

Special Darien Board of Education

Facilities Committee Meeting

Thursday, January 19, 2023

9:00 a.m.

**Darien Public Schools' Administrative Offices
35 Leroy Avenue
Board of Education Meeting Room**

AGENDA

1. Update and Discussion on Proposed Request for Transfer of Funds for Darien High School Track Project
2. Discussion and Review of 2023-24 Capital Project Request for Darien High School Auditorium Technology Upgrade
3. Public Comment*
4. Adjournment

*** * The Board of Education meeting will be available to the public in person and via Zoom. Wearing of masks is optional and seating is limited by room capacity.**

Those members of the community wishing to participate in public comment may also join the meeting via Zoom:

<https://darienps.zoom.us/j/97934669712>

Those members of the community wishing to view only, should do so through the Darien Youtube link:

<https://www.youtube.com/channel/UCUnnvYKBfFrTWQRuoB6OZA>

In order to reduce audio interference, members of the community are requested not to simultaneously view by Youtube while participating on Zoom.

DARIEN PUBLIC SCHOOLS

Kevin Munrett
Facilities Director

35 Leroy Avenue, P.O. Box 1167
Darien, CT 06820-1167
Tel: 203-820-0584

To: Dr. Alan Addley, Superintendent
From: Kevin Munrett, Facilities Director
CC: Richard Rudl, Director of Finance & Operations

Date: January 11, 2023

Subject: Darien High School Track Replacement- Request for Transfer

In the FY23 Capital Budget there was an approved project to replace the asphalt track and jump areas at Darien High School for \$450,000. After posting a Request for Proposal (RFP) in late October, which saw 7 firms in attendance at the walk-through, we received zero sealed bids in November.

We then contacted Cape & Island, Tennis & Track and received their proposal (see attached). Using the National Cooperative Purchasing Alliance (NCPA), their cost proposal is \$588,460, which is \$138,460 above the approved budget.

The budgeted amount was put together by the former Director of Facilities, based on estimates of costs at that time (approx. April of 2021). One of the primary components of this project involves the replacement of the underlayment of asphalt paving. The entire oil and paving industry has experienced cost increases over 40% since this budget estimate was provided. While the sandwich system was quoted as an “add/alternate” on the proposal, it was not a part of the original scope of work.

We are requesting the Board of Education approve the Administration to request the Board of Finance to approve a capital transfer from the BOF Capital Contingency Fund, to fund the difference in cost from the approved budget. The Capital Reserve account, which as of the drafting of this memo has a balance of \$509,606.

If approved, this project would begin in June, 2023- after graduation and would be completed before fall sports starts practice in late August.



Darien High School **Track Surface Replacement Project**

Bid Proposal

11/22/2022



November 22, 2022

Mr. Kevin Munrett – Director of Facilities
Darien Public Schools
35 Leroy Avenue
Darien, CT 06820

Project: Darien High School Track Replacement Project

**Running Track Surface Replacement
NCPA Bid Proposal
Darien, CT**

Running Track Renovation

Prices are based on the NCPA (National Cooperative Purchasing Alliance) program. NCPA provides competitively solicited pricing for preferred products and services. Because these products and services have been bid at a national level, individual public entities do not need to duplicate their own bid process. For information, please visit the NCPA website at www.ncpa.us.

Surface Replacement & Asphalt Overlay Method

General: This NCPA bid proposal is for the removal and disposal of the existing track surface, and the installation of a new upgraded track system. In order to provide an adequate base for the new surface, the existing asphalt base will require improvement. We are proposing the removal and replacement of the existing asphalt top course (assumed to be 1.5" thick), with a new 1.5" lift of bituminous pavement. Scope is limited to project specifications provided by the Darien Board of Education in project documents dated October 5, 2022 as well as issued addendums.

The proposed BSS-100 polyurethane paved mat structural spray system are comparable (albeit newer versions) to the surface systems currently installed. I have included an alternate for an upgraded BSS-300 polyurethane sandwich system. This is a 15mm impermeable surface that will significantly extend the overall life of the track while also dramatically improving the force reduction characteristics of the surface. This will help reduce the rates at which athletes suffer stress related injuries to the lower extremities (stress fractures, shin splints etc), while also increasing the amount of time and intensity, athletes and coaches can train.

Cape & Island Tennis & Track to Provide:

- Protect synthetic turf infields and perimeter structures.

- Remove & dispose of the existing synthetic surface from track and field events.
- Remove by cold planning 1.5" of bituminous top course from track oval.
- Millings to be removed off site and disposed.
- Make repairs to existing track asphalt base where necessary.
- Grind and level existing concrete curb.
- Install blue 13mm ***BSS-100*** polyurethane structural spray system (an IAAF certified product). Manufactured by Beynon Sports Surfaces of Hunt Valley, MD.
- Install NFHS certified line markings.
- Project shall be managed by an ***ASBA Certified Track Builder***
- "As Built" layout drawing for striping
- Prevailing Wages and Certified Payroll

Please NOTE: Our proposal does not include drain repairs, fence repairs/replacement, or landing pit repairs.

Price for Darien High School Running Track Renovation: \$588,460

Alternate #1 –Polyurethane Two-Tone BSS-300 Sandwich System

In lieu of Blue BSS-100 polyurethane sandwich system CIT&T will provide and install an impermeable two tone BSS-300 embedded sandwich system with protective varnish. Alternate colors to limited to 4x100M exchange zones.

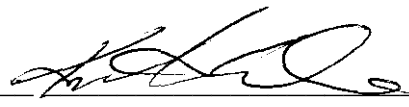
Add Price for Alternate #1 – BSS-300: **\$227,500**
For Add Alternate 1 Initial Here:

Payment Schedule to be as Follows:

10% Deposit due upon signed agreement.

Upon approval of agreed upon schedule of values, payment shall be made according to completion of scheduled items bi-monthly.

Balance to be paid upon completion.

Authorized Signature:  Date: 11/ 22/2022
 Kristoff Eldridge, CTB
 President

Acceptance of Quote

If the foregoing meets with your acceptance, kindly sign and return the attached copy of our proposal. Upon its receipt it is understood the foregoing, including the terms and conditions set forth above, will constitute the full and complete agreement between us.

Authorized Signature: _____ Date: ____/____/____

This quote expires thirty days from the date hereof, but may be accepted at any later date at the sole option of Cape & Island Tennis & Track.

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Kevin Munrett
Facilities Director

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Tel: 203-820-0584

To: Dr. Alan Addley, Superintendent of Schools
Cc: Richard Rudl, Director of Finance & Operations
From: Kevin Munrett, Director of Facilities
Colleen Thompson, Director of Music

Subject: Darien High School: Auditorium Upgrade Memo

Date: January 11, 2023

In the Capital Facilities Budget for FY 24, there is a recommendation for an Auditorium Upgrade at Darien High School. The project was drafted in conjunction with Colleen Thompson (Director of Music) as well as Jeff DeMaio (Auditorium Manager) which utilized recommendations from an outside consultant, Paul Merchant from C.E.S. and Workspace, CT who is a professional theater designer and video/audio engineer.

The auditorium at DHS has not experienced a major upgrade since the building was constructed. Currently, the equipment being used is antiquated, partially inoperable and in need of replacement. This project would accomplish much to bring the space up to current practical standards for performances. Utilizing a phased approach allows us the flexibility to improve the space while maintaining functionality for classes, summer school and after-hours activities.

As the project packet in the budget book indicated, the project is broken down into sections:

- 1) Audio Improvement:
 - Speaker Boxes
 - Controls: replacing old control panels with newer technology (touch screens).
 - Microphones: only 3 operational wireless microphones remain, new 12-channel system for both handheld and body-pack microphones
- 2) Communications & Intercom:
 - Retrofit existing systems with new so the stage, catwalk and control room can communicate with each other
- 3) Video:
 - Streaming and recording
 - Projection:
 - Video Wall:
 - Confidence Monitor: adds a video system camera
- 4) Staging:
 - Decca Tree Mounting- this is an existing piece of equipment which needs to be permanently mounted in the auditorium



DHS Auditorium Technology Upgrades

11.11.2022

Jeff DeMaio

Audiovisual Consultant
jeff@jeffdemaio.com
(203) 219-2224

Overview

The Darien High School Auditorium has not seen a major upgrade since the building opened. Currently operating on antiquated technology and systems, many of which have been partially inoperable for years, we are unable to meet the needs and expectations of our community, the music department, or the theater program.

This document provides a summary of the problems that we are currently facing in the auditorium and a recommendation to remedy that issue with a robust, long-term solution.

While we believe all of these upgrades are critical to our ability to serve the District and community, we have the flexibility to upgrade these systems over a period of years as required for budgetary or prioritization reasons.

Goals

1. Reduce environmental impact of our systems by upgrading to new, high-efficiency technology
2. Reduce operational complexity of our systems by simplifying workflows and user experience through new, user friendly control systems
3. Reduce operational expenses of the space by improving native capabilities and reducing recurring rental expenses
4. Promote equitable experiences for guests in the room and attendees online by improving the quality of our sound and video both in the space and online
5. Meet the needs of the Music Department and Theater Program, and the expectations of the community

Systems & Upgrades

Below you will find a summary of systems, a problem statement, and a proposed solution. Pricing has been estimated using proposals from local companies, research, and evaluation by volunteer industry experts. More details on the proposed solution can be provided, but full system design may be required prior to final budgeting and bid (more details in Next Steps section).

Audio

The recommended audio upgrade is broken down into sections below. All audio upgrades must be completed in tandem for the system to function properly.

Total Estimated Cost: \$400,000

Speakers

The Problem: The space's current speakers are original to the building, and were designed to deliver speech and presentations in the space, not music or theatrical productions. Over the years, teams have worked together to supplement the speaker system with rental equipment for musical performances and theatrical productions in order to improve sound quality and coverage.

The Solution: Replace the existing speaker boxes with updated line array speakers that will deliver a uniform audio experience throughout the auditorium, improving both the coverage of the system and quality of sound throughout the venue, resulting in an improved, uniform experience in every seat.

Control

The Problem: The existing audio control system requires highly trained operators for every event – requiring similar knowledge for a presentation with 1 speaker as a theatrical performance with 30 singers, resulting in operational complexity in auditorium management and more auditorium technicians.

The Solution: Replace the audio control system with a new fully-digital system that allows for simple control over 8" Touch Screens for small events, while also providing a robust audio console that enables student technical operators to control larger musical or theatrical productions with excellence.

Microphones

The Problem: The existing wireless microphones were delivered 15 years ago, of which only 3 are still operational (2 handhelds and 1 wireless). The existing recording microphones for piano and vocals are equally as aged, and do not deliver the quality that is expected upon today's standards.

The Solution: Replace wireless microphone system with a new 12-channel system, featuring both Handheld and Bodypack microphones, along with a new piano and condenser mic package, delivering flexibility and higher quality recordings in the venue.

Communications & Intercom

The intercom system allows technical operators in the control room, stage, and catwalks to communicate with each other.

The Problem: The existing wired intercom system is original to the building and included (8) wired communication stations, of which (4) are operational.

The Solution: Retrofit the existing system with wireless functionality and replace base stations, allowing further flexibility and longevity in the system.

Estimated Cost: \$25,000

Video

Streaming & Recording

The Problem: The current streaming and recording system was designed for broadcast to the standard definition public TV station. Since our transition to online streaming and recording, this system still features standard definition quality, when our stakeholders expect high definition. For high profile events, rental or external equipment is required to deliver high definition video.

The Solution: Replace the existing video system with High Definition cameras, switchers, recorders, and streamers that will deliver upon today's expectations. This system includes (4) robotic cameras controlled from the Control Room, and (1) static cameras located on the center balcony.

Estimated Cost: \$50,000

Projection

The Problem:

1. The existing projection screen is an older square aspect ratio (4:3), when the majority of the content we show is widescreen aspect ratio (16:9), making content smaller or look strange on the screen.
2. The current screen is located mid-stage, making it difficult to project content when larger productions (Theatrical, Music) are set up on the stage, causing lower utilization of the auditorium during those times.
3. The current screen is manual raise/lower, creating an additional burden on technicians and operators who must climb to the catwalks to change screen position.

4. The current projector requires lower light levels to be seen adequately, requiring users to lower the lights in the space to best see the content.

The Solution:

1. Replace the existing projector with a new 10K lumen projector that will be able to provide proper projection quality in higher lighting environments.
2. Replace the existing projection screen with an electric drop-down screen that lowers in front of the main red curtain of the auditorium, allowing presentations and other events to take place in the auditorium during setup for music events or theatrical productions.

Estimated Cost: \$70,000

Video Wall

The Problem:

1. Music Events and Theatrical Productions rarely use projection in their event as it is often disturbed by the scenic elements on stage, casting shadows.
2. Projected images do not show up very well on streams and broadcasts

The Solution: Add an LED Video Wall at the position of the current projection screen, allowing for high resolution, high brightness content and video to be shared and viewable by every seat in the space. This will also enable theatrical and video students to leverage virtual sets in their productions.

Estimated Cost: \$300,000

Confidence Monitor

The Problem: Students often do not have good visibility of the conductor during performances.

The Solution: Add a video distribution system and camera focused on the conductor and an 86" monitor mounted to the balcony that will allow students to see a video feed of the conductor wherever they are in the space.

Estimated Cost: \$25,000

Lighting

Lighting upgrades are broken down below, but all lighting upgrades must be completed together.

Estimated Cost: \$375,000

Fixtures / Power Consumption

The Problem:

1. The existing non-LED light fixtures are original to the space, consume a tremendous amount of power, require frequent changes to their expensive bulbs, add heat to students on stage, and do not provide the same flexibility as the LED fixtures we have already upgraded.
2. The current lighting package is not sufficient to the needs of the music and theater departments, requiring rentals for major events and productions.

The Solution: Continue our upgrade to LED lighting by replacing all non-LED fixtures in the space and adding fixtures around the venue to reduce the need for rentals that drive operational expenses.

Control

The Problem: The current lighting system must be controlled by a trained operator for all events, from a small presentation to large theatrical production.

The Solution: Add touch screen controllers to the lighting system that will allow for simple control for smaller events by untrained users.

Staging

Drapery

The Problem: The existing drapes do not provide adequate coverage of the back-stage elements, exposing off-stage students and equipment to the audience.

The Solution: Add 3 drapes on swivels to each side of the stage.

Estimated Cost: \$11,500

Stage Apron

The Problem: The light color wood apron on the stage is not suitable for theatrical productions and requires rental of a marley material for most productions.

The Solution: Purchase a removable Marley (high quality rubber) floor covering.

Estimated Cost: \$2,500

Decca Tree Mounting

The Problem: The music department has an audio recording device called a Decca Tree that needs to be mounted permanently in the auditorium.

The Solution: Mount the device.

Estimated Cost: \$3,000

Investment Summary

Below you can find a summary of the projected investment required for each of the systems and categories outlined within this recommendation. Estimates are made based upon a number of factors, including quotes from local companies, projections of market rates for similar services, and input from independent industry experts who have provided consultation on a volunteer basis.

Element	YEAR 1	YEAR 2	TOTAL Cost
Audio System	\$400,000		\$400,000
Intercom	\$25,000		\$25,000
Streaming & Recording	\$50,000		\$50,000
Projection	\$70,000		\$70,000
Video Wall	\$300,000		\$300,000
Lighting		\$375,000	\$375,000
Confidence Monitor	\$25,000		\$25,000
Drapes		\$11,500	\$11,500
Stage Apron		\$2,500	\$2,500
Decca Tree Mounting	\$3,000		\$3,000
Total	\$873,000	\$389,000	\$1,262,000

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Next Steps

1. Prioritize Investments

We must work alongside the Music Department, Theater Program, and other stakeholders to determine the proper prioritization for the proposed investments.

While we may choose to proceed with these upgrades in a single effort, we may also choose to chase these investments over a period of year(s). Splitting scope up over a longer period of time may however impact our ability to achieve the best possible pricing.

2. Budget

Seek Capital budget for proposed investments.

3. Appoint Design Consultant

In order to ensure we are able to achieve the best possible price for this work, we shall appoint a Design Consultant to prepare a complete system design and bid package for this scope of work. Preparation of proper bid documentation from an audiovisual system design consultant will A) increase interest from qualified bidders, B) ensure we receive bids that are comparable in bill of materials and quality of installation, and C) ensure we receive the lowest available price.

Qualified Audiovisual Design Consultants include:

- [Jaffe Holden](#)
- [Klevertex](#)
- [Theater Projects](#)
- [Charcoalblue](#)

4. Bid

With proper bid documentation in hand, we can solicit bids for the procurement and installation of the systems. Some companies who can provide these services include:

- [Diversified](#)
- [AVI-SPL](#)
- [Avidex](#)
- [DNR Labs](#)
- [Rodney Productions](#)