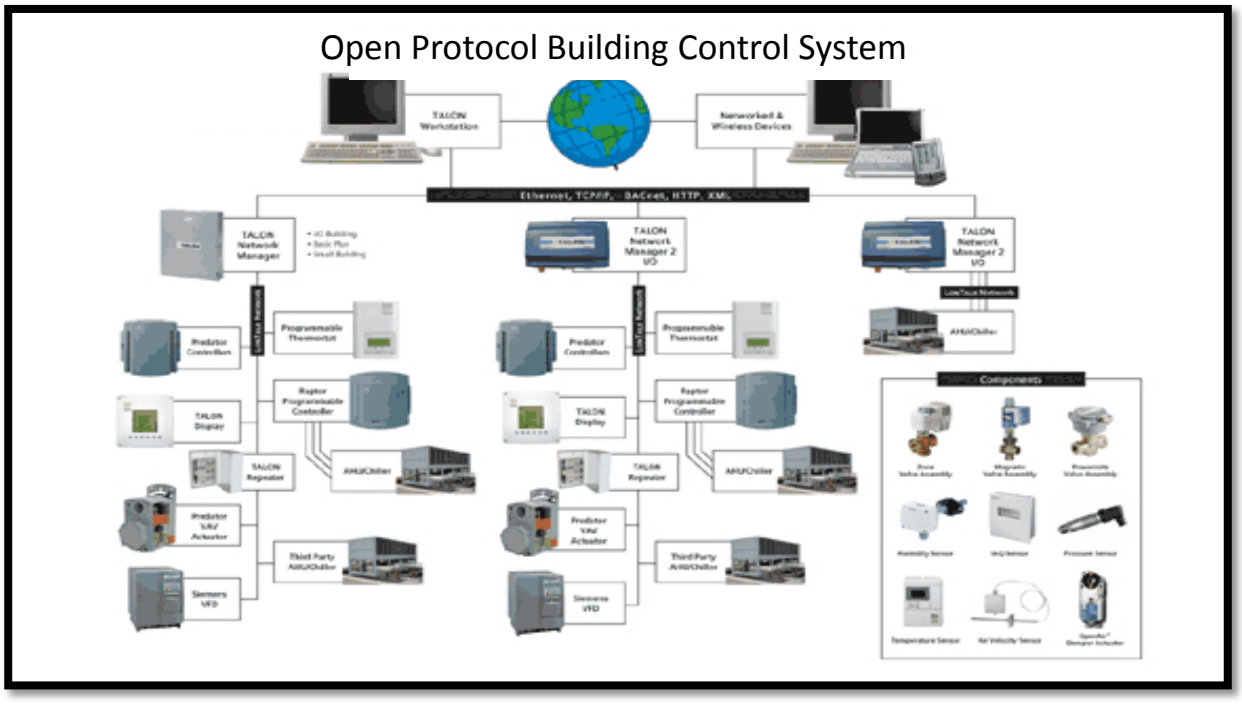
Breakdown:

General Conditions Staging and Protection Equipment and Supports Mechanical Electrical Low Voltage Controls Computers and Software Finishes Specialties	$ 225,000
Control Integration and Sequencing Balancing and Testing Close Out and Documentation Training	$ 25,000
Contingency	$ 25,000
Total	**$ 275,000**

Old Communication HVAC Controls With Pneumatic Control Systems



New Districtwide I.T. Server Network Isolated Communication HVAC Controls



Districtwide

Security Infrastructure Project $ 350,000

Background: Following the Sandy Hook Elementary School tragedy, the Fairfield Police Department along with the Central Office Administration conducted a security assessment of all the Fairfield Public School buildings. Based on this assessment the Fairfield Police Department recommended several improvements to the Fairfield Public Schools' security infrastructure. Many of the security projects have been completed over the past four years from the 2015-2016, 2016-2017, 2017-2018, and 2018-2019 funding requests. This proposed funding request will be for new security requirements as part of a new phase five project for intrusion panels on interior classroom doors and interior large windows into large places of assembly.

Purpose & Justification: The purpose of this funding request is to make security infrastructure improvements as recommended by the Fairfield Police Department. These recommended improvements will enhance the security and safety at our facilities for our students and staff. The scope of this work is too great to be handled within the BOE operating budget.

Detailed Description: This expenditure would cover the total costs for completion of the intrusion panels for interior building systems to our school facilities. Details about these specific improvements cannot be shared in public upon the advice of the Fairfield Police Department.

Estimated Cost: The cost of this funding request is $ 350,000. Estimates were provided by bids received from multiple professional licensed contractors/vendors for the intrusion panels as part of the projects in this funding request.

Long Range Costs: Most of the projects listed do not have added long-term costs associated with their implementation. There will be normal operating costs associated with everyday maintenance and upkeep as well as to make sure all security systems, devices, and equipment are running properly. If the school system's security account and budget continue to be maintained at current levels/proposed levels, no increase will be needed to maintain this equipment on an annual basis.

Demand on Existing Facilities: These projects will not add any additional demand to the existing facilities.

Security, Safety and Loss Control: This project would greatly enhance security, safety and loss control by improving monitoring capabilities, hardening of our facilities against unauthorized entry, and enhancing communications during emergencies.

Environmental Considerations: None

Funding, Financing & SDE Reimbursement: These projects would not proceed without funding approval. There are no State or Federal regulations that require this project to be undertaken. This project may be eligible for reimbursement through the State Department of Education, Bureau of School Facilities. Furthermore, grant funding through the CT Department of Emergency Management and Homeland Security "School Security Competitive Grant Program" (SSCGP) will be applied for if they are available to offset some of these costs for the 2019-2020 fiscal year.

Schedule, Phasing & Timing: Approval of this funding will allow the implementation of these projects over the next two years as identified in the Fairfield Public Schools Facilities Plan "Waterfall Schedule".

Other Considerations: The Town of Fairfield Purchasing Department will award the work per the purchasing guidelines and all work will be performed by outside professional licensed contractors/vendors.

Alternates to the Request: The alternate to this request is to do nothing. This alternative will leave some of our school buildings without interior intrusion panel safety and leave a breach in the school security program as identified by the Fairfield Police Department.

This page Intentionally left blank

Districtwide

Security Infrastructure Projects	**$ 350,000**

Details

New Interior Intrusion Panels: Classroom Doors and Sidelights Windows into Large Places of Assembly	$ 350,000

Total	**$ 350,000**

Existing Interior Classroom Door

Existing Interior Large Places of Assembly Windows

New Security Intrusion Panel Interior Classroom Door

New Security Intrusion Panel Interior
Large Places of Assembly Windows

Dwight Elementary School

HVAC BMS Controls Project $ 200,000

Background: The existing Districtwide HVAC BMS Controls for all the Fairfield Public Schools are original to 1999 and are labeled as a Johnson Control System upgrade. These systems are now over 17 years old, they are working off of old technology, circuit boards and parts are obsolete, and even Johnson Control Company has identified and made us aware of multiple system upgrades since 1999. It is time to replace all HVAC BMS Controls in all our schools. We are starting with Dwight Elementary School based on a long range plan and study provided by a professional engineering firm and a professional licensed contracting firm working with us this past year. Dwight School is having the most issues and is a smaller school to start with. This request is for funding to remove the existing HVAC BMS Control system equipment and to install a new "state of the art and technology enhanced" system.

Purpose & Justification: The condition of the existing HVAC BMS Controls for Dwight Elementary School are deteriorating and failing on a regular basis. We can no longer obtain parts and circuit boards for replacement. The Johnson Control Company is recommending an upgrade. Our HVAC Integration Controls preventative maintenance contractor is recommending an upgrade. These HVAC BMS Controls are essential for the mechanical means of heating, cooling (for some portions of the building), and exhaust of the School Building where the students and staff are occupying spaces. Without this upgrade the school spaces would be unusable.

Detailed Description: This expenditure would cover the total cost of the project. This would include all labor and material, power and low voltage work, controls, start up and testing, as well as training our maintenance licensed staff on the new systems. These funds would also cover the construction administration costs for a professional licensed engineer to monitor site work and the scope of the project per the bid documents and specifications. This funding request also includes a contingency for unforeseen conditions that might be uncovered during the construction activities and the first school upgrade for this HVAC BMS Controls system.

Estimated Cost: The cost of this funding request is $200,000. This number is based on estimates that were provided by a professional licensed engineer and several professional licensed contractors in Connecticut. These firms have been working with us for the past year as we are developing a long range plan for all 17 school buildings.

Long Range Costs: This new HVAC BMS Control System is expected to last 15 years. Long-range costs would only relate to general HVAC Control Integration preventative maintenance which is already a part of our BOE operating budget annually.

Demand on Existing Facilities: This project would reduce the maintenance costs due to the new system working more efficiently than the older existing system (practically no down time), new equipment energy use techniques, as well as newer technology with up to date configurations. It would also reduce the maintenance project costs for major repairs that occur from failing deteriorated systems, reducing down time on HVAC Equipment waiting for old system circuit boards, parts, and searching for replacement pieces.

Security, Safety and Loss Control: This project would enhance safety and loss control by drastically reducing the risk of failure to the equipment and the overall comfort level of the school building for all the students and staff.

Environmental Considerations: New HVAC BMS Controls Systems are energy friendly and will no longer have the 1990's technology and systems make-up.

Funding, Financing & SDE Reimbursement: This project would not proceed without funding approval. There are no State or Federal regulations that require this project to be undertaken. This project is not eligible for reimbursement through the State Department of Education, Bureau of School Facilities.

Schedule, Phasing & Timing: The schedule is to have all this work done in the summer of 2019 and completed for school to open for the new year in September of 2019.

Other Considerations: The work will be bid out by the Town Purchasing Department and will be performed by outside professional licensed contractors.

Alternates to the Request: The alternate to this request is to do nothing. This alternative will delay this needed replacement and further delay other similar projects scheduled in the BOE future planning. This could increase the risk of injury to students and staff that need this space for teaching and learning and may shut down the space for use.

This page Intentionally left blank

Dwight Elementary School

HVAC BMS Controls Upgrade Project **$ 200,000**

Details

Engineer of Record:
van Zelm Engineers
Farmington, CT

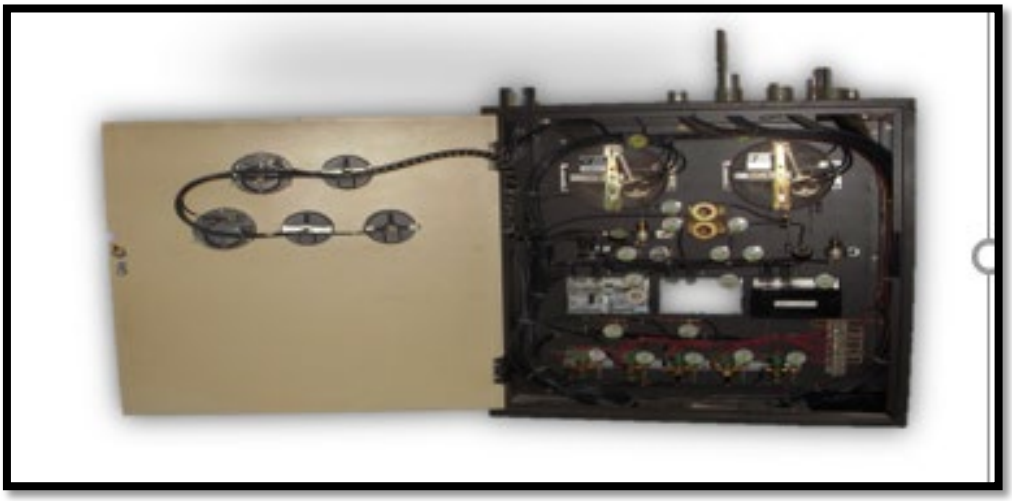
Licensed contractor from previous bid:
Controlled Air, Inc.
Branford, CT

Breakdown:

General Conditions Staging and Protection Equipment and Supports Sheet Metal Work and Ductwork Piping Insulation Roofing Mechanical Electrical Low Voltage Controls Finishes Specialties	$ 140,000
Controls Integration Balancing and Testing Close Out and Documentation Training	$ 35,000
Contingency	$ 10,000
Professional Engineering construction administration services	$ 15,000
Total	**$ 200,000**

Dwight Elementary School
HVAC BMS Control Project

Dwight Elementary School Rooftop
HVAC BMS Control Project



Existing 1990's HVAC Control System

New “State of the Art” HVAC Control System

Fairfield Ludlowe High School

Six Tennis Courts Project $ 550,000

Background: Fairfield Ludlowe High School Tennis Courts consist of six playing courts located in the rear of the high school. They are original from 2004 and are at the end of their useful life. In 2018, they underwent a refurbishing but the licensed contractor would only guarantee them for one season. These tennis courts are an integral part of the high school athletic program and are used for all tournaments and games. The tennis courts are well over the 10 – 12 year life span and have over 5,000 lineal feet of cracks that are beyond repair and repainting for use. This request is for funding the replacement of the six tennis courts with a new post-tensioned concrete system with proper expansion joints, new painting and surface coating, new nets for a completely new surface for play. It also includes new perimeter fencing of chain link with new main posts and gates.

Purpose & Justification: The condition of the existing six tennis courts is considered poor and continues to deteriorate to the point that they are unusable. Many repairs, fixes and new paintings have been performed over the past 14 years but current examination by professional engineers and licensed contractors have clearly identified that it is time for a full replacement. The current cracks and deterioration are beyond repair to be cost effective for the long term.

Detailed Description: This expenditure would cover the total costs for demolition and removal of existing bituminous material, new installation of a post-tensioned concrete system with proper expansion joints, new painting and surface coating, new chain link fencing with gates, and new nets.

Estimated Cost: The cost of this funding request is $550,000. This number is based on proposals received from professional licensed contractors and a professional licensed engineering firm.

Long Range Costs: Post-tensioned concrete tennis courts when installed new come with a 20 year guarantee/warrantee on the concrete from cracking and/or failure, and a 10 year guarantee/warrantee on the top coating/sealant from failure.

Demand on Existing Facilities: This project would reduce the maintenance costs of older tennis court repairs that typically occur every two – three years after the new installation which is typical with older bituminous systems.

Security, Safety and Loss Control: This project would enhance safety and loss control by drastically reducing the risk of students and staff, as well as the public getting hurt on the existing deteriorating surface material.

Environmental Considerations: This project work will include proper grading and drainage which will in turn help the environment in the immediate surrounding area.

Funding, Financing & SDE Reimbursement: This project would not proceed without funding approval. There are no State or Federal regulations that require this project to be undertaken. This project is not eligible for reimbursement through the State Department of Education, Bureau of School Facilities.

Schedule, Phasing & Timing: Approval of this funding will allow completion of the work during the summer of 2019 and is planned to be completed in time for the athletic tennis season for the spring of 2020.

Other Considerations: The work will be bid out by the Town Purchasing Department and will be performed by outside professional licensed contractors.

Alternates to the Request: The alternate to this request is to do nothing. This alternative will delay this needed replacement and further delay other similar projects scheduled in the BOE future planning and could increase the risk of shutting down the six tennis courts for play and/or athletic events.

This page Intentionally left blank

Fairfield Ludlowe High School

Six Tennis Courts Project **$ 550,000**

Details

Engineer of Record:
DTC
Hamden, CT

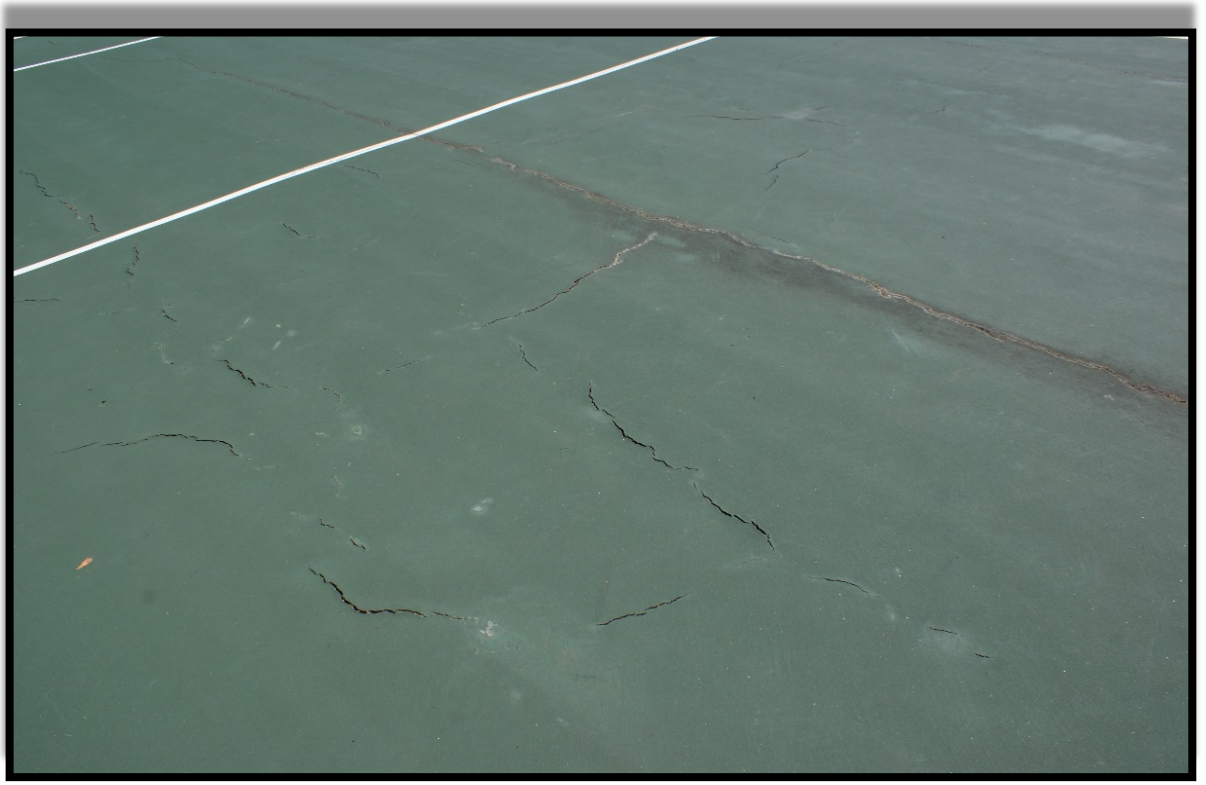
Licensed contractor to provide labor and materials
Prepared by:
Classic Turf Company, LLC
Woodbury, CT

Breakdown:

Engineering Firm	
Scope of Services	
Data Collection and Field Investigation	
Preliminary Design and Material Selections	
Construction Documents	
Bidding	
Construction Administration	
Project Close Out	
	$ 25,000
Licensed Contractor	
General Conditions	
Staging and Protection	
Removal of Existing Bituminous Paving Material	
In-Fill and Leveling	
Installation of New Bituminous Paving with Expansion Joints	
Finishes and Coatings	
Specialties and Striping	
Nets and Protective Fencing	
	$ 500,000
Contingency	$ 25,000

Total **$ 550,000**

Existing Tennis Court Conditions



New Tennis Court Conditions

Fairfield Warde High School

Fitts House 50-Ton HVAC RTU Replacement Project $ 300,000

Background: The existing Fitts House Building houses four large HVAC Rooftop Units that were installed around 1991. Two are 50-ton units and two are 30-ton units. One of the 50-ton units is failing and we can no longer keep it running for the occupants of the school building for the upper floor classrooms. The HVAC PM contractor along with the FPS HVAC technicians have been working on this rooftop Unit for an exhaustive amount of hours. We have reached a point where the existing unit cannot meet the requirements to provide mechanical means of fresh air, heating and cooling for a portion of the Fitts House Building. This request is for funding the removal of the existing rooftop equipment and the installation of a new Trane Voyager Rooftop HVAC Unit.

Purpose & Justification: The condition of the existing HVAC rooftop unit is deteriorating and failing on a regular basis. We can no longer obtain parts and circuit boards for replacement. This HVAC rooftop unit is essential for the mechanical means of fresh air, heating and cooling for the upper portion of the Fitts House Building where the school students and staff are located. Without this unit the space would be unusable.

Detailed Description: This expenditure would cover the total cost of the project. This would include all labor and material, a 300-ton crane, roof work, controls, and start up and testing. These funds would also cover the construction administration costs for a professional licensed engineer as well as a contingency for unforeseen conditions that might be uncovered during the construction activities.

Estimated Cost: The cost of this funding request is $300,000. This number is based on bids received through the Town of Fairfield Purchasing Department bid process where estimates were provided by several professional licensed contractors and from a professional licensed engineering firm in CT.

Long Range Costs: This new HVAC rooftop unit is expected to last 30 years. Long-range costs would only relate to general HVAC preventative maintenance.

Demand on Existing Facilities: This project would reduce the maintenance costs due to the new system working better than the existing system, practically no down time, new equipment energy use techniques, as well as newer technology with up to date configurations.

Security, Safety and Loss Control: This project would enhance safety and loss control by drastically reducing the risk of failure to the equipment and the overall use of the library media center for all the students and staff.

Environmental Considerations: Not applicable.

Funding, Financing & SDE Reimbursement: This project would not proceed without funding approval. There are no State or Federal regulations that require this project to be undertaken. This project is not eligible for reimbursement through the State Department of Education, Bureau of School Facilities.

Schedule, Phasing & Timing: The schedule is to have all this work done in the summer of 2019 and completed for school to open for the new year in September of 2019.

Other Considerations: The work will be bid out by the Town Purchasing Department and will be performed by outside professional licensed contractors.

Alternates to the Request: The alternate to this request is to do nothing. This alternative will delay this needed replacement and further delay other similar projects scheduled in the BOE future planning. This could increase the risk of injury to students and staff that need this space for teaching and learning and may shut down the space for use.

This page Intentionally left blank

Fairfield Warde High School

Fitts House 50-ton HVAC RTU Replacement Project **$ 300,000**

Details

Engineer of Record:
van Zelm Engineers
Farmington, CT

Licensed contractor from previous bid:
Universal Building Services
Fairfield, CT

Breakdown:

General Conditions Staging and Protection 300-Ton Capacity Crane Equipment and Supports Sheet Metal Work and Ductwork Piping Insulation Roofing Mechanical Electrical Finishes Specialties	$ 220,000
Structural Steel Dunnage for roof support	$ 40,000
Controls Integration Balancing and Testing Close Out and Documentation Training	$ 25,000
Contingency	$ 10,000
Professional Engineering construction administration services	$ 5,000
Total	**$ 300,000**

Existing HVAC Rooftop System

Voyager III

New HVAC Rooftop System

Stratfield Elementary School

Partial Roof Replacement $ 85,000

Background: One of fifteen roof areas is at the end of its useful life and in need of replacement. The roof in this proposed request is original to the 1993 installation and is out of warranty as of 2013. The roof system is showing signs of failure and our roof preventative maintenance contractor has reported that it is time to replace this roof before further damage increases rapidly. This request is for funding the replacement of this roof.

Purpose & Justification: The condition of this roof area is declining and leaks are beginning to increase in frequency and severity. Replacement of this roof now will prevent the need to replace it as an emergency situation during the school year thus preventing disruption to the school's learning environment.

Detailed Description: The expenditure would cover the total cost and removal of the one roof area down to the existing roof deck and installation of a new roofing system. These funds would also cover design, bidding and construction administration costs as well as a contingency for unforeseen conditions that might be uncovered during the construction activities work.

Estimated Cost: The cost of this funding request is $ 85,000. This number is based on similar replacement projects undertaken in the system and a probable construction cost estimate provided by a professional licensed architect, Hoffmann Architects, as well as a professional licensed contractor, Tecta America Roofing.

Long Range Costs: Roof replacement will reduce maintenance costs on the old roof as well as produce energy savings through the use of a better insulated roof system. This roof replacement is part of the Fairfield Public Schools Facilities Plan and Waterfall Schedule. The anticipated life of this upgrade is 20+ years with our current roof preventative maintenance program.

Demand on Existing Facilities: This project would reduce the maintenance costs for roof repairs and increase energy efficiency in the building.

Security, Safety and Loss Control: This project would enhance safety and loss control by drastically reducing the risk of a roof failure while school is in session.

Environmental Considerations: This project would greatly reduce greenhouse gases by increasing the energy efficiency of the building thus reducing energy consumption.

Funding, Financing & SDE Reimbursement: This project would not proceed without funding approval. There are no State or Federal regulations that require this project to be undertaken. This project is eligible for reimbursement through the State Department of Education, Bureau of School Facilities. The 2018-2019 reimbursement for Fairfield is 25.36%. We estimate that we will receive approximately $21,556 in reimbursement for this project.

Schedule, Phasing & Timing: The schedule is to have work performed during the summer of 2019 and to prepare to have all work completed for the new school year.

Other Considerations: The work will be bid out by the Town Purchasing Department and will be performed by outside professional licensed contractors. This does require the formation of a Town of Fairfield Roof Building Committee to qualify for state reimbursement.

Alternates to the Request: The alternate to this request is to do nothing. This alternative will delay this needed replacement and further delay other similar projects scheduled in the BOE future planning. Delaying this project would jeopardize the safety of the staff and students if a major roof failure occurred during school hours.

Stratfield Elementary School

Partial Roof Replacement **$ 85,000**

Details

Architect of Record:
Hoffmann Architects, Inc.
Hamden, CT

Licensed contractor to provide labor and materials
Prepared by:
Tecta America New England
East Hartford, CT

Breakdown:
Architect to provide the following professional services:

Review original Contract Documents and previous reports as such documents relate to conditions described in the Scope of Work and are supplied to Hoffmann Architects by the Town of Fairfield Public Schools.

Visit the site to verify existing conditions and construction details. Coordinate with a Contractor retained by The Town of Fairfield Public Schools to perform exploratory openings so as to examine concealed conditions.

Based upon the results of Hoffmann Architects' field verification activities and the established scope of work, provide a proposed roof replacement system and scope of work for review and approval by the Fairfield Public Schools and Building Committee.

Meet with the Bureau of School Facilities with the owner for a pre-review evaluation.

Prepare Contract Documents consisting of drawings and specifications, setting forth in detail the requirements for construction of the project.

Assist in the preparation of the necessary bidding information. Prepare an agenda for a pre-bid conference at the site. Respond to contractor questions and prepare addenda, as necessary.

Conduct a meeting with a representative from the Fairfield Public Schools, Building Committee, and the Contractor prior to the commencement of the work, to review the Contractor's proposal for compliance with the requirements of the Contract Documents.

Review and take appropriate action on Contractor's submittals such as shop drawings, product data and samples, to establish their conformance with the design concept expressed in the Contract Documents; forward to the Town of Fairfield Public Schools, for review and record, written warranties and related documents required by the Contract Documents and assembled by the Contractor.

Visit the site a minimum of four (4) times during construction to monitor the progress and quality of work and to determine if the work being performed is in general compliance with the Contract Documents.

$ 15,000

Licensed contractor to provide:
Set-up the site safety protection for the workers and for any occupants of the property.

Remove the existing roofing system down to the existing metal deck.

Confirm and/or secure the existing metal deck per Factory Mutual guidelines 1-28 specifications.

Install new pressure treated wood blocking to the height of the new perimeter edges.

Install new Polyisocyanurate insulation including ¼" per foot tapered system with an average R-25 value to be in compliance with 2014 ASHRAE guidelines.

Install new two ply SBS Modified Bitumen roofing membrane system in cold applied adhesive with a granulated cap sheet. (Roofing system meets the current code for uplift pressures - FM 1-90 approved system.)

Install all flashings per manufacturer's specification.

Remove and replace existing drain bowl assemblies.

Install new extruded metal edges with Kynar coated color cover plate that has been pre tested and approved per ANSI -SPRI ES-1 specifications. (Color will be selected by owner from standard color selections.)

Install new expansion joints to replace existing.

Fabricate and install new counter flashings as needed for proper termination.

Clean up and dispose of all debris from the above scope of work.

Provide owner with a 20-year No Dollar Limit (NDL) warranty that includes the cost of both labor and material to repair any leaks or material failures during the warranty period.

$ 65,000

Contingency $ 5,000

Total **$ 85,000**

Existing Roof Conditions

New Roof Conditions

Tomlinson Middle School

Flooring Replacement Project $ 440,000

Background: Tomlinson Middle School's existing vinyl asbestos tile flooring and vinyl composite tile flooring in classrooms, corridors, nurse's suite, main lobby and other support areas throughout the original school building are failing at a rapid pace. The vinyl asbestos tile flooring is original to the building from 1917. The majority of the vinyl composite tile flooring is from 1976. The rest of the vinyl composite tile flooring is from the 2005 renovation and is failing. The existing school building is very old and many areas still have plywood sub-flooring over wood floor joists. This request is for funding the removal of the vinyl asbestos containing floor tile and the old vinyl composite floor tile in designated areas as well as provide new plywood subfloor, new Ardex floor skim coating, new Armstrong vinyl composite tile flooring, and new vinyl cove base trim for all areas designated by floor plans contained within the proposals.

Purpose & Justification: The condition of the existing flooring throughout designated areas of the building was deemed unsafe after a site visit with two flooring contractors, the principal of the school, and our maintenance staff. It continues to worsen at a rapid pace. Attempts have been performed by our maintenance department to spot patch a few heavily traffic areas before the start of the new school year. Furthermore, we had to cover over a 50-foot section of the main corridor outside the library media center with a large area heavy carpet system as a temporary means of protection for safe conditions. The problem continues to grow and is becoming a serious issue for the safety of the students, staff, and teachers.

Detailed Description: This expenditure would cover the total cost for all work including; demolition work, asbestos abatement work, air clearance testing consulting work, subflooring replacement and repairs to prep for new tile, new construction work consisting of new vinyl composite tile, new vinyl cove base, and all the finishes and coatings necessary for the new flooring to be in a condition for occupancy and use. These funds would also cover design, bidding and construction administration costs as well as a contingency for unforeseen conditions that might be uncovered during any construction activities work.

Estimated Cost: The cost of this funding request is $ 440,000. This number is based on a professional licensed contractor's cost proposal provided by BCI Bartholomew Contract Interiors and from similar flooring projects throughout the school district and in working with the Town of Fairfield Purchasing Department.

Long Range Costs: The only long range costs will be in the form of new floors requiring proper cleaning procedures to be performed along with the recommended 5 coats of sealant. Also to monitor areas identified with wood sub-flooring versus concrete sub-flooring for issues.

Demand on Existing Facilities: This project would reduce the maintenance costs for spot patching problem areas and the need for constant monitoring of loose and broken floor tiles on a daily basis.

Security, Safety and Loss Control: This project would enhance safety and loss control by replacing the old damaged flooring tile and installing new secure flooring tile.

Environmental Considerations: This project would remove hazardous materials therefore increasing the air quality and decreasing the risk of asbestos containing materials to break down and go airborne.

Funding, Financing & SDE Reimbursement: This project would not proceed without funding approval. There are no State or Federal regulations that require this project to be undertaken. This project is not eligible for reimbursement through the State Department of Education, Bureau of School Facilities.

Schedule, Phasing & Timing: The schedule is to perform all the work over the summer of 2019 and complete the project in time for the start of the new school year.

Other Considerations: The work will be bid out by the Town of Fairfield Purchasing Department and will be performed by outside professional licensed contractors as well as air-clearance consultants for the asbestos abatement work per State of Connecticut Department of Energy and Environmental Protection regulations.

Alternates to the Request: The alternative to this request is to do nothing. This alternative will delay this needed maintenance repair/replacement project and further delay other similar projects scheduled in the BOE future planning. Delaying this project would jeopardize the occupancy of the building for students, staff and teachers due to safety issues and concerns.

This page Intentionally left blank

Tomlinson Middle School

Flooring Replacement Project **$ 440,000**

Details

Licensed State of Connecticut contractor to provide labor and materials:
BCI – Bartholomew Contract Interiors
State contract #12PSX0307

Breakdown:

Armstrong Vinyl Composite Tile flooring
Armstrong VCT adhesive
Ardex feather finish patch
4" Vinyl Cove Base
All labor and material

Subtotal $ 169,481.77

Licensed State of Connecticut consultant to provide professional services:
Fuss and O'Neill

Breakdown:

Hazardous Material abatement project management all phases of work
PCM Air Sampling Analysis
TEM Air Sampling Analysis
Project monitoring

Subtotal $ 35,618.23

Licensed State of Connecticut abatement contractor:
A.A.I.S. Corporation

Breakdown:

Abatement areas in corridors labeled in green	$ 91,000.00
Abatement areas on concrete subfloors labeled in pink	55,650.00
Abatement areas on wood subfloors labeled in pink	88,250.00
All containment, demolition, clean-up and air clearance requirements	
Subtotal	$ 234,900.00

Total **$ 440,000.00**

Old Flooring Conditions

Old Flooring Conditions

Old Flooring Conditions

New Flooring Installation in 2018