

Woodbridge Board of Education WBOE  
Ad Hoc Enrollment, Instructional Needs  
and Space Planning Committee  
Wednesday, March 15, 2023 4:00 PM

South Assembly Room

## **Agenda**

I. **Call to Order / WebEx Log-in**

**Meeting link**

**<https://woodbridgeps.webex.com/woodbridgeps/j.php?MTID=m7835a1cbeac240f7f409f1712a48c5ac>**

**Meeting number (access code): 2492 344 5933**

**Meeting password: p4jGVde2y2P**

*This meeting is being conducted as a hybrid meeting consistent with Sections 149-153 of Connecticut Public Act 21-2. The public may attend in person at the location indicated above, with social distancing required. The public may also attend electronically via WebEx with the link provided above.*

II. **Review Committee Charge**

III. **Initial Review of Calendar of Meeting Dates**

IV. **Initial Planning of Next Steps**

V. **Adjourn**

# Enrollment, Instructional Needs, and Space Planning Ad Hoc Committee

January 2023

**Charge:** The committee will review and address the physical, administrative, and instructional implications of increasing enrollment and student needs on the current physical space of Beecher Road School.

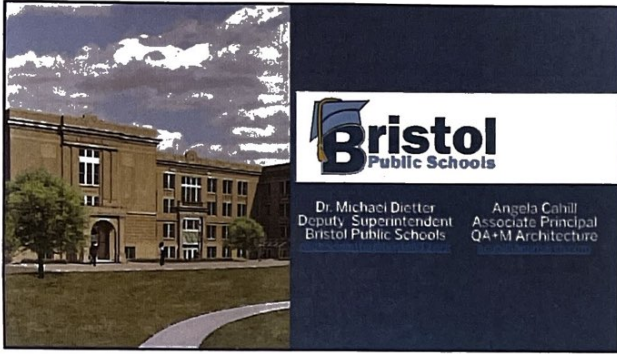
**Time Frame:** Report to the full Woodbridge Board of Education at the September 2023 Regular Meeting.

**Members:** Superintendent, Board of Education Chair, 2 WBOE members, BRS Principal, Director of Business Services/Operations, 1 member of Board of Selectmen, 1 member of Board of Finance, 2 teachers (1 intermediate, 1 primary), Facilities Director, community member.

**Background:** Board of Education Policies 1220 & 9133 authorize the Board of Education to establish ad hoc committees to perform specific tasks.

At the December 19, 2022 Board of Education meeting, the Board Chair indicated that an Ad Hoc Committee would be created in January 2023 with the charge that a report would be provided to the full board at a future meeting regarding the implications of increasing enrollment and student needs on the current physical space of Beecher Road School. Enrollment projections, programmatic and instructional needs, and staffing configurations are now posing challenges to the current size of Beecher Road School. The Ad Hoc Committee will meet and make a report to the full Board regarding possible reconfiguration, building, and space utilization options.

> non-meeting to debrief  
> wk9 mtg



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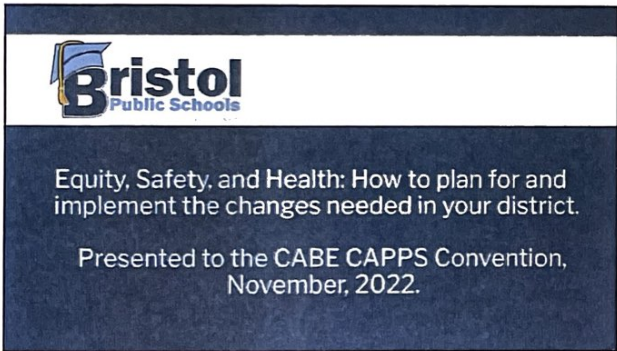
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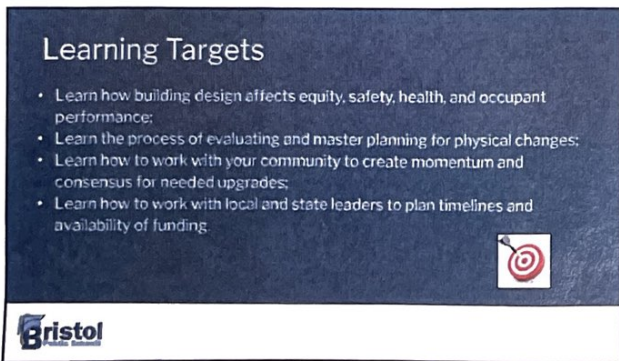
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# I. Physical + Mental Health <sup>AIT</sup> Educational Performance

### Building Design Contributes to Physical and Mental Health

*Green Schools: Attributes for Health and Learning*, Spengler et al, National Research Council of the National Academies, 2007

*The Impact of School Buildings on Student Health & Performance*, Baker & Bernstein, The Center for Green Schools, 2012



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### Building Design Contributes to Physical and Mental Health

25% of our nation's population spends the majority of their time in school buildings

**Characteristics needed:** Comfort, Air Quality, Quietness, Cleanliness, Aesthetics

- Daylight and views
- Temperature and lighting controls (heating and cooling, tunable & dimmable light)
- Natural & increased ventilation, filtered air, moisture management, pollutant resistance, carbon dioxide response, infection control
- Acoustical design for aural and vocal health, and focus
- Cosmetically pleasing for emotional health
- Healthy Food & Water
- Mobility and indoor/outdoor experience between activities



CT standards already one of highest in nation -

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### Building Design Contributes to Physical and Mental Health

**Older schools may have:**

- hazardous materials
- loud noise
- low spectrum fluorescent lighting
- moisture penetration of building envelope
- lack of ventilation, thermal control & air conditioning



Asbestos in concrete + plaster

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## Building Design Contributes to Physical and Mental Health

### EXAMPLES:

- When students are deprived of natural daylight, their circadian cycles are disrupted, leading to lower levels of alertness
- Teachers report higher level of comfort when they have access to thermal controls and operable windows
- When ventilation rates are lower than 10 cfm per student, certain student performance tests result are lower by 1-15%
- When ventilation rates are as low as 10 cfm per student, symptoms indicating sick building syndrome are prevalent




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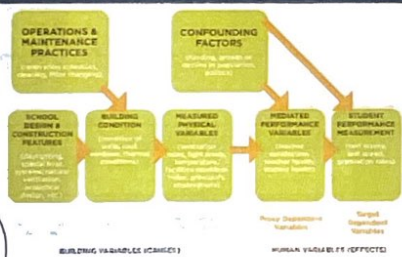
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## Combining Buildings and People



*The Impact of School Buildings on Student Learning & Achievement: Data & Insights from the Center for Green Schools, 2012*



Reference

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## Building Design Contributes to Physical and Mental Health

"Cash found significant differences between the achievement scores of students in substandard buildings and those in above standard buildings when the overall condition of the building was used as a measure. She also found that students were more affected by the cosmetic than the structural condition of a building. The difference between test scores of students in substandard and above standard buildings ranged from 2 to 5 percentile points, depending on the subject (i.e., mathematics, reading)."

"In [Earthman, North Dakota] all but one subject (social studies) of the CTBS, students in above standard buildings outscored students in substandard buildings. The difference was... 1 from 1 to 3 percentile points."



reference

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Test scores improved = cosmetic + above std buildings

### Green Schools = Healthy Schools

How students HEAR – background & ambient noise  
 How students BREATHE – clean indoor air  
 How students SEE – daylight, light levels & views  
 How students FEEL – consistent temperature range  
 How students THINK & LEARN – environmental factors  
 How students MOVE – active design & travel

How students REACT:  
 - emotions related to surrounding aesthetics and comfort  
 - physical response to quality of food & water  
 - comfort knowing they are in a safe & healthy environment


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### Green School Design Process and Categories

**GUIDES:**

- CT HPR and State Code Updates
- LEED Certification or equivalent
- Gen. Comm. Change Exec Order 21-3
- Fossil Fuel free
- Net Zero Options
- Evensource: Carbon Neutral by 2030

**SYSTEMS:**

- HVAC System Options
- Maximize Natural Light
- Well-Insulated Envelope (PHIUS)
- Centrate
- Evaluate First Cost vs. Payback
- Renewable Fuel Sources or Contracts


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### Connecticut Schools: Plenty of Work to Do

Age of School Facilities Based on Year of Construction					
Age	Count	Value	Area	Count	Value
0 to 10 years	27	11	21	2	91
11 to 20 years	23	27	18	8	79
21 to 30 years	162	148	62	5	288
Greater than 30 years	288	69	15	14	587


9%  
56%

Age of School Facilities Based on Last Renovation					
Age	Count	Value	Area	Count	Value
0 to 10 years	170	49	115	9	248
11 to 20 years	107	89	47	10	322
21 to 30 years	270	58	34	7	365

34%  
31%  
35%

1,041 School Buildings

Report on the Condition of Connecticut's Public School Facilities 2012



*schools built to last 20-50 yrs.*

*new scumy went out post-covid.*

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*Climate Δ Executive order (CT) □*

*report □*

## II. Equity/Safety/Health.

Building Design Can Provide Equity

**Bristol**

1984 - equity for physical differences.  
 no Δ's

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### The Context for Equity, Safety, and Health

Building Design(s) should align with the 10 year capital plan

- Needs assessment and priorities
  - Targeted renovations vs new construction
- Feasibility
- Enrollment

**Bristol**

> Relate project back to data.

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\* - enrollment projections -

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\* - board goals / LT plan - / vision

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> 3-5yrs reno/build project timeline.

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> Climate + equity policies

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### The Context for Equity, Safety, and Health

Utilizing Board of Education Goals/Priorities

BOE Policy and Regulation

Committee work

- Operations
- Building/construction

District Leadership and Improvement

- DEI Climate and Equity
- Office of Teaching and Learning (curriculum)

**Bristol**

Climate



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Curriculum.

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### Equity Design Categories

- Parking & Accessible Routes
- Equity in Entrance Sequence
- Horizontal & Vertical Circulation
- Toilet Facilities
- Signage & Notification
- Seating & Views
- Reach Ranges
- Doors and Hardware
- Textures, Patterns & Colors
- Emergency Egress



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### Equity in Design - Examples



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### Equity in Design - Physical and Intellectual

Designing an equitable environment for staff and students with both Physical and Learning differences

- Main entrance for all
- Equitable quality of space, lighting, features
- Easy & clear circulation paths
- Flexibility & opportunity of differing viewpoints
- Addressing each of the 5 physical senses



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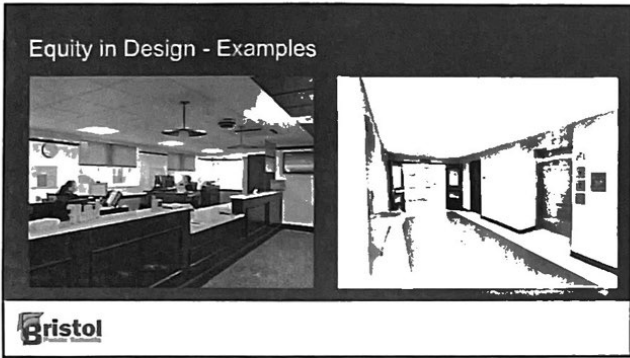
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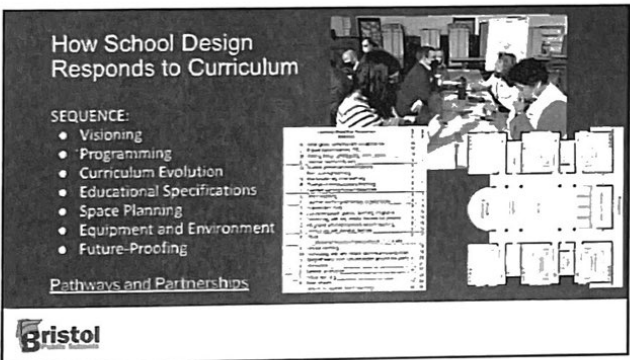
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### III. Curriculum.



Plans from 12 yrs ago may not be relevant to Δ in education today; May not fit new needs for future.

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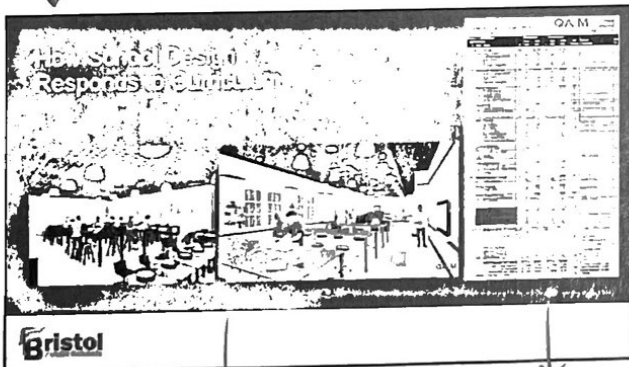
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↙ Bristol Arts + Innovation Magnet School

email for slide deck & links.



↙ 3D models

↙ cost analysis

> partnership = local university art program - artists in residence program  
 ↓  
 now HS students taking college credits there

# IV. School Security

### How School Design Provides Safety & Security

- > Deterrence
- > Detection
- > Delay
- > Response



**Bristol**  
School Solutions

being updated

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### How School Design Provides Safety & Security

- Includes emergency preparedness + resiliency
- Critical design decisions from the start
- Drop offs, visibility + control of access
- SBPAC / SSIC / OSG&R
- Coordinate with DESPP + DEMHS
- Lockdown accommodations
- Lock off after hours for community use
- Glazing locations and varieties
- Welcoming, use "hidden" strategies



**Bristol**  
School Solutions

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### How School Design Provides Safety & Security

**SSIC Handbook Categories:**

- Site Perimeter
  - Access Control & Surveillance
- Parking, Vehicle & Pedestrian Routes
- Recreational Areas
- Communication Systems
- School Building Exterior
  - Doors, Windows, Entrance Sequence
- School Building Interior
  - Classrooms & Assembly Areas
- Roofs
- Critical Assets / Utilities
- Other Areas



**Bristol**  
School Solutions

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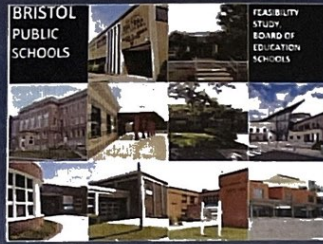
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## Studying Your Physical Assets



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## Communication and Advocacy for Equity, Safety, and Health

Students, families, and employees

- Thought Exchange and other platforms such as Twitter, Instagram, etc
- Surveys differentiated by groups
- Board Workshops
- PTO and PTA



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## Advocating for Equity, Safety, and Health

Local/regional boards, officials, and special interest groups

- Alumni, Historical Society, etc
- Consistency of schedule and reinforcement of message

BRISTOL HISTORICAL SOCIETY  
68 Summer Street | Bristol, Connecticut 06010 USA



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### Studying Your Physical Assets

Bristol Public Schools - Option 5a Phase Two

Existing Conditions of the school facilities are summarized in the following table:

Facility Name	Grade	Year	Year	Building Area (Sq Feet)	Capacity (Students)	Notes
Sheldon	K-5	1954	2004 (2007 remodel)	41,000	22	4 Phase
Edmond	PK-5	1957	1992	44,000	19	4 Phase
Hubbell	PK-5	1961	1982	63,000	20	2 Good
Jay Drive	PK-5	1967	2007	58,000	17	1.5 Good
Adoptive Way	PK-5	1967	2007	51,000	18	1.5 Good
South Side	K-5	1973	2014, remodel	61,000	17	3 Fair
Northwest Middle	K-5	1961	1993 (2007 remodel)	74,000	21	4 Phase
Christina Hall	K-5	1978	---	106,000	26	1.5 Fair
Steele School	K-5	1912	---	122,000	28	3 Good
Greenwood	PK-5	1912	---	122,000	17	3 Decent
Rayburn High School	9-12	1918	1989	238,000	50	3 Fair
Central High School	9-12	1947	1979	211,000	58	3 Good

**Bristol**

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### Proposing the Plan

AMSLING / POTENTIAL SCHEDULE

LOGIC COMPARISON: OPTION 1 vs. OPTION 4

Category	Option 1	Option 4
Construction	\$100,000,000	\$100,000,000
Equipment	\$10,000,000	\$10,000,000
Professional Fees	\$5,000,000	\$5,000,000
Contingency	\$15,000,000	\$15,000,000
<b>Total</b>	<b>\$130,000,000</b>	<b>\$130,000,000</b>

CIP Forecast: \$56.2 million

Option 4: \$41.5 million

**Bristol**

CIP — eval. of what we need to spend on upkeep over time frame

- Bristol — phase plan of renovation + build
- they are now building a new bldg on a current school site.
- building a centralized pre-K bldg

### Funding and Timelines

- Local governance structures
- Engaging leaders and elected officials
- Education Specifications
  - Submittal and approval process
- Shepherding the work
  - Communication
  - Substantial benchmarks
  - Tours

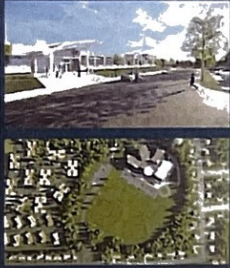
**Bristol**

ED Specs: must stay on target for state \$ reimbursement

Master Plan — long time to gather info to plan, just by cost, regulation  
 3-5 yr process 2018-2023

Proposing the Plan

Item	Description	Quantity	Unit	Price
1	Site Preparation	1	Lot	150,000
2	Foundation	1	Foundation	200,000
3	Structural Steel	1	Structure	300,000
4	Roofing	1	Roof	100,000
5	Interior Finishes	1	Interior	250,000
6	Exterior Finishes	1	Exterior	150,000
7	Site Work	1	Site	50,000
8	Permits	1	Permits	20,000
9	Professional Fees	1	Fees	30,000
10	Contingency	1	Contingency	100,000



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Equity Solved



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Equity Solved



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Equity Solved



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Equity Solved



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IT in from start.

Project mgr divided by district  
separate bldg cont for each  
project

Equity Solved



Thank You!  
Michael Dietter, Ed.D  
Angela Cahill, AIA



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# WOODBRIDGE SCHOOL DISTRICT

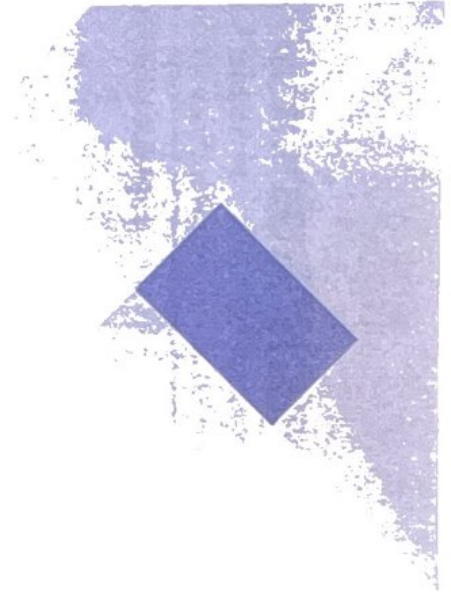
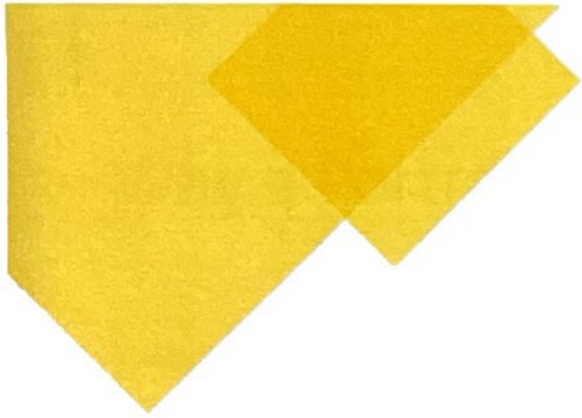
40 Beecher Road - South  
Woodbridge, Connecticut 06525

Jonathan S. Budd, Ph.D. – Superintendent

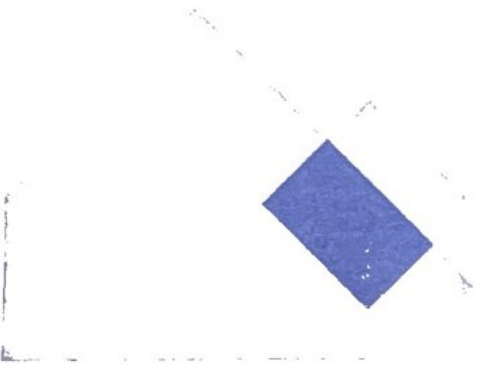
## MEMORANDUM

TO: Woodbridge Board of Education  
FROM: Jonathan S. Budd, Ph.D., Superintendent  
DATE: November 11, 2021  
RE: BOWA Portrait of the Graduate

The Amity Regional School District No. 5 has undertaken a process to develop a "Portrait of the Graduate." This month, the Bethany, Orange, and Woodbridge Superintendents have been asked to present the attached to our respective Boards of Education and to receive feedback to be shared with the Amity District to consider as its process continues.



# BOWA Portrait of the Graduate




# Why a Portrait of the Graduate

- Outlines the skills, knowledge, and dispositions that students across all grade levels should have in order to be ready for the world beyond.
- It is a promise that we make to ALL our students.
- Reflects what the community values for our graduates.






## Both a **Beginning** and an End

- Helps with strategic planning
  - Clarify Vision and Mission Statements
  - Assist in developing district and school goals
  - Drives curricular and pedagogical decision-making
  - Guide budget priorities and decisions
  - Create a cohesive K-12 instructional framework
- 



## Both a Beginning and an **End**

- Aspiration we have for all our learners - ultimately it is the end product that we nurture and develop in our students and for our students.
  - We want to measure benchmarks along the way by identifying when, where, and how we deliberately support students in attaining the Portrait of the Graduate.
  - When our students graduate, we want to know that that have the skills, knowledge, and dispositions of our POG.
- 

# Initial Steps

## **POG EXECUTIVE COMMITTEE**

- Identified an Executive POG Committee
  - 2 MS
  - 2 ARHS
  - Amity Superintendent
- Participated in NEASC Training
- Set Timeline
- Planned Process

## **COMMITMENT OF BOWA SUPERINTENDENTS**

- Presented to BOW Superintendents
- Commitment of BOW parents
- Commitment of BOW staff

# Thank You

*Andrea Drewry*

*Kathy Burke*

*Anna Mahon*

*Miguel Pickering*

*Colleen Murray*

*Dr. Vince Scarpetti*

*Dr. Jonathan Budd*

# Community Surveys

- Administered & received 2,340 surveys and ~14,000 responses
  - ARHS Teachers
  - AMS Teachers
  - Elementary Teachers (BOW)
  - Parents (BOWA)
  - High School Students
  - Middle School Students
  - Business Leaders (Career Day contacts)
  - Post-Secondary Leaders (CT College Contacts)



# Survey Design – Closed & Open Questions; Academic & Social/Emotional Prompts

## Section 2 of 3

What 3 academic skills do you feel students need to be prepared for success when they graduate from high school?

Your response should be a different word or short phrase in each box below

Write one academic skill in the space below \*

Short answer text

Write a second academic skill in the space below. \*

Long answer text

Write a third academic skill in the space below. \*

Long answer text

If you were able to talk to your students when they start their senior year of high school, what are three lasting impacts you would hope they would identify from their time at Amity Middle School?

Description (optional)

Write one lasting impact in the box below \*

Short answer text

Write a second lasting impact in the box below. \*

Long answer text

Write a third lasting impact in the box below. \*

Long answer text

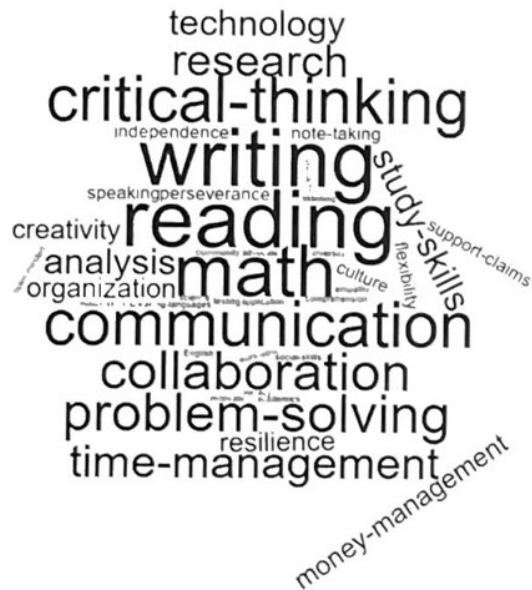
# POG Committee

- Teachers and Administrators
  - From all 4 Districts
- Parents
  - Represented all 3 Towns
  - Represented Elementary, Middle, High Students
- Career and College Contacts
- Board of Education Rep

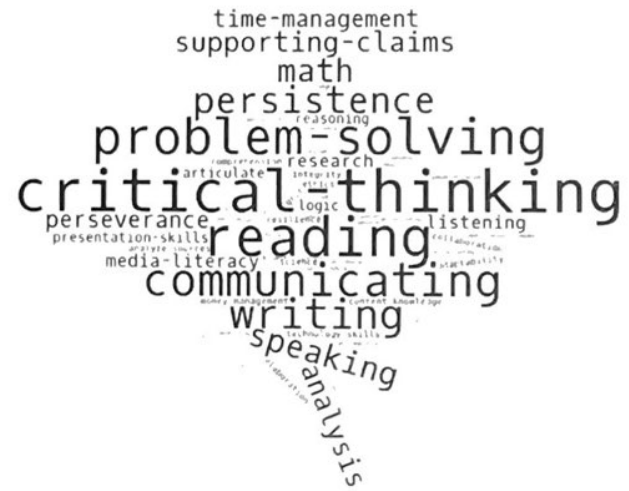


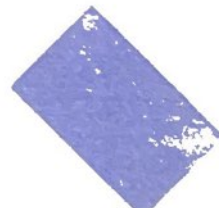
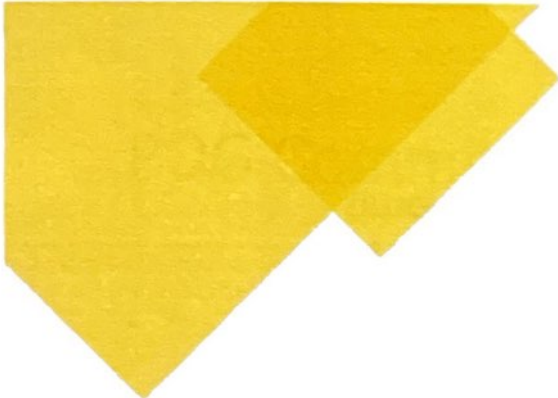
# Wordles – Closed Questions

ACADEMIC 4





ACADEMIC 1





## LOTS of Data Analysis, Discussion, & Revision

**Based on survey results – not  
our own opinions or  
interpretation of the  
categories identified**



# Identify & Define Categories

## ORIGINAL CATEGORIES

PROBLEM SOLVING

ORGANIZATION

INDEPENDENCE

COMMUNICATION

COLLABORATOR

EMPATHY

CHARACTER

SELF-REGULATION

ACADEMIC\*

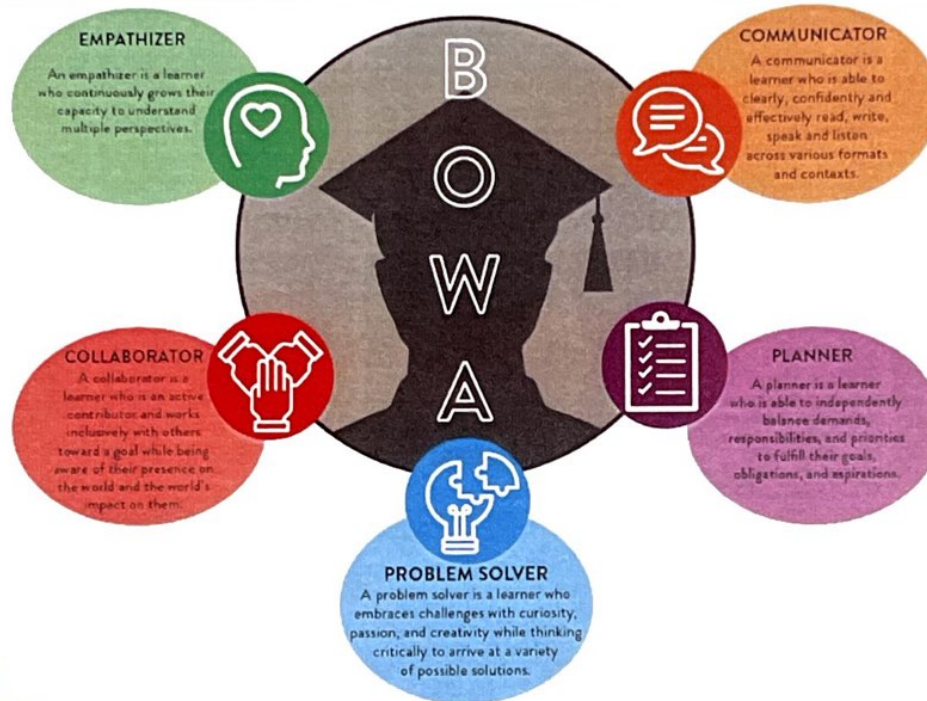
- Used Open Responses to Clarify & Define the Categories
  - Based on survey results – not our own interpretation of the category
- Reduced the number of categories into 5 characteristics

# Thank You

- Angela Mordecai – Bethany/Elementary Parent Rep
- Ann Spoerndle – Orange/Middle School Parent Rep
- Amy McGonagle – Woodbridge/High School Parent Rep
- James Bruni – Bethany Staff Rep
- Evelyn Russo – Orange Staff Rep
- Andrea Drewry – AMSB Staff Rep
- Matt Williams - AMSO Staff Rep
- Bryan Nesteriak – Career/Business Partner Rep
- Maria Mongillo – College/Post-Secondary Rep
- Reidun Wallin – ARHS Staff Rep
- Xia Feng – ARHS Staff Rep
- Wendy Carafiello – ARHS Staff Rep
- Steve DeMaio – BOE Rep
- Jason Tracy – AMSB Administrator
- Jill LaPlante – Amity Director of Counseling

# PORTRAIT OF THE GRADUATE

The BOWA Portrait of the Graduate illustrates a self-aware citizen who, through a determined course of scholastic experiences, displays the following characteristics...



# PORTRAIT OF THE GRADUATE

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## COLLABORATOR

A collaborator is a learner who is an active contributor and works inclusively with others toward a goal while being aware of their presence on the world and the world's impact on them.

- Listens openly to various perspectives
- Self-advocates respectfully for one's own ideas
- Establishes meaningful and appropriate connections
- Recognizes themselves as a steward of a greater community
- Demonstrates humility



## COMMUNICATOR

A communicator is a learner who is able to clearly, confidently and effectively read, write, speak and listen across various formats and contexts.

- Connects and understands their own thoughts, needs, and perspectives as well as those of others
- Engages and empowers others
- Takes an active role when listening and in expressing thoughts and opinions
- Takes risks to have difficult and courageous conversations to communicate divergent perspectives
- Understands their audience and adjusts the message



## EMPATHIZER

An empathizer is a learner who continuously grows their capacity to understand multiple perspectives.

- Acknowledges the feelings of others
- Demonstrates compassion
- Respects differences
- Helps and supports others



## PROBLEM SOLVER

A problem solver is a learner who embraces challenges with curiosity, passion, and creativity while thinking critically to arrive at a variety of possible solutions.

- Observes and ask questions willingly
- Analyzes and synthesizes information
- Perseveres through adversity
- Acknowledges limitations



## PLANNER

A planner is a learner who is able to independently balance demands, responsibilities, and priorities to fulfill their goals, obligations, and aspirations.

- Manages time
- Makes choices that promote their own wellness
- Engages in reflection for individual improvement
- Understands financial responsibility
- Seeks joy and contentment



Thank You

*Lisa Lassen – Data Organization*

*Jessica Zamachaj – Graphic Design Artist*

*Matt Stanley – Graphic Design Artist*



# Next Steps

- Presentation to BOWA Boards of Education
- Presentation to Stakeholder Focus Groups for feedback
  - Elementary, Middle, High Staff
  - Elementary, Middle, High Parents
  - Middle and High School Students
  - Surveys to Post-Secondary Education and Business Leaders
- Refine & Revise based on feedback
- Edit for final draft
- K-12 Vertical Alignment (What does it look like and When do we teach it?)
- Integration into Curriculum (How do we teach it?)
- Assessment (How do we know when students attain it?)



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- Demonstrates compassion
- Respects differences
- Helps and supports others



## PROBLEM SOLVER

A problem solver is a learner who embraces challenges with curiosity, passion, and creativity while thinking critically to arrive at a variety of possible solutions.

- Observes and ask questions willingly
- Analyzes and synthesizes information
- Perseveres through adversity
- Acknowledges limitations



## PLANNER

A planner is a learner who is able to independently balance demands, responsibilities, and priorities to fulfill their goals, obligations, and aspirations.

- Manages time
- Makes choices that promote their own wellness
- Engages in reflection for individual improvement
- Understands financial responsibility
- Seeks joy and contentment

**Town Building Committee for BRS Capital Projects**  
**Thursday, October 13, 2022**

**Meeting Minutes**

The following committee members were present: Sheila McCreven (BOS), Jeff Hughes (WBOE), Donovan Lofters (WBOF). The following were also present: Tony Genovese (Town Administrative Officer and Director of Finance), Lynn Piascyk (WBOE Chairman), and Donna Coonan (WSD Director of Business Services/Operations).

Chairman Sheila McCreven called the meeting to order at 8:33am.

The committee reviewed the status of its updated charge from the Board of Selectmen's meeting 10/12.

The committee's guests introduced themselves.

The committee discussed the project timeline and deadlines for grant applications. A rough emerging timeline includes milestones such as a June 30, 2023 deadline to submit an application for School Construction Grant funding, and a December 2023 timeframe to be informed of potential inclusion on the Priority List for this state funding. Work on the roof might then occur in the Spring/Summer of 2024. Other elements of the committee's projects, such as security upgrades and grounds/water incursion work which may be funded outside the School Construction Grant process may proceed on a faster track.

The committee noted that the pool component of work likely will not qualify for a School Construction Grant and that security upgrades may potentially be covered by other state funding and potential funding from the Federal Communications Commission (FCC) Universal Service Fund's E-Rate Program. The committee asked if the WBOE could investigate if security-related technology could be included in the school's 3-year Technology Plan for the purpose of qualifying for E-Rate funds.

The committee also discussed the need to better understand the curriculum aspect of pool use for the Learn to Swim program and other physical education use, and any recommendations that might be formulated by the WBOE regarding alternate ways to deliver such curriculum.

*JCC partnership  
No Pool*

Tony stepped the committee through the planning process to issue a Request for Proposal (RFP) for professional guidance on the committee's projects. He will send committee members a draft of the required document in advance of its next meeting so it can be discussed in further detail and prepared for action to send to the BOS and BOF for funding consideration.

The committee noted the weather forecast for heavy rain and planned to informally tour the grounds of BRS on Friday, October 14<sup>th</sup> at 7:45am to see the impact in a timely manner. All discussion and potential action on what is seen will occur at the next committee meeting.

The committee discussed potential future meeting agenda items and timing and will request that several documents be distributed to the committee members in advance of its next meeting which will take place Thursday, October 27<sup>th</sup> at 8:30am, in hybrid format.

These requested documents include:

- Weston & Sampson 2022 pool report and link to recording of 10-12-2022 BOS meeting where the report was presented and discussed
- Components of planning documents and reports from the previous BRS Renovation project, circa 2013, relevant to the pool
- Fuss & O'Neil report circa 2011 on BRS grounds and drainage issues

On a motion by Donovan, seconded by Sheila, the committee voted unanimously to adjourn at 9:10am.

## **Agenda**

- I. **Call to Order / WebEx Login**  
<https://woodbridgeps.webex.com/woodbridgeps/j.php?MTID=me20e432e6e7cef9d182dadccce5e71d>  
Meeting number (access code): 2484 288 0722  
Meeting password: 3tJWE2qvEM7  
  
*This meeting is being conducted as a hybrid meeting consistent with Connecticut Public Act 22-3. The public may attend in person at the location indicated above, with social distancing required. The public may also attend electronically via WebEx. The link is provided above.*
- II. **Public Comment - *The Board welcomes public participation. We ask that speakers please limit their comments to three minutes. Please be aware that the Board will not respond to any comments made during the public comment period, except to clarify issues, but we will take into consideration your comments, and when appropriate, district administration will follow-up with you at a later point in time.***
- III. **June 2022 Facilities Report**
- IV. **FY23 WBOE Capital Budget as approved, and other Capital Needs**
  - A. Solar Initiative
- V. **Adjourn**

# Beecher Road School

June 2022

## Facilities Department Monthly Report

CLEAN  
SAFE  
HEALTHY  
SCHOOLS

Vito Esparo

Facilities Manager

Beecher Road School

40 Beecher Road

Woodbridge, CT 06525

Phone: 203-389-2195

Fax: 203-389-2196

### **Completed Projects:**

- On 4/1 a leak was detected from a hose valve servicing the HW loop. A comparable part was in stock at a local vendor. The item was picked up and replaced that evening.
- On 4/7 a failing exterior door closer servicing one of the main K-wing exit doors was replaced.
- In early April a power supply issue on AHU3 servicing the North Gym was detected. Upon inspection on 4/11, blown fuses were observed. After troubleshooting with our controls vendor we tried swapping the malfunctioning TRI50 drive with the TRI50 drive salvaged from our recent AHU6 repair. AHU3 powered up with the salvaged drive and the unit has been online since the drive swap.
- During April break installation of the *Sensory Pathway in Memory of Nicole* was completed.
- Over the week of April 11th, a failing processor board in the elevator servicing the kitchen was replaced.
- On 4/12 the back-up batteries for our fire alarm panel were replaced upon recommendation.
- On 5/14 the HWP4 servicing the micro turbine was replaced. The pump is online.
- Late evening on Tuesday, 5/3, multiple fire alarms were reported in the South school area. Upon investigation a faulty pull station in the pool area was identified. The pull station was replaced that evening. The alarm was back online around 3am on 5/4.
- During May, multiple plumbing issues effecting classroom in S22 were reported. A plumbing back-up in a sanitary line was the culprit. In both cases the line was snaked that evening. We are working with the 5th and 6th grade team to raise awareness about non-flushable items.
- On 5/26 our micro turbine was in alarm. Our service vendor sent a technician that day. As part of our service agreement the repairs and other preventative maintenance from the visit were covered. Parts arrived the following morning and the repair was complete that day.
- During the months of April and May, 78 “fix-it” tickets were closed. This number is not inclusive of time-sensitive maintenance issues reported outside of fix-it. This number is also non-inclusive of the majority of HVAC repairs.

### **Projects in process:**

- Our chiller service vendor is scheduled to be onsite during the week of 5/31/22 to drain the glycol protecting the chiller barrel and put the unit back into service. They seem to be experiencing staffing issues. We are hopeful it will be completed on time.
- We are in the process of preparing for summer cleaning. Supplies including floor stripper and wax will be purchased shortly.
- Test results from our water treatment program for our Dual Temp and Hot Water loops have remained within PH benchmarks. We have held off our May visit until the chiller is online.

### **Outstanding issues to be addressed:**

- Persistent roof leaks above the K-wing and North entrance continue to be monitored.



**FY23 WBOE Capital Budget as Approved, and Other Capital Needs**  
**WBOE Facilities Committee**  
**June 7, 2022**

**FY23 WBOE Capital Budget as Approved**

- Roof Replacement (including architect design fees): \$351,000
  - Phase 1: July-December 2022: Architect selection & design
  - January 2023: Bid
  - Summer 2023: Construction
  
- Flooring Remediation & Replacement: \$125,000
  - Phase 1: June-July 2022: Preparation, sampling, project development, pre-bid meeting
  - Phase 2: Timeline dependent on results and recommendations from Phase 1

**Other Capital Needs**

- Oil Tank Remediation – Phase 1 to be paid from Town’s FY22 contingency; Phase 2 to be paid from BOE’s FY22 operating budget
  - Phase 1: August 2022: Tentative start date for oil tank removal
  - Phase 2: August 2022: Sidewalk replacement (current quote of \$15,487 for 650 sf)
  
- Retrocommissioning – paid from BOE’s FY22 operating budget
  - Completed
  
- Network Wiring – to be paid from ARP ESSER grant
  - Phase 1: July 2022: Design
  - Phase 2: August 2022: Bid
  - Phase 3: September-October 2022: Installation



# WOODBIDGE SCHOOL DISTRICT

40 Beecher Road – South  
Woodbridge, Connecticut 06525

Jonathan S. Budd, Ph.D. – Superintendent

## MEMORANDUM

TO: Woodbridge Board of Education Facilities Committee

FROM: Jonathan S. Budd, Ph.D., Superintendent

DATE: June 2, 2022

RE: June 7 Special Meeting:  
Update on BRS Capital Needs: Solar Initiative

Please find attached information from Richard Huot, Interim Director of Business Services & Operations, in relation to a proposed solar initiative to reduce energy consumption at Beecher Road School. Following discussion at the June 7 Facilities Committee meeting, the initiative will also be discussed at a June meeting of the Board's Finance Committee, for ultimate proposed approval by the Board of Education at its June Regular Meeting.

To: Jonathan Budd, PhD, Superintendent  
From: Richard Huot, Interim Director of Finance and Operations  
Re: Solar Initiative  
Date: May 8, 2022  
CC: Facilities and Finance Committees

Titan Energy, a firm the Town and Board of Education has used for several years to reduce energy consumption, has proposed Woodbridge apply for a solar installation to augment that which has already been installed. Their proposal and energy savings calculation is attached. And am recommending the application be brought forward to the Facilities and Finance Committees for their review and the Board of Education's ultimate approval.

Per Stage 3 of the suggested project timeline (copy attached), I have submitted an initial application through Titan to Greenskies Clean Energy. The proposal has significant advantages:

1. It is a power purchase agreement which means there is no investment, but provides for the purchase per kWh at \$0.0403 cents. We are currently paying through UI for delivery and generation \$0.2263/kWh.
2. Given the output of the proposed new solar array, that is a total savings of \$71,488 annually. This is a different amount than shown in the proposal because the proposal does not take into account the savings in the cost of generation.
3. With the completion of this project, nearly all of the electric usage at Beecher Road School will be provided by renewal energy.
4. The new solar panels would not be installed until the roof replacement project is completed, which will likely be the summer of 2023.

In my experience, this proposal is very exciting as the lowest cost per kWh experienced was \$0.08, and the savings can be accrued without negatively impacting instruction.

Let me know if there is any other information you would like provided on this topic.



# Solar Development Proposal

Woodbridge School District

March 7<sup>th</sup> 2022



# Onsite Generation Consulting

STEP 1



**Utility Bill Review**

Discovering project feasibility requires a thorough review of utility data to guide all future action

STEP 2



**Building Audit**

Each facility is unique, so we take the time to uncover every important detail before a proposal is created for the client

STEP 3



**Proposal Delivery**

Whether it's one proposal or many, we walk our clients through the options that best suit their energy management needs

STEP 4



**Project Implementation**

The road from proposal to finished product can have many twists and turns; we'll be your guide along the way

STEP 5



**Measurement & Verification**

Peace of mind comes from knowing your project is performing as intended, once commissioned we provide reports on production and savings

## Project Overview

- The Town of Woodbridge and Titan Energy have worked together since 2009 on issues related to energy management and procurement.
- Titan has identified a very attractive solar project for the Beecher Road School and contacted Greenskies to obtain pricing for this project opportunity.
- Greenskies has put together the attached design and pricing for the Town and Board of Education's consideration.
- Greenskies and Titan have co-developed a number of municipal solar projects, including Region 15.
- The current incentive mechanism for this project, called the Non-Residential Energy Solutions (NRES) program, is currently accepting applications until **March 14<sup>th</sup>**.

SYSTEM INFORMATION	
SYSTEM SIZE (DC)	270 kW
SYSTEM SIZE (AC)	200 kW
PANEL SIZE	450W MT72-1506A 450WP
PANEL QUANTITY	600
PANEL TILT	5°
PANEL AZIMUTH	27°
ROW SPACING	6.9'
INVERTER SIZE	(1) CANADIAN SOLAR 100K
ESTIMATED ANNUAL PRODUCTION	315.0 MWh

\*Preliminary equipment selection, equivalent alternative may be used in actual installation



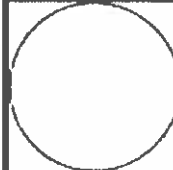
RACKING CROSS-SECTION  
(NOT TO SCALE)



PROGRESS SET  
NOT FOR CONSTRUCTION

PV.01

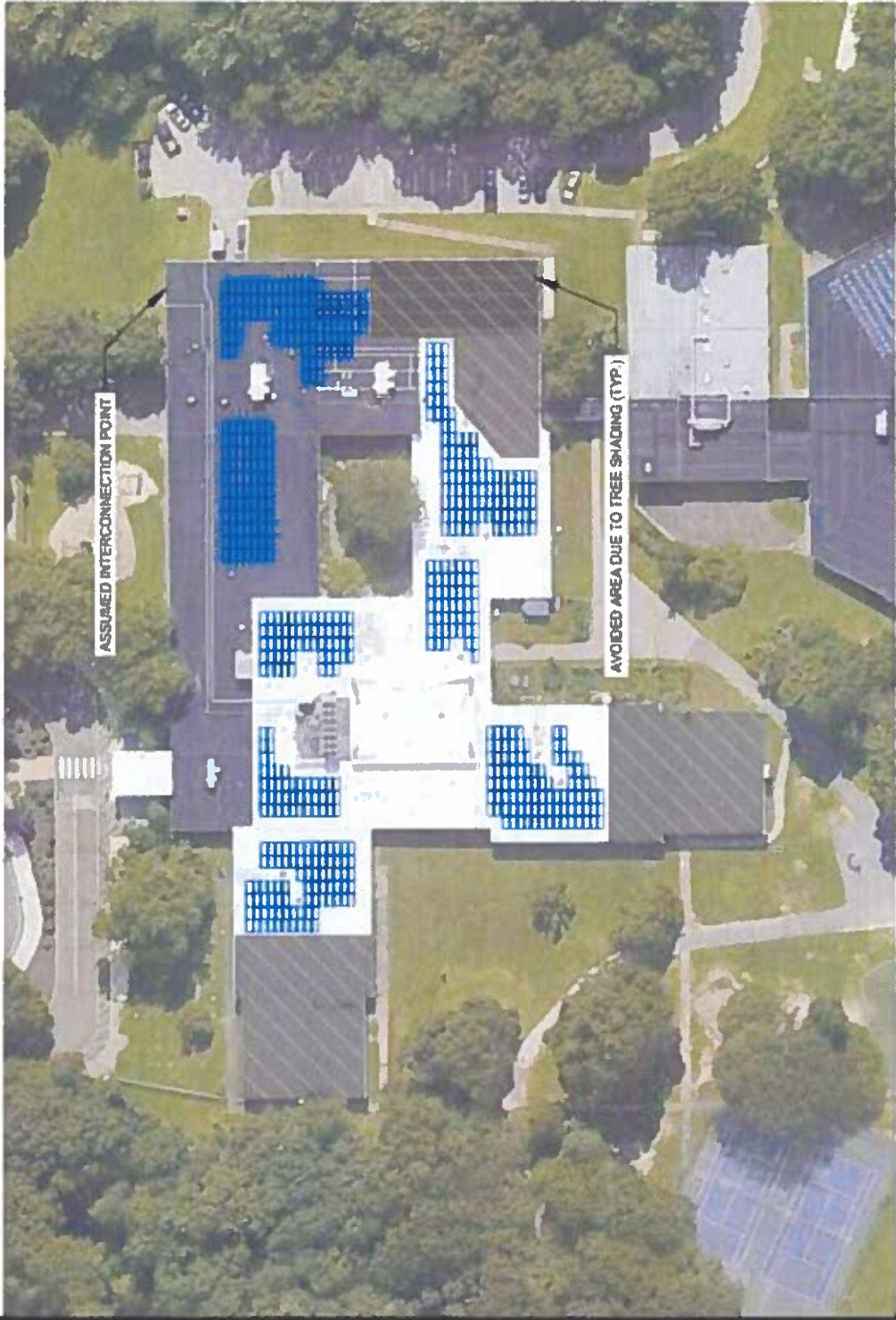
BATCH NO	PROPOSAL
DRAWN BY	ZS
SCALE	AS NOTED
DATE	23 FEB 2022



**PROPOSED SITE PLAN**  
BEECHER ROAD ELEMENTARY SCHOOL  
PV SOLAR ARRAY  
40 BEECHER RD  
WOODBIDGE, CT 06525

REVISIONS		DESCRIPTION
NO.	DATE	

**Greenskies**  
177 Washington Street  
North Haven, CT 06473  
PH - 860.398.6409  
FAX - 860.398.6423



# SOLAR SAVINGS DASHBOARD

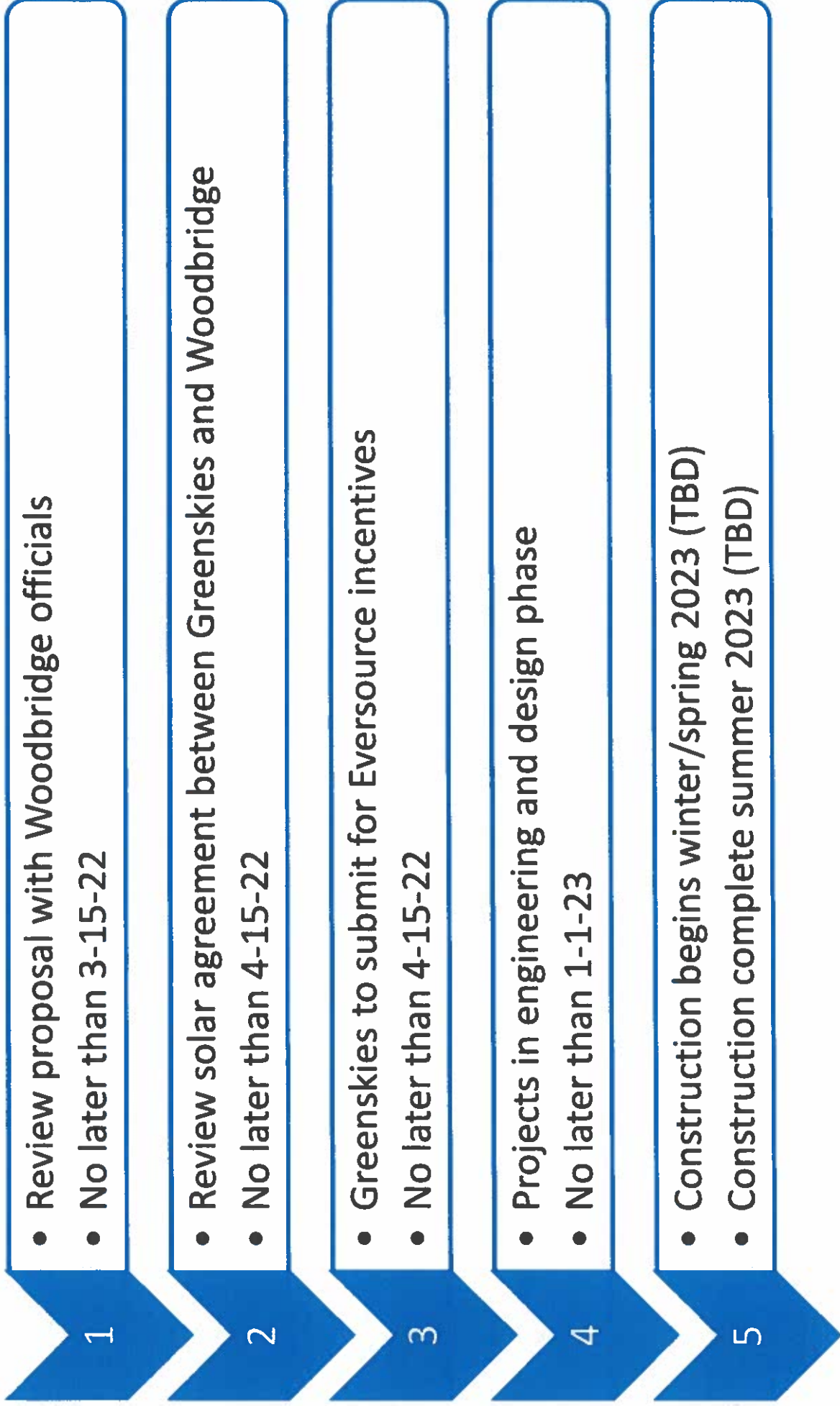
Year	Solar production	Eversource \$/kWh	Solar \$/kWh	Annual Savings	Total Savings
1	315,898	\$.1450	\$.0403	\$33,074.52	\$33,075
2	314,319	\$.1479	\$.0403	\$33,820.67	\$66,895
3	312,747	\$.1509	\$.0403	\$34,576.67	\$101,472
4	311,183	\$.1539	\$.0403	\$35,342.68	\$136,815
5	309,627	\$.1570	\$.0403	\$36,118.85	\$172,933
6	308,079	\$.1601	\$.0403	\$36,905.33	\$209,839
7	306,539	\$.1633	\$.0403	\$37,702.29	\$247,541
8	305,006	\$.1666	\$.0403	\$38,509.89	\$286,051
9	303,481	\$.1699	\$.0403	\$39,328.29	\$325,379
10	301,964	\$.1733	\$.0403	\$40,157.66	\$365,537
11	300,454	\$.1768	\$.0403	\$40,998.18	\$406,535
12	298,952	\$.1803	\$.0403	\$41,850.01	\$448,385
13	297,457	\$.1839	\$.0403	\$42,713.32	\$491,098
14	295,969	\$.1876	\$.0403	\$43,588.30	\$534,687
15	294,490	\$.1913	\$.0403	\$44,475.13	\$579,162
16	293,017	\$.1952	\$.0403	\$45,373.98	\$624,536
17	291,552	\$.1991	\$.0403	\$46,285.04	\$670,821
18	290,094	\$.2030	\$.0403	\$47,208.50	\$718,029
19	288,644	\$.2071	\$.0403	\$48,144.56	\$766,174
20	287,201	\$.2112	\$.0403	\$49,093.39	\$815,267
<b>Total</b>	<b>6,026,672</b>				<b>\$815,267</b>

**270 kW DC**  
Rooftop Solar System

**315,898**  
Kilowatt-hours

**\$33,075**  
Year-1 Savings

**\$815,267**  
Cumulative Savings



## **Agenda**

- I. **Call to Order / WebEx Login**  
**<https://woodbridgeps.webex.com/woodbridgeps/j.php?MTID=m7e5c7b85f650ae8166736400ce268ab6>**  
**Meeting number (access code): 2499 339 9492**  
**Meeting password: PKqbZwdm233**  
  
*This meeting is being conducted as a hybrid meeting consistent with Sections 149-153 of Connecticut Public Act 21-2. The public may attend in person at the location indicated above, with social distancing required. The public may also attend electronically via WebEx. The link is provided above.*
- II. **Public Comment - *The Board welcomes public participation. We ask that speakers please limit their comments to three minutes. Please be aware that the Board will not respond to any comments made during the public comment period, except to clarify issues, but we will take into consideration your comments, and when appropriate, district administration will follow-up with you at a later point in time.***
- III. **April 2022 Facilities Report**
- IV. **Update on BRS Capital Needs**
  - A. **Retro-Commissioning Report**
- V. **Adjourn**

# Beecher Road School

April 2022

## Facilities Department Monthly Report

CLEAN  
SAFE  
HEALTHY  
SCHOOLS

Vito Esparo

Facilities Manager

Beecher Road School

40 Beecher Road

Woodbridge, CT 06525

Phone: 203-389-2195

Fax: 203-389-2196

Beecher Road School



### **Completed Projects:**

- During the month of February all 3 AERCO boilers received a software update to solve a persistent temperature reading fluctuation problem. This issue caused the boilers to go into alarm on colder days. The upgrades were completed and the issue has not returned.
- Over the last 2 months Schneider Valves actuators were replaced in classrooms D3/B1/B14. All spaces exhibited unusually high discharge air temperatures. All 3 replacements were completed immediately with parts in stock. More actuators are on order to replenish our stock.
- Our final water bottle filling station installation was completed at the bottom of the south entrance ramps. The original station was defective. The manufacturer was alerted to the issue and sent a replacement station.
- On 3/2 a broken window was reported on the south side of the science room greenhouse. The broken glass was removed and the window was replaced that day.
- On 3/15 the VFD for AHU1 began displaying several different voltage faults. Our controls vendor was onsite that afternoon to investigate the source of the faults. The faults were identified and corrected. On 3/21 the scheduled replacement for the VFD was a success and the unit has not gone into alarm since. The old VFD is being stored onsite.
- In early March a persistent sink drainage issue in the south teacher's room resurfaced. The original metal plumbing was brittle upon removal to investigate the blockage. The plumbing was rebuilt that evening. The issue has not resurfaced.
- During the months of February and March, 71 "fix-it" tickets were closed. This number is not inclusive of time-sensitive maintenance issues reported outside of fix-it. This number is also non-inclusive of the majority of HVAC repairs.

### **Projects in process:**

- The installation of a *Sensory Pathway in Memory of Nicole* is scheduled to begin over spring break.
- Over the week of April 11th we are tentatively scheduled to replace a failing processor board in the elevator servicing the kitchen. We are awaiting confirmation on the arrival of parts.
- In late January a leak was observed on HWP4 servicing the micro turbine. It was determined the pump needs replacement. HWP4 has been taken offline and HWP3 will be supporting the micro turbine until the repair is complete. Parts have been ordered. We are hoping for an April replacement. The lead time on the pump was 12 weeks slating arrival for mid/late April.
- Test results from our water treatment program for our Dual Temp and Hot Water loops have remained within PH benchmarks. We are currently investigating an unexplained nitrite levels in both loops. Multiple Bacteria tests have come back negative.

### **Outstanding issues to be addressed:**

- Persistent roof leaks above the K-wing and North entrance continue to be monitored.



# **RetroCommissioning**

**for**

**Beecher Road Elementary School  
40 Beecher Road - South  
Woodbridge, CT 06525**

**Prepared for:**

Jonathan S. Budd

Superintendent

Woodbridge School District

**Prepared by:**

van Zelm Heywood & Shadford, Inc.

10 Talcott Notch Road

Farmington, CT 06032

**Date:**

February 23, 2022

Van Zelm Project #: 2018137.03





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Appendix A - Air Flow Schedule	



## Executive Summary

In June of 2021, van Zelm Heywood & Shadford, Inc. (van Zelm) was hired to provide Engineering Consultation Services for evaluating the HVAC equipment and measuring airflows for the non-classroom areas of the school.

van Zelm performed site visits and system testing in both the cooling and heating seasons.

### Scope of Work

The scope of work included the following HVAC systems:

Air Handling Units (AHU 1 thru AHU 6)

Rooftop Units (RTU 1 thru RTU 5)

VAV Boxes associated with RTU 2 & RTU 5

Fan Coil Units (PTAC units 1 thru 4) District Office Area

Central Heating Equipment

Central Cooling Equipment

### Work Performed

Work performed included:

1. Initial review of HVAC System
  - a. Review plans and specs to become familiar with the Engineers original design intent.
  - b. Review Testing, Adjusting and Balancing (TAB) Report.
  - c. Perform review of Building Automation System as-built drawings, points list, sequences of operations, etc.
2. HVAC System Site Evaluation
  - a. Conduct field visits to review the actual installation of the HVAC systems.
  - b. Review operation of the HVAC System via BAS and field observation.
  - c. Met with Facilities Personnel to discuss any ongoing comfort issues.
3. Functional Performance Testing
  - a. The HVAC Systems were tested in the cooling and heating seasons and issues or deficiencies were documented.

#### 4. Reporting/Implementation

- a. Included findings and recommendations based on our investigation.
- b. We will provide a summary of any work performed related to the implementation of corrective measures.
- c. Met with School personnel to present final report and review options for next steps.

### Statement of Findings

The temperatures are generally being controlled close to the temperature setpoints without problems.

Relative humidity is higher than desired which has been typical for this building.

Based on the scheduled values found in the design documentation, the outside air ventilation volumes are lower than design.

There are many opportunities to improve the operation and efficiency of the rooftop and air handling units. Deficiencies we found are indicated in the Functional Test portion of this report.

The HVAC unit sequence of operations appears to differ from the sequence of operations found in the Building Automation Drawings. We tested the units based on the current operating conditions. The current sequence needs to be confirmed and updated.

The Honeywell Building Automation System had issues throughout this project which limited our ability to use it. We were able to perform our testing using a borrowed school laptop which allowed us to perform the work, seasonally, as needed but we could not monitor the system remotely as we had planned.

The Honeywell JACE has since been relaced and the system performs much better but we were unable to utilize the new functionality during the course of the project.

### Reporting/Implementation

We met with the Facility Director and the BAS contractor to discuss the deficiencies on February 8, 2022. The issues were explained and discussed at this meeting.

## Functional Testing Results

### AHU 1

#### Music

9-28-2021

OAT 69.1°F

OA RH 73.9%

Chilled Water Setpoint is 46°F

	Room T	Room RH	RAT RH	DP	SAT	RAT
BAS	71.8°F	None	32.4%	None	72.6°F	73.4°F
Measured	69.7°F	70.2%	None	60.6°F	70.1°F	69.5°F

Setpoints Cooling/Heating 72°F/72°F

Room is controlling to 72°F as measured by BAS temperature sensor.

Occupied cooling and heating setpoints are both 72°F.

Room smells musty.

This should be rechecked when unit is operating correctly.

Relative Humidity high.

This should be rechecked when unit is operating correctly.

Measured total airflow and outside air volume is well below the scheduled values. See the Appendix A Air Flow Schedule.

The supply and return fans should be checked. The fan operation should be corrected and the damper set to provide the required air flow.

Demand Controlled Ventilation (DCV) is not part of the provided sequence but the unit is operating with a DCV program. Unable to see setpoints.

The setpoints should be determined and all associated points displayed on the graphic.

Outside air damper minimum position setpoint is 10% and the CO2 level is 411 PPM but the damper is open beyond minimum at 28% for some reason. The DCV CO2 setpoint is not shown on the graphic.

The damper program should be investigated and corrected.

Blew on the CO2 sensor. The CO2 reading increased, the damper position increased, the chilled water valve position increased, the discharge air temperature decreased. The DCV response was good.

The sequence calls for comparative enthalpy. A dry bulb changeover setpoint of 68°F is shown on the graphic. Lowered the setpoint to 60°F with the outside air temperature at 68.9°F. The damper remained at 28%. This is an issue.

The sequence should be verified and confirmed to be operating. The setpoints and associated points should be displayed on the graphic.

**AHU 1**

**Music**

12-28-2021

OAT 44.3°F

OA RH 72.7%

HWST is 146°F

	Room T	Room RH	RAT RH	DP	SAT	RAT
BAS	68.3°F	None	12%	None	112°F	79°F
Measured	68.5°F	29.3%	None	35.3°F	107°F	69.5°F

Setpoints Cooling/Heating 72°F/68°F

RH sensor low

Sensor should be calibrated or replaced

Room at setpoint

Heating valve 100%

Damper at 28%

CO2 not changing when blowing on sensor DCV not changing damper position.

Sensor should be checked and replaced in needed.

Changed economizer changeover setpoint no response.

Occupied cooling setpoint is 72°F. Occupied heating setpoint is 68°F.

Room is controlling to the occupied heating setpoint.

**AHU 4**  
**Auditorium**  
9-28-2021

OAT 68.9°F  
OA RH 74.8%  
Chilled Water Setpoint is 46°F

	Room T	Room RH	RAT RH	DP	SAT	RAT
BAS	71.1°F	None	32.4%	None	69.5°F	72.8°F
Measured	72.1°F	76.7%	None	62.7°F	69.4°F	69.5°F

Setpoints Cooling/Heating 72°F/70°F

Outside air volume is below scheduled air volume. See Appendix A Air Flow Schedule.  
The fan speed and damper position should be set for the required volume of outside air.  
Supply fan has a VFD. 100% is 69.9 Hz.

Return fan is constant volume.

There is no way to balance or control outside air under this scenario.

This is a mechanical deficiency. Further engineering/design work would be required but the return fan should be modified to variable speed and set up to track the supply fan.

Relative Humidity high

This should be checked when unit is operating correctly.

Setpoint page on graphic wont display. Can't change anything.

This should be corrected.

Damper at minimum position of 20%.

No economizer or DCV screen.

All associated setpoints and points should be displayed on the graphic.

Graphic has separate summer/winter SAT setpoints. Not sure how they are controlled.

Controlling to summer setpoint. No mode displayed.

All associated setpoints and points should be displayed on the graphic.

**AHU 4**  
**Auditorium**  
12-28-2021

OAT 44.3°F  
OA RH 72.7%  
HWST is 146°F

	Room T	Room RH	RAT RH	DP	SAT	RAT
BAS	68.6°F	None	12%	None	79.8°F	70.8°F
Measured	69.4°F	31.7%	None	38.1°F	74.5°F	

Setpoints Cooling/Heating 74°F/68°F

Unit is controlling to heating setpoint.

Blew on the CO2 sensor. The CO2 reading increased, the damper position increased, the discharge air temperature decreased, the heating valve responded by opening. The DCV response was good.

**AHU 2**  
**North Gym**  
8-17-2021

OAT 77.2°F  
OA RH 67.7%  
CHWST 45°F

Setpoints Cooling/Heating 72°F/68°F  
The room temperature was 71.7°F with a setpoint of 72°F

Measured total airflow and outside air volume is well below the scheduled values. See the Appendix A Air Flow Schedule. There is zero to negative outside air at the present settings.

The fan speed was overridden to 65%.  
We found a note in the TAB report dated 11-1-2016 that the school requested the gym units be turned down to 60 Hz due to extreme noise. They had been tested at 77 Hz.

The fan speed and proper damper position should be set correctly to achieve the required outside air volume.

The outside air damper was 100% open on a warm and humid day (65.7°F Dewpoint).  
The chilled water valve was 100% open.  
The economizer programming should be checked and corrected. All associated setpoints and points should be displayed on the graphic.

The CO2 sensor was incorrectly reading -226 PPM  
The sensor should be investigated and corrected.

No response from economizer changeover setpoint. Not sure how economizer is programmed.  
No DCV setpoints.  
The economizer and demand controlled ventilation programming should be verified and corrected as needed. All associated setpoints and points should be displayed on the graphic.

The exhaust fans were not operating per the sequence of operations. Unable to find exhaust fan logic.  
The exhaust fans and the controls need to be investigated and corrected. All associated setpoints and points should be displayed on the graphic.

**AHU 2**  
**North Gym**  
12-28-2021

OAT 51.2°F  
OA RH 61.8%  
HWST 146°F

Setpoints Cooling/Heating 72°F/69°F  
Controlling to room setpoint of 69°F

CO2 sensor reading negative value  
Outside air damper at 24%  
No response to economizer changeover setpoint.  
Heating valve is at 100% with a discharge air temperature of 102°F

Note: AHU 2 & AHU 3 both serve the same Gym

**AHU 3**  
**North Gym**  
8-17-2021

OAT 77.2°F  
OA RH 67.7%  
CHWST 45°F

Setpoints Cooling/Heating 72°F/68°F  
The room temperature was 71.7°F with a setpoint of 72°F

Measured total airflow and outside air volume is well below the scheduled values. See the Appendix A Air Flow Schedule. There is zero to negative outside air at the present settings.

The fan speed was overridden to 25%.

We found a note in the TAB report dated 11-1-2016 that the school requested the gym units be turned down to 60 Hz due to extreme noise. They had been tested at 77 Hz.

The fan speed and proper damper position should be set correctly to achieve the required outside air volume.

The outside air damper was 100% open on a warm and humid day (65.7°F Dewpoint).

The chilled water valve was 100% open.

The economizer programming should be checked and corrected. All associated setpoints and points should be displayed on the graphic.

The CO2 sensor was incorrectly reading -226 PPM  
The sensor should be investigated and corrected.

No response from economizer changeover setpoint. Not sure how economizer is programmed.  
No DCV setpoints.

The economizer and demand controlled ventilation programming should be verified and corrected as needed. All associated setpoints and points should be displayed on the graphic.

The exhaust fans were not operating per the sequence of operations. Unable to find exhaust fan logic. The exhaust fans and the controls need to be investigated and corrected. All associated setpoints and points should be displayed on the graphic.

**AHU 3**  
**North Gym**  
12-28-2021

OAT 51.2°F  
OA RH 61.8%  
HWST 146°F

Setpoints Cooling/Heating 72°F/69°F  
Controlling to room setpoint of 69°F

CO2 sensor reading a negative value  
Controlling to room temperature setpoint of 69°F.  
Heating valve is at 0% with a discharge air temperature of 71.4°F

Note: AHU 2 and AHU 3 both serve the same North Gym.  
The units should be set up to operate in similar fashion. Having one unit supply 102°F air and the other 71.4°F air is not efficient. Unable to see programming to determine how units are controlled.

**AHU 5**  
**South Gym & Locker Rooms**  
8-17-2021

OAT 77.2°F  
OA RH 67.7%  
CHWST 45°F

This unit serves three zones. There is a duct mounted reheat coil for each zone.

Measured outside air volume is well below the scheduled values. See the Appendix A Air Flow Schedule.

The supply fan is variable speed but the return fan is constant volume.  
There is no good way to control the outside air volume.  
There is no way to balance or control outside air under this scenario.  
This is a mechanical deficiency. Further engineering/design work would be required but the return fan should be modified to variable speed and set up to track the supply fan.

The supply air was close to the scheduled value but the outside air volume was nowhere near the scheduled value. See Appendix A Air Flow Schedule.

Outside air damper was fully closed at 20%. The relief damper was open.  
The dampers should be checked mechanically and the programming verified.

Unit discharge air temperature setpoint was 55°F with a 57.6°F discharge air temperature.  
The unit serves multiple zones.

The Gym setpoint was 70°F. The temperature was 69.5°F with the relative humidity at 71.3% which is high.

The Boys Locker Room setpoint was 70°F. The temperature was 73.3°F with the relative humidity at 57.6%

The Girls Locker Room setpoint was 70°F. The temperature was 74°F with the relative humidity at 58.6%

All three zones had the reheat heating valves opening, raising the discharge air temperature up to 100°F

Not sure how these areas are programmed. Better control of supply air temperature should be looked into to prevent simultaneous heating and cooling.

Summer and Winter supply air temperature setpoints were both 55°F.

The supply air did not appear to be reset, the fan speed remained constant.

Not sure how the supply air temperature, dampers are fan speed are controlled.  
All setpoints and associated points should be displayed on the graphic.  
There was a BAS communication issue with the system which made monitoring difficult at times.  
This has since been corrected.

**AHU 5**  
**South Gym & Locker Rooms**  
 12-28-2021

OAT 43.4°F  
 OA RH 74%  
 HWST 146°F

	Room T	Room RH	RAT RH	DP	SAT	RAT
BAS	70.4°F	None	33.5%	None	69.8°F	73.5°F
Measured	70.5°F	31.5%	None	38.9°F	69.5°F	70.1°F

The Gym temperature was controlling to the 70°F setpoint. The locker rooms were both above the 70°F setpoint with the reheat valves closed.

The discharge air temperature was 72.5°F. The winter setpoint was 55°F and the summer setpoint was 70°F. Perhaps this is an error on the graphic. It is unknown how the unit is programmed.

The mixed air and supply air temperatures were both high. The dampers were at 20% and the heating valve was closed.

Blew on CO2 sensor and damper opened beyond minimum. MAT decreased to 59°F and the damper returned to minimum. The damper then opened again to 100% with the MAT at 56°F. The MAT then went to 50°F at 86% with the SAT at 54°F.

At a SAT of 50°F, the heating valve started to open and the damper returned to minimum.

Unsure what the DCV setpoints are.  
 Unsure about the economizer enable setpoint/logic

**AHU 6**  
**Multi-Purpose Room**  
 8-17-2021

OAT 78.9°F  
 OA RH 59.4%  
 CHWST 45°F

Setpoints Cooling/Heating 72°F/69°F  
 The room is controlling to the setpoint of 72°F.

Lowered setpoint from 72°F to 68°F and confirmed chilled water valve opened.  
 SAT went down to 52.3°F.  
 OAD remained at 25%

The CO2 sensor is reading a negative value.  
 The sensor should be investigated and the problem corrected.

12-28-2021

OAT 48.9°F  
 OA RH 66.8%  
 HWST 146°F

	Room T	Room RH	RAT RH	DP	SAT	RAT
BAS	70°F	None	28.4%	None	58.8°F	74°F
Measured	68°F	26.7%	None	38.9°F	62°F	68°F

Setpoints Cooling/Heating 72°F/70°F  
 The room is controlling to the setpoint of 70°F

The economizer did not respond to a change of the setpoint.  
 The economizer controls should be investigated and corrected as needed. All setpoints and associated points should be displayed on the graphic.

Access to this unit is limited and the airflow measurements were not obtained.  
 Airflows should be measured and set correctly during the implementation phase.

**RTU 1**  
**District Offices**  
9-28-2021

OAT 69.7°F  
OA RH 72%  
CHWST 45°F

The unit is controlling to the occupied cooling setpoint of 74°F.  
The relative humidity was 60.3%.

Measured total airflow and outside air volume is below the scheduled values. See the Appendix A Air Flow Schedule. There is zero to negative outside air at the present settings.  
The fan speed and damper should be investigated and set to achieve the required airflow values.

The damper was at minimum of 15%, the cooling valve was open 64% and the SAT was 66.4°F.

This unit has the heating and cooling coils mis piped. The chilled water is piped the hot water coil and the hot water is piped to the chilled water coil. Improved cooling and dehumidification could be achieved by correcting this. Before any piping changes are made, recommend trying only a control change first by rewiring the valve control signals.

12-28-2021

OAT 49.7°F  
OA RH 66.3%  
HWST 148°F

Room temperature of 70.8°F is above the setpoint of 68°F.  
The heating valve is at 0% and the DAT is 67.5°F  
The damper is at the minimum position of 15%.

Not sure about economizer enable. Not shown on graphic.  
Unable to change the CO2 setpoint.

The damper controls should be investigated and corrected as needed. All setpoints and associated points should be displayed on the graphic.

**Fan Coil Units**  
**District Offices**  
 9-28-2021

OAT 68.2°F  
 OA RH 79.5%  
 CHWST 45°F

There are four PTAC units (Packaged Terminal Air Conditioner) in this area which serve the Superintendent Office, Superintendent Secretary, Kitchenette and Business Manager Office (Recreational Director).

The units have very small two position outside air dampers. The outside air flow is not able to be measured.

There are wall thermostats for each unit.  
 Found the Business Manager thermostat set up for French.

The Relative Humidity was high.  
 Raising the cooling setpoints may help with the humidity.  
 Operating on low fan speed, if possible, will also help with dehumidification.

PTAC	Temp	RH%	HTG/CLG	Clg SP	HTG SP	Fan
Superintendent	70.1°F	74%	Off	71°F	68°F	On
Secretary	72.3°F	66%	Off	77°F	74°F	On
Kitchenette	70.3°F	75%	Cooling	70°F	67°F	On
Business Mgr.	73.5°F	55%	Off	73°F	70°F	On

**RTU 3**  
**Cafeteria**  
 9-28-2021

OAT 69.4°F  
 OA RH 73.6%  
 CHWST 45°F

	Room T	Room RH	RAT RH	DP	SAT
BAS	71.7°F	None			70.2°F
Measured	71.3°F	74.8%	None	62.9°F	69.9°F

Setpoints Cooling/Heating 74°F/68°F

Measured total airflow and outside air volume is below the scheduled values. See the Appendix A Air Flow Schedule.

The fan speed and dampers should be investigated and set to provide the required airflow.

The Relative humidity is high.

This should be rechecked after corrections are made.

The room cooling setpoint was 74°F but the cooling discharge air temperature setpoint was 70°F so the space was overcooling to 71°F.

The setpoint should be better coordinated with the load in the room to minimize overcooling.

The SAT was 69°F with the cooling valve at 19% open.

The damper was at the minimum setpoint of 25%.

Not sure how the economizer is controlled.

The damper controls should be verified. All setpoints and associated points should be displayed on the graphic.

Lowered room setpoint from 74°F to 70°F. The SAT setpoint went to 55°F and the cooling valve opened. The SAT was under 60°F.

**RTU 3**

**Cafeteria**

12-28-2021

OAT 50.7°F

OA RH 64%

HWST 145°F

	Room T	Room RH	RAT RH	DP	SAT	RAT
BAS	70°F				64.9°F	69.3
Measured	68°F				65°F	66.7

Setpoints Cooling/Heating 74°F/68°F

Room controlling to the room temperature setpoint of 68°F.

DAT setpoint was 69.6°F and the DAT was 69°F.

The heating valve was open 8.26%.

Raised heating setpoint from 68°F to 70°F, perimeter baseboard radiation valve opened. (Not on graphic)

Not sure about economizer enable.

**RTU 4**  
**Library**  
 9-28-2021

OAT 69.4°F  
 OA RH 73.6%  
 CHWST 45°F

	Room T	Room RH	RAT RH	DP	SAT	SAT SP
BAS	71.3°F	None			66.6°F	67.4°F
Measured	70.5°F	68.5%		60°F	66.6°F	

Setpoints Cooling/Heating 72°F/70°F  
 Room controlling to setpoint.

Measured total airflow and outside air volume is below the scheduled values. See the Appendix A Air Flow Schedule.

Fan speed and damper position should be investigated and set to provide the required airflows.

Not sure about economizer control

The damper control should be investigated and corrected as needed. All setpoints and associated points should be displayed on the graphic.

12-28-2021

OAT 69.4°F  
 OA RH 73.6%  
 HWST 145°F

This system has two hot water duct coils. It is unknown what controls the heating valves for these coils. There is only one visible temperature sensor in the interior of the library. The coils serve the perimeter on the east exposure. There is one for the south east and one for the north east. The valves are active and seem to modulate from the same signal.

Control of the coils should be confirmed. All associated points should be displayed on the graphic.

Room temperature at BAS sensor controlling to setpoint but measured temperature was about 3°F cooler. Sensor calibration should be investigated.

Discharge air temperature of 72°F was higher than the setpoint of 67°F.

CO2 setpoint change had no effect.

Not sure of economizer control.

The damper control should be investigated and corrected as needed. All setpoints and associated points should be displayed on the graphic.

**RTU 5**  
**Tech Center**

This is a VAV system with three VAV boxes serving the Tech office, computer lab north and computer lab south. The VAVs are standard shutoff boxes with hot water reheat coils.

The VAV airflow setpoints are not consistent with the scheduled values. In some cases, they are set considerably below the scheduled values. See Appendix A - Air Flow Schedule

Measured total airflow is below the scheduled values but is higher than the connected load of the system. The measured outside air volume is higher than the scheduled outside air volume. See the Appendix A - Air Flow Schedule.

The required outside air volume should be confirmed for this system. The VAV setpoints are below what was scheduled. It is not known why this was done but it may have been an effort to increase the dehumidification in these rooms. Once the required volume of outside air is determined and implemented, the most effective VAV airflow setpoints should be confirmed by adjusting and monitoring the temperature and relative humidity.

9-28-2021

OAT 69.4°F  
OA RH 73.7%  
CHWST 45°F

RTU static pressure is at the setpoint of 1" with a fan speed of 60.5%.  
Supply air temperature is 61.7°F with a setpoint of 61.8°F and the chilled water valve at 51.6%.  
Damper is at minimum position of 25%.

There is space CO2 shown on the graphic. What does this represent? Return Air? VAV values?  
There is space temperature shown on the graphic. What does this represent? Return Air? VAV values?  
How is the RTU controlled? Does it look at the VAVs?  
Is it controlled like a VAV unit or a zoned system?  
The method of control for this unit needs to be confirmed defined on the graphic.

Lowered occupied cooling setpoint from 71°F to 70°F. Calculated SAT setpoint dropped to 55°F, the chilled water valve opened and the supply air temperature dropped.

Adjusted CO2 setpoint. No response.  
Unsure of economizer control.  
The damper controls need to be verified and corrected as needed. All associated points should be displayed on the graphic.

**RTU 5  
Tech Center**

VAV Boxes	Room T	Room Setpoint	CF M	CFM Setpoint	Damper	Box Mode	Reheat Valve
5-3 North Lab	70.9°F	71°F	355	349	100%	Heat	100%
5-2 South Lab	71.3°F	71°F	84	350	100%	Heat	100%
5-1 Office	71.1°F	71°F	50	51	13.3%	Cool	0%

VAV temperatures are controlling to setpoint.

5-2 CFM low

5-2 CFM setpoint is at Cooling Max of 350 and not heating CFM of 300

VAV operation needs to be investigated.

VAVs have no discharge air temperature sensors.

12-28-2021

OAT 50.7°F

OA RH 62.9%

CHWST 145°F

RTU static pressure is at the setpoint of 1" with a fan speed of 59.5%.

Supply air temperature is 61.2°F with a setpoint of 60°F and the heating valve at 0%.

Damper is at minimum position of 25%.

VAV Boxes	Room T	Room Setpoint	CF M	CFM Setpoint	Damper	Box Mode	Reheat Valve
5-3 North Lab	69.6°F	71°F	340	349	82.1%	Heat	100%
5-2 South Lab	70.8°F	71°F	64	350	100%	Heat	6.4%
5-1 Office	70°F	70°F	121	121	20.5%	Heat	28.4%

VAV temperatures are controlling close to setpoint.

5-2 CFM low

5-2 CFM setpoint is at Cooling Max of 350 and not heating CFM of 300

**RTU 2**  
**Administration**

This is a VAV system with six VAV boxes serving the Package Room, Principle, Vice Principle, Main Office Area, Waiting Area and Conference Room. The VAVs are standard shutoff boxes with hot water reheat coils.

The VAV airflow setpoints are not shown on a schedule. There are design values shown in the TAB report dated November 1, 2016. They differ slightly from the current setpoints and the connected load. See Appendix A - Air Flow Schedule

Measured total airflow is slightly below the scheduled value but matches the connected load of the system. The measured outside air volume is higher than the scheduled outside air volume. See the Appendix A - Air Flow Schedule.

The required outside air volume should be confirmed for this system. The VAV setpoints are below what was scheduled. It is not known why this was done but it may have been an effort to increase the dehumidification in these rooms. Once the require volume of outside air is determined and implemented, the most effective VAV airflow setpoints should be confirmed by adjusting and monitoring the temperature and relative humidity.

9-28-2021

OAT 69.4°F  
OA RH 73.7%  
CHWST 45°F

RTU static pressure is at the setpoint of 1" with a fan speed of 17.5%.  
Supply air temperature is 71.3°F with a setpoint of 67.5°F and the chilled water valve at 10%.  
Damper is at minimum position of 15%.

There is space CO2 shown on the graphic. What does this represent? Return Air? VAV values?  
There is space temperature shown on the graphic. What does this represent? Return Air? VAV values?  
How is the RTU controlled? Does it look at the VAVs?  
Is it controlled like a VAV unit or a zoned system?  
The method of control for this unit needs to be confirmed defined on the graphic.

Lowered occupied cooling setpoint from 72°F to 70°F. Calculated SAT setpoint dropped to 55°F, the chilled water valve opened and the supply air temperature dropped.

Adjusted CO2 setpoint. No response.  
Unsure of economizer control.  
The damper controls need to be verified and corrected as needed. All associated points should be displayed on the graphic.

**RTU 2  
Administration**

VAV Boxes	Room T	Room Setpoint	CF M	CFM Setpoint	Damper	Box Mode	Reheat Valve
Package Room	70.8°F	72°F	63	60	36%	Cool	0%
Principle	71.4°F	70°F	52	50	34%	Heat	0%
Vice Principle	70.6°F	70°F	61	60	36%	Heat	0%
Waiting	70.4°F	70°F	63	50	36.3%	Heat	0%
Conference	69.6°F	74°F	93	50	31%	Cool	0%
Main Office	71.2°F	72°F	78	75	37.4%	Cool	0%

Conference Room airflow was not as stable as the other boxes.

Measured in Conference Room

71.6°F, 74.2% RH, 62.9°F Dewpoint

The setpoints are low and the temperatures generally too cool.

Cooling setpoints should be increased and the CFM reduced if possible to promote dehumidification and over cooling.

12-28-2021

OAT 51.7°F

OA RH 61%

HWST 145°F

RTU static pressure is at the setpoint of 1" with a fan speed of 36.7%.

Supply air temperature is 70.2°F. The heating and cooling valves were both closed. The calculated heating setpoint was 60°F and the calculated cooling setpoint was 70°F. The displayed space temperature was between the heating and cooling occupied setpoints.

Damper is at minimum position of 15%.

VAV Boxes	Room T	Room Setpoint	CF M	CFM Setpoint	Damper	Box Mode	Reheat Valve
Package Room	68°F	68°F	56	60	34.8%	Heat	0%
Principle	69.6°F	70°F	352	350	80.9%	Heat	100%
Vice Principle	69.6°F	70°F	262	300	100%	Heat	100%
Waiting	69.5°F	70°F	300	300	52.9%	Heat	100%
Conference	68.6°F	68°F	0	50	32.5%	Heat	0%
Main Office	70.3°F	68°F	79	75	39%	Heat	0%

Rooms mostly controlling to setpoint.

## Dual Temperature Loop

8-17-2021

OAT 78.9°F  
OA RH 59.4%  
CHWST 45°F

The chiller does an excellent job of controlling to the setpoint. We have found the setpoint at 46°F. We recommend operating at a setpoint of 48°F for the chilled water supply temperature. This had been previously implemented with good results in the classroom areas and we did not see evidence of units not able to cool effectively at the elevated setpoint.

12-28-2021

OAT 51.7°F  
OA RH 61%  
HWST 145°F

The hot water loop is maintaining the temperature setpoint and the pump differential setpoint.

# **Appendix A**

## **Air Flow Schedule**

Appendix A		Beecher Road School HVAC Unit Air Flow Schedule										
Date	8/26-9/2/2021	Scheduled			Measured/Calculated							
Unit	Area Served	CFM	OA CFM	DCV CFM	CFM	OA CFM	Fan Speed	Min DPR Pos	DWG	Bld Area	Notes	
AHU 1	Music	4,350	1,600	N/A	975	114/545	On	10%/28%	M204	South	1, 4, 6	
AHU 2	North Gym	5,300	1,700	530	3,562	0-negative	65%	10%	M200	North	1, 4	
AHU 3	North Gym	5,300	1,700	530	1,939	0-negative	25%	10%	M200	North	1, 4	
AHU 4	Auditorium	6,700	3,400*	670	6,773	1,929	100% 69.9Hz	20%	M204	South	2, 4	
AHU 5	South Gym	9,700	4,300	2,200	10,229	937	100% 67.9Hz	20%	M204	South	2, 4	
AHU 6	Multipurpose	3,500	775	N/A	See Note	See Note	On	25%	M203	South Wing	5	
RTU 1	District Offices	800	200	N/A	590	-35	On	15%	M204	South	1, 4	
RTU 2	Admin Offices	3,000	600	N/A	2,664	751	100%/79.9%	15%	M200	North	1, 3, 4	
RTU 3	Café	10,560	5,800	1,060	7,910	2,157	On	25%	M201	North	1, 4	
RTU 4	Media/Library	7,400	2,100	N/A	6,503	226	On	10%	M201	North	1, 4	
RTU 5	Tech Center	3,600	700	N/A	2,588	1,273	100%/66.6%	25%	M201	North	1, 3, 4	
		CFM Setpoints			Connected	Scheduled CFM						
RTU 2		Max	Min	Heat	Load	Max	Min					
VAV 2-1	Package Room	350	60	350	300	300						
VAV 2-2	Principle	350	50	350	250	300						
VAV 2-3	Vice Principle	350	60	300	225	300			No Schedule. Values are from TAB			
VAV 2-4	Main Office	500	75	400	875	850						
VAV 2-5	Waiting Area	350	50	300	500	450						
VAV 2-6	Conference	350	50	300	500	450						
RTU 5	Totals	2250	345	2000	2650	2650						
VAV 5-3	North	350	348	349	2,075	1,175	590					
VAV 5-2	South	350	350	300	700	700	350	From M-500 Schedule				
VAV 5-1	Office	350	50	300	300	500	250					
	Totals	1050	748	949	3075	2375	1190					
Notes:	<ol style="list-style-type: none"> <li>1. Measured at outside air louver with Velgrid.</li> <li>2. Static pressure measured in OA Plenum and compared to TAB report 11,1,2016.</li> <li>3. Total measured with all VAVs at Max CFM. OA with VAVs at Min CFM.</li> <li>4. Damper settings and Fan speeds are "As-Found"</li> <li>5. AHU 6 is minimally accessible. No readings were obtained.</li> <li>6. Damper is always at 28% for no appearant reason.</li> </ol>											

## **Agenda**

- I. **Call to Order / WebEx Log-in Info**  
**<https://woodbridgeps.webex.com/woodbridgeps/j.php?MTID=m92d938bbfb4b50147defe1da7af12a4c>**  
**Meeting number: 2495 250 5401 Password: pJVwR2Qht22**
- II. **Public Comment - The Board welcomes public participation. We ask that speakers please limit their comments to three minutes. Please be aware that the Board will not respond to any comments made during the public comment period, except to clarify issues, but we will take into consideration your comments, and when appropriate, district administration will follow-up with you at a later point in time. During the COVID 19 epidemic, please feel free to submit Public Comments via email to [mdegennaro@woodbridgeps.org](mailto:mdegennaro@woodbridgeps.org)**
- III. **Continued Discussion of Prior Work and Potential Next Steps**
  - A. HVAC
  - B. Hazardous Materials Abate
  - C. Oil Tank Removal / Abandonment
  - D. Removal of Well Head
  - E. Drainage Issues
  - F. Roof Replacement / Refurbishment
  - G. Asphalt / Sidewalks
  - H. Technology
  - I. Other
- IV. **Executive Session in accordance with State statute**
  - A. Discussion of Matters Concerning the Deployment of Security Strategies
- V. **Adjourn**



# WOODBRIDGE SCHOOL DISTRICT

40 Beecher Road – South  
Woodbridge, Connecticut 06525

Jonathan S. Budd, Ph.D. – Superintendent

## MEMORANDUM

TO: Woodbridge Ad Hoc Capital Plan Committee

FROM: Jonathan S. Budd, Ph.D., Superintendent

DATE: November 8, 2021

RE: Current Beecher Road School Building Usage Analysis

For our continued work, here are details of Beecher Road School building space and usage. This analysis includes all spaces except for bathrooms, closets, and rooms housing mechanicals and storage.

Purpose of Space (based on sizing)	Total #	Further Breakdown	Notes
Typical classroom instruction	54	<ul style="list-style-type: none"> <li>• 1 Pre-K</li> <li>• 43 Grades 1-6</li> <li>• 3 special education intensive</li> <li>• 2 art</li> <li>• 2 general music</li> <li>• 2 Spanish</li> <li>• 1 STEAM</li> </ul>	<ul style="list-style-type: none"> <li>• Because 55 spaces are needed, a conversion of the Rotunda for 2021-22 has occurred.</li> </ul>
Small-group instruction	13	<ul style="list-style-type: none"> <li>• 1 ELL</li> <li>• 1 literacy</li> <li>• 1 social work</li> <li>• 2 mathematics</li> <li>• 2 speech/language</li> <li>• 3 school psychology</li> <li>• 3 special education resource</li> </ul>	<ul style="list-style-type: none"> <li>• Because additional spaces are needed, conversions for 2021-22 of the Commons, the Special Services Office Conference Room, and a portion of the Library Media Center have occurred.</li> </ul>
Large-group instruction / assembly	9	<ul style="list-style-type: none"> <li>• Cafeteria</li> <li>• Commons</li> <li>• Instrumental Music</li> <li>• Library Media Center</li> <li>• Rotunda</li> <li>• South Assembly Room</li> <li>• Technology Center</li> <li>• 2 Gymnasiums</li> </ul>	<ul style="list-style-type: none"> <li>• The Commons has been converted for 2021-22 to three small-group special education teacher/provider spaces.</li> <li>• A portion of the Library Media Center has been converted for 2021-22 to a speech/language small-group instruction space.</li> <li>• The Rotunda, with an adjacent small-group instruction room, has been converted for 2021-22 to a special education intensive classroom.</li> </ul>
Conference room	3	<ul style="list-style-type: none"> <li>• North Office</li> <li>• Special Services Office</li> <li>• Superintendent's Office</li> </ul>	<ul style="list-style-type: none"> <li>• The Special Services Office Conference Room has been converted for 2021-22 to a special education resource small-group instruction space.</li> </ul>
Individual offices	6	<ul style="list-style-type: none"> <li>• Superintendent</li> <li>• Business Manager</li> <li>• Director of Special Services</li> <li>• Principal</li> <li>• Asst. Principal</li> <li>• Facilities Manager</li> </ul>	
Other		<ul style="list-style-type: none"> <li>• Business Office – houses Payroll/Benefits Coordinator &amp; Accounts Payable Admin. Asst.</li> <li>• Copy Center</li> <li>• Health Services Office – size of typical classroom</li> <li>• Kitchen</li> <li>• Pool</li> </ul>	

- |  |   |
|--|---|
|  | <ul style="list-style-type: none"><li>• Staff Lunchroom</li><li>• Town of Woodbridge Recreation Department Office – size of large typical classroom</li></ul> |
|--|---|

Potential topics for discussion include:

- Additional development of typical classroom instruction space: 55 spaces of this type are anticipated for upcoming years, and temporary conversions of spaces such as the Rotunda (see yellow above) are undesirable. Currently, health is taught without a dedicated classroom space. I would not recommend increasing other specials taught without dedicated classroom spaces, as that would likely have a negative impact on our instructional program.
- Additional development of small-group instruction space: temporary conversions of spaces such as the Commons and conference rooms (see green above) are undesirable.
- Analysis of space at BRS used for other purposes, recognizing that in most cases those purposes are necessarily linked to the work of the school.

Please let me know of any questions you may have, or additional information you would like.



# WOODBIDGE SCHOOL DISTRICT

40 Beecher Road – South  
Woodbridge, Connecticut 06525

Jonathan S. Budd, Ph.D. – Superintendent

## MEMORANDUM

TO: Woodbridge Ad Hoc Capital Plan Committee

FROM: Jonathan S. Budd, Ph.D., Superintendent

DATE: November 8, 2021

RE: Current Beecher Road School Enrollment Analysis

For our continued work, here are details of Beecher Road School K-6 enrollment projected out through 2028. The first basis is our current October 1 enrollment, projected forward. Although students can, and do, move in and out of Woodbridge, this analysis assumes that the transfers in will balance the transfers out.

Since the prior commissioned enrollment study has generally accurately predicted Kindergarten enrollment, it is the basis for each new Kindergarten enrollment number; however, as we extrapolate out, the number is less reliable, as it is based on assumptions of live births that have not yet occurred.

Each cell indicates the total number of students at the grade level; in parentheses is the number of sections needed at that grade level based on class size guidelines<sup>1</sup>.

Grade	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
K	116 (6)	127 (7)	105 (6)	110 (6)	109 (6)	111 (6)	112 (6)
1	118 (6)	116 (6)	127 (7)	105 (6)	110 (6)	109 (6)	111 (6)
2	103 (6)	118 (6)	116 (6)	127 (7)	105 (6)	110 (6)	109 (6)
3	110 (6)	103 (6)	118 (6)	116 (6)	127 (7)	105 (6)	110 (6)
4	133 (7)	110 (6)	103 (5)	118 (6)	116 (6)	127 (6)	105 (6)
5	124 (6)	133 (7)	110 (6)	103 (5)	118 (6)	116 (6)	127 (6)
6	126 (6)	124 (6)	133 (7)	110 (6)	103 (5)	118 (6)	116 (6)
<b>TOTAL</b>	<b>830 (43)</b>	<b>831 (44)</b>	<b>812 (43)</b>	<b>789 (42)</b>	<b>788 (42)</b>	<b>796 (42)</b>	<b>790 (42)</b>

In summary:

- Although total enrollment is projected to drop 5% between now and 2028, that will result in a reduction of only one typical classroom based on class size guidelines. In fact, for 2022-23, one additional typical classroom is anticipated to correspond with an increase in Kindergarten enrollment (based on a higher than usual number of live births in 2017).

Please let me know of any questions you may have, or additional information you would like.

<sup>1</sup> Class size guidelines: 17-19 students in Grades K-3; 19-21 students in Grades 4-6.



# WOODBIDGE SCHOOL DISTRICT

40 Beecher Road – South  
Woodbridge, Connecticut 06525

Jonathan S. Budd, Ph.D. – Superintendent

## MEMORANDUM

TO: Woodbridge Ad Hoc Capital Plan Committee

FROM: Jonathan S. Budd, Ph.D., Superintendent

DATE: November 9, 2021

RE: Relevant Documents Packet #2

Please find attached two documents relevant to our work:

- (1) 8/16/21 UCS proposal for Jace replacement;
- (2) 9/2020 Tremco proposal for roofing restoration/replacement.



**Proposal:**

Emergency Jace Upgrade

**Prepared By:**

United Control Solutions Inc.

**Prepared For:**

Beecher Rd School

**Delivered On:**

8/16/2021

**Contact Information:**

Proposal #:	Q21-0050
Date:	8/16/2021

Sales Executive:	Eric Beach
Branch Address:	119 South Colony St Meriden, CT 06450
Telephone:	860.993.7362
Email:	eric.beach@ucsddc.com



### **Scope of Work:**

- **Removal and disposal of failing Honeywell WEBS 700 AX Jace**
  
- **Furnish and install the following:**
  - 1 Honeywell WEBS 8000 N4 Titan Jace
  - 2 RS 485 Communication Expansion Modules
  - 1 N4 Jace Power Supply
  - 1 3 Year Software Maintenance Agreement
  - All low voltage wiring
  
- **Provide the following services:**
  - Migration of existing database to new N4 Platform
  - Set up trends and alarms as needed
  - Verification of graphics database
  - Verification of points database
  
- **Functional checkout and control system commissioning**
  
- **One-year warranty on all provided material, equipment and workmanship**

### **Clarifications and Exclusions:**

- **All work based on normal labor hours. Premium time labor is excluded**
- **Sales and Use Taxes are excluded**



**Sell Price:**

Investment Cost- initial here if accepted x _____	..... \$17,829.00
--	-------------------

**Payment Terms**

**Terms and Conditions Disclaimer:**

The Customer acknowledges that when approved by the Customer and accepted by United Control Solutions Inc.: (i) the Proposal and the Contract Terms and Conditions, (together with any other documents incorporated into the forgoing) shall constitute the entire agreement of the parties with respect to its subject matter (collectively, hereinafter referred to as the "Agreement") and (ii) in the event of any conflict between the terms and conditions of the Proposal and the terms and conditions of The Contract Terms and Conditions, the Contract Terms and Conditions shall control.

**BY EXECUTION HEREOF, THE SIGNER CERTIFIES THAT (S)HE HAS READ ALL OF THE TERMS AND CONDITIONS AND DOCUMENTS, THAT UNITED CONTROL SOLUTIONS OR ITS REPRESENTATIVES HAVE MADE NO AGREEMENTS OR REPRESENTATIONS EXCEPT AS SET FORTH THEREIN, AND THAT (S)HE IS DULY AUTHORIZED TO EXECUTE THE SIGNATURE PAGE ON BEHALF OF THE CUSTOMER.**

This Proposal is based on the United Control Solutions, Inc. Standard Terms and Conditions and the "Scope of Work" and are to be considered part of this proposal. Proposal is valid for thirty (30) days from the delivery date of this quote. Payment is due within 30 days of invoice date.

**Payment Terms: 30% mobilization in advance, progress payments**

**Proposed By:**

United Control Solutions Inc \_\_\_\_\_

**Company**

Eric Beach \_\_\_\_\_

**Name**

Q21-0050 \_\_\_\_\_

**Proposal #**

\$17,829.00 \_\_\_\_\_

**Proposal Amount**

8/16/2021 \_\_\_\_\_

**Date**

**Accepted By:**

Beecher Rd School \_\_\_\_\_

**Company**

\_\_\_\_\_

**Name (Printed)**

\_\_\_\_\_

**Signature**

\_\_\_\_\_

**Title**

\_\_\_\_\_

**Date**

\_\_\_\_\_

**Purchase Order**



## Terms & Conditions

**The information contained in this proposal is proprietary and confidential to United Control Solutions (UCS) and is offered solely for your own use and evaluation. We intend to maintain the confidentiality of any information you have provided us, and we require that this proposal be kept in strict confidence and that it not be disclosed to any outside party for any other purpose.**

1. Project services provided under this agreement will be performed during normal working hours unless otherwise noted. Normal working hours are defined as 7:00am to 3:30pm, Monday through Friday inclusive, excluding holidays.
2. Reasonable and **safe** means of access to the equipment being serviced shall be provided to UCS. UCS shall be permitted to start and stop all equipment necessary to perform its services. If any of the equipment requiring service is considered unsafe, the client will be required to properly correct the unsafe condition before UCS will proceed with the service.
3. The guarantees and services provided under the scope of this agreement are conditioned upon the Client properly operating and maintaining the system. Client will do so in accordance with industry accepted practices.
4. Client agrees to pay invoices within thirty (30) days of receipt. UCS reserves the right to cancel this and/or stop work under this agreement without notice, should payment become sixty (60) days or more delinquent.
5. Client agrees to pay in advance for material, equipment and engineering costs necessary for the start of the project.
6. It is understood and agreed to that this project is not subject to any retention.
7. UCS shall not be liable for any loss, delay, injury or damage that may be caused by circumstances beyond its control including, but not restricted to acts of God, war, civil commotion, acts of government, fire, theft, corrosion, flood, lightning, power fluctuation, freeze-ups, strikes, lockouts, differences with workmen, riots, explosions, quarantine restrictions, delays in transportation, fuel, labor or materials, or malicious mischief.
8. In no event shall UCS be liable for business interruption losses or consequential or speculative damages, but this sentence shall not relieve UCS of liability for damage to property or injury to persons resulting from accidents caused directly by the negligence of UCS in performance or failure of its obligations under this agreement.
9. UCS shall warrant the control system to the extent that all hardware/software repairs, modifications, revisions, and/or changes must be performed by UCS. Any unauthorized hardware/software repairs, modifications, revisions, and/or changes will void the UCS warranty, (if applicable).
10. In the unlikely event of failure to perform its obligations, UCS's liability is limited to repair or replacement at its option and such shall be Client's sole remedy. Under no circumstances will UCS be responsible for loss of use, loss of profits, increased maintenance or operating costs, claims of clients or client's tenants, or any special, indirect or consequential damages.



Mr. Vito Esparo  
Facilities Manager  
Beecher Road School  
Woodbridge Public Schools  
40 Beecher Road - South  
Woodbridge, CT 06525

Mr. Vito Esparo, per your request, here are budgets for roof restoration and full roof replacement of the K Wing, D Wing and Library roof sections at Beecher Road School, at 40 Beecher Road Woodbridge, CT.

- K Wing
  - Approximately 22,500 square feet,
  - Roof Restoration, \$337,500
  - Full Replacement, \$562,500
  
- D Wing
  - Approximately 7,000 square feet,
  - Roof Restoration, \$105,000
  - Full Replacement, \$175,000
  
- Library
  - Approximately 7,000 square feet,
  - Roof Restoration, \$105,000
  - Full Replacement, \$175,000

Both roof restoration and full roof replacement budgets are based around a seamless finished product, the AlphaGuard Bio System. Designed to eliminate the most common failure in traditional roofing products, roof leaks through deteriorated seams and flashings, this system is built to be the last roof system installed on this building.

Respectfully ,

**Andrew Hall**  
Field Advisor – Southern CT  
Tremco Roofing & Building Maintenance  
T. 914.355.8789  
AHall@Tremcoinc.com  
3735 Green Road, Beachwood, OH 44122  
[www.tremcoroofing.com](http://www.tremcoroofing.com)

*9/2020*



# ***DRAFT***

# Capital Planning & Beecher Road School Needs

Woodbridge Board of Education

November 15, 2021

Members of the Ad Hoc Capital Plan Committee

# Review of Relevant History

- \*\*\*
- September 20: BOE establishes Ad Hoc Capital Plan Committee “to assess and evaluate building and grounds needs at Beecher Road School, including review and potential revision of the District’s Capital Plan”

# Key Topics

HVAC	Roof Replacement/Refurbishment
Hazardous Materials Abatement	Asphalt/Sidewalks
Oil Tank Removal/Abandonment	Technology
Removal of Well Head	Security
Drainage Issues	Other

# Operational Understandings

- Capital Projects
  - Maintain or improve the community asset through infrastructure
  - Typically are structural, with life expectancy of at least ten years
  - Should exceed \$25,000
  - Require Town bonding
- Other Projects
  - Can be funded through WSD operating budget, sometimes over multiple years

# Building Usage & Enrollment at BRS

- \*\*\* [details here]
- Architectural review commissioned via ARP ESSER

# Analysis of BRS Needs: HVAC

- Significant improvements over past 5 years, including addition of humidistats & CO2 in every classroom space, as well as improved controls for outside air intake
- Current retrocommissioning project occurring via ESSER II funding
- Findings of that project may suggest additional needs
- New JACE control center = ~\$25,000
- Recommendation: Operating Budget, multi-year

# Analysis of BRS Needs: Hazardous Material Abatement

- Asbestos remains in South parts of BRS under carpeting and should be abated via federal removal guidelines
- Cost = ~\$80,000
- Many of these areas of the building are potentially affected by building expansion or footprint development via ARP ESSER
- Recommendation: Either ARP ESSER, *or* Operating Budget, multi-year

# Analysis of BRS Needs: Oil Tank Removal/Abandonment

- 10,000-gallon underground storage tank
- Cost of removal = ~\$25,000 + potential cleanup of any disturbed soil that becomes contaminated
- Recommendation: Pending further research, Operating Budget

# Analysis of BRS Needs: Removal of Well Head

- Abandoned well head and deteriorating fence a potential safety concern
- Cost of removal = ~\$40,000; Cost of improvement = ~\$10,000
- Recommendation: Pending further research, Operating Budget

# Analysis of BRS Needs: Drainage Issues

- Fuss & O'Neill 2011 study prompted grounds improvements that have partially solved, but not totally remediated, drainage issues
- Prior Capital Plan request included site improvements of \$575,000 for FY25
- Additional consulting services for planning and schematic design = ~\$58,000; additional consulting services for bid review & construction oversight = ~\$30,000 - ~\$55,000
- Recommendation: Capital Budget, multi-year

# Analysis of BRS Needs: Roof Replacement/Refurbishment

- Prior Capital Plan request included restoration of K Wing roof (\$337,500) & full replacement of D Wing / Library roofs (\$350,000) for FY22
- Roof replacement may be a stronger option than restoration
- Additional consulting services for roof replacement = ~\$20,800
- Recommendation: Capital Budget, multi-year

# Analysis of BRS Needs: Asphalt/Sidewalks

- Prior Capital Plan request included asphalt replacement of \$93,500 in FY22 & \$500,000 in FY24
- Removal and replacement estimates = ~\$92,000 - ~\$140,000
- Additional engineering services are desired to guide this project
- Additional consulting services = ~\$\*\*\*
- Recommendation: Capital Budget, multi-year

# Analysis of BRS Needs: Technology

- Prior Capital Plan request included a placeholder each year for \$20,000
- \*\*\*
- Recommendation: Operating Budget, multi-year

# Analysis of BRS Needs: Other, Slide 1 of 2

- Prior Capital Plan request included door replacement of \$80,000 for FY23
- Prior Capital Plan request included unit ventilator replacement of \$215,000 for FY23
- Prior Capital Plan request included flooring replacement (including asbestos abatement) of \$141,855 for FY23
- Recommendation: Pending further research, Operating Budget, multi-year

# Analysis of BRS Needs: Other, Slide 2 of 2

- Prior Capital Plan request included casework/cabinet replacement of \$63,000 for FY23
- Prior Capital Plan request included painting of \$313,800 for FY24
- Recommendation: Pending further research, Operating Budget, multi-year

# In Summary

<b>Operating Budget</b>	<b>Capital Budget</b>
HVAC (multi-year)	Drainage Issues (multi-year)
Hazardous Materials Abatement (or ARP ESSER)	Roof Replacement/Refurbishment (multi-year)
Oil Tank Removal/Abandonment*	Asphalt/Sidewalks (multi-year)
Removal of Well Head*	
Technology (multi-year)	
Security (multi-year)	
Door, Unit Ventilator, Flooring, Casework Replacement (multi-year)	
Painting (multi-year)	

## **MINUTES OF THE WBOE AD HOC CAPITAL PLAN COMMITTEE**

Friday, November 5, 2021  
Conducted via Google Meet

**I. CALL TO ORDER:** Dr. Jonathan Budd, Superintendent, called the meeting to order at 9:00 a.m.

**PRESENT:** Jonathan S. Budd, Ph.D., Superintendent; Richard Huot, Interim Director of Business Services & Operations; Vito Esparo, Facilities Manager; Anthony Billings, Information Technology Manager; Dr. Jay Dahya, BOE representative; Jeff Hughes, BOE representative; Sheila McCreven, Town of Woodbridge representative; Jeanne Ciarleglio, teacher representative; Daniel Cowan, community representative.

3 additional members of the BOE were in attendance: Maria Madonick, Lynn Piascyk, & Erin Williamson.

**ABSENT:** Stephen Francis, community representative.

**II. PUBLIC COMMENT:** There was no Public Comment.

### **III. CONTINUED DISCUSSION OF PRIOR WORK AND POTENTIAL NEXT STEPS:**

The Committee discussed the documents provided in Documents Packet #1, including putting HVAC needs in the ongoing operating budget, preparing to replace the Jace, using the existing Jace as a backup, and assessing the current risk before proceeding with oil tank removal.

### **IV. EXECUTIVE SESSION IN ACCORDANCE WITH STATE STATUTE:**

The Committee adjourned to Executive Session to discuss matters concerning the deployment of security strategies.

Meeting Adjourned: 10:30 a.m.

## **Agenda**

- I. **Call to Order / WebEx Login**  
<https://woodbridgeps.webex.com/woodbridgeps/j.php?MTID=m6f82e610c7e0d120457242de1a5fb282>  
  
**Meeting number (access code): 2484 833 8245**  
**Meeting password: VqZjamaN664**
  
- II. **Public Comment - *The Board welcomes public participation. We ask that speakers please limit their comments to three minutes. Please be aware that the Board will not respond to any comments made during the public comment period, except to clarify issues, but we will take into consideration your comments, and when appropriate, district administration will follow-up with you at a later point in time. During the COVID 19 epidemic, please feel free to submit Public Comments via email to mdegennaro@woodbridgeps.org***
  
- III. **Continued Discussion of Prior Work and Potential Next Steps**
  - A. HVAC
  - B. Hazardous Materials Abate
  - C. Oil Tank Removal / Abandonment
  - D. Removal of Well Head
  - E. Drainage Issues
  - F. Roof Replacement / Refurbishment
  - G. Asphalt / Sidewalks
  - H. Technology
  - I. Other
  
- IV. **Executive Session in accordance with State statute**
  - A. Discussion of Matters Concerning the Deployment of Security Strategies
  
- V. **Adjourn**



# WOODBIDGE SCHOOL DISTRICT

40 Beecher Road – South  
Woodbridge, Connecticut 06525

## MEMORANDUM

Jonathan S. Budd, Ph.D. – Superintendent  
[jbudd@woodbridgeps.org](mailto:jbudd@woodbridgeps.org)

TO: Woodbridge Ad Hoc Capital Plan Committee

FROM: Jonathan S. Budd, Ph.D., Superintendent

DATE: November 3, 2021

RE: Relevant Documents Packet #1

Please find attached various documents relevant to our work:

- (1) 10/4/21 Memorandum from Mr. Huot recommending a capital project being defined as a project over \$25,000;
- (2) 12/1/11 Fuss & O'Neill presentation on BRS to Board of Selectmen;
- (3) 8/15/14 AKF presentation on BRS Educational Specifications (with Security section redacted);
- (4) 11/7/21 Van Zelm proposal for HVAC retrocommissioning;
- (5) 11/8/18 Fuss & O'Neill proposal for abating hazardous building materials;
- (6) 1/18/21 ACV Enviro proposal for removing oil tank;
- (7) 2/22/21 Marek proposal for removing oil tank;
- (8) 9/22/21 Fuss & O'Neill proposal for site drainage improvements consulting services;
- (9) 9/28/21 Silver/Petrucelli proposal for roofing replacement;
- (10) 11/19/20 Connecticut Sealcoating proposal for pavement/sidewalk removal & replacement;
- (11) 3/10/21 Connecticut Sealcoating proposal for pavement removal & replacement.



# Woodbridge School District

40 Beecher Road - South  
Woodbridge, CT 06525

To: Jonathan S. Budd, Ph.D., Superintendent  
From: Richard Huot, Interim Director of Business Operations  
Date: October 4, 2021  
Re: Capital Projects

As the school district and community begin dealing with the revision of the capital plan, it is important to define our objective. With that in mind below are some suggestions for defining and outlining the scope of capital improvements. This is meant to be a starting point for the Ad Hoc Committee and the definition may differ widely depending on the nature and needs of the community.

A Capital Project is one that helps maintain or improve a community asset, sometimes called infrastructure. It can be renovation, replacement, expansion or new construction focused on an existing facility and have a life expectancy of at least ten years. Each project should be a minimum of \$25,000. This limit assumes smaller projects can/should be included in the operating budget.

Projects should be structural rather than cosmetic in nature. For example, painting is generally considered outside the definition of Capital, however if painting the entire exterior of a building might be considered a capital expense.

Budgets assigned to Capital Projects are often questioned. Budgets should be developed by design professionals such as architects and engineers or through three formal quotations from respected contractors. The AD Hoc Committee should formalize the process for developing costs to help insure community support.

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# Beecher Road School

## Board of Selectmen Presentation

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December 1, 2011

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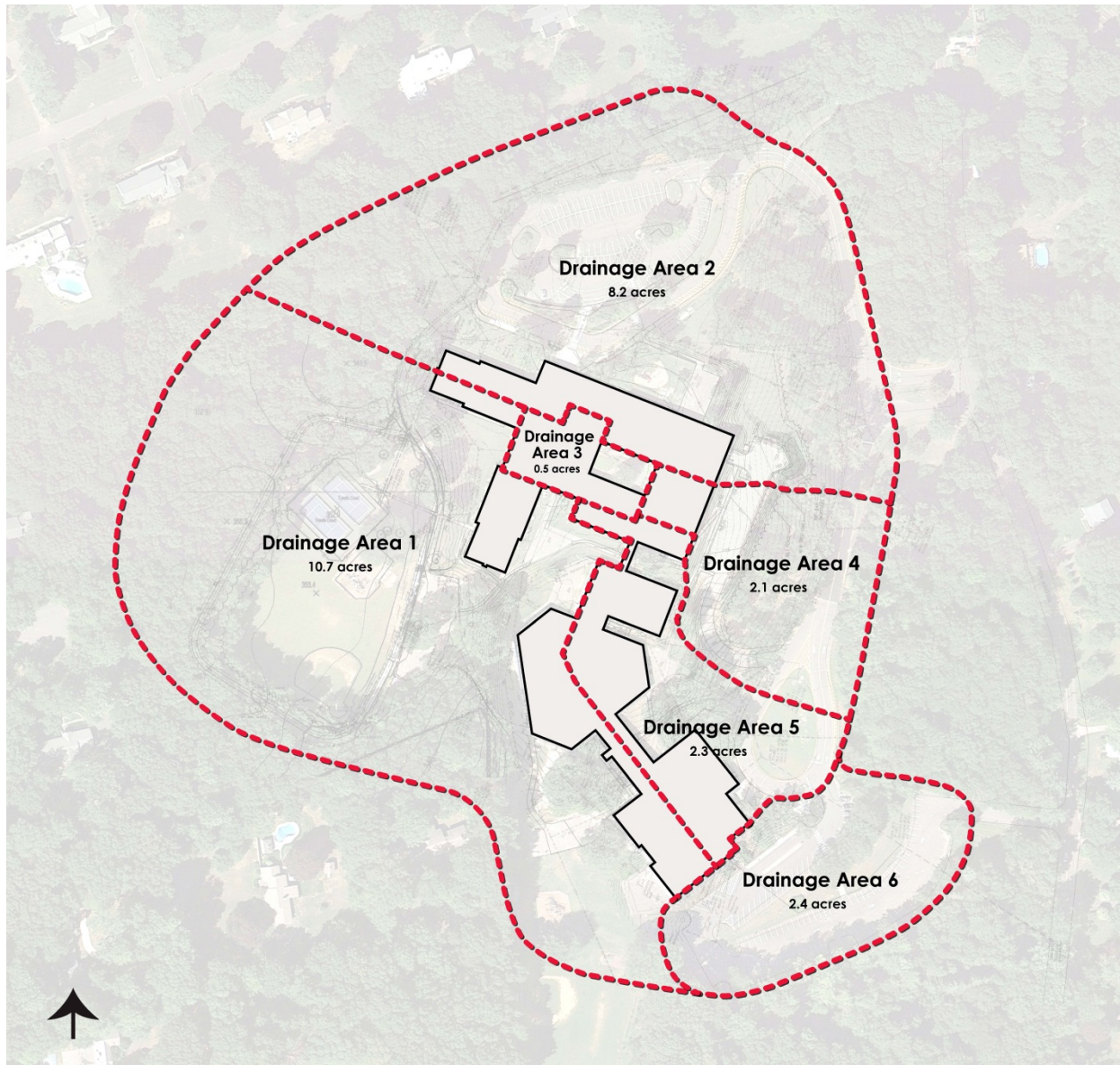
# Analysis & Site Mapping

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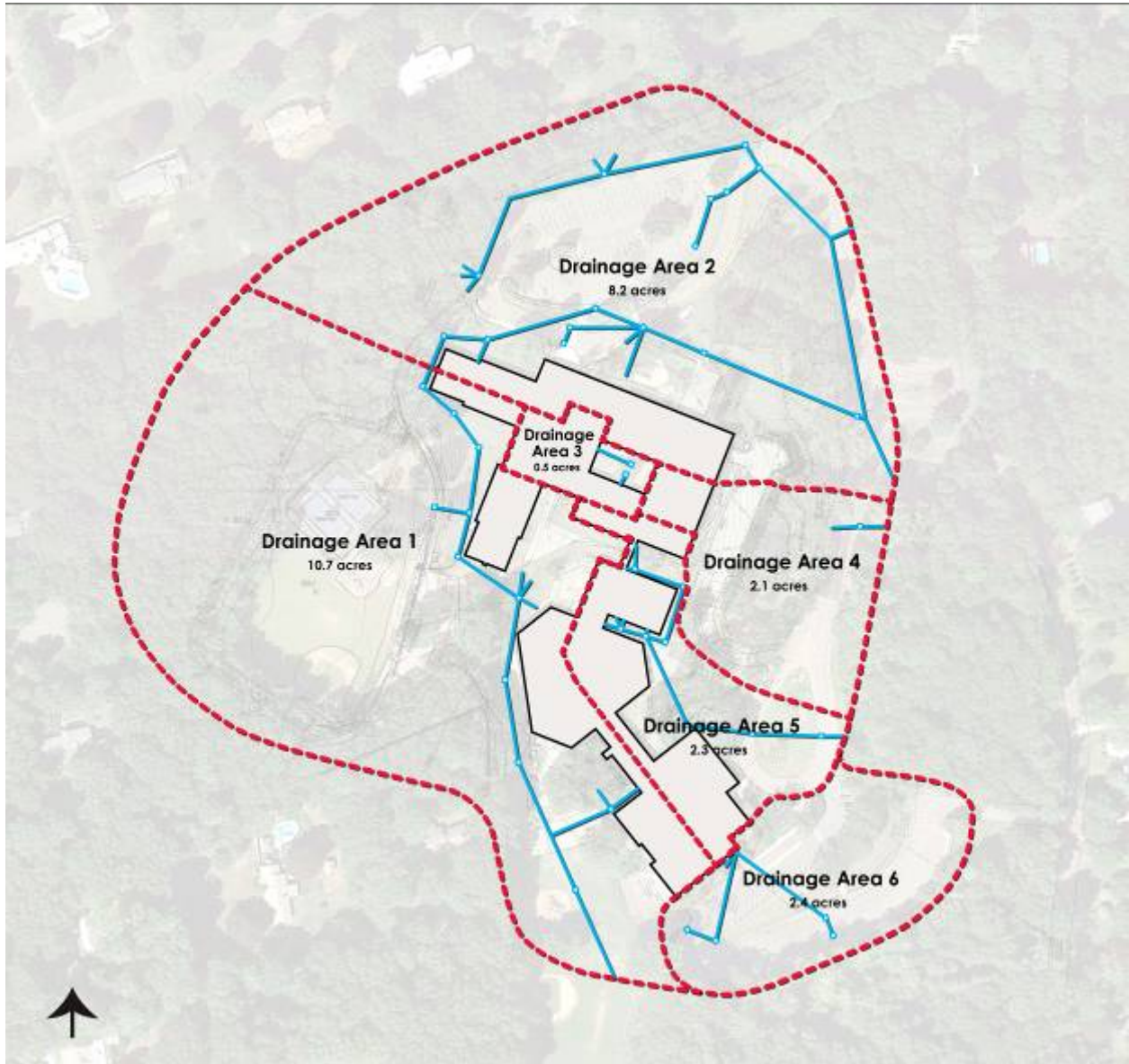
Beecher Road School



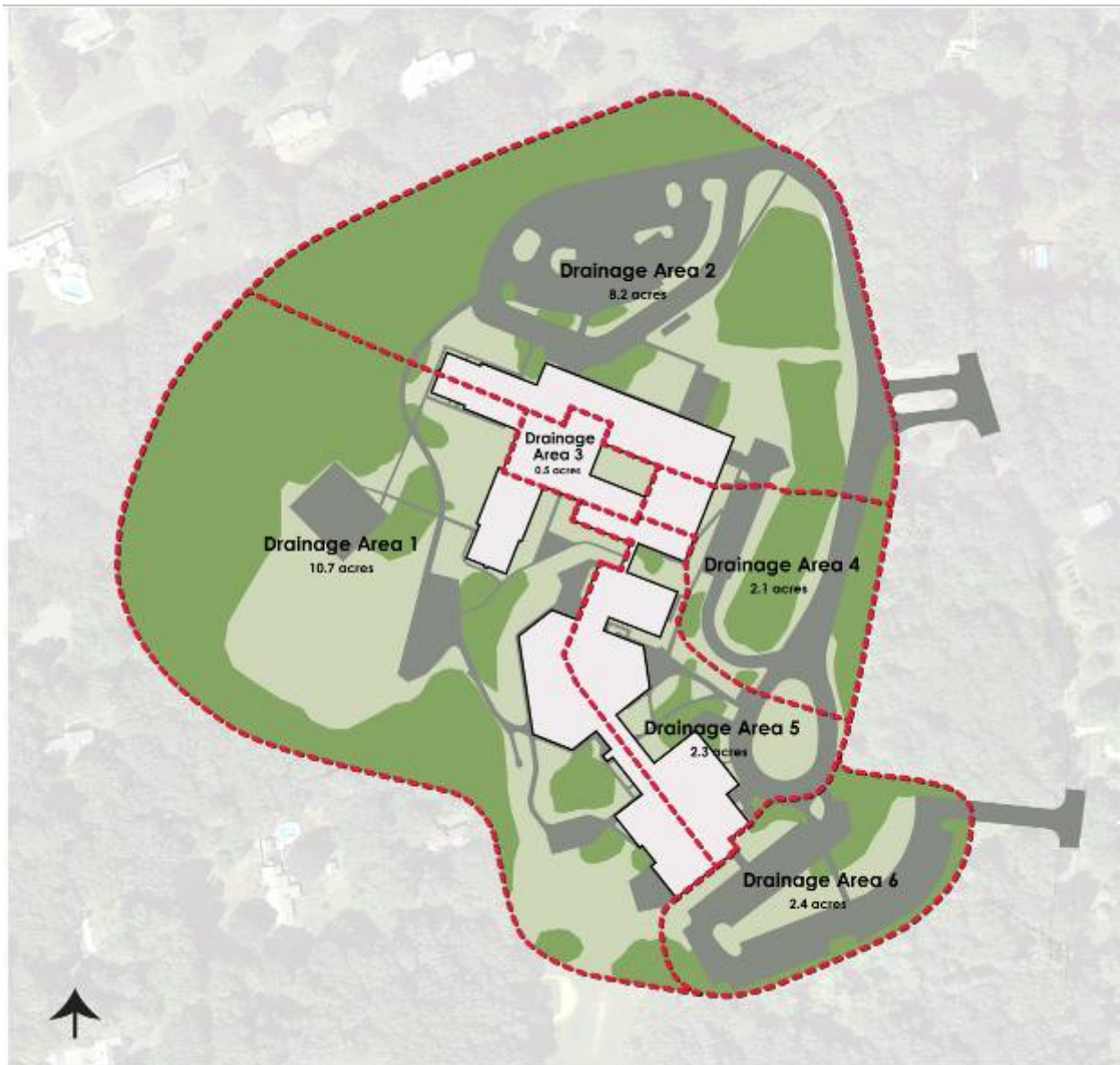
# Base Map



# Drainage Areas

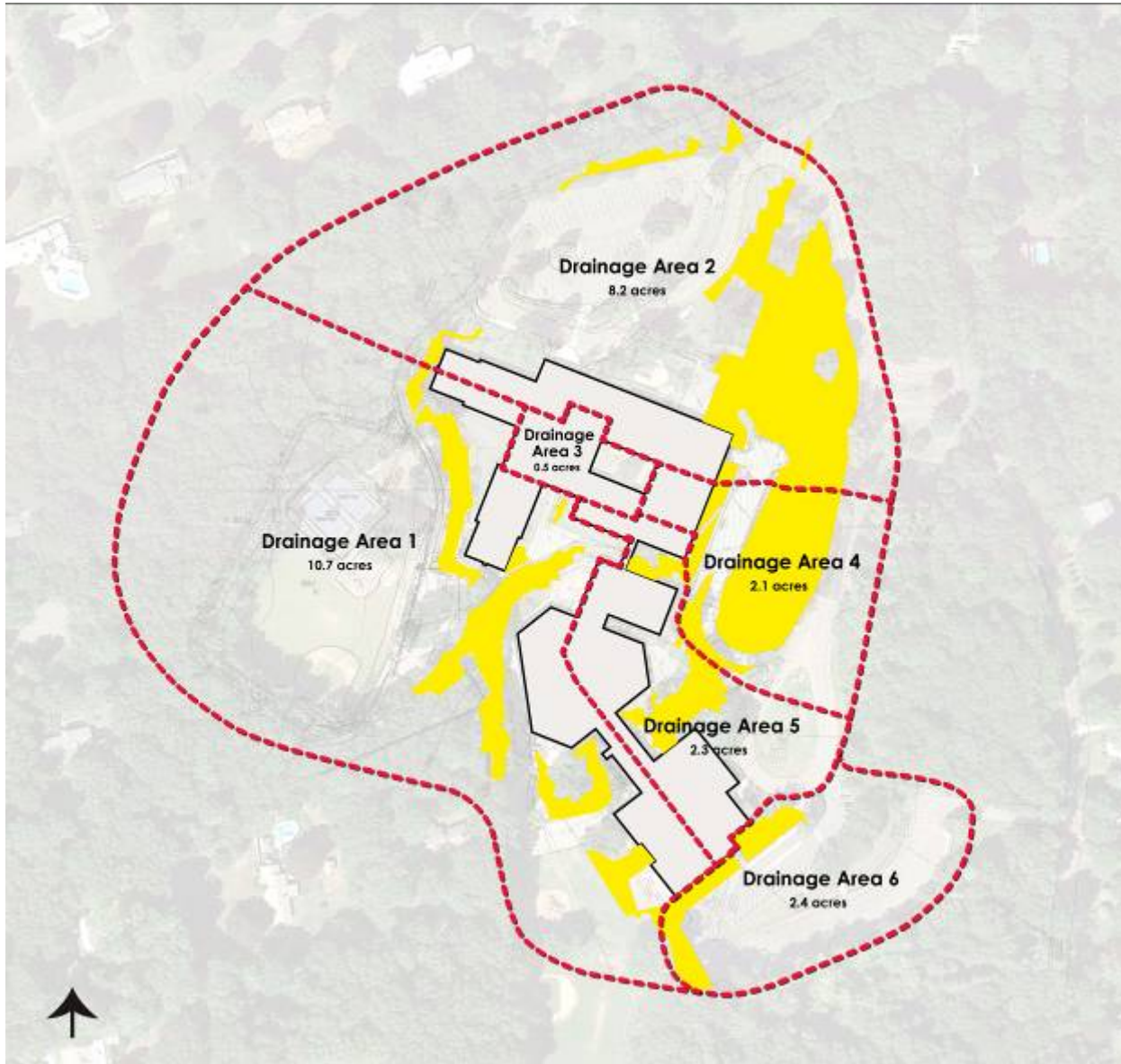


# Storm Drainage

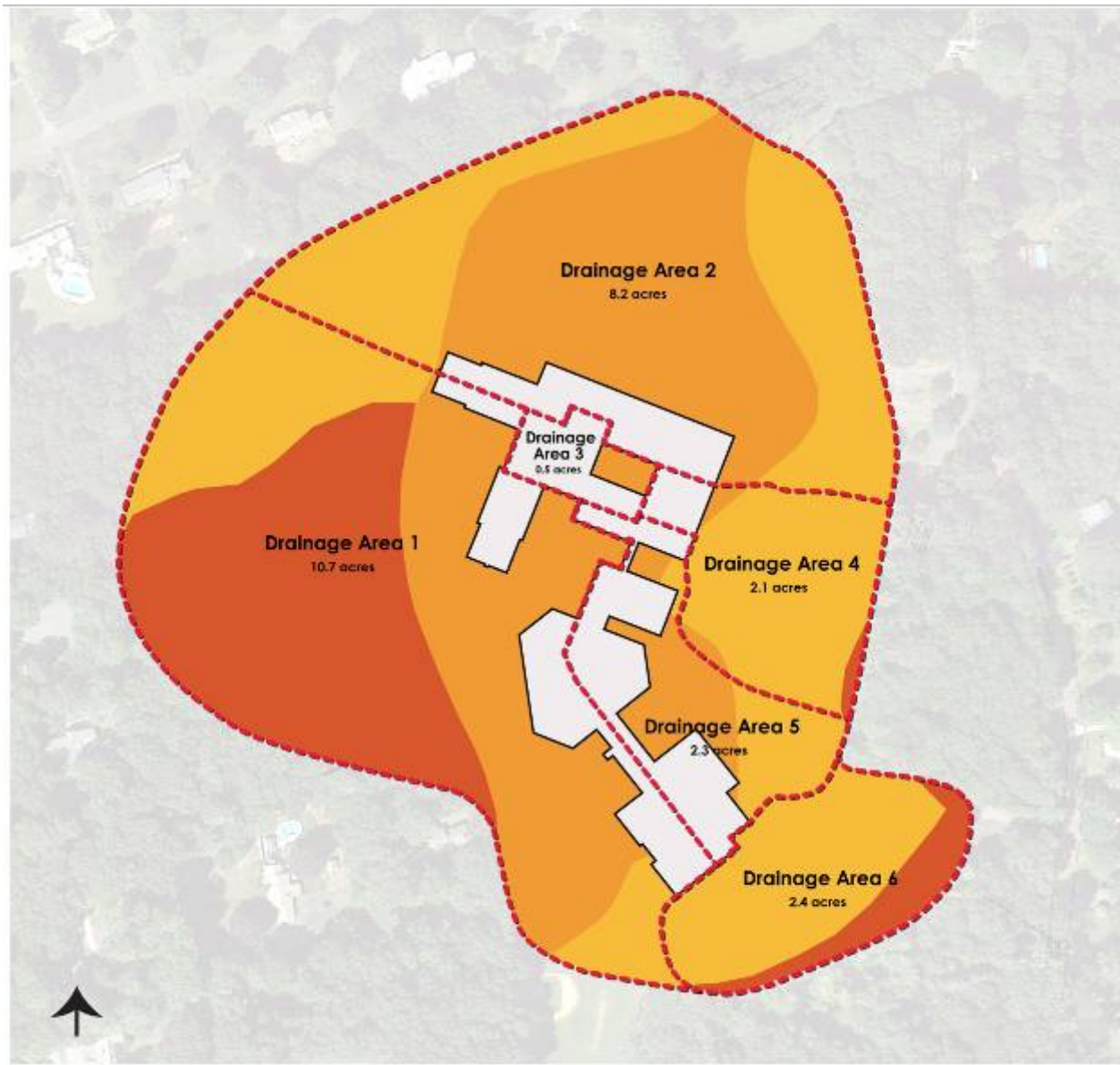


- Woodland
- Lawn/Gravel
- Pavement
- Roof

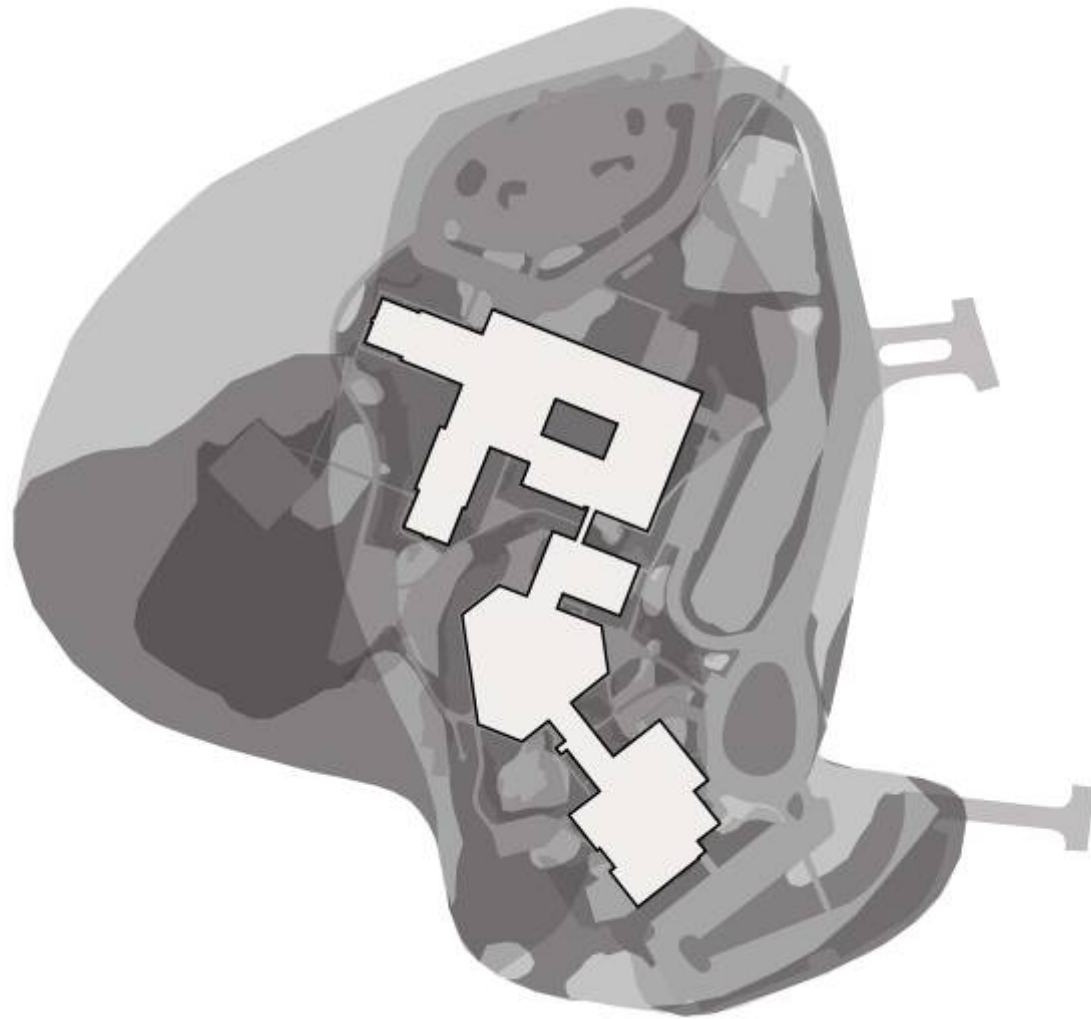
# Surface Type



Slopes >10%



## Soils – Erosion Hazard



## Composite Erosion Prone

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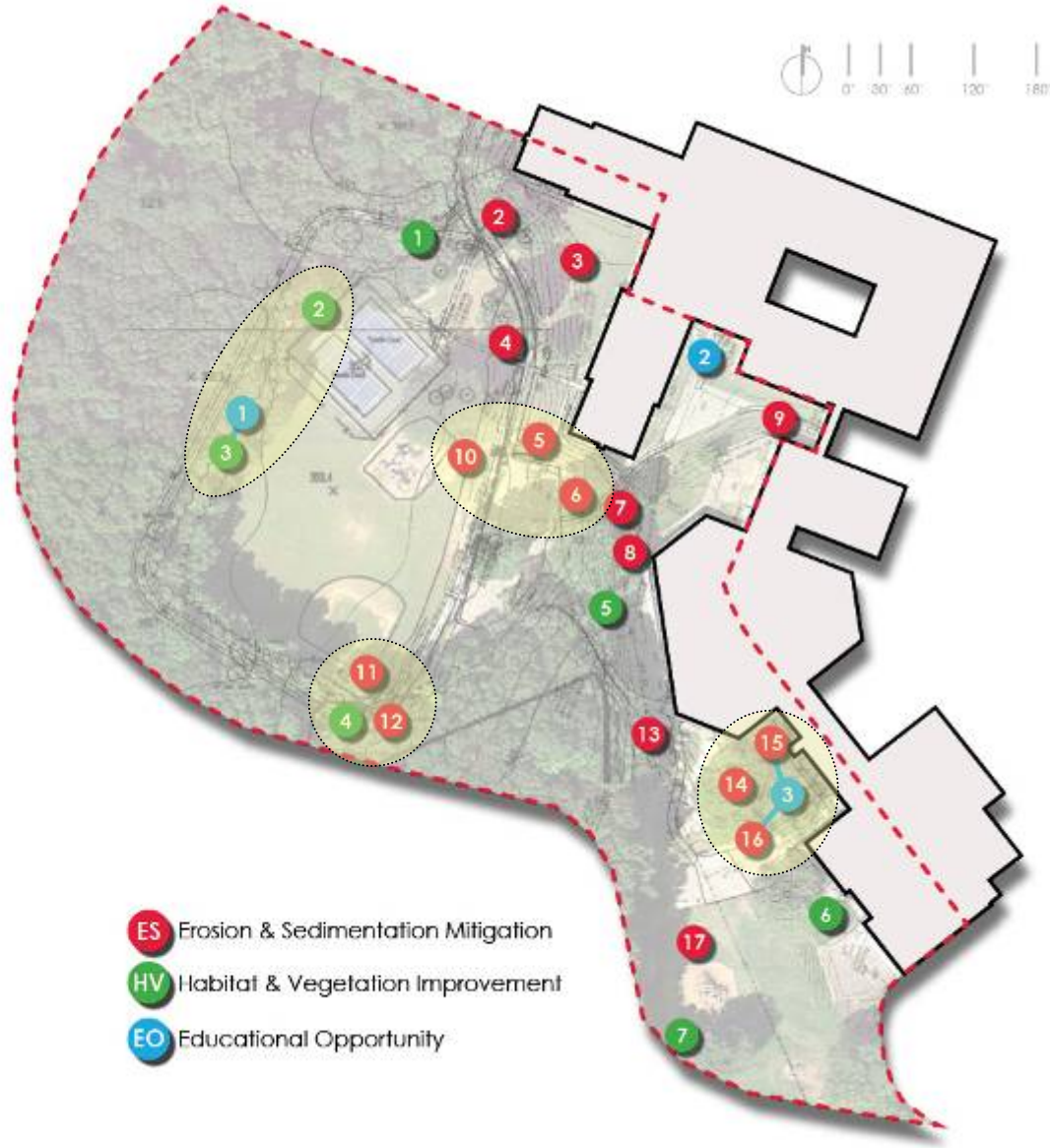
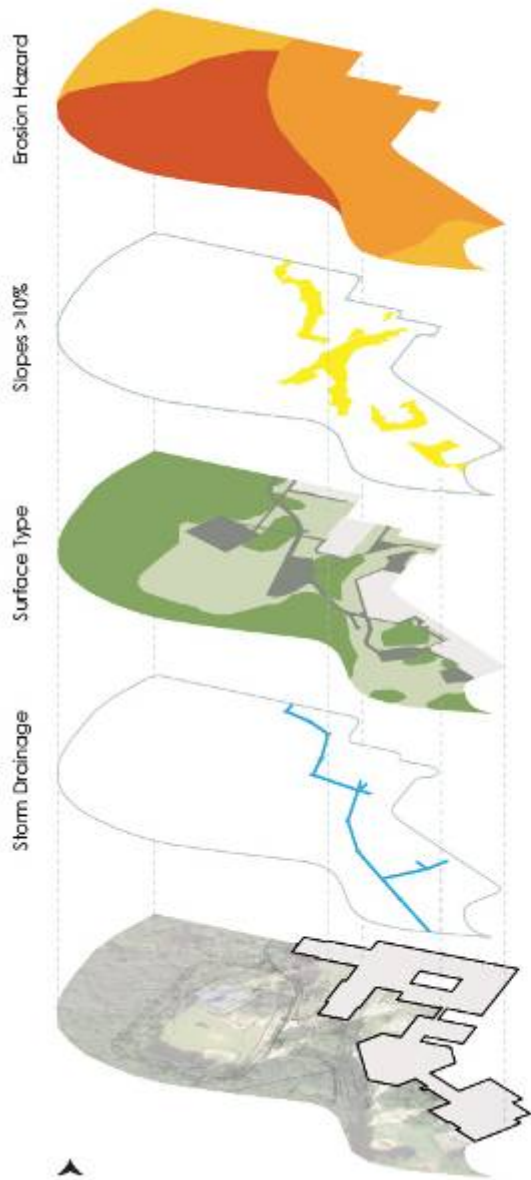
# Areas of Concern & Opportunity

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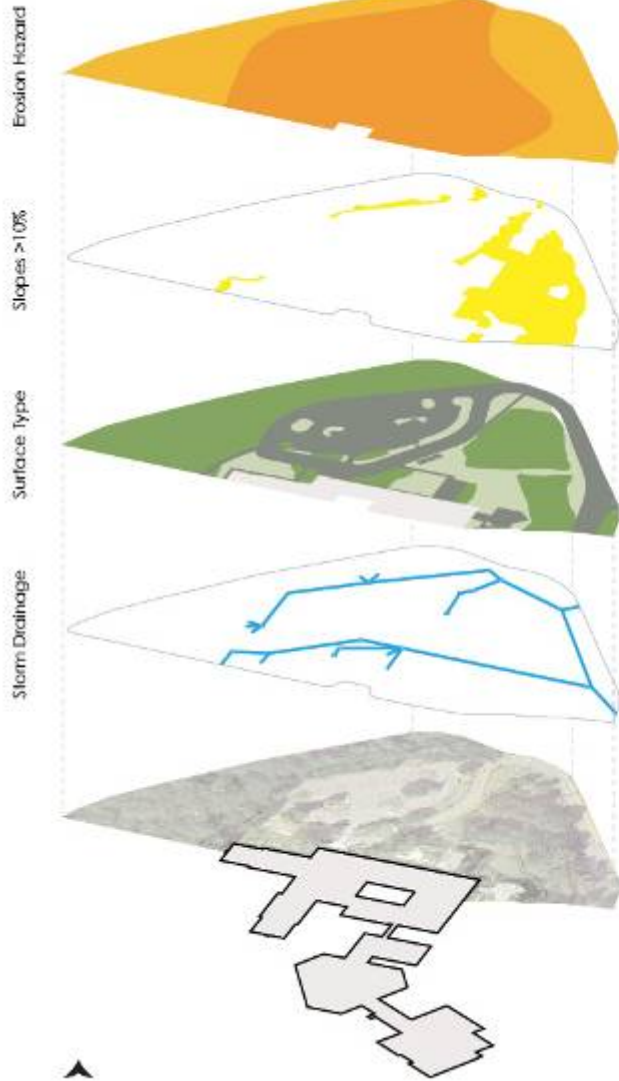
Beecher Road School



## Catch Basins

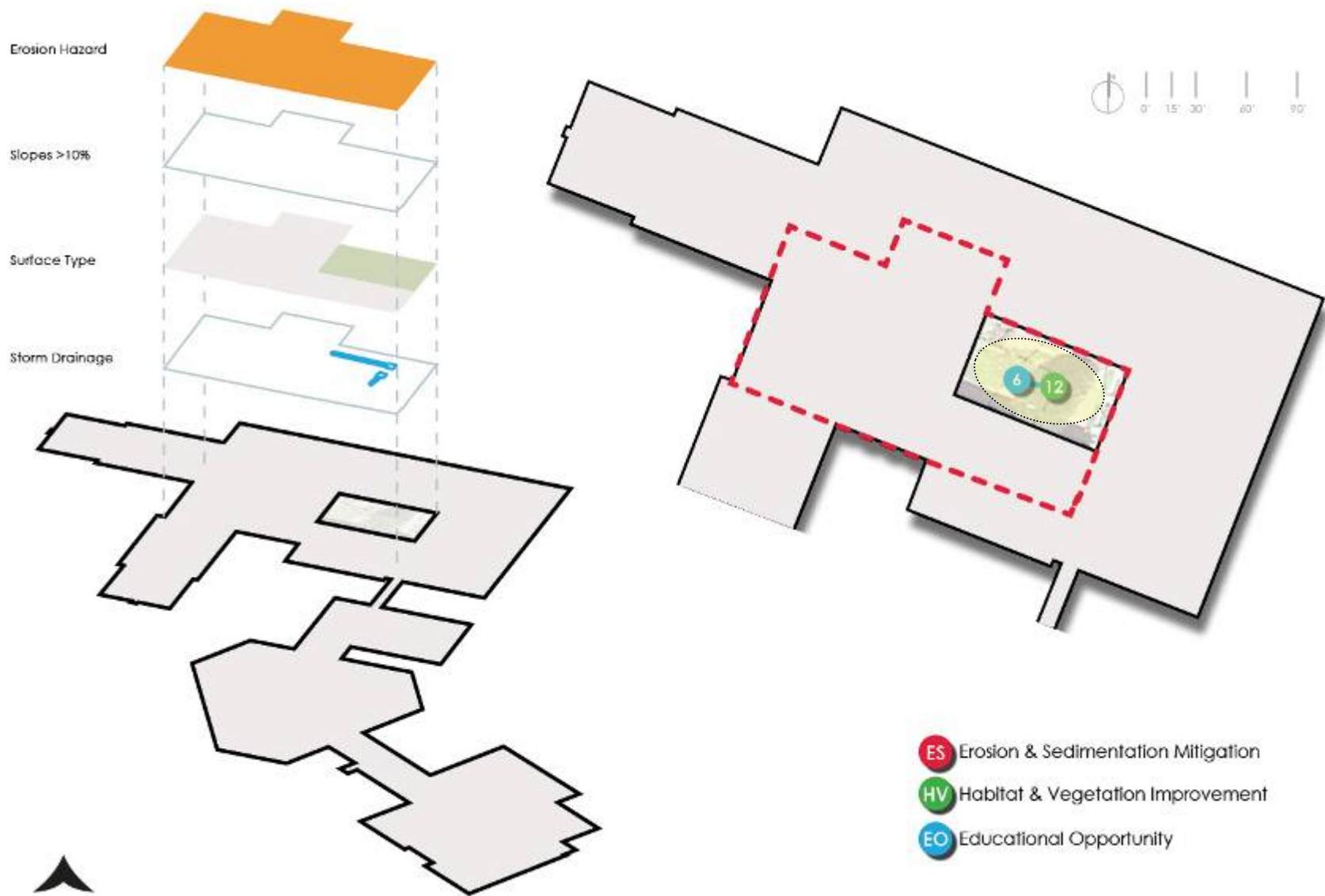


# Drainage Area 1

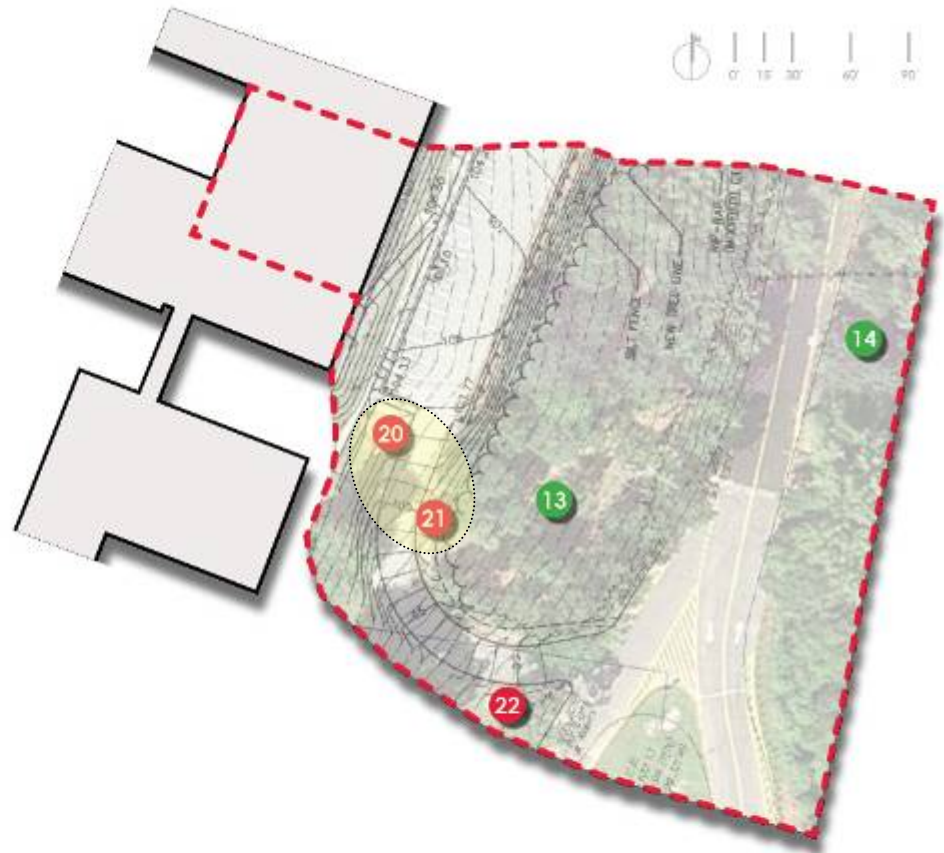
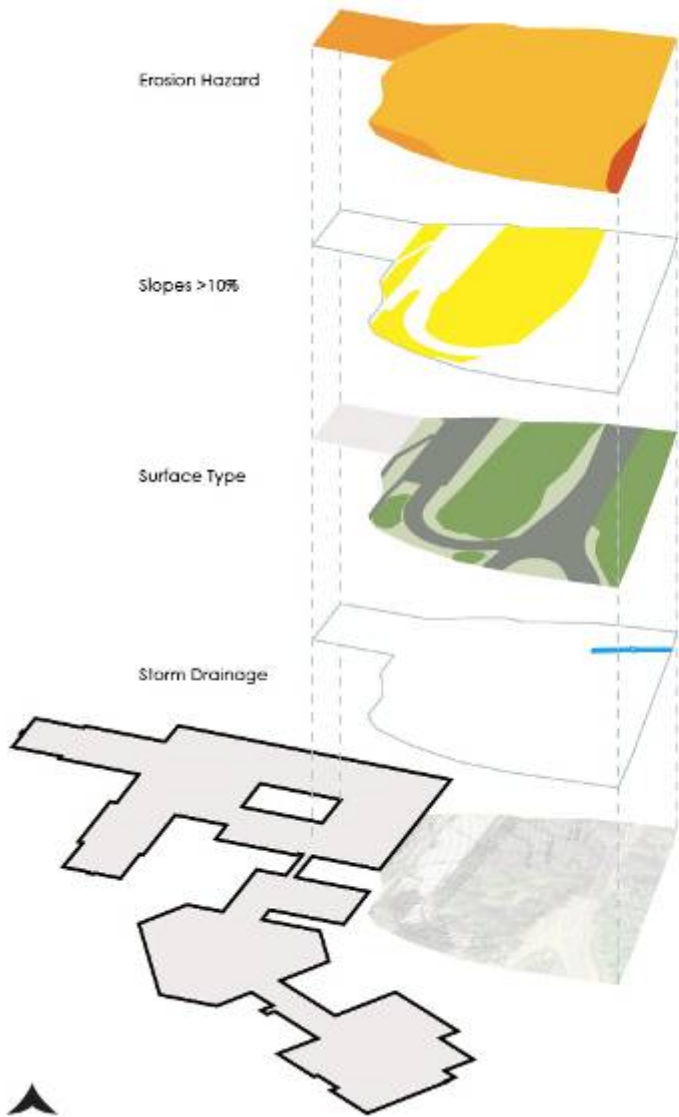


- ES** Erosion & Sedimentation Mitigation
- HV** Habitat & Vegetation Improvement
- EO** Educational Opportunity

# Drainage Area 2

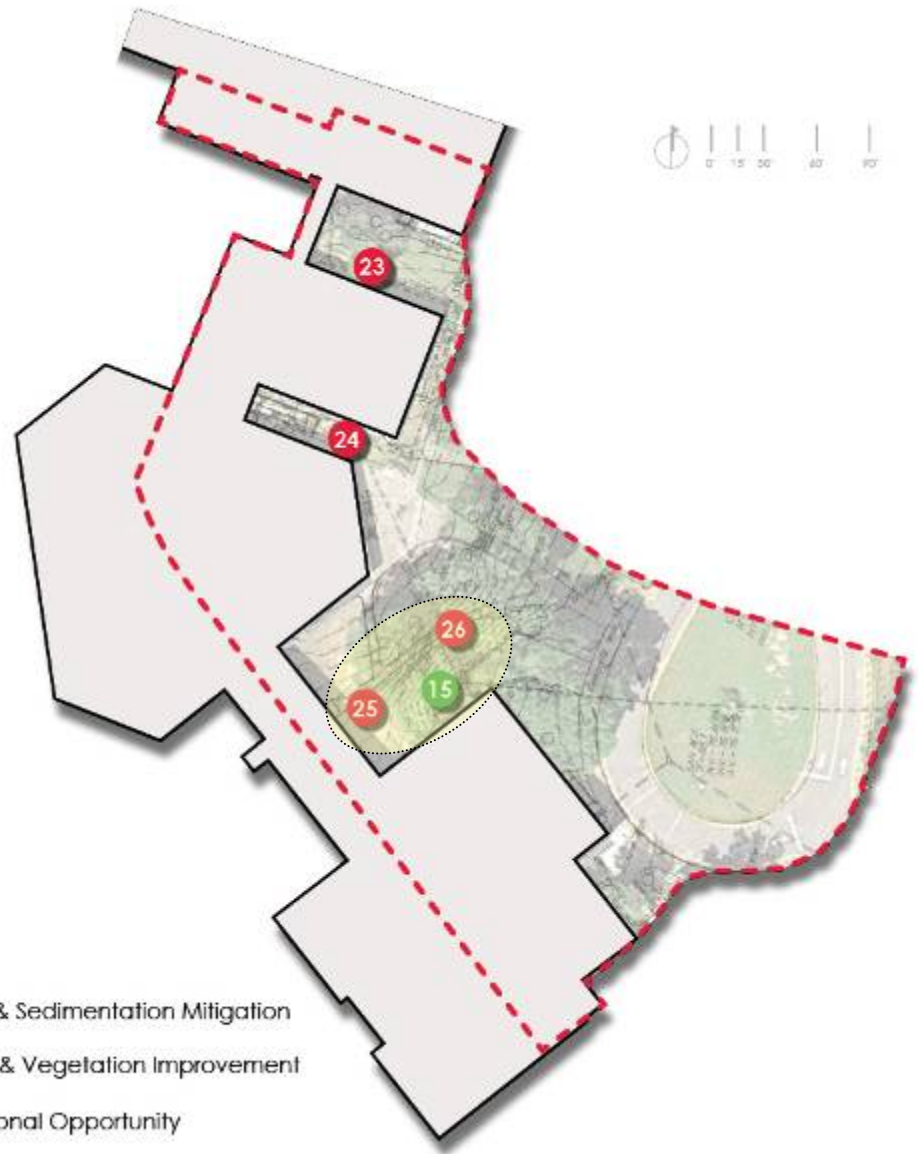
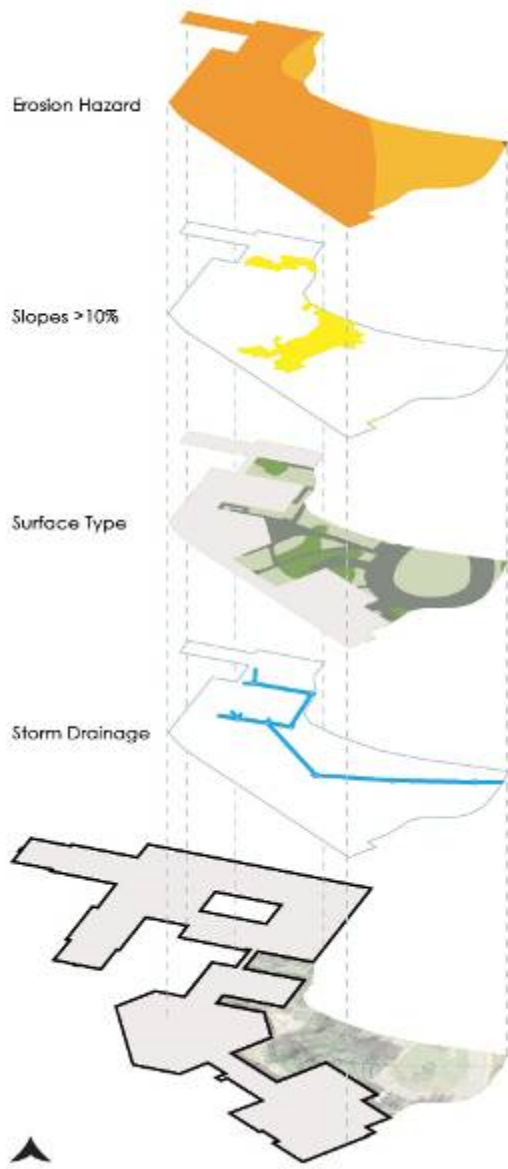


## Drainage Area 3



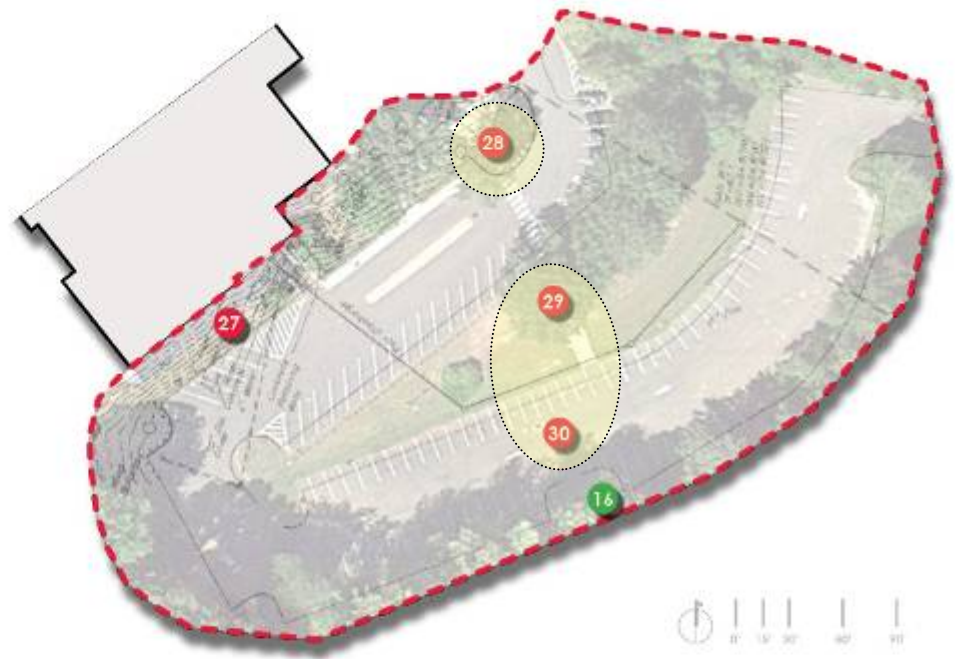
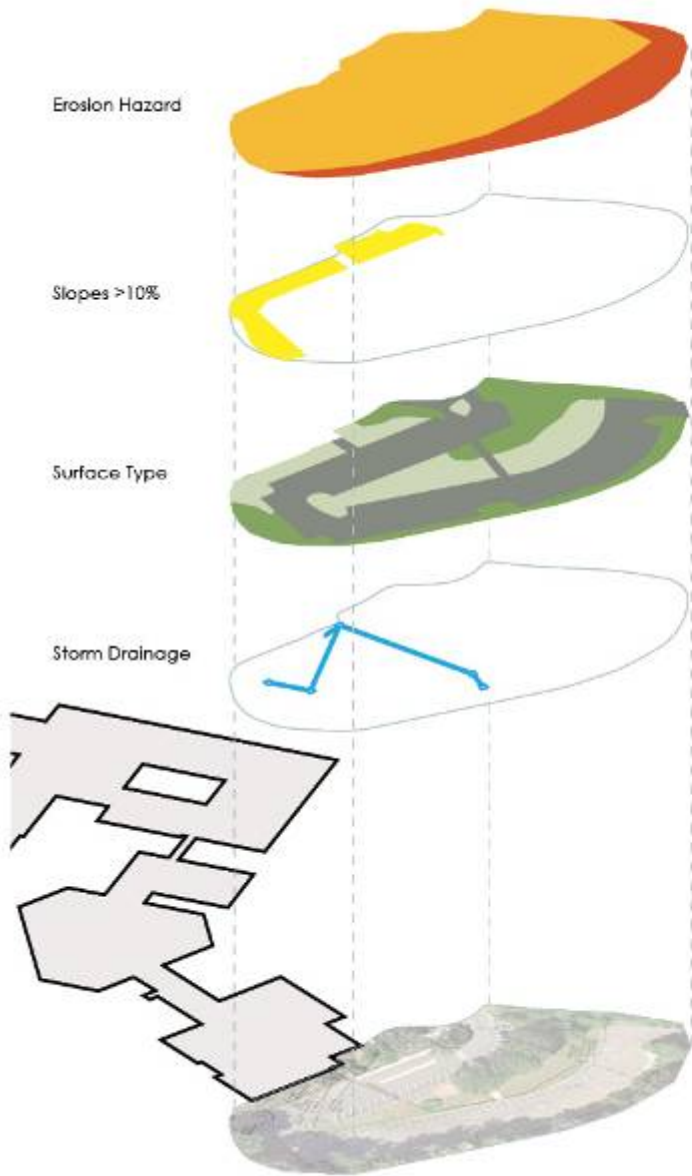
- ES** Erosion & Sedimentation Mitigation
- HV** Habitat & Vegetation Improvement
- EO** Educational Opportunity

# Drainage Area 4



- ES Erosion & Sedimentation Mitigation
- HV Habitat & Vegetation Improvement
- EO Educational Opportunity

# Drainage Area 5



- ES Erosion & Sedimentation Mitigation
- HV Habitat & Vegetation Improvement
- EO Educational Opportunity

# Drainage Area 6

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# Master Plan & Recommended Improvements

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Beecher Road School

# EROSION & SEDIMENTATION MITIGATION

2024 EIT  
 15' x 11' (10' x 8' min)  
 55' x 10' (30')



**1**  
**Catch Basin Cleaning Energy Disposer Outfall**  
 Drainage Area 1  
 Priority: High  
 Cost: \$5

Remove sediment to catch basin within 60 days of catch basin. Provide top energy disposer of all runoff.



**2**  
**Biofiltration Swale**  
 Drainage Area 1  
 Priority: Med/High  
 Cost: \$

Create biofiltration swale along edge of existing parking lot. Receive runoff where discharges.



**3**  
**Rain Garden / Retention Basin**  
 Drainage Area 1  
 Priority: Low/Med  
 Cost: \$55

Convert lawn area south of 10' wing to rain garden. Install grade to receive drainage from building. Make level of water basin and convert to lawn. No vegetation. Use mulch in retention.



**4**  
**Biofiltration Swale**  
 Drainage Area 1  
 Priority: Med/High  
 Cost: \$

Create biofiltration swale along interior pavement side of existing lot.



**5**  
**Biofiltration Swale**  
 Drainage Area 1  
 Priority: High  
 Cost: \$

Create biofiltration swale in wooded area for potential court to catch runoff.



**6**  
**Formalize Walk Revitalize Slope**  
 Drainage Area 1  
 Priority: High  
 Cost: \$5

Provide new accessible walk from "U" deck to wing plan to be installed soon. Revitalize wooded area with non-erosive plants to grade (permeable). Prevent erosion along bedrock. A tree to be cut.



**7**  
**Revegetate Slope**  
 Drainage Area 1  
 Priority: High  
 Cost: \$5

Revegetate heavily eroded slope and install habitat with erosion control blankets and hardy understory plants.



**8**  
**Rain Garden**  
 Drainage Area 1  
 Priority: Med/Low  
 Cost: \$55

Convert lawn at foot of slope to rain garden. Make level of water basin and convert to lawn. No vegetation. Use mulch in retention.



**9**  
**Rain Garden**  
 Drainage Area 1  
 Priority: Med  
 Cost: \$

Convert lawn area north of 10' wing. Provide biofiltration swale. Make level of water basin and convert to lawn. No vegetation. Use mulch in retention.



**10**  
**Formalize Walk Revitalize Slope Biofiltration Swales**  
 Drainage Area 1  
 Priority: Med/High  
 Cost: \$55

Provide accessible walk from wing to both parking areas. Revitalize wooded area with non-erosive plants. Create biofiltration swales in wooded area. Install drainage receiving areas with turf.



**11**  
**Establish Gravel Edge Biofiltration Swale**  
 Drainage Area 1  
 Priority: High  
 Cost: \$

Widen gravel parking area edge to establish gravel edge and biofiltration swale. Fill and grade remainder of biofiltration swale.



**12**  
**Energy Disposer Revitalize Slopes**  
 Drainage Area 1  
 Priority: High  
 Cost: \$

Provide 30'x10' in plan energy disposer of runoff. Revitalize surrounding slopes with erosion control blankets and hardy understory plants for habitat and erosion prevention.



**13**  
**Remove Pavement Biofiltration Swale**  
 Drainage Area 1  
 Priority: Med/Low  
 Cost: \$5

Remove pavement and convert to biofiltration swale.



**14**  
**Establish Gravel Gathering Area Revitalize Slopes**  
 Drainage Area 1  
 Priority: High  
 Cost: \$55

Install gravel gathering / collection area at top level path of lot. Form slope with erodible gravel and non-erosive plants to retain runoff. Install erosion control blankets.



**15**  
**Remove Pavement New Pavement**  
 Drainage Area 1  
 Priority: Med/Low  
 Cost: \$5

Remove existing concrete pavement outside of Science Hall classroom. Replace with porous pavement.



**16**  
**Rain Garden**  
 Drainage Area 1  
 Priority: High  
 Cost: \$55

Convert lawn area at foot of slope to rain garden. Make level of water basin and convert to lawn. No vegetation. Use mulch in retention.



**17**  
**Biofiltration Swale**  
 Drainage Area 1  
 Priority: Low  
 Cost: \$

Convert existing turf slope to biofiltration swale near edge of road.



**18**  
**Rain Garden**  
 Drainage Area 2 & 2  
 Priority: High  
 Cost: \$5

Convert lawn area of 10' wing to rain garden. Install grade to receive drainage from building. Make level of water basin and convert to lawn. No vegetation. Use mulch in retention.



**19**  
**Remove Pavement New Porous Pavement**  
 Drainage Area 2  
 Priority: Low  
 Cost: \$55

Convert asphalt road near building. Replace with porous pavement.



**20**  
**Revitalize Slope**  
 Drainage Area 4  
 Priority: Med/High  
 Cost: \$

Revegetate slope with erodible gravel and non-erosive plants to retain runoff. Install erosion control blankets.



**21**  
**Biofiltration Swales**  
 Drainage Area 4  
 Priority: Med  
 Cost: \$5

Create biofiltration swales along both sides of existing lot.



**22**  
**Porous Pavement**  
 Drainage Area 4  
 Priority: Low  
 Cost: \$5

Provide porous pavement parking spaces in paved lot for the retention office.



**23**  
**Rain Garden**  
 Drainage Area 2  
 Priority: Med  
 Cost: \$5

Convert lawn area north of 10' wing (10' wide) to rain garden. Make level of water basin and convert to lawn. No vegetation.



**24**  
**Revitalize Slopes Rain Garden**  
 Drainage Area 2  
 Priority: Med  
 Cost: \$5

Convert existing lawn area between "U" and "V" wing to erodible gravel and non-erosive plants to retain runoff. Install erosion control blankets. Create biofiltration swale along existing existing curb side.



**25**  
**Biofiltration Swale**  
 Drainage Area 5  
 Priority: Low/Med  
 Cost: \$

Create biofiltration swale along interior side of existing parking lot. Revitalize wooded area with non-erosive plants to retain runoff. Install erosion control blankets.



**26**  
**Biofiltration Swales**  
 Drainage Area 5  
 Priority: Med/High  
 Cost: \$5

Convert lawn area of water basin to biofiltration swale. Create biofiltration swale along both sides of new paved parking lot.



**27**  
**Revitalize Slope**  
 Drainage Area 5  
 Priority: Med/Low  
 Cost: \$5

Revegetate steep slope with erodible gravel and non-erosive plants to retain runoff. Install erosion control blankets. Create biofiltration swale along edge of existing lot.



**28**  
**Revitalize Slope / New Walk & Stairs**  
 Drainage Area 5  
 Priority: High  
 Cost: \$5

Revegetate steep slope with erodible gravel and non-erosive plants to retain runoff. Install erosion control blankets. Create biofiltration swale along edge of existing lot.



**29**  
**Revitalize Slope**  
 Drainage Area 5  
 Priority: High  
 Cost: \$55

Revegetate steep slope with erodible gravel and non-erosive plants to retain runoff. Install erosion control blankets. Create biofiltration swale along edge of existing lot.



**30**  
**Porous Pavement**  
 Drainage Area 5  
 Priority: Low  
 Cost: \$55

Convert asphalt area of parking lot to porous pavement.

## Recommended Improvements

# HABITAT & VEGETATION IMPROVEMENTS

COST \$K  
 1 - < \$1,000  
 25 - \$1,000 - \$10,000  
 50 - \$10,000+



**1**  
**Define Edge with Low Invasives**  
 Drainage Area 1  
 Priority: Med  
 Cost: \$

Accommodate future habitat function long-term by defining edge with low-invasives vegetation or mulch.



**2**  
**Establish Gravel Viewing Area**  
**Define Edge with Low Invasives**  
 Drainage Area 1  
 Priority: Med  
 Cost: \$5

Define path into edge with gravel to reduce invasives. Current wood chip coverage of area could be removed and replaced.



**3**  
**Define Edge with Low Invasives Bird/ Bat Boxes**  
 Drainage Area 1  
 Priority: Med  
 Cost: \$5

Define edge of forest area with low-invasives and install bird/bat boxes to increase habitat for wildlife. Low-invasives cover along trail.



**4**  
**Woodland Buffer Remove Invasives**  
 Drainage Area 1  
 Priority: Med  
 Cost: \$

Remove invasives. Plant native and low-invasives to properly define edge and increase habitat for native species.



**5**  
**Woodland Buffer Remove Invasives**  
 Drainage Area 1  
 Priority: Low/Med  
 Cost: \$5

Remove invasives to within 10'-12' of wooded edge. Establish native buffer with low-invasives and mulch seedlings.



**6**  
**Remove Invasives Revegetate Slope**  
 Drainage Area 1  
 Priority: Med  
 Cost: \$

Remove invasives. Establish steep slope with low-invasives plants to create native buffer for slope stabilization, reduced maintenance & habitat value.



**7**  
**Woodland Buffer Remove Invasives**  
 Drainage Area 1  
 Priority: Low  
 Cost: \$5

Remove invasives to within 10'-12' of wooded edge. Establish native buffer with low-invasives and mulch seedlings.



**8**  
**Woodland Buffer Remove Invasives**  
 Drainage Area 2  
 Priority: Low  
 Cost: \$5

Remove invasives to within 10'-12' of wooded edge. Establish native buffer with low-invasives and mulch seedlings.



**9**  
**Buffer/Bat/Bird Boxes**  
 Drainage Area 2  
 Priority: Med  
 Cost: \$

Create a 10'x10' garden plot for habitat design and management by staff and students. Install bird/bat boxes and install a low-invasives buffer.



**10**  
**Green Roof / Blue Roof**  
 All Drainage Areas  
 Priority: N/A  
 Cost: N/A

Potential to convert flat portions of existing roof or new construction to green roof/pond or blue roof/pond. Install habitat and low-invasives along roof edge.



**11**  
**Selective Clear Cut Remove Invasives Native Display Garden Bird/Bat Boxes**  
 Drainage Area 2  
 Priority: Low  
 Cost: \$50

Remove invasives. Selective clear cut to provide building visibility and safety. Establish native display garden with low-invasives. Plant native ground cover as cover for the display. Install bird/bat boxes along trail to habitat area.



**12**  
**Ornamental Sustainability Garden**  
 Drainage Area 3  
 Priority: Low/Med  
 Cost: \$5

Remove existing plants and install low-invasives and native plants to provide habitat and habitat value.



**13**  
**Selective Clear Cut Remove Invasives Woodland Buffer**  
 Drainage Area 4  
 Priority: Low  
 Cost: \$55

Remove invasives. Establish native buffer with low-invasives and mulch seedlings. Selective clear cut to provide building visibility and safety.



**14**  
**Remove Invasives Woodland Buffer**  
 Drainage Area 4  
 Priority: Low  
 Cost: \$55

Remove invasives to within 10'-12' of wooded edge. Establish native buffer with low-invasives and mulch seedlings. Low-invasives cover along edge.



**15**  
**Woodland Buffer Remove Invasives**  
 Drainage Area 3  
 Priority: Med  
 Cost: \$

Remove invasives to within 10'-12' of wooded edge. Establish native buffer with low-invasives and mulch seedlings.



**16**  
**Woodland Buffer Remove Invasives**  
 Drainage Area 8  
 Priority: Low  
 Cost: \$5

Remove invasives to within 10'-12' of wooded edge. Establish native buffer with low-invasives and mulch seedlings.

# EDUCATIONAL OPPORTUNITIES



**1**  
**Native Plant Identification Trail**  
 Drainage Area 1  
 Priority: N/A  
 Cost: N/A

Provide signage to identify native plants and educational trail along drainage edge.



**2**  
**Outdoor Classroom & Learning Gardens**  
 Drainage Area 1  
 Priority: N/A  
 Cost: N/A

Construct use of space as outdoor classroom and learning garden space. Install signage of plant growth, journey to building entry and low-invasives cover.



**3**  
**Permeable Paver & Rain Garden IUD Demonstration Area**  
 Drainage Area 1  
 Priority: N/A  
 Cost: N/A

Construct permeable paver and rain garden IUD demonstration area. Install signage of plant growth, use in conjunction with IUD program.



**4**  
**Classroom-Managed Buffer/Bat/Bird Boxes**  
 Drainage Area 2  
 Priority: N/A  
 Cost: N/A

Create a 10'x10' garden plot for habitat design and management by staff and students. Install bird/bat boxes and install a low-invasives buffer.



**5**  
**Native Habitat Display Garden**  
 Drainage Area 2  
 Priority: N/A  
 Cost: N/A

Establish native display garden with low-invasives. Provide educational signage and information of low-invasives and native plants. Install bird/bat boxes along trail to habitat area.

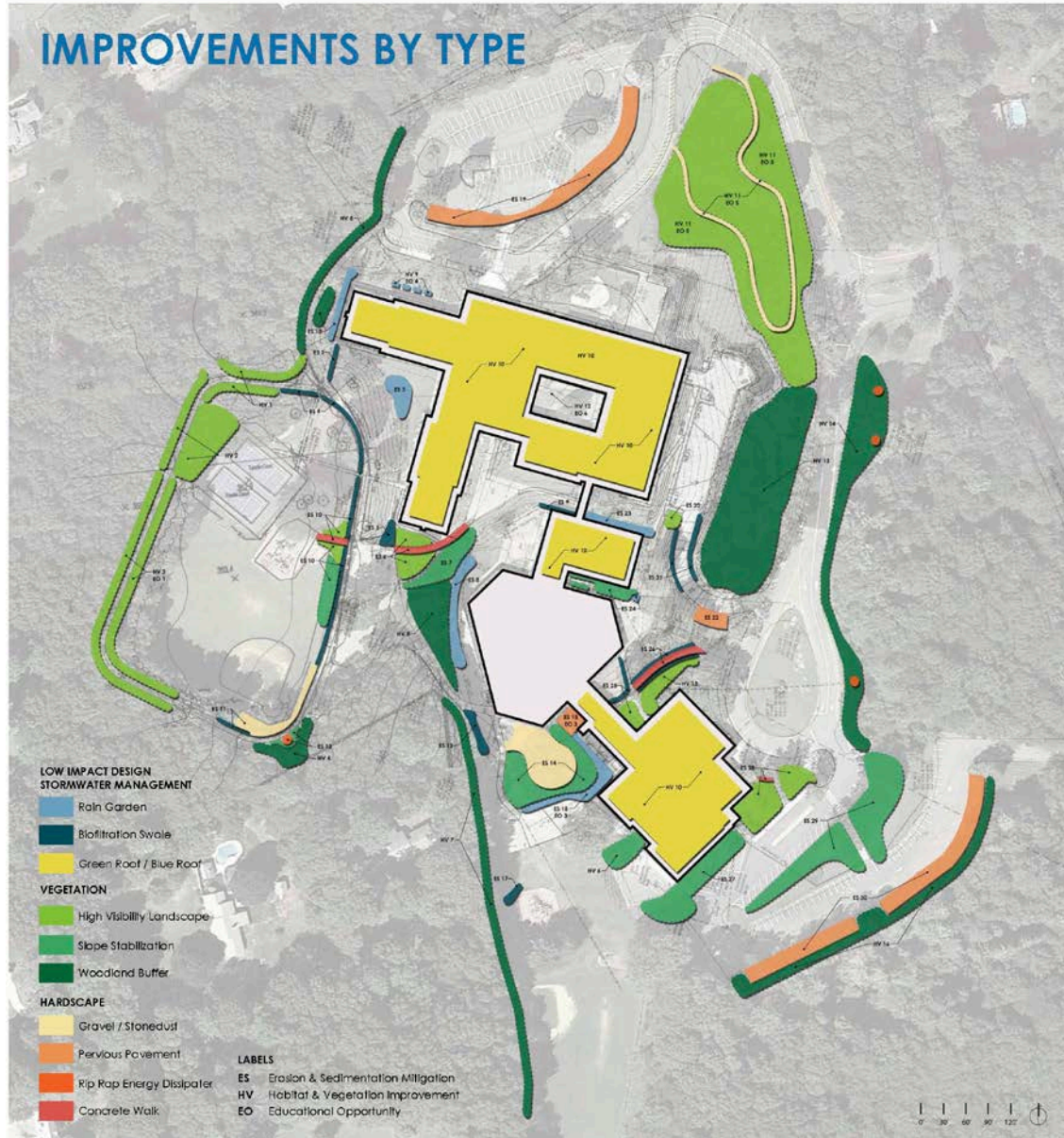


**6**  
**Rainwater Collection / Sustainability Garden**  
 Drainage Area 3  
 Priority: N/A  
 Cost: N/A

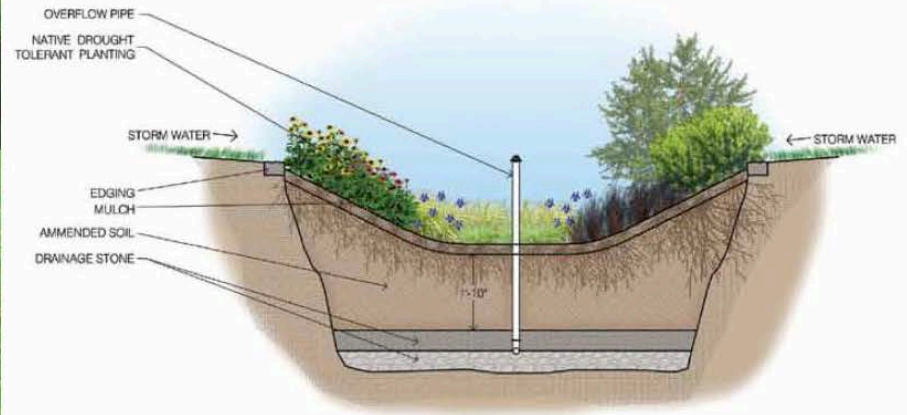
Establish slope with permeable paver and rain garden. Install signage of plant growth, use in conjunction with IUD program.

# Recommended Improvements

# IMPROVEMENTS BY TYPE



# Rain Garden



# Biofiltration Swale



Image: <http://www.usd.gov/eCity/DPW/sustainability/Patentand/CreoInfra/Pages/BuildYourOwnRainGarden.aspx>

## Green Roof / Blue Roof



## Pervious Pavement



# Rain Garden

ES-3



Site Specific Improvements

# Revegetate Slope / Formalize Walk

ES-6



Site Specific Improvements

# Establish Gravel Gathering Area / Revegetate Slope

ES-14



Site Specific Improvements

# Rain Garden

ES-18



Site Specific Improvements

# Selective Clear Cut / Remove Invasives / Native Display Garden / Bird Boxes



# Ornamental Sustainability Garden

EO-6 / HV-12



Site Specific Improvements

# Biofiltration Swale

ES-21



Site Specific Improvements

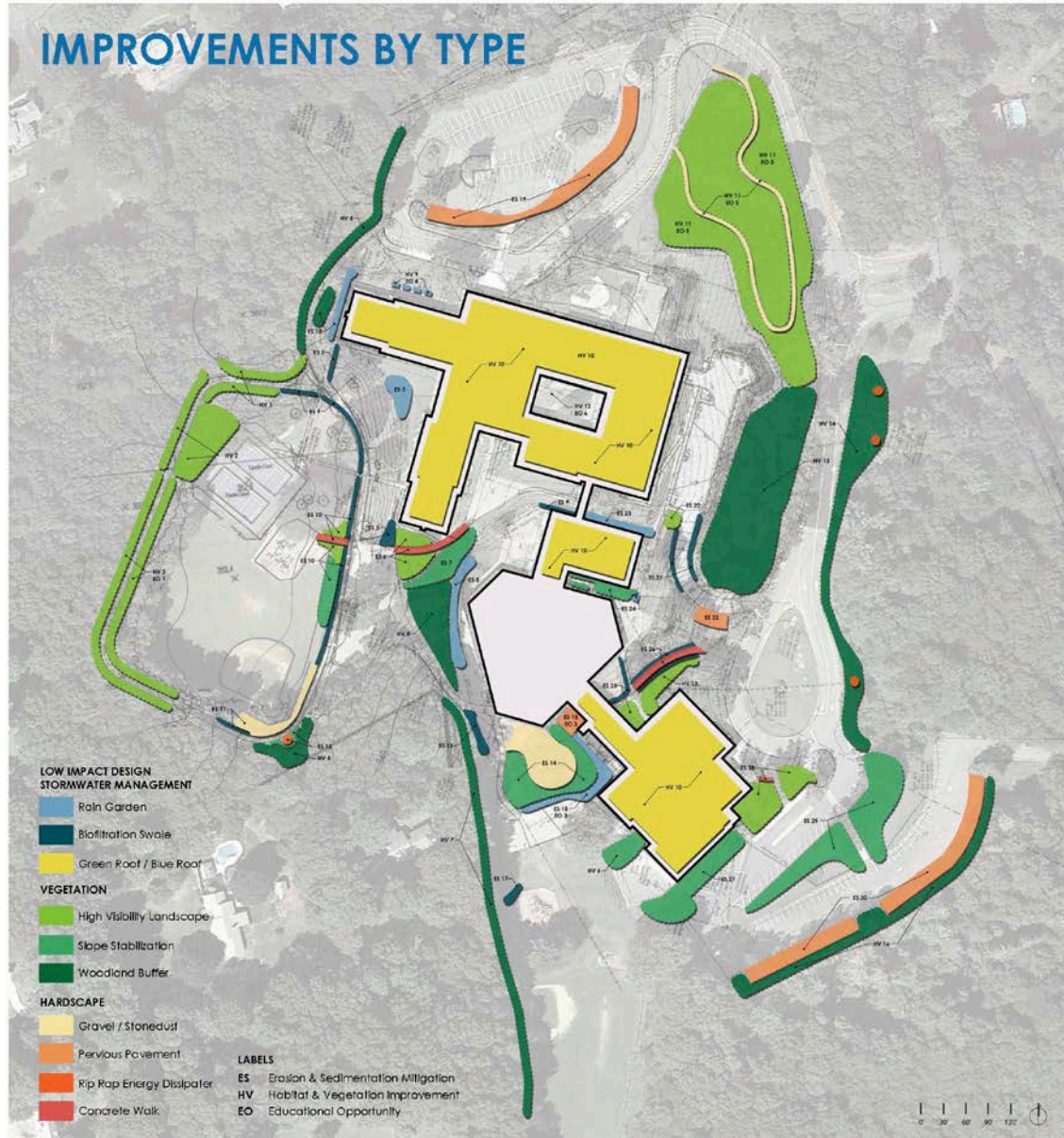
# Pervious Pavers / Revegetate Slope

ES-29&30 / HV-16



Site Specific Improvements

# IMPROVEMENTS BY TYPE



Thank You!

# Drainage Area 1



Kucinkas Loop

# Drainage Area 1



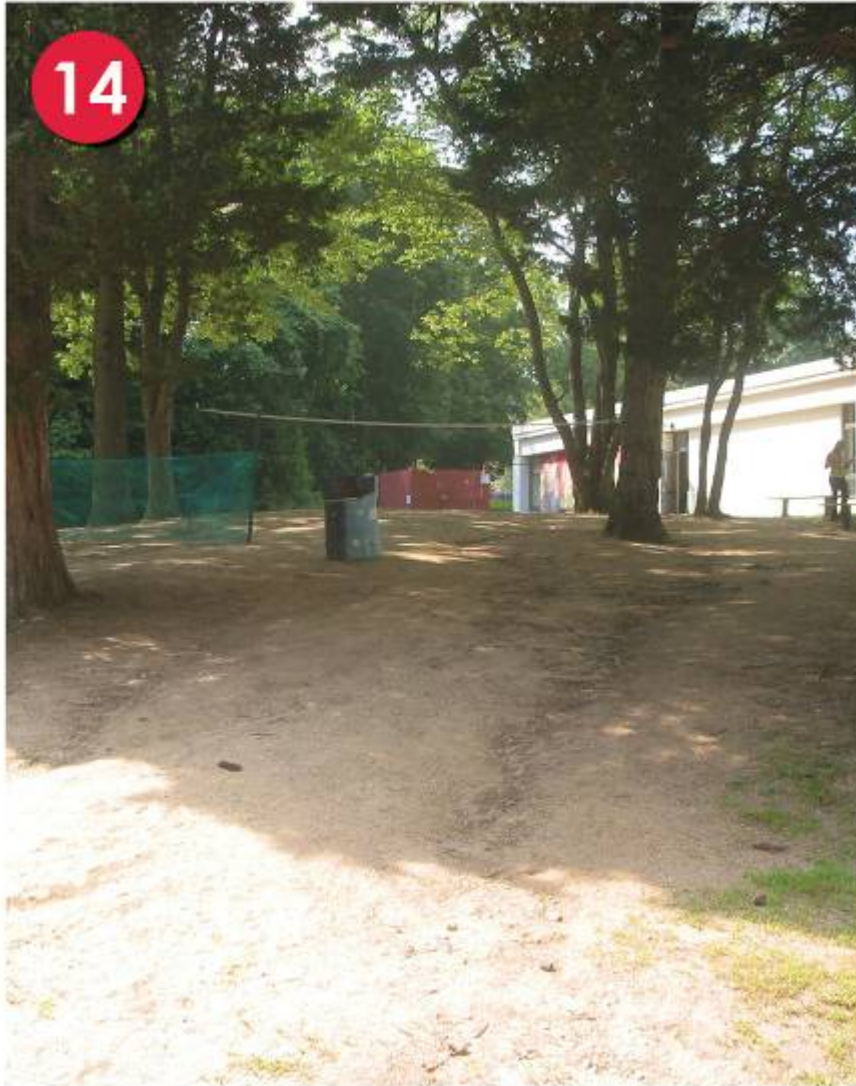
## B Wing Playground Access

# Drainage Area 1



Baseball Field & Southern Property Line

# Drainage Area 1



## Drainage Area 2



A Wing / 1<sup>st</sup> Grade Classrooms

## Drainage Area 2



North Parking Lot Entry

## Drainage Area 3



## Interior Courtyard

## Drainage Area 4



Upper Eastern Drive / D Wing Access

# Drainage Area 5



## Recreation Office Entry (E Wing)

## Drainage Area 6



District Office Entry (E Wing)

## Drainage Area 6



E Wing (Pool) Parking Lots

# Educational Specifications



**Town of Woodbridge - Beecher Road School  
Alteration, Energy Conservation & Roofing Project  
State Project #: TMP-167-TJ VK**

## **Educational Specifications**

**August 15, 2014**



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  - 5. Ceiling Work Plan

I. General Building Information

The Beecher Road School is a kindergarten through 6<sup>th</sup> grade facility located on a 6-acre site at 40 Beecher Road in Woodbridge, Connecticut. The building is a single-story, sprawling facility totaling 144,500 square feet, that was built in phases, beginning with the original building in 1960/64 with subsequent building additions in 1970, 1994 and 1997, as follows:

- A, B & C Wings Original Building: 1960/64
- E & S Wings South School: 1970
- D Wing: 1994
- K-Wing Kindergarten, Cafeteria, Library: 1997

The building includes classrooms, auditorium, gymnasiums, a pool, kitchen/cafeteria, music rooms, science rooms, administrative offices, mechanical equipment rooms, storage areas, corridors, and server rooms. The total occupancy is reported to be approximately 369 people. The south end of the building, including the pool, locker rooms and gymnasium is used by the School and also has a shared by the Town as a recreational facility. **(Refer Area Key Plan below and in Appendix)**



II. Eligible Systems:

A. Whole Building

1. New Air Conditioning System

The School currently has no building-wide, central air conditioning system. The only spaces currently with air conditioning in the building are: the administrative offices, the library, the media center, the IT closets; and the multi-purpose room and support spaces in the center “pod” area in the S-wing. Air conditioning was also cited as a recommendation in the School’s security risk assessment to eliminate the practice of keeping the classroom exterior doors open in the summertime.

A new central chilled water plant will be provided as a “new feature” for the building. The system shall consist of the following components:

- A new 275-ton, roof-mounted, air-cooler chiller; with structural support steel, and all associated equipment including:
- The building’s existing hot water piping distribution system shall be converted to a new chilled water/hot water, dual temperature piping distribution system. A dedicated HW only piping loop shall be added to serve the year-round heating only loads including pool water heating, domestic water heating, cabinet/unit heaters and perimeter radiation. Insulation shall be added to the existing water piping as necessary to meet requirements for a chilled water piping system; new chilled water and secondary distribution pumps and VFDs; new electrical circuits to provide power for the new equipment; a building management (BMS) automatic temperature control system to serve all new equipment.

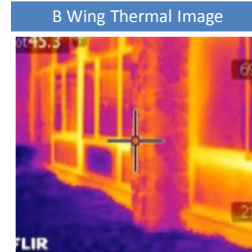
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  - [REDACTED]
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- The A-wing houses (5) 1<sup>st</sup> grade classrooms, (1) 2<sup>nd</sup> grade classroom, a music room, art room, speech therapist and classrooms for the 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> grades, a gymnasium/commons area, and the central mechanical room.
- The B-wing contains (4) 2<sup>nd</sup> grade classrooms; (4) multi-age classrooms, a unique educational model consisting of a classroom for each 1<sup>st</sup> through 4<sup>th</sup> grades.
- The C-wing houses (5) 3<sup>rd</sup> grade classrooms; and a intermediate special education intensive resource room.
- The center B-K Wing contains the north gymnasium and commons area, where physical education takes place including before and after-school programs; a psychologist office, language arts center; teacher's lounge/lunch room; and a health education, special education classroom, math-lab classrooms and the general administration offices.

The eligible work being done in the A, B & C wings consist of the following scope of work:

- **Roofing Demolition and New Roofing Installation:** The roof in this section of the building (**Refer to Roofing Plan in Appendix**) is original to the 1960 construction making it 50 years old. The School has requested and received a waiver from the Commissioner's office to do an emergency roofing demolition and new roofing installation, in the A wing of the School, prior to this request for State plan approval. The reason for the emergency waiver was because the A-wing roof has had numerous leaks and the under-decking panels, that are exposed in the classrooms below this portion of the roof producing a mildew odor and it recently tested positive for mold.
- **Window Wall Demolition and New Window Wall System:** The window wall systems in these sections of the building (**Refer to Window Wall Plan in Appendix**) are original to the 1960 construction, and have failed. The caulking has failed, is crumbling and missing in sections, and has also tested positive for asbestos. The existing window and wall system does not meet the State's current energy code for thermal boundary performance standards with minimal insulation and single-paned glass. The following is an infrared scan of the building façade in the B-wing indicating substandard thermal boundary performance:



- **New Air Conditioning:** The A, B and C wings are currently provided with heating and ventilation only, however, no air conditioning, via a wall mounted unit ventilator in each classroom. These old heating-only unit ventilators will be demolished; and new unit ventilators with heating, as well as, a new air conditioning feature, will be installed. The building's new direct digital control system will be extended to the new unit ventilators.
- **Casework Demolition with New ADA Casework and Sinks:** Each classroom in the A, B, and C wings has sinks in a casework base that are not handicapped accessible. The sinks and casework will be demolished and new ADA compliant casework will be installed. **(Refer to Caseworks & Sinks Plan in Appendix)**

C. D-Wing:

The D-wing addition to the building was constructed in 1994 as a building addition. The D-wing houses the following educational components: four (4) 4<sup>th</sup> grade classrooms; a nurse's office; Spanish classroom; and a special education suite. The following are the scope of work items in the project for the D-wing:

- **New Air Conditioning:** The D-wing is currently provided with heating and ventilation only, however, no air conditioning, via a wall mounted unit ventilator in each classroom. These old heating-only unit ventilators will be demolished; and new unit ventilators with heating, as well as, a new air conditioning feature, will be installed. The building's new direct digital control system will be extended to the new unit ventilators.
- **Ceiling Work:** The ceiling tiles are being replaced in the corridors to accommodate the new work going in above them. The scope of work includes demolishing the existing 2'x4' ceiling grid and tiles, and installing a new 2'x2' grid and ceiling tiles in the main corridor along the entire length of this wing. **(Refer to Ceiling Work Plan in Appendix)**

D. K & C-K Wing:

The K wing and the C-K wings of the building are the newest section of the

building constructed in 1997 as a building addition. The K-Wing contains (6) kindergarten classrooms; a pre-school classroom; the primary special education intensive resource room; with an interior outdoor courtyard. The C-K Wing contains the kitchen, cafeteria serving all 780 students each day; library/media center and technology center.

The following are the scope of work items in the project for these areas:

- **New Air Conditioning:** The K-wing is currently provided with heating and ventilation only, however, no air conditioning, via a wall mounted unit ventilator in each classroom. These old heating-only unit ventilators will be demolished; and fan coil units, one per classroom with heating, as well as, a new air conditioning feature, will be installed. Ventilation will be provided by new roof mounted energy recovery ventilators (ERV's) with associated ductwork to each fan coil unit. The building's new direct digital control system will be extended to the new fan coil units and ERV's.
- **Ceiling Work:** The ceiling tiles are being replaced in the corridors to accommodate the new work going in above them. The scope of work includes demolishing the existing 2'x4' ceiling grid and tiles, and installing a new 2'x2' grid and ceiling tiles in the main corridor along the entire length of this wing. (**Refer to Ceiling Work Plan in Appendix**)
- **Painting:** The corridor walls in the K-wing will be painted (2) coats of a low VOC paint.

E. S-Wing:

The S-wing of the School was part of the 1970's building addition. This wing of the School contains six (6) 6<sup>th</sup> grade classrooms; six (6) 5<sup>th</sup> grade classrooms; a psychologists office; educational resource room; language arts instructional classroom; an intermediate math lab classroom; a computer lab; a speech center; art room; science lab; Spanish classroom; music classroom; the intermediate staff lunch room/lounge; copy room; and multi-purpose room for educational events that is used both daytimes for educational activities, and evenings for community events including girl scouts, Town recreation program, PTA meetings and professional development meetings.

The following are the scope of work items in the project for these areas:

- **New Air Conditioning:** The classrooms in the S-wing are currently provided with heating and ventilation only, however, no air conditioning. These old heating-only air handling units with all associated ductwork will be demolished; and fan coil units, one per classroom with heating, as well as, a new air conditioning feature, will be installed. Ventilation will be provided by new roof mounted energy recovery ventilators (ERV's) with

associated ductwork to each fan coil unit. The building's new direct digital control system will be extended to the new fan coil units and ERV's.

- **Ceiling Work:** The ceiling tiles in the corridors in the S-wing are being replaced to accommodate the new work going in above them. The scope of work includes demolishing the existing 2'x4' ceiling grid and tiles, and installing a new 2'x2' grid and ceiling tiles in the main corridor along the entire length of this wing. **(Refer to Ceiling Work Plan in Appendix)**
- **Painting:** The corridor walls in the S-wing will be painted (2) coats of a low VOC paint.

F. E Wing:

The E-Wing of the building is shared between School and Town recreational functions and is used daytimes, evenings and weekends. In the mornings during pre-school hours it is used for team practice and school programming; from 8:30 AM to 3 PM it is used by the School for gym classes; after school hours it is used for recreation and extended day programming; and evenings and Saturdays and Sundays it is used for Town recreation programming and leagues for both children and adults.

The spaces in this portion of the building contain: the district superintendent's offices; the south gymnasium; natatorium; Town recreation office; band recreation room; and a south assembly/multi-purpose room that is also used 7 days a week for School events; Town agency meetings; and weekends as a community center that Town residents can reserve.

The following are the scope of work items in the project for these areas:

- **New Air Conditioning:** The spaces in the E-wing are currently provided with heating and ventilation only, however, no air conditioning. They are served by three (3) air handling units: one serves the gymnasium, assembly/fitness center; locker room, respectively. These old heating-only air handling units will be demolished; and new air handling units, with heating, as well as, a new air conditioning feature, will be installed. Ventilation will be introduced to each air handling unit via outside air louvers as it currently is. The building's new direct digital control system will be extended to the new fan coil units and ERV's.
- **Ceiling Work:** The ceiling tiles in the corridors in the S-wing are being replaced to accommodate the new work going in above them. The scope of work includes demolishing the existing 2'x4' ceiling grid and tiles, and installing a new 2'x2' grid and ceiling tiles in the main corridor along the entire length of this wing. **(Refer to Ceiling Work Plan in Appendix)**

- Painting: The corridor walls in the S-wing will be painted (2) coats of a low VOC paint.

### III. Ineligible Systems:

#### A. Whole Building:

1. Lighting: The existing lighting throughout the School are fluorescent fixtures with 32-watt T-8 lamps. The fixtures will be retrofitted with new ballasts and the lamps will be replaced with new T-8 lamps of lower wattage as an energy efficiency measure. The classrooms new occupancy sensor lighting controls will be installed as a new feature.
2. Building Envelope Improvements: A general sealing of the building envelope will be performed to address the deficiencies identified in the infrared imaging report commissioned by the School. Scope of Work shall include the following (Refer to Exhibit A-2):
  - Weather-stripping (92) standard exterior doors and (1) garage door.
  - Sealing the roof/wall intersection of the of the building.
  - Caulking seams, joints and connections on the wood ceilings as directed by the blower door.
  - Insulating and sealing the wall between the pool and the pool ramp.
3. Domestic Hot Water Heater Upgrades: The building's existing fuel oil-fired and electric domestic water heaters will be replaced to provide the benefits of higher energy efficiency and cost savings from switching fuels to natural gas. New instantaneous water-to-water heat exchangers fed from the central gas-fired boiler plant will be provided including hot water and recirculation distribution piping, valves, fittings and controls for a complete system.
4. Electric Load Control Systems: A plug load control system will be installed on all building printers, copiers and overhead projectors enabling them to be turned off automatically during un-occupied hours. A commercial refrigeration energy economizer will be installed on the kitchen walk-in refrigerators and freezer, consisting of a refrigeration sensor and controller, to reduce the compressor cycles of these appliances.
5. Electric Transformer Replacement: The building's existing standard-efficiency will be replaced with new Energy-Star rated, high efficiency models meeting the NEMA Standard TP-1 requiring replacement of transformers of 600 volts or under. NEMA Standard TP-1 was originally developed to promote the use of higher efficiency transformers in support of the Department of Energy's

(DOE) guidelines for more efficient electrical devices that reduce energy consumption.. Transformers to be replaced shall include:

Location	Qty.	kVA
Electrical / Boiler Room	1	150
Electrical / Boiler Room	1	112.5
Kitchen Basement	1	150
Janitor's Closet	1	30
Custodian Office Closet	1	45
Custodian Office Closet	1	15
Gym Storage	1	45

6. Water Fixture Retrofit: The building's existing high-flow plumbing fixtures shall be replaced with new low flow fixtures for all restrooms throughout the School, including faucets, urinals, toilets and showerheads, as follows:

- The existing floor and wall-mounted, 3.5 gallon per flush flushometer toilets shall be replaced with new 1.28 gallon per flush toilets and new flush valve.
- The existing 1.5 gallon per flush urinal valves shall be retrofitted with ½ -gallon per flush retrofit kits.
- New ½ -gallon per minute moderators shall be installed on existing standard and infra-red lavatory faucets.

7. Micro-turbine: A new roof-mounted, on-site power generator micro-turbine shall be installed as an energy cost saving measure. The new micro-turbine shall utilize natural gas to generate 65 KW of electricity and 400 MBH of waste heat for pool water heating, domestic water heating, and building space heating in the wintertime.

8. Painting: The corridor walls throughout the School will be painted (2) coats of a low VOC paint. **(Refer to New Painting Plan in Appendix)**

B. A, B & C-wings

1. Painting: The classrooms in the A, B and C wings will be painted (2) coats of a low VOC paint. The classroom ceilings will be painted with (1) coat of flat paint. The exposed steel beams in the classrooms will be painted with (2) coats of DTM metal protective paint (as accent color). **(Refer to New Painting Plan in Appendix)**

C. S-Wing:

Air Conditioning Unit Replacement: The multi-purpose room and adjacent

interior support spaces in the S-wing are currently provided with heating, ventilation and air conditioning via an air handling unit with split roof-mounted condensing unit. This system will be replaced with a new indoor air handling unit (AHU) equipped with hot water/chilled water coils capable of being fed from the new central boiler and chiller plant. Ventilation will be provided by a new roof mounted energy recovery ventilators (ERV's) with associated ductwork to the AHU. The building's new direct digital control system will be extended to the new AHU and ERV's.

D. E-Wing:

Pool Dehumidification Unit Replacement: The pool area in the E-wing is currently served by an indoor air handling unit that provides heating and ventilation to the space. The unit was also originally equipped with a dehumidification feature via a split outdoor roof mounted condensing unit, however, this unit failed shortly after it was installed and hasn't functioned in several years. This old heating-only air handling units will be demolished; and new air handling units, with heating, as well as, a new air conditioning feature, will be installed. Ventilation will be introduced to each air handling unit via outside air louvers as it currently is. The building's new direct digital control system will be extended to the new fan coil units and ERV's.

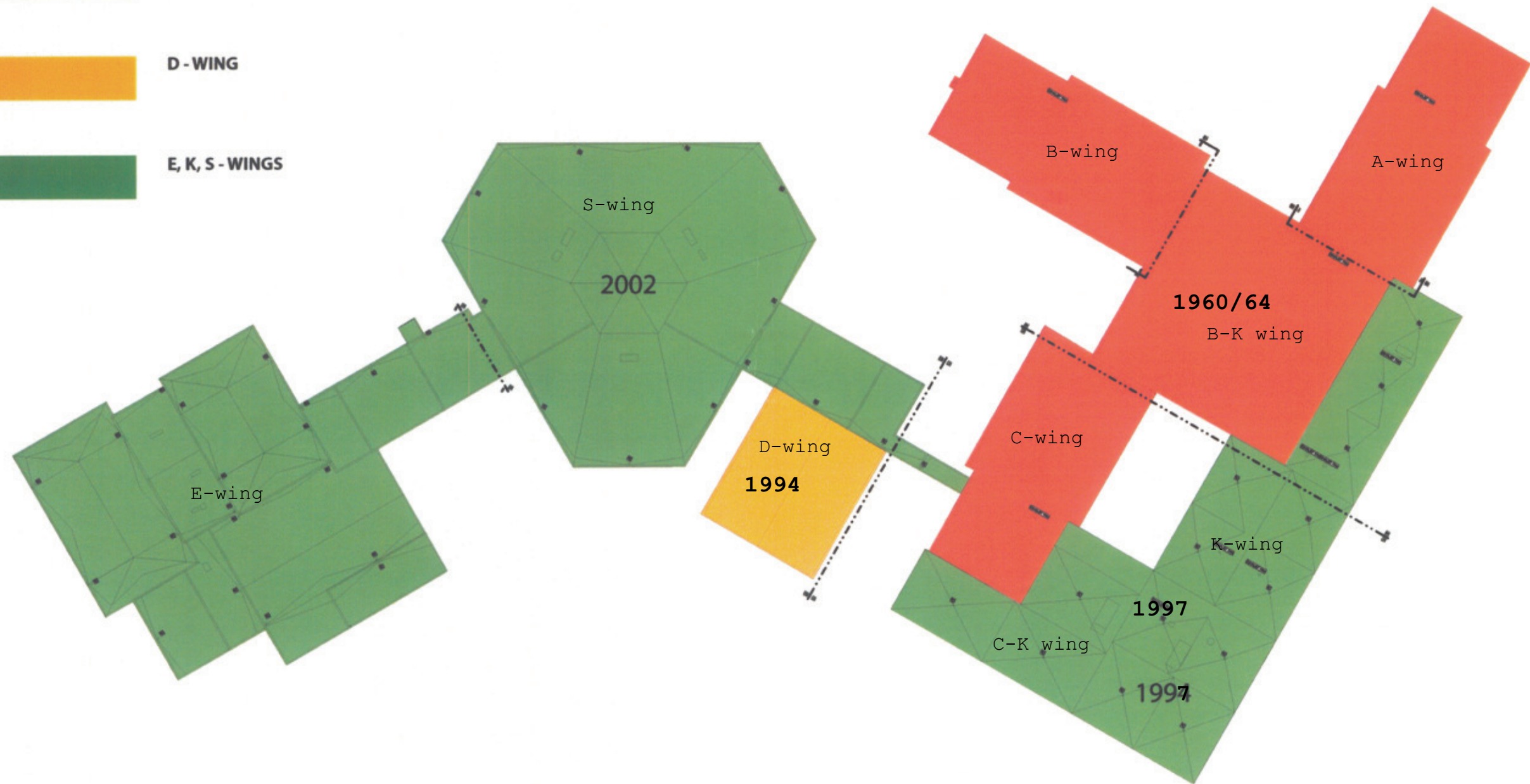
## **APPENDIX**

1. Key Plan
- 2 Roofing Plan
- 3 Window Wall Plan
- 4 Casework and Sinks Plan
- 5 Ceiling Work Plan

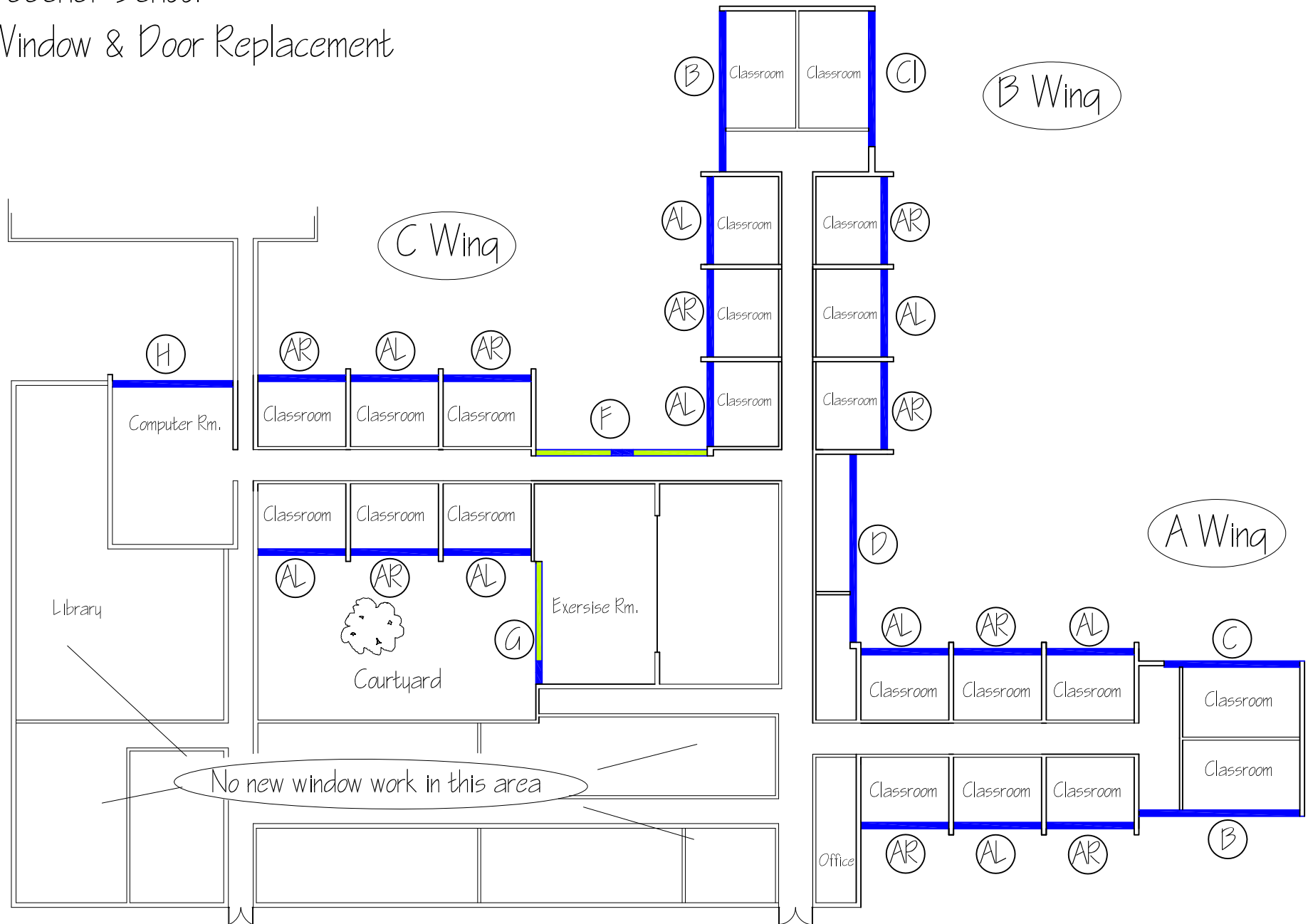


# Existing Conditions: Roofing Systems

- A, B, C - WINGS
- D - WING
- E, K, S - WINGS

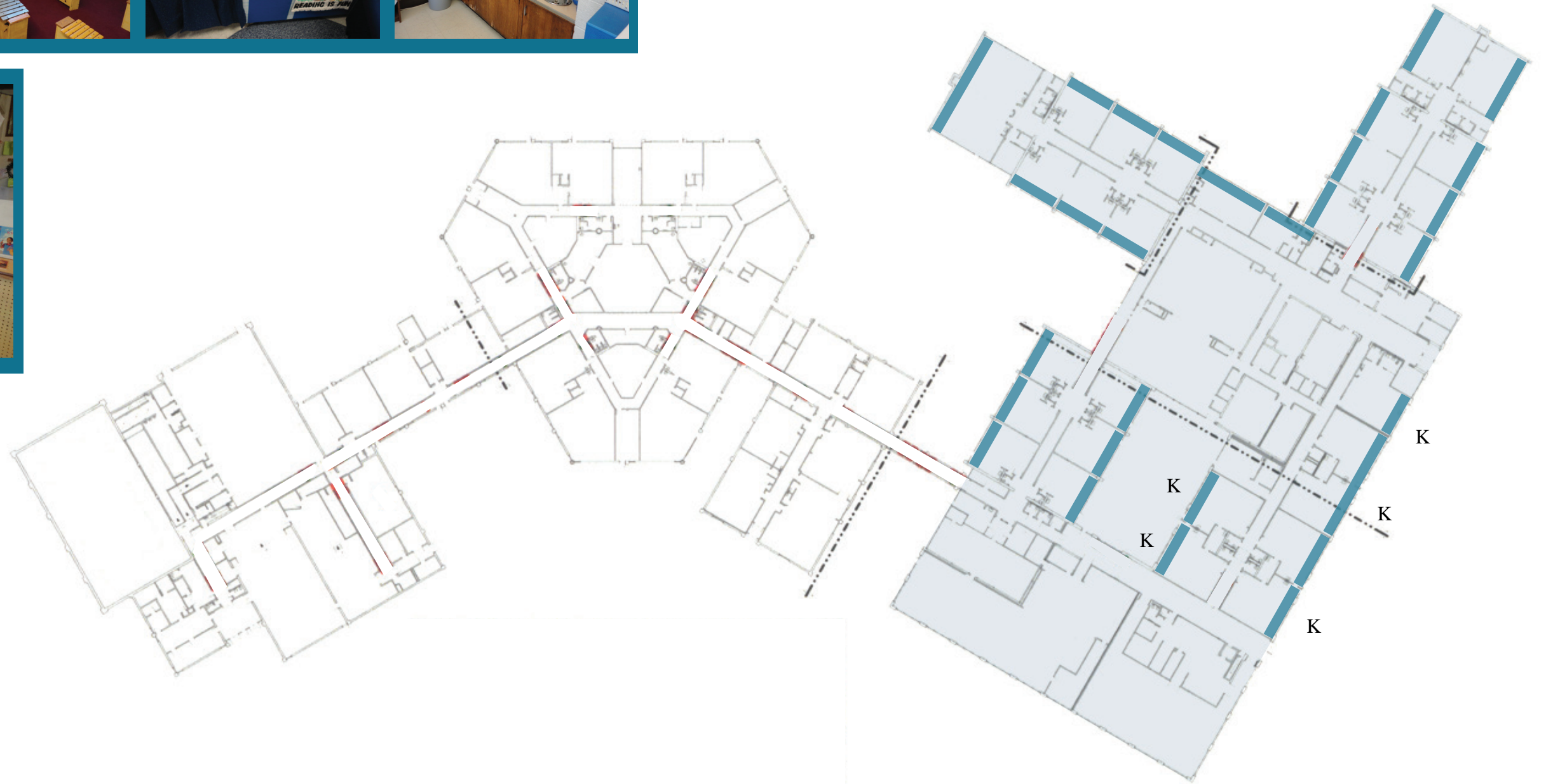


A & A Window Products  
Beecher School  
Window & Door Replacement



# Proposed Caseworks & Sinks

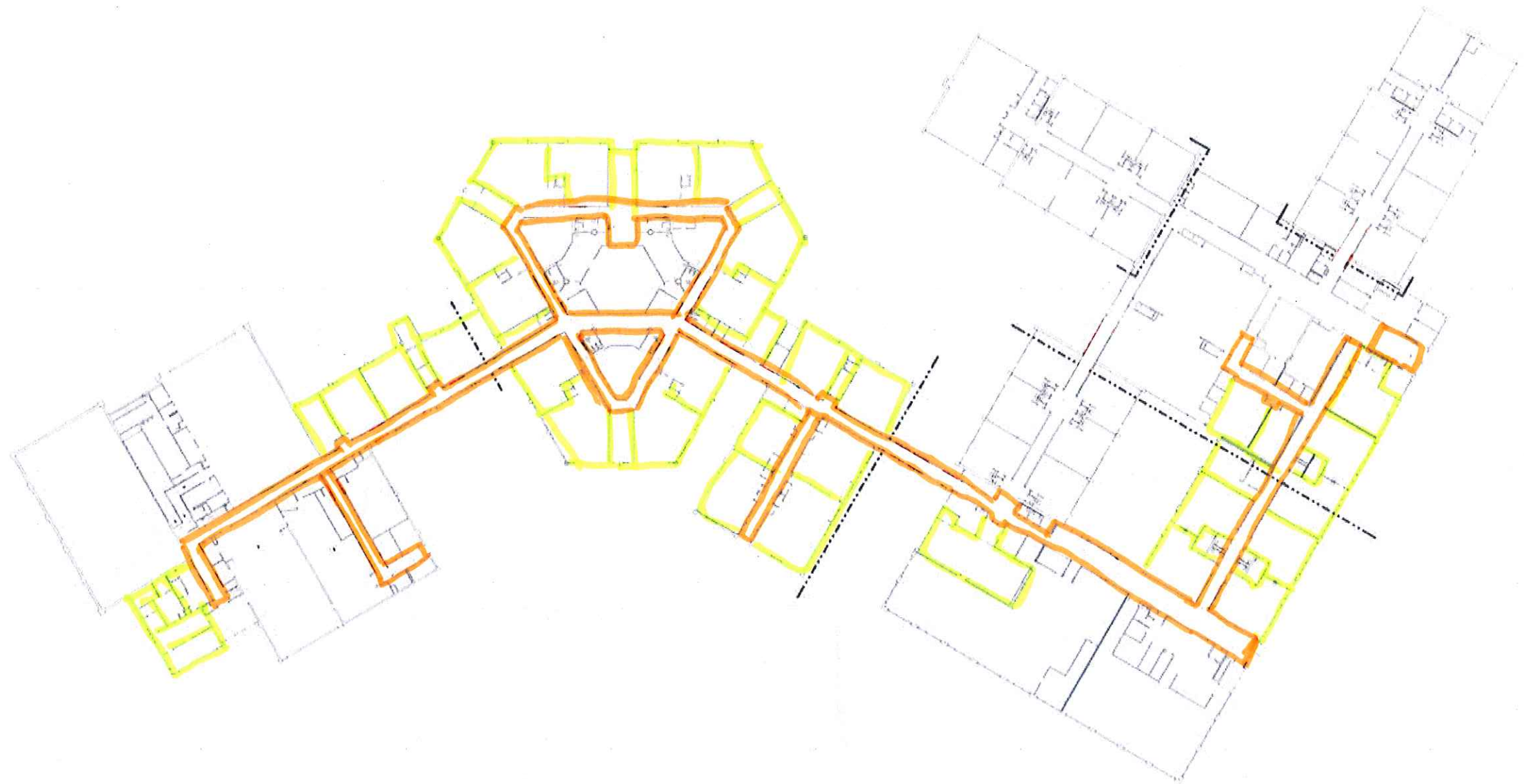
TO MATCH EXISTING CASEWORKS



Note: K wing mill work to replace 7-foot unit ventilators being removed

■ NEW CASEWORK & SINKS

EXHIBIT A-7



- New Tile and Grid
- Existing Tile



June 7, 2021

*via email*

Mr. Jonathan S. Budd  
Superintendent  
Woodbridge School District  
40 Beecher Road-South  
Woodbridge, CT 06525

**RE: Beecher Road Elementary School  
RetroCommissioning/TAB  
van Zelm #2018137.03**

Dear Mr. Budd:

We are pleased to offer this proposal for professional engineering services to evaluate the existing HVAC systems at the Beecher Road School.

Our scope of work includes measurement of the outdoor airflows and RetroCommissioning for all areas outside of the classrooms to confirm all systems are operating as required.

#### SCOPE OF SERVICES

##### **A. RetroCommissioning/Verification of proper operation of HVAC Systems**

As previously discussed with the Facilities personnel, the areas that surround the classrooms will influence the classroom space conditions, so it would be important to ensure that all the HVAC systems in the building are operating correctly. This is particularly important considering the recent requirements surrounding the Covid-19 re-opening guidelines published by the Department of Health. Please see Attachment A for the recommended scope of work.

##### **B. Documentation of Outdoor Airflows**

Outdoor airflows for all central Air Handling units throughout the building will be measured and documented.

##### **C. Control Contractor Support during Evaluation/RetroCommissioning process**

Control Contractor Support during the evaluation and RCx process will be required and will be carried as a separate cost. Scope of work required will be:

1. Delete "read only" hardware points on all necessary equipment.
2. Rebuild hardware points as "user adjustable" for all necessary equipment.
3. Provide 2 days of additional technical support.

**FEE FOR SERVICES**

We propose to provide the above engineering services for the lump sum fee of Thirty Four Thousand Eighty Dollars. A Breakdown of this fee is as follows:

<b>Task</b>	<b>Fee</b>
A. RetroCommissioning of HVAC Systems	\$26,600
B. Documentation of Outdoor Airflows	\$4,400
C. Control Contractor Support	<u>\$3,080</u>
<b>Lump Sum Grand Total: \$34,080</b>	

We will bill monthly based on percent of completion. Any authorized ~~additional~~ services will be charged per the attached Rate Schedule A&B.

**NOTES AND EXCLUSIONS**

- Our work will not include identification of hazardous materials or definition or remediation approach.
- Air quality monitoring is excluded from our base scope of services. If desired, we can provide these services through a subcontractor.
- Cost estimating services are excluded; it is assumed that they will be provided by a local contractor under contract to Woodbridge School District.

**SUMMARY**

We thank you for the opportunity to work with you again. I would be pleased to meet with you and discuss any questions you may have. I can be reached anytime on my cellphone at (860) 729-1807.

Very truly yours,

**VAN ZELM HEYWOOD & SHADFORD, INC.**



Bill Donald  
Team Leader- Commissioning Services  
Certified Building Commissioning Professional (CBCP®, EBCP®)

WJD:wjd

Enc: Rate Schedules A & B

Attachment A: RetroCommissioning scope of work

cc: van Zelm – Tom Wunder, Joe McCarthy, Patricia Bilotto, Susan Labas, Beatrice Chipelo



**RATE SCHEDULE A: LABOR RATES**

<b><u>CLASSIFICATION</u></b>	<b><u>HOURLY RATE</u></b>
Principal	\$230.00
Senior Associate	188.00
Associate	183.00
Team Leader/PM	172.00
Senior Consultant III/Senior Specialist III	210.00
Senior Consultant II/Senior Specialist II	158.00
Senior Consultant I/Senior Specialist I	145.00
Consultant II/Specialist II	129.00
Consultant I/Specialist I	112.00
Senior Designer/Senior Technician	103.00
Designer/Technician	89.00
Support Technician	81.00
Draftsperson	78.00
Administrative Assistant	60.00
Legal Preparation	275.00
Legal Expert Testimony	375.00

Client-Requested overtime shall be invoiced at a multiple of 1.25 times the listed rates.  
 An additional 25% surcharge may be assessed on listed rates to provide immediate service demand disruptive to on-going project schedules.

**RATE SCHEDULE B: REIMBURSABLE EXPENSES**

Reimbursable expenses are in addition to the compensation for basic and additional services. They include actual expenditures made by van Zelm Heywood & Shadford, Inc., (van Zelm) its employees, and any consultants to van Zelm in the interest of the project. Reimbursable expenses include the following:

1. Expense of transportation in connection with the project. Specifically, personal auto mileage is charged in accordance with the most current IRS guidelines for personal mileage reimbursement, or in cases of business travel in excess of 100 miles per day round trip, rental car fees, gas and expenses may apply in lieu of mileage charges. Cost of tolls, parking and taxi/transportation service will be charged.
2. Expenses in connection with out-of-town travel. Specifically, cost of air, rail or similar transportation services and the cost of lodging and meals will be charged.
3. Reproductions, prints, copies and other documents, including the expense of CAD plots associated with delivery of work products to the Client.
4. Express mail, shipping, delivery and postage expenses. Messenger charges are \$25.00/hour, plus mileage.
5. Expense for web based document management services.
6. Expense of any additional insurance coverage, including professional liability insurance, requested by the Client in excess of that normally carried by van Zelm or its consultants.
7. Cost of "Consultants" where not included as part of compensation for Basic Services.

Charges for all reimbursable expenses are as incurred or as specifically noted, plus 10%.

**TERMS:** Terms are Net 30 days. Interest at the rate of 1-1/2% per month may be applied to past-due invoices. The rates listed herein are effective January 1, 2021.

VAN ZELM HEYWOOD & SHADFORD, INC.

1200 CONVERSE STREET  
 LONGMEADOW, MA 01106  
 P: 617.218.9976

10 TALCOTT NOTCH  
 FARMINGTON, CT 06032  
 P: 860.284.5084  
 www.vanzelm.com

862 BRAWLEY SCHOOL ROAD, SUITE 207  
 MOORESVILLE, NC 28117  
 P: 704-799-7275



## ATTACHMENT A

### **RETROCOMMISSIONING SCOPE OF SERVICES**

The scope of services outlined below are meant to provide a general overview of how we would approach this project. This set of tasks is designed to provide a systematic analysis of the HVAC system and document a list of operational issues, determine causes for the operational issues (if possible), and recommend improvements to resolve operational problems.

1. Initial review of HVAC System
  - a. Review plans and specs to become familiar with the Engineers original design intent.
  - b. Obtain and review all shop drawings related to HVAC System (if available).
  - c. Obtain and review Testing, Adjusting and Balancing (TAB) Report (if available).
  - d. Perform review of Building Automation System as-built drawings, points list, sequences of operations, etc.
2. HVAC System Site Evaluation
  - a. Conduct field visits to review the actual installation of the HVAC systems.
  - b. Review operation of the HVAC System via BAS and field observation.
  - c. Setup and/or obtain trend logs from BAS (space temps, alarms, humidity levels, etc.).
  - d. Meet with Facilities Personnel to access ongoing comfort issues and gather any historical information that may be available.
3. Functional Performance Testing
  - a. We will work with the BAS Contractor (carried by vanZelm as a Subcontractor) to functionally test the HVAC System and document all issues or deficiencies that may exist. Note: Functional testing will need to occur in both the Cooling and Heating seasons to properly evaluate system performance.
4. Reporting/Implementation
  - a. We will develop a list of findings and recommendations based on our investigation.
  - b. We will provide a summary of work performed related to the implementation of the corrective measures. Note: measures involving additional significant design work will not be included in the implementation work.
  - c. Meet with School personnel to present final report and review options for next steps.

### **HVAC SYSTEMS INCLUDED IN SCOPE OF WORK**

The following HVAC systems that we plan to include as part of the RetroCommissioning project are:

- Air Handling Units (AHU-1 thru AHU-6)
- Rooftop Units (RTU-1 thru RTU-5)
- Existing FCU's (Board of Ed Area)
- Boilers (B-1 thru B-3)
- Heating/Cooling Pumps (1&2)
- Exhaust Fans
- Unit Heaters
- VAV Boxes (quantity of 9)
- Hot Water Pumps (1 thru 4)

VAN ZELM HEYWOOD & SHADFORD, INC.

1200 CONVERSE STREET  
LONGMEADOW, MA 01106  
P. 617 218 9976

10 TALCOTT NOTCH  
FARMINGTON, CT 06032  
P: 860.284.5064  
www.vanzelm.com

862 BRAWLEY SCHOOL ROAD, SUITE 207  
MOORESVILLE, NC 28117  
P: 704-799-7275



FUSS & O'NEILL

November 8, 2018

Mr. Vito Esparo  
Facilities Manager  
Woodbridge School District  
40 Beecher Road  
Woodbridge, CT 06525

**RE: Opinion of Hazardous Building Materials Consulting and Abatement Costs  
Beecher Road School  
40 Beecher Road, Woodbridge, Connecticut  
Fuss & O'Neill Inc. Project No. MP071328.I00**

Dear Mr. Esparo:

Fuss & O'Neill, Inc. has prepared the opinion of hazardous building materials consulting and abatement costs provided below for the above-mentioned Site based on a discussion with the Woodbridge Public Schools (the "Client") and Site visit on October 17, 2018 during which potential upcoming renovation projects for Summer 2019 were discussed.

This estimate is based on asbestos containing material (ACM) or assumed ACM present at the Site located in the following areas identified by the Client:

- Art Room and storage closets
- Recreation Office, Music Rooms and associated offices, Telephone Room, and ramp area

Hazardous building materials consulting costs are based on similar projects performed by Fuss & O'Neill. Abatement costs are based on current industry rates and are inclusive of typical contractor costs for a normal work schedule (1 shift/day), Monday to Friday. The costs do not include an expedited work schedule (double shifts/ weekends/ holidays), or replacement of any abated materials or labor associated with replacement materials. Estimated unit costs are based on assumption that listed ACM will be removed, disposed, and transported by an asbestos abatement contractor during one phase. Abatement costs are subject to change based on results of confirmatory inspection and sampling, changes in renovation plans, industry rates, project schedule and contractor means and methods.

146 Hartford Road  
Manchester, CT  
06040  
† 860.646.2469  
800.286.2469  
f 860.533.5143

[www.fando.com](http://www.fando.com)

California  
Connecticut  
Maine  
Massachusetts  
New Hampshire  
Rhode Island  
Vermont

Mr. Vito Esparo  
 November 8, 2018  
 Page 2

<b>Material Type</b>	<b>Estimated Quantity</b>	<b>Estimated Unit Cost</b>	<b>Total Estimated Cost</b>
<b>Hazardous Building Materials Consulting Fees</b>			
Exploratory Inspection and Confirmatory sampling of Assumed ACM (Note 1)			\$2,000.00
Development of Abatement Work Plan			\$750.00
Variance application to CTDPH (Note 2)			\$2,000.00
Abatement Monitoring Services (Note 3)			\$18,900.00
<p><b>Note 1:</b> Fee includes labor, laboratory fees and a summary report.</p> <p><b>Note 2:</b> A Variance is required when school is full or part-time occupancy with students; includes summer programs, camps, after hour programs. Fees include PCM background air sampling to determine air quality, potential Site visit with CTDPH, Application to CTDPH, Correspondence. If the school building will not be used by used during abatement activities, a variance will not be required.</p> <p><b>Note 3:</b> Abatement monitoring fees are based on a 4 week schedule and include full-time abatement oversight, project management, laboratory fees and a closeout report. These fees have been included for planning purposes only as the abatement schedule is defined by the contractor.</p>			
<b>Abatement Fees</b>			
<b>Art Room Area (including Art Room and Storage Closets)</b>			
Abatement of Sink undercoating; sink to be removed intact (confirmed as ACM)	3 units	\$250/unit	\$750.00
Abatement of Flooring materials; including floor tile, carpet, mastic, adhesive (assumed as ACM, will perform confirmatory testing for ACM)	800 SF	\$8/SF	\$6,400.00
Abatement of cove base and adhesive (assumed via manufacture's statement, material is not asbestos containing, will perform confirmatory testing for ACM)	200 LF	\$5/LF	\$1,000.00
Sheetrock and joint compound (based on 1 foot x perimeter of the rooms) (data gap-not tested in this area, will perform confirmatory testing for ACM)	200 SF	\$8/SF	\$1,600.00
Abatement of Pipe Insulation and mudded fittings (assumed ACM, will perform confirmatory testing for ACM)	50 LF	\$18/LF	\$900.00
<b>Recreation Area (including Recreation Office, Music Rooms and associated offices, Telephone Room, and ramp area)</b>			
Abatement of Flooring materials; including floor tile, carpet, mastic, adhesive (assumed as ACM, will perform confirmatory testing for ACM)	3,200 SF	\$8/SF	\$25,600.00



Mr. Vito Esparo  
November 8, 2018  
Page 3

<b>Material Type</b>	<b>Estimated Quantity</b>	<b>Estimated Unit Cost</b>	<b>Total Estimated Cost</b>
Abatement of cove base and adhesive (assumed via manufacturer's statement, material is not asbestos containing, will perform confirmatory testing for ACM)	500 LF	\$5/LF	\$2,500.00
Sheetrock and joint compound (based on 1 foot x perimeter of the rooms) (data gap-not tested in this area, will perform confirmatory testing for ACM)	500 SF	\$8/SF	\$4,000.00
Abatement of Pipe Insulation and mudded fittings (assumed ACM, will perform confirmatory testing for ACM)	100 LF	\$18/LF	\$1,800.00
<b>Subtotal</b>			<b>\$68,200.00</b>
<b>~10% Contingency</b>			<b>\$6,820.00</b>
<b>Total</b>			<b>\$75,020.00</b>

If you have any questions, please do not hesitate to contact me at (860) 646-2469, ext. 5396. Thank you for this opportunity to have served your environmental needs.

Sincerely,

A handwritten signature in blue ink that reads 'Helen Rimsa'.

Helen Rimsa  
Senior Scientist

HR/kr



January 18, 2021

Mr. Vito Esparo  
Facilities Manager  
Woodbridge School District  
40 Beecher Rd  
Woodbridge, Connecticut 06525

RE: 40 Beecher Rd  
Woodbridge, CT 06525

Dear Mr. Vito Esparo,

ACV Enviro is pleased to provide you with this quotation for the services outlined below in the Scope of Work. We pride ourselves on being responsive and delivering a quality service; We appreciate being considered for this opportunity. Upon your review, if there are any changes to the Scope of Work, or if additional services are required, we would be pleased to discuss any additional needs you may have.

Quote is based on estimated work date: 02/08/2021 - 02/11/2021

**SCOPE OF WORK**

ACV Enviro will provide all labor, equipment and materials to remove the 10,000-gallon underground storage tank located at Beecher School in Woodbridge, CT. The scope of work will include the following:

- ACV will notify CBYD
- The tank will be vacuumed of all remaining product
- The concrete cover will be removed and transported for recycling
- The tank will be uncovered, cut open and thoroughly cleaned
- ACV will remove the tank from the ground and transport for disposal
- Personnel will assist with the collection of closure samples
- The excavation will be backfilled to a rough grade
- The site will be cleaned and all equipment removed
- ACV will assist with closure of the tank with the State of Connecticut

<b>LABOR AND EQUIPMENT</b>		<b>EST. QTY.</b>	<b>UOM QTY.</b>	<b>UOM</b>	<b>UNIT PRICE</b>	<b>EXTENDED PRICE</b>
Foreman	Reg	1.00	4.00	DAY	\$550.00	\$2,200.00
Equipment Operator	Reg	2.00	4.00	DAY	\$575.00	\$4,600.00
Field Technician	Reg	1.00	4.00	DAY	\$450.00	\$1,800.00
Vacuum Truck, Straight		1.00	10.00	HR	\$50.00	\$500.00
Roll Off Straight Truck		1.00	4.00	DAY	\$575.00	\$2,300.00
Tractor Only, No Trailer		1.00	8.00	HR	\$50.00	\$400.00
Lowbed Trailer		1.00	8.00	HR	\$25.00	\$200.00
Excavator, 20-30 Ton		1.00	4.00	DAY	\$800.00	\$3,200.00



Quote-CT103063

Subtotal: \$15,200.00  
Tax: \$0.00  
Total: \$15,200.00

<b>MATERIALS</b>	<b>ESTIMATED QUANTITY</b>	<b>UOM</b>	<b>UNIT PRICE</b>	<b>EXTENDED PRICE</b>
Screened Fill	80.00	TON	\$17.50	\$1,400.00
			Subtotal:	\$1,400.00
			Tax:	\$0.00
			Total:	\$1,400.00

<b>COST PLUS MATERIALS, EQUIPMENT AND SERVICES</b>	<b>ESTIMATED QUANTITY</b>	<b>UOM</b>	<b>UNIT PRICE</b>	<b>EXTENDED PRICE</b>
State closure	1.00		\$5,000.00	\$5,000.00
			Subtotal:	\$5,000.00
			Tax:	\$0.00
			Total:	\$5,000.00

<b>DISPOSAL</b>	<b>ESTIMATED QUANTITY</b>	<b>UOM</b>	<b>UNIT PRICE</b>	<b>EXTENDED PRICE</b>
#2 Oil/Water - Bulk	2,000.00	GAL	\$0.69	\$1,380.00
Manifest Fee	1.00	EA	\$25.00	\$25.00
			Subtotal:	\$1,405.00
			Tax:	\$0.00
			Total:	\$1,405.00

**Subtotal:** \$23,005.00  
**Tax:** \$0.00  
**Fuel Surcharge:** \$1,152.00  
**ESTIMATED TOTAL:** \$24,157.00

**ASSUMPTIONS & CONTINGENCIES**

- ACV Enviro is not responsible for disconnecting any electrical inside the building
- Pricing is based on flushing and plugging the lines in between the tank and the building.
- ACV Enviro will have free and easy access to the work area.
- Pricing is based on work being completed during normal business hours Monday - Friday.
- Any expendables used are charged in accordance with ACV Enviro's current expendable price list.
- Applicable local, state, federal, transporter and/or other applicable taxes or fees will be added to the invoice.

- All labor, vehicle and equipment charges are billed on a portal-to-portal basis, including time to analyze and off-load the waste at the disposal facility. Overtime rates will apply for hours worked over 8 hours in a day, all hours before 7:00 am, after 3:30 pm, on weekdays and all day Saturday. Double time rates apply for hours worked on Sunday and Holiday.
- Disposal pricing is based on profile and analytical review and acceptance.

### **TERMS & CONDITIONS**

Except where superseded by an existing service agreement between customer and an ACV entity, the terms and conditions below apply to this quoted business proposal.

- This quoted estimate is provided based upon information provided by or gathered at customer's location. Any deviations from this quotation will be invoiced based upon actual labor, materials, and/or disposal services provided by ACV and will be billed at a time and materials basis.
- A manifest fee of \$25.00 per manifest will be added to each invoice. Any additional fees from disposal facilities are charged at invoice cost plus 30%.
- Net due 30 days with prior credit approval unless modified by executed purchase order or contract. Finance charges of one and one half (1.5) percent per month will be due on payments past due after thirty days from date of invoice.
- Applicable Taxes, including local, state and federal taxes and/ or fees are not included in the quoted rates and will be applied to each invoice as applicable.
- Due to uncontrollable fluctuating fuel costs a fuel surcharge will be billed only on equipment that requires fuel and all transportation charges, based on the Department of Energy on Highway Diesel Fuel Prices (National Average). Please ask ACV representative for current rate at time of work.
- Client is responsible for time, material, and disposal charges to decontaminate utilized equipment if necessary. Said charges will be at ACV standard T&M rates and disposal cost plus 30%.
- In the event legal or other action is required to collect unpaid invoice balances, Customer agrees to pay all costs of collection, including reasonable attorneys' fees and agrees to the laws, jurisdiction, and venue of the state of New Jersey.
- This Quotation is valid for 30 days. Pricing is based on the current market capacity, conditions, and Government regulations. If a significant market-wide pricing, capacity or regulatory change affects our pricing, this quotation is subject to change.
- Unless superseded by a fully executed agreement with terms that conflict, additional terms & conditions located at <https://www.acvenviro.com/terms-and-conditions/> are hereby incorporated by reference and are agreed to and acknowledged by customer.

ACV Enviro appreciates the opportunity to work for you. We sincerely look forward to performing this project. Should you have any questions, please do not hesitate to call me directly at 203-384-6020.

**PROPOSAL ACCEPTANCE**

This quote, including terms & conditions is satisfactory and hereby accepted. I am commissioning this work as an authorized representative of Woodbridge School District. Payment will be made as outlined in this proposal. My signature denotes a legal and binding contract. Woodbridge School District agrees to the above terms and conditions and assumes full responsibility for all off-specification surcharges, payment collection actions, and associated fees.

_____	_____
<b>Customer Signature</b>	<b>Date</b>
_____	_____
<b>Customer Print Name</b>	<b>Purchase Order No.</b>
<i>Tim Firla</i>	<i>01/18/2021</i>
_____	_____
<b>ACV Enviro Representative</b>	<b>Date</b>

**IF THIS QUOTATION IS ACCEPTABLE, PLEASE EXECUTE AND RETURN THE PROPOSAL ACCEPTANCE SECTION.**



## **Bob Marek & Sons, LLC** **Complete Septic Service Excavation and Paving**

**172 Beacon Road  
Bethany, CT 06524  
Office Phone: (203)393-8982- (203)393-0681  
Cell Phones: Bob-(203)507-9580 Nick- (203)645-9070**

PROPOSAL SUBMITTED TO: Beecher Road Elementary school		PHONE	DATE:2/22/2021
STREET 40 Beecher Road		JOB NAME	
CITY, STATE AND ZIP CODE Woodbridge, CT 06525		JOB LOCATION: Same	
ARCHITECT N/A	DATE OF PLANS	Att: Vito Esparo	JOB PHONE

**We hereby submit specifications and estimates for:**

Subject: 10,000-Gal U.S.T Removal

1. Excavate for removal of 10,000-Gal underground heating oil tank.
2. Pump out approx. 2000 gallons of heating oil.
3. Wash out and clean tank.
4. Remove tank from ground and dispose.
5. Take 4 soil samples from tank grave.
6. Backfill with approx. 65 tons of clean fill material.
7. Remove and dispose of concrete pad.
8. Grade, seed, and hay affected area.
9. Included all analytical reports, and closure reports.

Does not include if water in tank, if water is in tank it will be extra charge for disposal of \$.75 per gallon.

**We propose hereby to furnish material and labor- complete in accordance with the above specifications for the sum of \$16,000.00**

Any alteration or deviation from above specifications involving extra cost will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents, or delay beyond our control. Expenses incurred because of unusual or unanticipated conditions will be paid by the owner including but not limited to: Blasting,LEDGE, disposing of contaminated material, rock, debris, water, unsuitable backfill material etc. Extra loam if required as well as seeding and hay if not specified above.

Respectfully submitted: \_\_\_\_\_

**Note: the proposal may be withdrawn if not accepted within 15 Days**

### Acceptance of Proposal

The above price, specifications and conditions are satisfactory and are hereby accepted. You are hereby authorized to do the work as specified. Payments will be made as outlined above.

Date of Acceptance \_\_\_\_\_

Signature \_\_\_\_\_

Print Name \_\_\_\_\_

Any failure to make payment when due is subject to a claim enforced against the property in accordance with the applicable lein laws. Overdue accounts subject to late charges together with all costs of collection including attorney fees and court costs.



FUSS & O'NEILL

September 22, 2021

Richard Huot  
Interim Business Manager of Operations  
Woodbridge School District  
40 Beecher Road - South  
Woodbridge, CT

RE: Agreement for Civil Engineering Services  
Beecher Road Elementary School – Site Drainage Improvements  
40 Beecher Road, Woodbridge, CT, 06525  
Fuss & O'Neill Reference No. 20091309.S10

Dear Richard Huot,

Fuss & O'Neill, Inc. is pleased to submit this agreement for consulting services for site drainage improvements at the existing Beecher Road Elementary School located in Woodbridge, CT. The scope of services proposed assumes that our firm will provide Site/Civil Engineering services to support you through the planning, design, permitting, bidding, and construction phases of this project.

### Project Understanding

Fuss & O'Neill has prepared this agreement based upon our site visit and meeting with you on August 26, 2021 and follow up email correspondence. The following is our understanding of the Beecher Road Elementary School – Site Drainage Improvements Project:

- The approximately 40 acres site is currently occupied by the elementary school, the Board of Education (BoE) office building, with associated parking, athletic fields, playgrounds, tennis courts, and paved walks.
- The school and BoE buildings are connected to each other and are experiencing several areas of exterior drainage issues. The drainage issues are causing damage to the building and water leaks/ seepage through doors and into sub-surface level classrooms, offices, and gymnasium.
- No changes are proposed to the buildings and associated amenities other than the improvements necessary to address the drainage issues.

56 Quarry Road  
Trumbull, CT  
06611  
t 203.374.3748  
800.286.2469  
f 203.374.4391

[www.fando.com](http://www.fando.com)

California  
Connecticut  
Maine  
Massachusetts  
New Hampshire  
Rhode Island  
Vermont

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- The main areas of concerns and the focus of this Project's site drainage improvements are within the following five (5) main areas:
  1. Western rear hill and courtyard near the nurse's office and special service office entrance.
  2. Southern art room entry, north of the gymnasium.
  3. North-western wing entries near the existing bioswale.
  4. Northern preschool / kindergarten class entries near the existing playground.
  5. Eastern courtyard entries along the main corridor between the south gymnasium and the rotunda.

## Scope of Services

The specific services to be provided in connection with this authorization are broken out by task and described in detail below.

### Phase I:

#### Task 110– Planning and Schematic Design

The objective of the Planning and Schematic Design phase is to develop an acceptable concept by exploring possible design solutions with the client's team and vetting these concepts through an analysis of physical site and storm infrastructure constraints.

Working in a collaborative manner with Richard Huot and the BoE of the Beecher Elementary School, Fuss & O'Neill will prepare preliminary site improvement plans that will illustrate layout, rough grading, and conceptual drainage improvements for the site to communicate the design intent. Conceptual designs developed during this phase will be at par with sustainable design practices and best management design to improve the current drainage conditions on-site and reduce downstream, off-site impacts. We will use readily available mapping and imagery as the base of our conceptual design. We have included a site visit to verify existing conditions.

During this phase, we anticipate preparation and review of conceptual design for the five (5) areas of concern identified within the Project Understanding. Each of the areas of concerns will be presented in a manner that will allow for review of the impacts of each area separately.

Time is budgeted under the Meetings task for Fuss & O'Neill to review these plans with Richard Huot and the BoE, and conduct a field review of the proposed improvements. We will then perform minor revisions to the conceptual designs in order to address preliminary comments. The planning and schematic design phase will end with your and the Facilities Committee of the BoE approval of the conceptual improvements, upon which the design and preparation of construction documents will proceed.

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## Task 120 – Construction Documents

We will complete the design and prepare construction documents by making necessary revisions, and adding details required for the Town Departments review process, cost estimating, bidding, and for construction purposes.

We will prepare technical specifications (in Construction Specifications Institute format) and conduct an internal constructability review for our facets of the work. We will provide drawings and specifications for inclusion in the bid packages and contract documents. The plans and reports prepared during the Construction Documents phase will be signed and sealed by a Connecticut-licensed professional engineer.

Each of the five (5) areas of concerns will be presented on the Construction Documents in manner that will allow for review, bidding, and construction of each area separately.

The following technical plans will be developed:

- Site Preparation and Erosion and Sedimentation Control Plan - Special attention will be paid to existing features and vegetation to preserve, to the greatest extent possible, the natural character of the site. Erosion and sedimentation controls, construction sequence, and associated details will be provided as required by the local regulatory authority and in accordance with the Connecticut Department of Energy and Environmental Protection (CT DEEP) 2002 Connecticut Guidelines for Soil Erosion and Sediment Control as well as the CT DEEP General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities.
- Site Improvements Plan – We will prepare this plan to depict proposed features that will be visible after construction. These features include, but are not limited to, road and walk pavement improvements, vegetation improvements, manholes, basins and other existing features set to remain. As required, dimensions will be added to the Site Improvements Plan to specify key measurements.

We will show grading improvements and are sensitive to the fact that earthwork can be expensive and that excessive cuts can result in ground water problems or encountering rock or ledge. We will work with you to find the optimal grading perimeters for the project to balance cost concerns with functional and aesthetic requirements.

This plan will also include the proposed stormwater management system for the facility, which will detail piping and associated stormwater structures (e.g., catch basins, manholes, yard drains, etc.) as well as the stormwater management systems that may be needed to

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treat stormwater and detain peak flows if necessary. To the extent possible, Low Impact Development (LID) strategies will be incorporated.

- Construction Details – Erosion control, stormwater, pavement and other site details will be included in the plan set to supplement the plans described above. Where appropriate, call outs and notes will be added to the details to specify select technical information.

We will prepare a Stormwater Management Report as described below:

We will complete the necessary design calculations required to prepare a Stormwater Management Report that will assess pre-and post-development conditions with respect to storm drainage. Proposed improvements could alter the time of concentration of the existing watersheds. Therefore, we anticipate this report will be required by the Town Engineering Department to verify the rate of post-development runoff leaving the site and minimize off-site impacts downstream of the drainage system. This report will be prepared using all currently available mapping and we assume that no additional survey or map preparation is required at this time.

This report will conform to the minimum criteria established in the Town of Woodbridge regulations as well as the CTDEEP General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities. In order to understand the full impacts of this project, the Stormwater Management Report will be prepared to review the impacts from all five (5) areas of concerns as a whole project. Particular attention must be paid to the following:

- Stormwater Quality – Adequate Best Management Practices (BMPs) must be employed in conformance with the CT DEEP 2004 Connecticut Stormwater Quality Manual so that stormwater quality is not significantly degraded by development activities.
- Stormwater Quantity – Both existing and proposed conditions will be modeled and compared using the HydroCAD<sup>®</sup> computer program. This program uses the Rational Method or the Soil Conservation Service (SCS) curve number method to develop hydrographs that can compare pre- and post-development conditions. We will also analyze the proposed storm drainage system to verify that it is sufficient to convey the design storm. Customized drainage solutions may include storm water infiltration swales and rain gardens.

Upon completion of the Town Department Review task and after all comments have been addressed, we will prepare bid documents of our plans, specifications, and special conditions to include in the bid package. We will also prepare an engineer's opinion of cost for comparison to bidders estimate. The engineer's opinion of cost will be based upon CT-DOT's latest published estimating guidelines and item list.

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#### Task 130 – Town Department Review

We will work with you and the BoE by providing drawings and information in support of Town of Woodbridge review and approval of this project. We anticipate coordination the review of this project with the following entities:

- Facilities Committee of the BoE
- Public Works / Engineering Department

Specific activities that we anticipate providing include:

- Preparing presentation materials for meetings.
- Responding to staff comments and performing revisions to the plans to facilitate approval in order to proceed with the bidding process.

We have included one (1) round of revisions to address reasonable comments from the Town of Woodbridge staff. Ten (10) hours have been budgeted for this effort. Depending on the magnitude of the revisions required by the regulatory authorities and the level of our involvement in the process, revisions to the fee may be required

We assume applications and submissions to the Building Department, Inland Wetlands Agency, and Town Plan & Zoning Departments are not required for this project. An amendment to this agreement will be provided should they become necessary.

#### Task 140 – Meetings

We will attend field review meetings, Facilities Committee of the BoE meetings, and meetings with town staff as required to coordinate the design of the project. Since it is difficult at this time to determine how many meetings we will need to attend, we recommend that this work be billed on an hourly basis in accordance with the current rate schedule.

We anticipate the following meetings and have included them in our fee estimate:

- Field Review Meeting/ Site Visit: 1
- Review Meetings with Operations Dept (virtual): 3
- BoE Facilities Committee Meeting: 2
- Public Works/ Engineering Meetings: 2

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## Phase II:

### Task 210 – Bid Assistance

Fuss & O'Neill will provide the following Bid Assistance services for the project:

- We will attend up to five (5) pre-bid meetings/site walks, should the school prefer to bid the five (5) areas of concern separately.
- We will answer questions from bidders and provide technical information for inclusion in addenda. Ten (10) hours have been budgeted for this effort.
- We will review and comment on bids and assist with the bid award process. Ten (10) hours have been budgeted for this effort.

A budget fee estimate is also provided for the scenario with only one (1) pre-bid meeting to cover all areas of work. We assume that the Town is responsible for bid advertising and soliciting potential bidders.

## Phase III:

### Task 310 – Construction Oversight

We anticipate the following Construction Oversight services will be required:

- Attend up to five (5) pre-construction meetings.
- Provide full-time inspection of daily construction activities performed by the BoE's awarded Contractor. The hours budgeted for this task will be based on the contractor's schedule.
- Review contractor submittals (e.g., schedule of values, product data, etc.).
- Review and prepare responses to Requests for Information (RFIs).
- Review field testing results.
- Prepare required Construction Change Directives based on responses to RFIs, and review resulting contractor Change Orders (as necessary).
- Review contractor applications for payment.
- Conduct a Substantial Completion site walk and prepare a punch list of items to be completed by the contractor.
- Conduct a Final Inspection of the work and complete close-out documentation.

Note that budget to prepare final as-built or record drawings is not included in this agreement.

Once an actual construction schedule is developed, an amendment to this agreement will be provided for Construction Oversight to match the contractor's schedule.

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#### Staffing:

Most of the anticipated construction inspection, engineering and administrative activities can be handled by an experienced Chief Inspector. As part of standard procedures for construction operations, the Chief Inspector would contact the School's contacts first thing every morning to briefly discuss construction activities for the day and discuss staffing and testing requirements and any other items of importance. This is usually less than a fifteen minute discussion but is very valuable from a management and quality assurance standpoint. The Chief Inspector will be responsible for reviewing project records, quantity calculations, and other documents needed to ensure completeness and consistency with the project specifications and local regulations. In addition, Chief Inspector will keep the school staff apprised of all project issues. Any requested engineering assistance, beyond the inspection needs, would be directed by the Chief Inspector as well.

The hours budgeted for this task will be based on the contractor's schedule. For the purposes of this estimate, fees are provided for an assumed twenty (20) days of full-time construction oversight, and for an assumed (40) days of full-time construction oversight. Any additional full-time, part-time, or sub-inspector time beyond the budgeted days will only be provided with approval of the Town, and with a supplemental agreement for additional oversight to observe construction operations.

We recommend that this work be billed on an hourly basis in accordance with the current rate schedule.

We assume it is the contractor's responsibility to retain a materials testing company for sampling and on-site testing, in the event that it is deemed necessary.

#### Assumptions

- A. Boundary and topographic survey mapping is not included in this agreement. If surveying work is required, it will be provided under a separate agreement.
- B. Available base mapping from the Building Department, Board of Education, etc. will be provided to us.
- C. Unrestricted access will be granted to all areas required to perform the scope of work outlined above.

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- D. Improvements to additional utilities beyond drainage infrastructure, is not included in this agreement. If significant utility rework is needed to make the drainage improvements, an amendment to this agreement will be provided at that time.
- E. No warranty, or guarantee, is expressed or implied concerning the granting of permits or approvals required for this project. In addition, Fuss & O'Neill has no control over the timelines for review and action by regulatory agencies.
- F. Permit application fees, plan review fees, and other fees required by the reviewing agencies are not included in this agreement.
- G. Your attorney or staff is responsible to prepare and distribute public notices to adjacent landowners and the local newspaper, if it becomes necessary.
- H. No local, state, or federal wetlands involvement/application is anticipated. If downstream outfall repairs involve wetland work an amendment to this agreement will be provided.
- I. This project will disturb less than five (5) acres, and therefore review through the State CTDEEP will not be required.
- J. The cost to survey, analyze, and inspect off-site drainage systems is not included in this agreement. If this is required by the Town an amendment to this agreement will be provided when the scope can be more clearly defined.
- K. No off-site improvements are included in this agreement.
- L. Soil management of polluted soils is not included in this agreement. If polluted soils are encountered, an amendment to this agreement will be provided for additional environmental services and preparation of a soil management plan.

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### Schedule

We prepared this agreement with the assumption that Phase I services are to be completed prior to the end of the 2021 calendar year, and Phase II and Phase III services will begin in the Spring of 2022.

### Fees

We propose a budget be established for professional services in support of this effort as outlined below. Lump sum tasks will be billed monthly as a percentage complete while the hourly tasks will be billed on a time and materials basis and the budget would not be exceeded without expressed authorization.

Task	Basis	Estimated Fees	
Phase I			
110 Planning and Schematic Design	Lump Sum	\$ 15,000	
120 Construction Documents	Lump Sum	\$ 30,000	
130 Town Department Review	Hourly	\$ 6,000	
140 Meetings	Hourly	\$ 7,000	
TOTAL		\$ 58,000	
Phase II			
		Low End - 1 Bid	High End - 5 Bids
210 Bid Assistance	Hourly	\$ 4,500	\$ 6,000
Phase III			
		20 Days	40 Days
310 Construction Oversight	Hourly	\$ 25,000	\$ 50,000

Direct costs for mileage and printing will be billed at cost and will be reimbursed by the Woodbridge School District as part of this agreement. We suggest a budget of \$700 for direct costs.

Hourly and additional services outside the final scope of services will be provided according to the current Rate Schedule in effect at the time services are provided. The Rate Schedule may be revised annually in January. A current copy is attached.

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## General Terms and Conditions

The attached General Terms and Conditions will apply to the services described above.

Schedules and fees included herein are based on authorization within 30 days of the date of this agreement. Fees and schedules may have to be revised if authorization is not received within this time period.

We appreciate the opportunity to submit this agreement to you and look forward to working with you on this project. Please contact either of the undersigned if you have any questions regarding this agreement.

Your execution and return of this agreement constitutes your authorization for Fuss & O'Neill to proceed with the above described services in accordance with the attached "General Terms and Conditions".

Sincerely,



Vincenzo Chiaravalloti, PE  
Senior Civil Engineer



Joseph E. Lenahan III, PE, LEED AP  
Senior Project Manager

Attachments: Authorization to Proceed  
General Terms and Conditions  
Current Rate Schedule

## Authorization to Proceed

Joseph E. Lenahan III, PE, LEED AP  
 Senior Project Manager  
 Fuss & O'Neill  
 56 Quarry Road  
 Trumbull, CT 06611  
[jlenahan@fando.com](mailto:jlenahan@fando.com)

RE: Agreement for Civil Engineering Services  
 Beecher Road Elementary School – Site Drainage Improvements  
 40 Beecher Road, Woodbridge, CT, 06525  
 Fuss & O'Neill Reference No. 20091309.S10

Dear Mr. Lenahan:

I hereby authorize Fuss & O'Neill to proceed with the above-referenced project in accordance with the General Terms and Conditions and agreement dated September 22, 2021.

Printed Name	Date
Signature	Title

*Submit invoice as follows (✓ one →):	<input type="checkbox"/> Mail	<input type="checkbox"/> Email	<input type="checkbox"/> Online
Billing Contact:	Name: _____		
	Address: _____		
	Phone/Email: _____		
Accounts Payable Contact:	Name: _____		
	Address: _____		
	Phone/Email: _____		
Purchase Order Number:	_____		

*\* Indicate address, email address and website link if different than already provided.*

## GENERAL TERMS AND CONDITIONS

Attached to and incorporated into the Proposal that, as executed, shall serve as an agreement between Woodbridge School District (Client) and Fuss & O'Neill, Inc. (Consultant) dated 9/22/2021 in respect of the Project described therein.

### 1.0 GENERAL

Consultant shall perform for Client professional consulting services in all phases of the Project to which this Agreement applies as hereinafter provided. These services will include serving as Client's professional consulting representative for the Project.

Any provisions of this Agreement held in violation of any law or ordinance shall be deemed stricken and all remaining provisions shall continue valid and binding upon the parties. Client and Consultant shall attempt in good faith to replace any invalid or unenforceable provisions of this Agreement with provisions which are valid and enforceable and which express the intention of the original provisions.

Client shall reimburse Consultant for all costs of modifications and any additional services required to comply with laws, rules or regulations first coming into effect after the signing of this Agreement, charges for which will be based on Consultant's fee schedule at the time the additional services are performed. It is understood that various codes and regulations are subject to varying and sometimes contradictory interpretation. Consultant will exercise its professional skill and care consistent with the generally accepted standard of care applicable to the geographical locale to provide a work product that complies with such regulations and codes, as well as its reasonable engineering judgment consistent with generally accepted scientific, industry, municipal or governmental information concerning environmental, atmospheric and geotechnical conditions and developments. Consultant does not warrant that all documents issued by it shall comply with said regulations and codes.

### 2.0 MEANING OF TERMS

As used herein the term "Agreement" refers to the Proposal Letter or Agreement to which these General Terms and Conditions are attached and in which they are incorporated as if they were part of one and the same document.

### 3.0 CLIENT'S RESPONSIBILITIES

Client shall:

- Provide all criteria and complete information as to Client's requirements for the Project,
- Designate a person to act with authority on the Client's behalf in respect to all aspects of the Project,
- Examine and respond promptly to the Consultant's submissions,
- Give prompt written notice to Consultant whenever Client observes or otherwise becomes aware of any perceived defect in the work,
- Guarantee access to and make all provisions for the Consultant to enter lawfully upon public and private property,
- As appropriate and required by law, bear responsibility for reporting significant and/or material environmental hazards of contaminated property.

Unless otherwise specifically indicated in writing, Consultant shall be entitled to rely unconditionally and without liability on the accuracy and completeness of information provided by Client, Client's consultants and contractors, and information from public records, without the need for independent verification.

Client acknowledges that if Consultant's professional services involve the use of vehicles or other equipment as part of Project, some damage to the project site could occur. Client understands that unless specifically stated in the Agreement, and provided Consultant uses reasonable care, correction of such damage shall not be the responsibility of Consultant.

### 4.0 REUSE OF DOCUMENTS

All documents, including reports, electronic media, drawings and specifications, prepared or furnished by Consultant and its subsidiaries, independent professional associates, subconsultants and subcontractors pursuant to this Agreement are instruments of service in respect of a particular Project and Consultant shall retain ownership and property interests therein whether or not the Project is completed. Client may make and retain copies of such documents for information and reference in connection with the Project, However, such documents are not intended or represented to

be suitable for reuse by Client, including extensions of the Project or on any other project, nor are they to be relied upon by anyone other than Client.

Copies of documents that may be relied upon by Client are limited to printed copies that are signed or sealed by Consultant, or PDF files prepared, issued, and digitally signed and encrypted by the Consultant. Other files in electronic media, including but not limited to CAD or other similar electronic drawings, other electronic media, text, data and graphics files will be made available solely as a convenience and any conclusion or information obtained or derived from such other electronic files will be at the user's sole risk. When transferring documents in electronic media format, Consultant makes no representations as to long-term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems or computer hardware differing from those in use by Consultant at the beginning of this Project.

Any reuse, modification or disbursement by Client of Consultant's documents to third parties without written consent of Consultant including, but not limited to, any corruption or alteration arising out of the transmission of electronic files or occurring to such electronic files once leaving the custody of Consultant will be at Client's sole risk and without any liability or legal exposure to Consultant or its subsidiaries, independent professional associates, subconsultants, and subcontractors. Accordingly, Client shall, to the fullest extent permitted by law, defend, indemnify and hold Consultant harmless from and against any and all costs, expenses, fees, losses, claims, demands, liabilities, suits, actions and damages whatsoever arising out of or resulting from such unauthorized reuse, modification or disbursement.

Any request by Client for Project-specific adaptation by Consultant will entitle the Consultant to further compensation at rates to be agreed upon by Client and Consultant.

Consultant shall retain all records in its custody and control that are pertinent to performance under this Agreement in accordance with its record retention policy, as amended from time to time. Consultant shall make such records available to Client for inspection and reproduction upon Client's reasonable request, advance notice and at Client's expense.

## 5.0 OPINIONS OF COST

Unless expressly stipulated in the Proposal, Consultant's services do not include any express or implied endorsement or evaluation of, or comment upon, the relationship of the Project's development, construction, operational, and maintenance costs to the financial value or viability of the Project.

Since Consultant has no control over the cost of labor, materials, equipment or services furnished by others, or over Contractor's methods of determining prices, its means, methods and sequencing, or over competitive bidding or market conditions, Consultant's opinions of probable total project costs and construction cost, if any, are made based solely upon the Consultant's experience and qualifications, and represent Consultant's best judgment as an experienced and qualified professional familiar with the construction industry. Consultant cannot, and does not, guarantee or warrant that proposals, bids or actual total project or construction costs will not vary from opinions of probable cost prepared by Consultant. If prior to the bidding or negotiating phase the Client wishes greater assurance as to total project or construction costs, Client shall employ an independent cost estimator.

## 6.0 SUCCESSORS AND ASSIGNS

6.1 Neither Client nor Consultant shall assign, sublet or transfer any rights under or interest in (including, but without limitation, moneys that may become due or moneys that are due) this Agreement without the written consent of the other, except to the extent that any assignment, subletting or transfer is mandated by law or the effect of this limitation may be restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement. Nothing contained in this paragraph shall prevent Consultant from retaining such independent professional associates and consultants, as the Consultant may deem appropriate to assist in the performance of services hereunder.

6.2 Nothing under this Agreement shall be construed to give any rights or benefits in this Agreement to anyone other than Client and Consultant, and all duties and responsibilities undertaken pursuant to this Agreement will be for the sole and exclusive benefit of Client and Consultant and not for the benefit of any other party.

## 7.0 MEDIATION

Prior to the initiation of litigation in a court of competent jurisdiction, the parties to this Agreement agree to submit all claims, disputes or controversies arising out of or in relation to the interpretation, application or enforcement of this Agreement to non-binding mediation. Such mediation shall be conducted under the auspices of the American Arbitration Association or such other mediation service or mediator upon which the parties agree. The party seeking to initiate mediation shall do so by submitting a formal, written request to the other party to this Agreement. This section shall survive completion or termination of this Agreement, but under no circumstances shall either party call for mediation of any claim or dispute arising out of this Agreement after such period of time as would normally bar the initiation of legal proceedings to litigate such claim or dispute under the laws of the State of Connecticut

## 8.0 PURCHASE ORDERS

In the event Client issues a purchase order or other instrument related to Consultant's services, it is understood and agreed that such document is for Client's internal accounting purposes only and shall in no way modify, add to, delete or supersede any of the terms and conditions of this Agreement and these Terms and Conditions incorporated therein. If Client does issue a purchase order or other similar instrument, it is understood and agreed that Consultant shall indicate the purchase order number on the invoices sent to Client.

## 9.0 SUBCONSULTANTS

Except as expressly agreed, Client will directly retain other consultants whose services are required in connection with the Project. As a service, Consultant may advise Client with respect to selecting other consultants, and may assist Client in coordinating and monitoring the performance of other consultants as an additional service for which Consultant is entitled to an agreed fee. However, in no event will Consultant assume any liability or responsibility for the work performed by other consultants, or for their failure to perform any work, regardless of whether Consultant retains them directly or as subconsultants, or only coordinates and monitors their work. When Consultant does engage a subconsultant on behalf of Client, the expenses incurred, including rental of special equipment necessary for the work will be billed as they are incurred, subject to an administrative markup of 15 percent, or as specified in the rate table or billing terms in effect at the time the services are

provided. By engaging Consultant to perform services, Client agrees to hold Consultant, its directors, officers, employees, and other agents harmless against any claims, demands, costs, or judgments relating in any way to the performance or non-performance of work by another consultant or subconsultant for which Consultant is not legally liable and which Consultant does not control, except claims for personal injury, death, or personal property damage caused solely by the negligence of Consultant's employees.

## 10.0 INDEMNIFICATION

10.1 Client and Consultant each agree to indemnify and hold the other harmless, and their respective officers, employees, agents and representatives from and against liability for all damages, including reasonable attorneys' fees, to the extent such damages are caused by the indemnifying party's negligent acts, errors, or omissions, as ultimately adjudicated. In the event damages are caused by the joint or concurrent negligence of Client and Consultant, they shall be borne by each party in proportion to its negligence, as ultimately adjudicated.

10.2 Consultant shall under no circumstances be considered the generator of any hazardous substances, pollutants or contaminants encountered or handled in the performance of Consultant's services. In the event that the Consultant or any other party encounters asbestos or toxic materials at the job site which was previously unknown or had not been disclosed to Consultant, or should it become known that certain materials may be present at the job site or any adjacent areas that may affect the performance of the Consultant's services, Consultant shall notify Client and may, at its option and without liability for consequential or any other damages, suspend performance of service on the Project until Client retains appropriate specialist consultants to identify, abate and/or remove the asbestos or hazardous or toxic material, and Client warrants to Consultant that the job site is in full compliance with applicable laws and regulations with regard to said substances.

10.3 Neither party shall have liability for loss of product, loss of profit, loss of use, or any other indirect, incidental, special, or consequential damages incurred by the other party, whether brought as an action for breach of contract, breach of warranty, tort, or strict liability, and irrespective of whether caused or allegedly caused by either party's negligence; and Client agrees to defend, indemnify and hold Consultant harmless with

respect to any such claims. Client and Consultant agree to require a similar provision in all contracts with contractors, subcontractors, subconsultants, vendors, and other entities involved in this Project to carry out the intent of this provision.

10.4 Consultant and Client agree that should Consultant's services not include construction phase services, Client shall be solely responsible for interpreting any contract documents and observing the work of Contractor to discover, correct or mitigate errors, inconsistencies or omissions. If Client authorizes deviations, recorded or unrecorded, from the documents prepared by Consultant, Client shall not bring any claim against Consultant and shall indemnify and hold Consultant, its agents, representatives and employees harmless from and against claims, losses, damages and expenses including, but not limited to, defense costs and the time expended by Consultant, its employees, agents and representatives, to the extent such claim, loss, damage or expense arises out of or results in whole or in part from such deviations, regardless of whether or not such claim, loss, damage or expense is caused in part by a party indemnified under this provision.

10.5 In no event shall the indemnification obligation extend beyond the date when the institution of legal or equitable proceedings for professional negligence would be barred by an applicable statute of limitations or statute of repose.

#### 11.0 LIMITATION OF LIABILITY

Notwithstanding any other provision of these General Terms and Conditions, to the extent Consultant is adjudicated liable, Consultant's liability to Client for any loss or damage arising out of or in connection with the accompanying Proposal or any related Agreement from any cause, including Consultant's professional negligent errors or omissions, shall not exceed the greater of \$50,000 or the total compensation received by Consultant hereunder, and the Client expressly releases the Consultant from any liability above such amount.

#### 12.0 STANDARD OF CARE

All services of Consultant and those for whom it is legally liable will be performed in a manner consistent with that degree of skill and care ordinarily exercised by practicing professionals performing similar services in the same locality, at the same site and under the same or similar circumstances and conditions. Consultant expressly

disclaims any and all other warranties, whether express or implied, with respect to the services rendered hereunder.

#### 13.0 CHANGES OR DELAYS

Unless the accompanying Agreement/Proposal provides otherwise, the proposed fees constitute Consultant's estimate to perform the services required to complete the Project as Consultant understands it to be defined, and subject to the accuracy of information provided to the Consultant at that time. For those projects involving conceptual or process development work, activities often are not fully definable in the initial planning. In any event, as the project progresses, the facts developed may dictate a change in the services to be performed, which may alter the scope, timeframe or cost. Consultant will inform Client of such situations so that negotiation of change in scope and adjustment to the time of performance and fees may be accomplished as required. If such change, additional services, or delay in commencement of the project, unanticipated delay in construction of the project or suspension of services results in an increase or decrease in the cost of or time required for performance of the services, regardless of the reason or cause, an equitable adjustment shall be made and the Agreement modified accordingly. No work shall commence until the Parties have mutually agreed upon and memorialized any changes in writing signed by both Parties.

Costs and schedule commitments shall be subject to renegotiation for unreasonable delays caused by Client's failure to provide specified facilities or information, Client's failure to make payment in accordance with its obligations under this Agreement, or for delays caused by unpredictable occurrences or force majeure including, but not limited to, fires, floods, riots, strikes, unavailability of labor or materials, delays or defaults by suppliers of materials or services, process shutdown, acts of God or of the public enemy, or acts or regulations of any governmental agency. Temporary work stoppage caused by any of the above will result in additional cost (reflecting a change in scope) beyond that outlined in the Agreement to which Consultant is entitled to payment.

#### 14.0 PAYMENT

Consultant shall typically invoice Client for services performed under this Agreement on a monthly basis, and Client shall pay Consultant's invoices within thirty (30) days of receipt. Payment shall be delivered to: Fuss & O'Neill, Inc. at P.O. Box

412889, Boston, MA 02241-2889 or by EFT/ACH transfer to Bank of America, Account # 385016029253, ABA #011900254. Client agrees to bring to Consultant's attention in writing any questions regarding Consultant's invoice within ten (10) days of receipt. In the event that Client does not provide Consultant with written questions within ten (10) days, the invoice shall be deemed accurate and acceptable to Client. If Client fails to make any payment due Consultant for services, expenses or other charges within thirty (30) days after receipt of Consultant's invoice therefor, the amounts due Consultant will be increased at the rate of one and one half (1.5%) percent per month from the thirtieth day after the invoice was received and, additionally, Consultant may, after giving a minimum of seven (7) days' written notice to Client, suspend services under this Agreement until Consultant has been paid in full all amounts due for services, expenses and charges. Consultant may at its sole discretion suspend services on any or all other projects being performed by Consultant for Client under any other agreements until Consultant has been paid in full for all amounts due for services, expenses and any other charges under this Agreement. Client shall be responsible for the reasonable cost of collection including reasonable attorneys' fees and costs.

#### 15.0 TERMINATION

The obligation to provide services under this Agreement may be terminated by either party upon seven (7) days' written notice in the event either party fails to substantially perform in accordance with the terms of this Agreement, and these incorporated Terms and Conditions, through no fault of the terminating party. In the event of any termination, for whatever reason, Client shall pay Consultant for all services rendered to the date of termination, all reimbursable expenses and termination expenses. Failure to make payments in accordance herewith shall constitute substantial nonperformance. This Agreement shall automatically terminate if payments are not brought current within seven (7) days of notice of termination.

#### 16.0 CONTROLLING LAW

This Agreement is to be governed by the law of the State of Connecticut.

#### 17.0 SUBSURFACE INVESTIGATIONS

Client recognizes that special risks occur whenever engineering or related disciplines are applied to identify subsurface conditions. Even a

comprehensive sampling and testing program, implemented with appropriate equipment and experienced personnel under the direction of a trained professional which functions in accordance with a professional standard of practice may fail to detect certain hidden conditions. The passage of time also must be considered, and Client recognizes that due to natural occurrences or direct or indirect human intervention at the Site or a distance from it, actual conditions may quickly change. Consultant shall not be liable for such alteration or damage or for damage to, or interference with any subterranean structure, pipe, tank, cable, or other element or condition whose nature and location are not called to Consultant's attention in writing before exploration commences.

#### 18.0 HAZARDOUS MATERIALS TESTING

Client recognizes that special risks occur whenever engineering or related disciplines are applied to the testing of hazardous materials which typically require invasive or destructive testing. Even if properly implemented with appropriate equipment and experienced personnel under the direction of a trained professional who renders services in accordance with the professional standard of care, damage may occur to the area subject to the testing including, but not limited to, invasive or destructive sampling methods. In no event shall Consultant be liable to Client, or any other person or entity, for any damage caused to any real or personal property during the course of such invasive or destructive sampling methods as set forth in this request. Any liability for such damages shall be allocated to and remain the sole responsibility of Client. In the event a claim is asserted against Consultant alleging damages arising from its services under this request, Client shall defend and indemnify Consultant with respect to any such claims or resulting damages.

#### 19.0 LITIGATION AND ADDITIONAL WORK

In the event Consultant is to prepare for or appear in any litigation on behalf of Client, or is to make investigations of reports on matters not covered by this Agreement, or is to perform other services not included herein, additional compensation shall be paid to Consultant, charges for which will be based upon Consultant's fee schedule at the time the additional services are performed.

#### 20.0 INSURANCE

Consultant will secure and maintain such insurance as will protect Consultant from claims under the

Workmen's Compensation Act and from claims for bodily injury, death or property damage that may arise from the performance of Consultant's services under this Agreement.

Consultant will secure and maintain professional liability insurance for protection against claims arising out of the performance of professional services under this Agreement caused by negligent errors or omissions for which Consultant is adjudicated liable, and further subject to the indemnification and limitation of liability provisions contained in this Agreement and the incorporated Terms & Conditions. Consultant shall request that all of its subcontractors/subconsultants carry insurance of similar types and with similar limits of coverage as required for Consultant.

#### 21.0 SALES TAX EXEMPTION CERTIFICATE

Client must provide Consultant a sales tax exemption certificate within fifteen (15) days after the effective date of this Agreement for any exemptions claimed by Client from the sales tax for any services performed or for any tangible personal property purchased under this Agreement. In the event that Client fails to provide Consultant with such an exemption certificate within that time period, Client shall be solely responsible for obtaining a refund for any and all sales tax collected or paid by Consultant in connection with the performance of this Agreement before Client provides Consultant with such exemption certificate, including any sales tax paid by Consultant to subcontractors, engineers, suppliers or any other individual entity.

#### 22.0 PERIOD OF SERVICE

Consultant shall proceed with the services under this Agreement promptly and will diligently prosecute the work to completion subject to any delays due to strikes, action of the elements, act of any government, civil disturbances or any other cause beyond the reasonable control of Consultant.

#### 23.0 NOTICE REQUIREMENTS

If Client alleges that it has discovered a negligent defect, fault, error, non-compliance or omission in Consultant's services, it shall give written notice to the Consultant within thirty (30) days of the date it identifies any negligent defect, fault, error, non-compliance or omission in Consultant's services. Notice shall include a detailed description of the

nature of the alleged negligent defect, fault, error, non-compliance or omission. Client agrees that failure to give such notice shall result in Client's waiver of the claim. Additionally, Client agrees that failure to give such notice from the time it reasonably should have discovered any alleged defect, fault, error, non-compliance or omission in Consultant's services, and failed to give proper notice, shall result in Client's waiver of the claim. All claims against Consultant, whether grounded in contract, tort, or otherwise, shall be brought no later than two (2) years from the date of issuance of the invoice relating to the services giving rise to the claim. Client expressly waives any applicable discovery rule or applicable statute of repose for any services provided under this Agreement.

#### 24.0 PROPRIETARY RIGHTS OF CONSULTANT

Client acknowledges that Consultant has developed systems, processes, apparatus, analytical tools and methods which are proprietary to Consultant and which are used in its business. Such systems, processes, apparatus, analytical tools and methods (including software, patents, copyrights and other intellectual property), and all derivations, enhancements or modifications thereof made by Consultant including those as a result of work performed by Consultant hereunder, shall be and remain the property of Consultant.

#### 25.0 PHOTOGRAPHIC/ARTISTIC REPRESENTATIONS

Consultant shall have the right to use photographic and artistic representations of the Project for promotional or professional purposes. Consultant shall make its best effort to exclude proprietary or confidential information. Client agrees to notify Consultant in writing of specific proprietary or confidential information to be excluded.

### 2021 BILLING RATE SCHEDULE

LABOR CATEGORY	HOURLY RATE
Researcher, Clerical	\$ 82
Project Accountant	\$ 93
CAD, Survey, Technician I	\$ 98
CAD, Survey, Technician II	\$ 103
CAD, Survey, Technician III	\$ 108
Engineer, Scientist, Analyst I	\$ 118
Engineer, Scientist, Analyst II	\$ 129
Engineer, Scientist, Analyst III	\$ 144
Senior Engineer, Scientist, Analyst I	\$ 160
Senior Engineer, Scientist, Analyst II	\$ 175
Senior Engineer, Scientist, Analyst III	\$ 190
Associate	\$ 200
Officer	\$ 205
Senior Officer	\$ 205

### DIRECT CHARGE SCHEDULE

Subcontractors/Subconsultants	Cost plus 15%
F&O Staff Mileage	At Prevailing IRS Rate
F&O Field Vehicles	\$100/day plus \$0.35/mile
F&O Hybrid Vehicles	At Prevailing IRS Rate
Printing/Reprographics	
Black & White Copy/Print	\$0.065/page
Color Copy/Print	\$0.40/page
Electrostatic Copy/Print	\$0.25/Sq.Ft.
Inkjet Plotter Monochrome	\$0.25/Sq.Ft.
Color Plotting	\$1.00/Sq.Ft.
Inkjet Mylar	\$2.50/Sq.Ft.
Binding Materials	At Cost
Payment Processing (e.g. debit or credit card)	3% fee

**2021 FIELD EQUIPMENT RATE SCHEDULE**

FIELD EQUIPMENT	DAILY RATE (unless otherwise noted)
Air Sampling Pumps	\$ 15
All Terrain Vehicle	\$ 100
Bladder Pumps	\$ 25
Boat	\$ 50
Combustible Gas Indicator (CGI)	\$ 110
Concrete Coring Machine	\$ 250
Cone Penetrometer	\$ 25
Dissolved Oxygen/Temp/pH Meter (YSI-30)	\$ 15
Generators	\$ 50
Hammer Drill	\$ 50
Hand Auger	\$ 25
Hydrogen Sulfide Sensor & Data Logger	\$ 206 per week
IAQ Meter	\$ 80
Interface Probe	\$ 25
Infiltrometer	\$ 25
Low Flow Controller	\$ 50
Metal Detector	\$ 25
Moisture Meter	\$ 80
Mold Air Pump	\$ 15
Multimeters (YSI-600)	\$ 85
Confined Space Meter (Multi-Gas Meter)	\$ 50
Particulate Monitor	\$ 155
Peristaltic Pumps	\$ 20
Petro Flag Sample	\$ 25
Photoionization Detector (OVM/PID)	\$ 75
Soil Gas Sampling Equipment	\$ 100
Soil/Sediment VOC Supplies (Terra Core)	\$ 2 per sample
Soil/Sediment SPLP/TCLP Supplies (Encore)	\$ 10 per sample
Soil Vapor Extraction (SVE) Pilot Test Equipment	\$ 260
Survey Levels	\$ 30
Survey GPS Submeter Receiver	\$ 50
Survey GPS VRS Subcentimeter	\$ 100
Survey Robotic Total Station	\$ 100
Total Organic Vapor Analyzer	\$ 65
Tracer Dye Flow Dilution Equipment	\$ 1,600
Transit Time Flowmeter	\$ 130 per day \$ 520 per week \$ 1,706 per month
Turbidity Meters	\$ 15
Water Level Indicator	\$ 15
XRF	\$ 250

**SILVER / PETRUCELLI + ASSOCIATES**

*Architects / Engineers / Interior Designers*  
3190 Whitney Avenue, Hamden, CT 06518-2340  
Tel: 203 230 9007 Fax: 203 230 8247  
*silverpetrucelli.com*



September 28, 2021

Richard A. Huot  
Interim Director of Business & Operations  
Woodbridge Public Schools  
Beecher Road School South  
40 Beecher Road  
Woodbridge, CT 06525

RE: A/E Services Proposal: Pre-Design thru Construction Administration  
Roofing Replacement for Beecher Road School Roof Replacement Wings K and D

Dear Dick:

With reference to our recent discussions, we are pleased to submit this proposal to assist the Town of Woodbridge Public Schools with the roof replacement to the K and D Wings of Beecher School. In 2002, we designed the roof replacement for the south school. Based on our understanding of similar roof replacement projects that we have completed in the past 30 years, our knowledge of the existing building and our familiarity with your review and approval process, we believe the following services are necessary to complete this project.

BASIC SERVICES

Phase I – Construction Documents

1. Our efforts to date, was to assist in the funding allocations, such as attending the virtual Board of Education meeting and provide documentation for the OSCG&R. We also prepare a structural code modification, if required. We begin our field work and input the entire school into our cad system, using base information we already have on file.
2. We will reaffirm field conditions by investigating the existing conditions, including the structure, roof penetrations and other special conditions, especially roof plane changes. We will continue to utilize the existing condition documents from District files that will be made available.

3. We will continue to evaluate the roof exterior waterproofing system design, evaluating the perimeter flashing details and roof membrane, particularly its appropriateness for the quantity of penetrations, roof accessibility and roof level changes present on the roofs.
4. We will coordinate with your hazardous materials consultant, who should arrange to obtain any supplemental roof samples and test them to determine presence of asbestos or PCB containing materials which will affect the project scope and budget should they be present.
5. We will prepare construction documents, including plans, sections, details, schedules, and specifications, suitable for competitive bidding and per standards established by the District.
6. Once the construction documents have been quality reviewed in our office, we will issue the 95% complete drawings to you for review distribution and comment.

#### Phase II - Bid Services

1. After coordinating the bid documents with the Town's purchasing department and PDF'ing them for electronic distribution, we will assist the Town during the bid period by responding to contractor's inquiries and requests for additional information or approval of material substitutions.
2. Addenda will be prepared as required to clarify the scope of the work and specifications of material, products and the execution of the work.
3. We will attend and assist with the pre-bid meeting with the contractors but, as with past projects, you won't need us to attend the bid opening session.
4. We will review the bid proposals faxed/emailed to our office, checking the contractors' references and work experience, as well as verifying the completeness of the bid submissions.
5. If requested, we will submit our recommendation for award of the contract.
6. Well within 6 months of the bidding for the project, we will coordinate any addendum review with the SCG. This requires that we prepare a summary of the addenda and the reason for it (them), attending a zoom meeting with the SCG if necessary and working to win reimbursement approval.

#### Phase III - Construction Administration

1. We will tailor our construction administration services as required to provide the full range of services requested in the Request for Proposals.
  - Pre-construction coordination/kickoff meeting
  - Shop drawing review
  - Design modifications and sketch preparation
  - Requisition review and approval
  - Contract interpretation and response to inquiries
  - Periodic site visits (8-10) to assure general conformity.
  - Change order review
  - Punchlist and contract closeout

2. We will attend the construction kickoff meeting with the construction contractor and conduct periodic site visits (assuming an active 10-week construction schedule over the summer 2022), to review the contractor's work + installation, preparing reports of the quality + workmanship for your review.
3. We will conduct punch list/final observation visits to determine that the work is complete and in compliance with the contract documents. We will transpose the contractor's as-built markups onto the CAD data files and share the disk with you. We will also assist you in closing out the project with the SCG, completing certifications and the final ineligible cost worksheet.

SERVICES NOT INCLUDED

We are capable of providing a wide range of additional services should you require the assistance, or should the project scope be revised.

1. Environmental testing, design, and construction administration/monitoring services (by District)
2. Printing of Bid or Permit Sets
3. One-year site visit warranty checks and observations
4. Re-design, re-engineering, or replacement of existing rooftop HVAC equipment (we will remove and reset all roof top equipment)
5. Solar Photovoltaic Electrical
6. Structural Design Services

COMPENSATION

For the services described above, we propose a fixed fee as follows:

Construction Document Phase	\$ 11,400
Bid Services Phase	2,200
Construction Administration Phase	<u>7,200</u>
Total Fee:	\$ 20,800

We appreciate this opportunity to work with you and WPS again and please do not hesitate to contact me with any questions regarding this matter.

Sincerely,



David J. Stein, AIA  
Principal



PROPOSAL NUMBER

**16573-1**

JOB NAME AND ADDRESS

**Woodbridge school District  
40 Beecher Rd  
Woodbridge, CT 06525**

CLIENT

**Woodbridge school District  
40 Beecher Rd  
Woodbridge, CT 06525**

CONTACT

**(203) 996-3493  
vesparo@woodbridgeps.org  
Vito Esparo**

# PROJECT PROPOSAL

11/19/2020

**ADDRESS**

PO BOX 571  
BETHLEHEM, CT  
06751

**TELEPHONE**

(860) 480-0187 direct  
203-560-6716 office

**SALESPERSON**

TIM LUDDY

**EMAIL**

TIM@THESAMBROOKGROUP.COM



# PROPOSAL

Dear Vito Esparo,

Thank you for the opportunity to provide you with a proposal. Per your request, we propose to supply the following:

- Labor
- Materials
- Equipment

Our crews are thoroughly trained using the latest industry standard procedures. You can rest assured knowing our professionals have performed your service correctly, in a timely manner and on budget.

[www.ctsealcoating.net](http://www.ctsealcoating.net)



# PROPOSAL

## REMOVE AND REPLACE PAVEMENT / ALL SIDEWALKS AND AREAS DEPICTED ON SITE MAP

*Install 37777 square feet to a depth of 3 inches*

- *This work is performed by removing spoils as needed.*
- *Process gravel will be installed and compacted as needed.*
- *Three(3) inches of asphalt will be installed and compacted.*
- *Excluded is responsibility for ponding water or poor drainage in areas where grade is less than 2%.*
- *Customer is responsible for back fill.*

Price: \$138,200.00

**TOTAL PRICE OF THIS PROPOSAL AS PRESENTED:**

**\$138,200.00**



# AGREEMENT

The Unit Rates applicable to the categories of work to be performed pursuant to this Agreement are based on the following material costs and published indexes:

Purchaser acknowledges that if the above-listed items increase by the date all work under the contract is completed, the Unit Rates applicable to the categories of work to be performed under the Proposal shall be adjusted. The adjusted Unit Rates shall be committed and paid by purchaser as though a written change order were approved and signed by both parties.

**Connecticut Sealcoating LLC** proposes to furnish material and labor to perform the work outlined herein for the sum of:

**\$138,200.00, ONE HUNDRED THIRTY-EIGHT THOUSAND, TWO HUNDRED DOLLARS AND ZERO CENTS**

Payment is to be made as follows: • 30% upon acceptance • Balance upon completion

\*\*Sales tax will be added in final invoice where its applicable

**This proposal is valid for thirty (30) days from the date written above.**

**The proposal is subject to the terms and conditions enclosed, attached and/or on the backside of the proposal.**

This proposal contains confidential information belonging to the sender, which is legally privileged. The information is intended only for the use of the individual or entity named above. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution or the taking of any action in reliance on the contents of this proposal is strictly prohibited. If you have received this proposal in error, please immediately notify us by telephone to arrange for return of the original documents to us.

**Please visit our website [www.ctsealcoating.net](http://www.ctsealcoating.net) to view photos of our quality work.**

Sincerely,

\_\_\_\_\_  
**Connecticut Sealcoating LLC**  
**Tim Luddy**  
**tim@thesambrookgroup.com**  
**Cell: (860) 480-0187**

**Accepted:** The above proposed terms and conditions, including price and payment terms are satisfactory and hereby accepted. **Connecticut Sealcoating LLC** is hereby authorized to proceed with the work specified.

Purchaser: \_\_\_\_\_ Title: \_\_\_\_\_

Print Name: \_\_\_\_\_ Date: \_\_\_\_\_



## TERMS & CONDITIONS

- These Terms and Conditions are by and between {Connecticut Sealcoating LLC} (hereinafter referred to as the “Contractor”), and the front-side “Purchaser”, (hereinafter referred to as the “Purchaser”).
- All stone, asphalt, and concrete depths indicated are to be interpreted as average depths prior to compaction. Actual Asphalt Repair depth regardless of depth specified on the front will only go to the stone base or specified depth whichever is less.
- Drainage is not guaranteed on areas having less than 2% grade.
- If contract is cancelled by Purchaser prior to commencement of work, Purchaser will pay Contractor thirty percent (30%) of total contract price.
- Each phase of work will be billed upon completion of that phase. Purchaser agrees to pay all invoices upon receipt of the invoice. All amounts unpaid by the due date shall bear interest at the rate of 1.5% per month until paid. If full payment (including aforementioned late charges) has not been received by Contractor within 30 days of substantial completion, all of Purchasers warranty rights hereunder will be forfeited and automatically become void and Contractor shall be excused from further performance of work under this proposal.
- Purchaser shall not prematurely subject the work to any type of traffic; loads in excess of the design capacity before proper cure, or in a manner which may damage the work. Contractor is not responsible for graffiti, tire tracks, animal or human footprints, etc., on finished concrete/asphalt.
- Although contractor will endeavor to cooperate fully with the progress of the work, it reserves the right to delay the start of work until the entire area of the job is ready to be poured, paved, milled or sealed. Unless otherwise noted, total price is based on one move-in and complete access to work areas at the time of move-in. Purchaser agrees to pay Contractor up to \$1000.00 for each additional move-in. Damage to vehicles left on the work site is the responsibility of the Purchaser.
- Contractor will not be responsible for construction or material failures or delays in construction caused by any factor beyond its control, including, but not limited to, delays or failures caused by weather, acts of God, delays in transportation, acts of suppliers and subcontractors, acts of the Purchaser, Owner or its separate contractors, fuel or raw material shortages, plant failures, or any other cause beyond its control.
- Unless stated in writing on this proposal, there shall be no warranties, express or implied, in connection with any material or service furnished under this proposal. All consequential damages are excluded.
- In the event that Contractor retains an attorney to recover any amount due under this agreement, the Purchaser agrees to pay all attorney fees, court costs and costs of collection incurred by Contractor.
- Purchaser will, prior to Contractor leaving the job site, arrange for an authorized representative or agent of the Purchaser to inspect completed Contractor work in the company of a Contractor representative. Purchasers failure to inspect job site as above will signify acceptance of work performed by Contractor and agreement to pay in full that day.



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# CONNECTICUT SEALCOATING

MILLING • PAVING • SEALCOATING • CONCRETE

PROPOSAL NUMBER

16573-1

JOB NAME AND ADDRESS

Woodbridge school District  
40 Beecher Rd  
Woodbridge, CT, 06525

CLIENT

Woodbridge school District  
40 Beecher Rd  
Woodbridge, CT

CONTACT

(203) 996-3493  
vesparo@woodbridgeps.org  
Vito Esparo

# PROJECT PROPOSAL

3/10/2021

**ADDRESS**

PO BOX 571  
BETHLEHEM, CT  
06751

**TELEPHONE**

(860) 480-0187 direct  
203-560-6716 office

**EMAIL**

COMPANY: SCOTT@THESAMBROOKGROUP.COM

# PROPOSAL

---

Dear Vito Esparo,

Thank you for the opportunity to provide you with a proposal. Per your request, we propose to supply the following:

- Labor
- Materials
- Equipment

Our crews are thoroughly trained using the latest industry standard procedures. You can rest assured knowing our professionals have performed your service correctly, in a timely manner and on budget.

[www.ctsealcoating.net](http://www.ctsealcoating.net)

# PROPOSAL

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## REMOVE AND REPLACE PAVEMENT

---

*Install 28336 square feet to a depth of 3 inches*

- *This work is performed by removing spoils as needed.*
- *Process gravel will be installed and compacted as needed.*
- *Three(3) inches of asphalt will be installed and compacted.*
- *Excluded is responsibility for ponding water or poor drainage in areas where grade is less than 2%.*
- *Customer is responsible for back fill.*

---

Price: \$92,092.00

---

**TOTAL PRICE OF THIS PROPOSAL AS PRESENTED:**

**\$92,092.00**

---

# AGREEMENT

The Unit Rates applicable to the categories of work to be performed pursuant to this Agreement are based on the following material costs and published indexes:

Purchaser acknowledges that if the above-listed items increase by the date all work under the contract is completed, the Unit Rates applicable to the categories of work to be performed under the Proposal shall be adjusted. The adjusted Unit Rates shall be committed and paid by purchaser as though a written change order were approved and signed by both parties.

**Connecticut Sealcoating LLC** proposes to furnish material and labor to perform the work outlined herein for the sum of:

**\$92,092.00, NINETY-TWO THOUSAND, NINETY-TWO DOLLARS AND ZERO CENTS**

Payment is to be made as follows: • 30% upon acceptance • Balance upon completion

\*\*Sales tax will be added in final invoice where its applicable

**This proposal is valid for thirty (30) days from the date written above.**

**The proposal is subject to the terms and conditions enclosed, attached and/or on the backside of the proposal.**

This proposal contains confidential information belonging to the sender, which is legally privileged. The information is intended only for the use of the individual or entity named above. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution or the taking of any action in reliance on the contents of this proposal is strictly prohibited. If you have received this proposal in error, please immediately notify us by telephone to arrange for return of the original documents to us.

**Please visit our website [www.ctsealcoating.net](http://www.ctsealcoating.net) to view photos of our quality work.**

Sincerely,

\_\_\_\_\_  
**Connecticut Sealcoating LLC**  
**Tim Luddy**  
**tim@thesambrookgroup.com**  
**Cell: (860) 480-0187**

**Accepted:** The above proposed terms and conditions, including price and payment terms are satisfactory and hereby accepted. **Connecticut Sealcoating LLC** is hereby authorized to proceed with the work specified.

Purchaser: \_\_\_\_\_ Title: \_\_\_\_\_

Print Name: \_\_\_\_\_ Date: \_\_\_\_\_

# TERMS & CONDITIONS

---

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- Each phase of work will be billed upon completion of that phase. Purchaser agrees to pay all invoices upon receipt of the invoice. All amounts unpaid by the due date shall bear interest at the rate of 1.5% per month until paid. If full payment (including aforementioned late charges) has not been received by Contractor within 30 days of substantial completion, all of Purchasers warranty rights hereunder will be forfeited and automatically become void and Contractor shall be excused from further performance of work under this proposal.
- Purchaser shall not prematurely subject the work to any type of traffic; loads in excess of the design capacity before proper cure, or in a manner which may damage the work. Contractor is not responsible for graffiti, tire tracks, animal or human footprints, etc., on finished concrete/asphalt.
- Although contractor will endeavor to cooperate fully with the progress of the work, it reserves the right to delay the start of work until the entire area of the job is ready to be poured, paved, milled or sealed. Unless otherwise noted, total price is based on one move-in and complete access to work areas at the time of move-in. Purchaser agrees to pay Contractor up to \$1000.00 for each additional move-in. Damage to vehicles left on the work site is the responsibility of the Purchaser.
- Contractor will not be responsible for construction or material failures or delays in construction caused by any factor beyond its control, including, but not limited to, delays or failures caused by weather, acts of God, delays in transportation, acts of suppliers and subcontractors, acts of the Purchaser, Owner or its separate contractors, fuel or raw material shortages, plant failures, or any other cause beyond its control.
- Unless stated in writing on this proposal, there shall be no warranties, express or implied, in connection with any material or service furnished under this proposal. All consequential damages are excluded.
- In the event that Contractor retains an attorney to recover any amount due under this agreement, the Purchaser agrees to pay all attorney fees, court costs and costs of collection incurred by Contractor.
- Purchaser will, prior to Contractor leaving the job site, arrange for an authorized representative or agent of the Purchaser to inspect completed Contractor work in the company of a Contractor representative. Purchasers failure to inspect job site as above will signify acceptance of work performed by Contractor and agreement to pay in full that day.



## MINUTES OF THE WBOE AD HOC CAPITAL PLAN COMMITTEE

Thursday, October 14, 2021

Conducted via Google Meet

**I. CALL TO ORDER:** Dr. Jonathan Budd, Superintendent, called the meeting to order at 7:00 p.m.

**PRESENT:** Jonathan S. Budd, Ph.D., Superintendent; Richard Huot, Interim Director of Business Services & Operations; Vito Esparo, Facilities Manager; Anthony Billings, Information Technology Manager; Dr. Jay Dahya, BOE representative; Jeff Hughes, BOE representative; Sheila McCreven, Town of Woodbridge representative; Jeanne Ciarleglio, teacher representative; Stephen Francis, community representative.

**ABSENT:** Daniel Cowan, community representative.

1 additional member of the BOE was in attendance: Sarah Beth Del Prete.

**II. PUBLIC COMMENT:** There was no Public Comment.

**III. INTRODUCTIONS:** Each Committee member introduced himself/herself.

**IV. COMMITTEE CHARGE:** Dr. Budd reviewed the Charge of the Committee as approved by the Board of Education on September 15, 2021.

### **V. DISCUSSION OF PRIOR WORK AND POTENTIAL NEXT STEPS:**

Mr. Huot outlined a proposal to focus capital plan items on those costing more than \$25,000 and having a life expectancy of at least 10 years, often referred to as a building's infrastructure. Ms. McCreven presented three methods for considering a project: (a) clearly identifiable and being paid for by the district's annual operating budget; (b) semi-variable (e.g., tree trimming) and contracted over several years; and (c) capital, involving more risk and thus necessitating voting via the Town processes.

(a) HVAC: Mr. Esparo presented a narrative on HVAC developments over the past several years at Beecher, including the JACE replacement through the operating budget, and current retrocommissioning being accomplished through ESSER II funding.

(b) Hazardous Materials Abatement & Related Improvements: Mr. Esparo outlined needs for asbestos replacement, mostly in the south area of the school. Discussion centered on including this cost in the ongoing operating budget. Dr. Budd noted that some of the areas of the building are ones that could be developed more strategically via ARP ESSER funding.

Meeting Adjourned: 8:00 p.m.

## MINUTES OF THE WBOE AD HOC CAPITAL PLAN COMMITTEE

Friday, October 29, 2021  
Conducted via Google Meet

**I. CALL TO ORDER:** Dr. Jonathan Budd, Superintendent, called the meeting to order at 9:15 .m.

**PRESENT:** Jonathan S. Budd, Ph.D., Superintendent; Richard Huot, Interim Director of Business Services & Operations; Vito Esparo, Facilities Manager; Anthony Billings, Information Technology Manager; Dr. Jay Dahya, BOE representative; Jeff Hughes, BOE representative; Sheila McCreven, Town of Woodbridge representative; Jeanne Ciarleglio, teacher representative; Daniel Cowan, community representative; Stephen Francis, community representative.

1 additional member of the BOE was in attendance: Lynn Piascyk. 1 member of the Public was in attendance.

**II. PUBLIC COMMENT:** There was no Public Comment.

### **III. CONTINUED DISCUSSION OF PRIOR WORK AND POTENTIAL NEXT STEPS:**

- (c) Oil Tank Removal / Abandonment: Mr. Esparo presented a narrative on the oil tank needing to be removed (or abandoned). Discussion centered on the possibility of contaminated soil that could need to be remediated, and State requirements related to removal.
- (d) Removal of Well Head: Mr. Esparo described the well head as related to a safety concern. Discussion centered on connection with QVHD related to this need, and the possibility of including this cost in the ongoing operating budget.
- (e) Drainage Issues: Mr. Esparo described various areas around BRS where drainage is inadequate, including some headway made since the earlier Fuss & O'Neill report. Discussion included potential funding from the Sustainable CT Grant.
- (f) Pavement/Sidewalks: Mr. Esparo described various pavement and sidewalk needs around BRS, including some connections to safety and security.
- (g) Roof Replacement/Refurbishment: Mr. Esparo outlined leaks in some areas of BRS. Discussion centered on the options of replacement vs. refurbishment.

Meeting Adjourned: 10:30 a.m.

# Woodbridge Board of Education

**Capital Budget  
FY 2022**

# CAPITAL BUDGET REQUEST

Woodbridge Board of Education  
Capital Budget Request (BOE Presentation 10/19/2020)

	Estimated Expenditures by Fiscal Year						
PROJECT	FY22	FY23	FY24	FY25	FY26	FY27	6 Year Total
Technology Infrastructure	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$120,000
Interior & Exterior Doors	\$0	\$80,000	\$0	\$0	\$0	\$0	\$80,000
Equipment (HVAC & Misc)	\$0	\$215,000	\$0	\$0	\$0	\$0	\$215,000
Flooring Replacement (incl Abatement)	\$0	\$141,855	\$0	\$0	\$0	\$0	\$141,855
Asphalt Replacement	\$93,500	\$0	\$500,000	\$0	\$0	\$0	\$593,500
Classroom Casework & Cabinets	\$0	\$63,000	\$0	\$0	\$0	\$0	\$63,000
Grounds Care - Site Improvements	\$0	\$0	\$0	\$575,000	\$0	\$0	\$575,000
Interior & Exterior Paint	\$0	\$0	\$313,800	\$0	\$0	\$0	\$313,800
Roofing Restoration / Replacement	\$337,500	\$350,000	\$0	\$0	\$0	\$0	\$687,500
Window Replacement							
<b>TOTALS</b>	<b>\$451,000</b>	<b>\$869,855</b>	<b>\$833,800</b>	<b>\$595,000</b>	<b>\$20,000</b>	<b>\$20,000</b>	<b>\$2,789,655</b>

# FY2022 CAPITAL PROJECTS

PROJECT	FY22	Description
Technology Infrastructure	\$20,000	Projects include additional wiring to parts of the school building, replacing / adding wireless access points, and the purchase of an additional wireless access controller to handle increased number of access points as well as a Windows domain controller server.
Asphalt Replacement	\$93,500	Damaged north sidewalk, emergency access pathway and various playground / rear campus walkways
Roofing Restoration / Replacement	\$337,500	K-Wing (1997) Roof refurbishment
Total FY2022 Request	451,000	

# Woodbridge Board of Education

## **Capital Budget FY 2022**

**Questions?**