



CONSTRUCTION  
SOLUTIONS GROUP

Town of East Windsor & East  
Windsor Public Schools

# School Facilities Study and Assessment

Board of Selectmen & Board of Education  
Special Meeting

February 8, 2024



## Outline

Introduction

Facility Overview and History

Facility Concerns

Enrollment vs. Building Size

Cost Estimates & Comparisons

Questions

# Project Background & Context

- **Original Project Intent**

- Procure architect for development of district-wide Master Plan and design services for implementation of plan recommendations
  - QA+M – hired in Spring 2023
- Submit an HVAC Grant Application for each school

- **Master Plan identified that all three schools had multiple inefficiencies that would affect the State's approval of a new HVAC System**

- Inadequate building envelope conditions
- Windows past their useful life
- Poor roof conditions

- **Current Recommendation**

- Explore new construction or renovate as new to approach projects more holistically





## Facility Overview and History

# Broad Brook Elementary School



<b>Location</b>	14 Rye Street, Broad Brook, CT
<b>Grades</b>	Pre-K to 4
<b>Current Enrollment</b>	381
<b>Originally Constructed</b>	1952
<b>Current Building Area</b>	69,078 SF
<b>Site Area</b>	14 Acres
<b>Additions &amp; Renovations</b>	1959, 1986, 2003 and 2013* <i>Note: CSG provided Owner's Representative Services to complete a permanent 14,990 square foot addition</i>



# East Windsor Middle School



<b>Location</b>	38 Main Street, Broad Brook, CT
<b>Grades</b>	5 to 8
<b>Current Enrollment</b>	350
<b>Originally Constructed</b>	1966
<b>Current Building Area</b>	83,035 GSF
<b>Site Area</b>	46 Acres
<b>Additions &amp; Renovations</b>	None



# East Windsor High School



<b>Location</b>	76 South Main Street, East Windsor, CT
<b>Grades</b>	9 to 12
<b>Current Enrollment</b>	350
<b>Originally Constructed</b>	1953
<b>Current Building Area</b>	123,244 GSF
<b>Site Area</b>	39 Acres
<b>Additions &amp; Renovations</b>	1976 and 1996





## Facility Concerns



# Broad Brook Elementary School

Building Exterior & Building Envelope	Building Interior	MEP	HazMat
<p><b>Roofing:</b> The A &amp; E Wings that were apart of the additions have roofing completed in 2017. The remainder of the school roofing should be replaced.</p> <p><b>Window Replacement:</b> Multiple window systems installed throughout school. The windows should be made uniform to meet energy and security requirements.</p> <p><b>Exterior Masonry Walls:</b> The exterior walls have major structural issues that need to be addressed and expansion joints should be installed throughout the building's exterior.</p> <p><b>Site:</b> There needs to be accessible pathways installed to access the outdoor fields.</p>	<p><b>Gymnasium Floor:</b> The flooring has significant damage including the separation of wood planks and repair work that is deteriorating.</p> <p><b>Millwork:</b> The millwork throughout the classrooms needs to be replaced to be made ADA compliant.</p> <p><b>ADA Accessibility:</b> There are various locations throughout the building including bathrooms that are not ADA accessible and do not meet code.</p> <p><b>Doors &amp; Hardware:</b> There are varying systems installed throughout the building. These should be upgraded to one system to address security concerns.</p>	<p><b>Heating System:</b> The current system is a combination of baseboard radiation and unit ventilators. The unit ventilators are past their useful life and need to be replaced.</p> <p><b>Air Conditioning:</b> The recent addition has rooftop units that are about 10 years old, but majority of the building still uses window units. The AC system should be upgraded to provide one system throughout the building.</p> <p><b>Electrical:</b> Most of the panelboards throughout the school are from the original construction of the building and are past their useful life. The panelboards should be replaced.</p> <p><b>Fire Protection:</b> A sprinkler system should be installed, and a full code analysis needs to be performed to determine the fire/smoke ratings throughout the building.</p>	<p><b>HazMat Study and Report:</b> There has not been a HazMat or Asbestos testing done throughout the school. This should be performed to determine any remediation that needs to take place.</p> <p><b>Ceiling Tiles:</b> There appears to be asbestos ceiling tiles that are falling in the gymnasium and installed throughout the other areas of the school. These should be tested, abated, and replaced.</p>

NOTE: The above items are not a comprehensive or detailed list of inadequacies throughout the school. The report prepared by QA+M goes into further detail and expands on other issues within the building.



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# East Windsor Middle School

Building Exterior & Building Envelope	Building Interior	MEP	HazMat
<p><b>Roofing:</b> A complete roof replacement needs to be completed.</p> <p><b>Window Replacement:</b> The windows should be replaced to meet energy and security requirements.</p> <p><b>Exterior Foundation Walls:</b> There is mortar deterioration and moisture problems at multiple locations that needs to be addressed. The masonry expansion joints need to be replaced or installed where they do not exist.</p> <p><b>Site:</b> There are multiple entrances and exits throughout the building that need to be made ADA accessible.</p>	<p><b>Interior Walls:</b> There are operable divider walls used in the academic wings of the building that need to be replaced since they are past their useful life.</p> <p><b>Millwork:</b> The millwork in the science labs needs to be replaced since it is past its useful life and is not ADA compliant. The millwork in other areas throughout the building needs to be made ADA accessible.</p> <p><b>ADA Accessibility:</b> There are various locations throughout the building including bathrooms that are not ADA accessible and do not meet code.</p> <p><b>Doors &amp; Hardware:</b> There are varying systems installed throughout the building. These should be upgraded to one system to address security concerns. Many doors have large windows that don't meet the current security needs of today.</p>	<p><b>Heating System:</b> The heating system consists of both baseboard radiation and unit ventilators that are past their useful life and need to be replaced.</p> <p><b>Air Conditioning:</b> There are both rooftop units and window units utilized for air conditioning throughout the building. Most of the rooftop units are past their useful life and should be replaced.</p> <p><b>Electrical:</b> Most of the panelboards throughout the school are from the original construction of the building and should be replaced.</p> <p><b>Fire Protection:</b> A sprinkler system should be installed, and a full code analysis needs to be performed to determine the fire/smoke ratings throughout the building. Smoke and heat detectors should be installed.</p> <p><b>Emergency Lighting:</b> This should be installed throughout the building.</p>	<p><b>HazMat Study and Report:</b> There has not been a HazMat or Asbestos testing done throughout the school. This should be performed to determine any remediation that needs to take place.</p> <p>There appears to be flooring tiles, ceiling tiles, and adhesives that are used throughout the building and should be tested and remediated.</p>

NOTE: The above items are not a comprehensive or detailed list of inadequacies throughout the school. The report prepared by QA+M goes into further detail and expands on other issues within the building.



# East Windsor High School

Building Exterior & Building Envelope	Building Interior	MEP	HazMat
<p><b>Roofing:</b> A complete roof replacement needs to be completed.</p> <p><b>Window Replacement:</b> The windows should be replaced to meet energy and security requirements.</p> <p><b>Exterior Foundation Walls:</b> There is mortar deterioration and moisture problems at multiple locations that needs to be addressed. The masonry expansion joints need to be replaced or installed where they do not exist.</p> <p><b>Site:</b> There are multiple entrances and exits throughout the building that need to be made ADA accessible.</p>	<p><b>Interior Walls:</b> There are operable divider walls used in the academic wings of the building that need to be replaced since they are past their useful life.</p> <p><b>Millwork:</b> The millwork in the science labs needs to be replaced since it is past its useful life and is not ADA compliant. The millwork in other areas throughout the building needs to be made ADA accessible.</p> <p><b>ADA Accessibility:</b> There are various locations throughout the building including bathrooms that are not ADA accessible and do not meet code.</p> <p><b>Doors &amp; Hardware:</b> There are varying systems installed throughout the building. These should be upgraded to one system to address security concerns. Many doors have large windows that don't meet the current security needs of today.</p>	<p><b>Heating System:</b> The heating system consists of both baseboard radiation and unit ventilators that are past their useful life and need to be replaced.</p> <p><b>Air Conditioning:</b> There are both rooftop units and window units utilized for air conditioning throughout the building. Most of the rooftop units are past their useful life and should be replaced.</p> <p><b>Electrical:</b> Most of the panelboards throughout the school are from the original construction of the building and should be replaced.</p> <p><b>Fire Protection:</b> A sprinkler system should be installed, and a full code analysis needs to be performed to determine the fire/smoke ratings throughout the building. Smoke and heat detectors should be installed.</p> <p><b>Emergency Lighting:</b> This should be installed throughout the building.</p>	<p><b>HazMat Study and Report:</b> There has not been a HazMat or Asbestos testing done throughout the school. This should be performed to determine any remediation that needs to take place.</p> <p>There appears to be flooring tiles, ceiling tiles, and adhesives that are used throughout the building and should be tested and remediated.</p>

NOTE: The above items are not a comprehensive or detailed list of inadequacies throughout the school. The report prepared by QA+M goes into further detail and expands on other issues within the building.





**Enrollment vs.  
Building Size**

# Enrollment Projections

Enrollment Projections By Grade*																				
Birth Year	Births*		School Year	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12
2018	102		2023-24	79	87	82	72	74	86	67	82	81	70	72	62	65	57	0	957	1036
2019	108		2024-25	79	85	80	84	70	75	83	65	82	83	63	64	61	70	0	965	1044
2020	106		2025-26	80	83	78	81	81	71	73	80	65	84	75	56	63	65	0	955	1035
2021	105	(prov.)	2026-27	80	82	77	79	79	82	69	71	80	67	76	67	55	67	0	951	1031
2022	106	(prov.)	2027-28	80	83	76	78	77	80	80	67	71	82	60	68	66	59	0	947	1027
2023	105	(est.)	2028-29	81	83	77	77	76	78	78	77	67	73	74	53	67	71	0	951	1032
2024	106	(est.)	2029-30	81	83	77	78	75	77	76	75	77	69	66	66	52	72	0	943	1024
2025	106	(est.)	2030-31	81	83	77	78	76	76	75	73	75	79	62	59	65	56	0	934	1015
2026	106	(est.)	2031-32	82	83	77	78	76	77	74	73	73	77	71	55	58	70	0	942	1024
2027	106	(est.)	2032-33	82	83	77	78	76	77	75	72	73	75	69	63	54	62	0	934	1016
2028	106	(est.)	2033-34	82	83	77	78	76	77	75	73	72	75	68	61	62	58	0	935	1017

Note: Ungraded students (UNGR) often are high school students whose anticipated years of graduation are unknown, or students with special needs - UNGR not included in Grade Combinations for 7-12, 9-12, etc.

Based on an estimate of births     
  Based on children already born     
  Based on students already enrolled

\*Birth data provided by Public Health Vital Records Departments in each state.

\*\* < 10 Not reported, to protect subgroups with fewer than 10 students.

Projected Enrollment in Grade Combinations*									
School Year	PK-4	K-4	PK-8	K-8	5-8	6-8	7-8	5-12	9-12
2023-24	480	401	780	701	300	233	151	556	256
2024-25	473	394	786	707	313	230	165	571	258
2025-26	474	394	776	696	302	229	149	561	259
2026-27	479	399	766	686	287	218	147	552	265
2027-28	474	394	774	694	300	220	153	553	253
2028-29	472	391	767	686	295	217	140	560	265
2029-30	471	390	768	687	297	221	146	553	256
2030-31	471	390	773	692	302	227	154	544	242
2031-32	473	391	770	688	297	223	150	551	254
2032-33	473	391	768	686	295	220	148	543	248
2033-34	473	391	768	686	295	220	147	544	249

Projected Percentage Changes			
School Year	K-12	Diff.	%
2023-24	957	0	0.0%
2024-25	965	8	0.8%
2025-26	955	-10	-1.0%
2026-27	951	-4	-0.4%
2027-28	947	-4	-0.4%
2028-29	951	4	0.4%
2029-30	943	-8	-0.8%
2030-31	934	-9	-1.0%
2031-32	942	8	0.9%
2032-33	934	-8	-0.8%
2033-34	935	1	0.1%
<b>Change</b>	<b>-22</b>	<b>-2.3%</b>	

\*Projections should be updated annually to reflect changes in in/out-migration of families, real estate sales, residential construction, births, and similar factors.

NOTE: District enrolled in NESDEC and obtained Enrollment Projects



# Existing Building Size: SF Overage

School		Grade	Current Enrollment	Current Size (GSF)	Correct Size (GSF)	Overage (GSF)
BBES	Broad Brook Elementary School	Pre-K to 4	480	69,078	67,200	1,878
EWMS	East Windsor Middle School	5 to 8	300	83,035	52,500	30,535
EWS	East Windsor High School	9 to 12	256	123,244	44,800	78,444

Currently, all three schools are **too large** for the current enrollment

- **The correct size for each school is calculated based on the current enrollment and utilized the CT Space Standards Worksheet**
  - The CT State Space Standards is a required form when districts want to receive reimbursement from the Office of Grants Administration (OGA) to assist in funding for their school projects.
- **If a school is designed to be larger than what the Space Standards calculate, there are two options:**
  - OGA may lower/adjust the District's reimbursement rate
  - The District may utilize Special Legislation to obtain a space waiver via their local legislators





**Cost Estimates &  
Comparisons**

# Option A – Renovate as New

## RIGHT SIZING THE BUILDINGS

School		Grade	Projected Enrollment	Current Size (GSF)	New Size (GSF)	Delta (GSF)
BBES	Broad Brook Elementary School	Pre-K to 4	479	69,078	67,060	2,018
EWMS	East Windsor Middle School	5 to 8	313	83,035	54,775	28,260
EWHS	East Windsor High School	9 to 12	265	123,244	46,375	76,869

- Assumptions:**

- Right sizing the buildings
- Projected enrollment:
  - Highest enrollment in the next 10 years based on NESDEC Report (not including the current 23-24 school year)
- New size:
  - Calculated based on Projected Enrollment utilizing CT Space Standards Worksheet
- All three buildings will be Renovated as New and adjusted to the correct size based on Projected Enrollment and the new size based on the CT Space Standards Worksheet





# Option A – Renovate as New

## RIGHT SIZING THE BUILDINGS

	BBES		EWMS		EWHS			
Construction Cost per SF	\$475	\$31,853,500.00	\$435	\$23,827,125.00	\$410	\$19,013,750.00		
Site Development (LS)		\$3,000,000.00		\$4,000,000.00		\$5,000,000.00		
Soft Costs (LS)		\$5,925,095.00		\$4,730,611.25		\$4,082,337.50		
Subtotal		\$40,778,595.00		\$32,557,736.25		\$28,096,087.50		
Owner Contingency (LS)		\$2,038,929.75		\$1,627,886.81		\$1,404,804.38		
Subtotal		\$42,817,524.75		\$34,185,623.06		\$29,500,891.88		
Escalation (LS)		\$5,493,782.94		\$4,386,250.58		\$3,785,167.34		
<b>Total</b>		<b>\$48,311,307.69</b>		<b>\$38,571,873.64</b>		<b>\$33,286,059.22</b>		
Est. Reimbursement at 63.21%		\$30,537,577.59		\$24,381,281.33		\$21,040,118.03	\$120,169,240.55	Est. Total Project Costs
Est. Town Share		\$17,773,730.10		\$14,190,592.31		\$12,245,941.19	\$75,958,976.95	Est. Total Reimbursement
							\$44,210,263.60	Est. Total Town Share

**NOTE:**

- Construction Cost per SF based on estimated values due to current market conditions. All numbers are estimated, they are not final costs.
- Escalation costs are calculated for a 3-year period.



# Option B – Renovate as New

## COMBINING EWMS & EWHS UTILIZING EWMS AND MOVING 5TH GRADE TO BBES

School		Grade	Projected Enrollment	Current Size (GSF)	New Size (GSF)	Delta (GSF)
BBES	Broad Brook Elementary School	Pre-K to 5	577	69,078	67,317	1,761
EWMS EWHS	East Windsor Middle School East Windsor High School	6 to 8 9 to 12	495	83,035	59,400	23,635

- Assumptions:**

- Combine EWMS and EWHS into one building utilizing the current EWMS
  - Grade 5 would move to BBES
  - EWHS will be decommissioned and no longer utilized in this capacity
- Projected Enrollment:
  - Highest enrollment in the next 10 years based on NESDEC Report (not including the current 23-24 school year)
- New Size:
  - Calculated based on Projected Enrollment utilizing CT Space Standards Worksheet
- Both buildings will be Renovated as New and adjusted to the correct size based on Projected Enrollment, the new size based on the CT Space Standards Worksheet, and moving of grade levels



# Option B – Renovate as New

## COMBINING EWMS & EWHS UTILIZING EWMS AND MOVING 5TH GRADE TO BBES

	BBES		EWMS & EWHS			
Construction Cost per SF	\$475	\$31,975,575.00	\$435	\$25,839,000.00		
Site Development (LS)		\$3,000,000.00		\$7,000,000.00		
Soft Costs (LS)		\$5,945,847.75		\$5,582,630.00		
Subtotal		\$40,921,422.75		\$38,421,630.00		
Owner Contingency (LS)		\$2,046,071.14		\$1,921,081.50		
Subtotal		\$42,967,493.89		\$40,342,711.50		
Escalation (LS)		\$5,513,025.01		\$5,176,247.38		
<b>Total</b>		<b>\$48,480,518.90</b>		<b>\$45,518,958.88</b>	<b>\$93,999,477.77</b>	<b>Est. Total Project Costs</b>
Est. Reimbursement at 63.21%		\$30,644,535.99		\$28,772,533.90	<b>\$59,417,069.90</b>	<b>Est. Total Reimbursement</b>
Est. Town Share		\$17,835,982.90		\$16,746,424.97	<b>\$34,582,407.87</b>	<b>Est. Total Town Share</b>

**NOTE:**

- Construction Cost per SF based on estimated values due to current market conditions. All numbers are estimated, they are not final costs.
- Escalation costs are calculated for a 3-year period.



# Option C – Renovate as New

## CURRENT ENROLLMENT & CURRENT BUILDING SIZE

School		Grade	Current Enrollment	Current Size (GSF)
BBES	Broad Brook Elementary School	Pre-K to 4	480	69,078
EWMS	East Windsor Middle School	5 to 8	300	83,035
EWHS	East Windsor High School	9 to 12	256	123,244

- **Assumptions:**

- Current Enrollment (23-24 school year)
- Current Size

Utilizes current building sizes – State OGA may not accept these sizes due to them exceeding the requirements based on the District's current and projected enrollment and the building sizes calculated utilizing the CT Space Standards Worksheet

- All buildings will be Renovated as New



# Option C – Renovate as New

## CURRENT ENROLLMENT & CURRENT BUILDING SIZE

	BBES		EWMS		EWSH			
Construction Cost per SF	\$475	\$32,812,050.00	\$435	\$36,120,225.00	\$410	\$50,530,040		
Site Development (LS)		\$5,000,000.00		\$5,000,000.00		\$12,000,000.00		
Soft Costs (LS)		\$6,428,048.50		\$6,990,438.25		\$10,630,106.80		
Subtotal		\$44,240,098.50		\$48,110,663.25		\$73,160,146.80		
Owner Contingency (LS)		\$2,212,004.93		\$2,405,533.16		\$3,658,007.34		
Subtotal		\$46,452,103.43		\$50,516,196.41		\$76,818,154.14		
Escalation (LS)		\$5,960,124.38		\$6,481,575.47		\$9,856,297.56		
<b>Total</b>		<b>\$52,412,227.81</b>		<b>\$56,997,771.88</b>		<b>\$86,674,451.70</b>		
Est. Reimbursement		\$32,228,639.47		\$22,780,688.78		\$19,915,045.75	\$196,084,451.38	Est. Total Project Costs
Est. Town Share		\$20,183,588.33		\$34,217,083.10		\$66,759,405.94	\$74,924,374.01	Est. Total Reimbursement
							\$121,160,077.37	Est. Total Town Share

**NOTE:**

- Reimbursement Rate for RNV = 63.21% - Due to the larger SF area for each building, the Reimbursement Rate was adjusted based on the State Space Standards Worksheet
  - BBES = Adjusted Reimbursement Rate = **61.49%**
  - EWMS = Adjusted Reimbursement Rate = **39.97%**
  - EWSH = Adjusted Reimbursement Rate = **22.98%**
- Construction Cost per SF based on estimated values due to current market conditions. All numbers are estimated, they are not final costs.
- Escalation costs are calculated for a 3-year period.



# Option D – Renovate as New

## COMBINING EWMS & EWHS UTILIZING EWHS AND MOVING 5TH GRADE TO BBES

School		Grade	Projected Enrollment	Current Size (GSF)	New Size (GSF)	Delta (GSF)
BBES	Broad Brook Elementary School	Pre-K to 5	577	69,078	67,317	1,761
EWMS EWHS	East Windsor Middle School East Windsor High School	6 to 8 9 to 12	495	123,244	59,400	63,844

**Assumptions:**

- Combine EWMS and EWHS into one building utilizing the current EWHS
  - Grade 5 would move to BBES
  - EWMS will be decommissioned and no longer utilized in this capacity
- Projected Enrollment:
  - Highest enrollment in the next 10 years based on NESDEC Report (not including the current 23-24 school year)
- New Size:
  - Calculated based on Projected Enrollment utilizing CT Space Standards Worksheet
- Both buildings will be Renovated as New and adjusted to the correct size based on Projected Enrollment, the new size based on the CT Space Standards Worksheet, and moving of grade levels



# Option D – Renovate as New

## COMBINING EWMS & EWHS UTILIZING EWHS AND MOVING 5TH GRADE TO BBES

	BBES		EWMS & EWHS			
Construction Cost per SF	\$475	\$31,975,575.00	\$435	\$24,354,000.00		
Site Development (LS)		\$3,000,000.00		\$4,000,000.00		
Soft Costs (LS)		\$5,945,847.75		\$4,820,180.00		
Subtotal		\$40,921,422.75		\$33,174,180.00		
Owner Contingency (LS)		\$2,046,071.14		\$1,658,709.00		
Subtotal		\$42,967,493.89		\$34,832,889.00		
Escalation (LS)		\$5,513,025.01		\$4,703,372.38		
<b>Total</b>		<b>\$48,480,518.90</b>		<b>\$41,360,583.88</b>	<b>\$89,841,102.77</b>	<b>Est. Total Project Costs</b>
Est. Reimbursement at 63.21%		\$30,644,535.99		\$26,144,025.07	<b>\$56,788,561.06</b>	<b>Est. Total Reimbursement</b>
Est. Town Share		\$17,835,982.90		\$15,216,558.81	<b>\$33,052,541.71</b>	<b>Est. Total Town Share</b>

**NOTE:**

- Construction Cost per SF based on estimated values due to current market conditions. All numbers are estimated, they are not final costs.
- Escalation costs are calculated for a 3-year period.



# Option E – New Construction

## RIGHT SIZING THE BUILDINGS BASED ON ENROLLMENT PROJECTIONS IN OPTION A

School		Grade	Projected Enrollment	Current Size (GSF)	New Size (GSF)	Delta (GSF)
BBES	Broad Brook Elementary School	Pre-K to 4	479	69,078	67,060	2,018
EWMS	East Windsor Middle School	5 to 8	313	83,035	54,775	28,260
EWHS	East Windsor High School	9 to 12	265	123,244	46,375	76,869

- Assumptions:**

- Right sizing the buildings
- Projected enrollment:
  - Highest enrollment in the next 10 years based on NESDEC Report (not including the current 23-24 school year)
- New size:
  - Calculated based on Projected Enrollment utilizing CT Space Standards Worksheet
- All three buildings will be New Construction and built to the correct size based on Projected Enrollment and the new size based on the CT Space Standards Worksheet





# Option E – New Construction

## RIGHT SIZING THE BUILDINGS BASED ON ENROLLMENT PROJECTIONS IN OPTION A

	BBES		EWMS		EWHS			
Construction Cost per SF	\$540	\$36,212,400.00	\$520	\$28,483,000.00	\$550	\$25,506,250		
Site Development (LS)		\$5,000,000.00		\$5,000,000.00		\$12,000,000.00		
Soft Costs (LS)		\$7,006,108.00		\$5,692,110.00		\$6,376,062.50		
<b>Subtotal</b>		\$48,218,508.00		\$39,175,110.00		\$43,882,312.50		
Owner Contingency (LS)		\$2,410,925.40		\$1,958,755.50		\$2,194,115.63		
<b>Subtotal</b>		\$50,629,433.40		\$41,133,865.50		\$46,076,428.13		
Escalation (LS)		\$6,496,104.55		\$5,277,757.88		\$5,911,922.66		
<b>Total</b>		<b>\$57,125,537.95</b>		<b>\$46,411,623.38</b>		<b>\$51,988,350.78</b>	<b>\$155,525,512.11</b>	<b>Est. Total Project Costs</b>
Est. Reimbursement at 53.21%		\$30,396,498.74		\$24,695,624.80		\$27,663,001.45	<b>\$82,755,124.99</b>	<b>Est. Total Reimbursement</b>
Est. Town Share		\$26,729,039.21		\$21,715,998.58		\$24,325,349.33	<b>\$72,770,387.11</b>	<b>Est. Total Town Share</b>

**NOTE:**

- Reimbursement is lower for New Construction. Utilizes building sizes based on Enrollment Projections in Option A. Construction Cost per SF based on estimated values due to current market conditions. All numbers are estimated, they are not final costs.
- Escalation costs are calculated for a 3-year period.



# Option F – Miscellaneous Upgrades

## HVAC UPGRADES, ELECTRICAL UPGRADES, ROOF REPLACEMENT, & WINDOW REPLACEMENT

School		Miscellaneous Upgrades	Est. State Reimbursement	Est. Town Share
BBES	Broad Brook Elementary School	\$32,144,284.43	\$18,129,142.04	\$14,015,142.38
EWMS	East Windsor Middle School	\$31,872,119.92	\$17,772,181.83	\$14,099,938.09
EWHS	East Windsor High School	\$55,769,104.40	\$32,344,711.51	\$23,424,392.89
<b>Total</b>		<b>\$119,785,508.75</b>	<b>\$68,246,035.38</b>	<b>\$51,539,473.37</b>

• **Assumptions:**

- Utilizes current building areas for each school which are considered as oversized for the current enrollment  
 Allows for temporary fixes to the current building issues but still leaves other items that could cause potential issues later  
 Does not address all issues in QA+M’s report – only includes window replacement, HVAC upgrades, electrical upgrades and roof replacements
- Reimbursement Rate for Miscellaneous Upgrades = 63.21%  
 Electrical upgrades are not considered reimbursable by the state
- Costs above are **estimates**, they are not to be utilized as best and final costs  
 Costs were determined utilizing a “per SF” value based on current market conditions



# Comparison: Options A-F

## SUMMARY OF OPTIONS, COSTS AND ESTIMATED STATE & TOWN SHARES

Option & Description		Total Cost	Est. State Share	Est. Town Share
<b>Option A</b>	Renovate as New - Right Size Buildings	<b>\$120,169,240.55</b>	<b>\$75,958,976.95</b>	<b>\$44,210,263.60</b>
<b>Option B</b>	Renovate as New – Combine EWMS & EWHS into EWMS / Move Grade 5 to BBES	<b>\$93,999,477.77</b>	<b>\$59,417,069.90</b>	<b>\$34,582,407.87</b>
<b>Option C</b>	Renovate as New - Current Enrollment & Current Building Size	<b>\$196,084,451.38</b>	<b>\$74,924,374.01</b>	<b>\$121,160,077.37</b>
<b>Option D</b>	Renovate as New - Combine EWMS & EWHS into EWHS / Move Grade 5 to BBES	<b>\$89,841,102.77</b>	<b>\$56,788,561.06</b>	<b>\$33,052,541.71</b>
<b>Option E</b>	New Construction – New, right sized buildings based on Enrollment projections/GSF in Option A	<b>\$155,525,512.11</b>	<b>\$82,755,124.99</b>	<b>\$72,770,387.11</b>
<b>Option F</b>	Miscellaneous Upgrades - HVAC Upgrades, Electrical Upgrades, Roof Replacement, Window Replacement	<b>\$119,785,508.75</b>	<b>\$68,246,035.38</b>	<b>\$51,539,473.37</b>



# Pros & Cons: Options A-F

Option & Description	Pros	Cons
<b>Option A</b> - Renovate as New - Right Size Buildings	<ul style="list-style-type: none"> <li>• Corrects building size to meet State of CT Standards</li> <li>• Addresses all major issues in all 3 buildings</li> <li>• Renovating schools increases property value</li> <li>• Reduces operating/maintenance costs through reduction in SF area</li> </ul>	<ul style="list-style-type: none"> <li>• Utilizing existing structure for each building may impact final SF area</li> </ul>
<b>Option B</b> - Renovate as New – Combine EWMS & EWHS into EWMS / Move Grade 5 to BBES	<ul style="list-style-type: none"> <li>• Corrects building size to meet State of CT Standards</li> <li>• Addresses all major issues in all 3 buildings</li> <li>• Renovating schools increases property value</li> <li>• Moves Grade 5 to Elementary School making BBES optimizes its utilization</li> <li>• Reduces operating/maintenance costs through only having 2 buildings rather than 3 and due to reduction in SF area</li> </ul>	<ul style="list-style-type: none"> <li>• Need to find use for EWHS site</li> </ul>
<b>Option C</b> - Renovate as New - Current Enrollment & Current Building Size	<ul style="list-style-type: none"> <li>• Addresses all major issues in all 3 buildings</li> <li>• Renovating schools increases property value</li> </ul>	<ul style="list-style-type: none"> <li>• Reduction in reimbursement rate due to oversized building areas</li> <li>• No reduction in maintenance costs</li> <li>• Minimal reduction in operation costs</li> </ul>
<b>Option D</b> - Renovate as New - Combine EWMS & EWHS into EWHS / Move Grade 5 to BBES	<ul style="list-style-type: none"> <li>• Corrects building size to meet State of CT Standards</li> <li>• Addresses all major issues in all 3 buildings</li> <li>• Renovating schools increases property value</li> <li>• Moves Grade 5 to Elementary School making BBES optimizes its utilization</li> <li>• Reduces operating/maintenance costs through only having 2 buildings rather than 3 and due to reduction in SF area</li> </ul>	<ul style="list-style-type: none"> <li>• Need to find use for EWMS site</li> </ul>
<b>Option E</b> - New Construction – New, right sized buildings based on Enrollment projections/GSF in Option A	<ul style="list-style-type: none"> <li>• Corrects building size to meet State of CT Standards</li> <li>• Addresses all major issues in all 3 buildings</li> <li>• New schools increases property value</li> </ul>	<ul style="list-style-type: none"> <li>• Find location/space to build new schools</li> <li>• Need to determine solutions for existing schools</li> <li>• Maintains operating/maintenance costs for all 3 buildings</li> </ul>
<b>Option F</b> - Miscellaneous Upgrades - HVAC Upgrades, Electrical Upgrades, Roof Replacement, Window Replacement	<ul style="list-style-type: none"> <li>• Would address issues that need immediate attention</li> </ul>	<ul style="list-style-type: none"> <li>• Does not provide brand new facility at each school site</li> <li>• Would not increase property value</li> <li>• State may not allow for miscellaneous capital improvements due to major issues that have been on-going (ADA Accessibility Issues)</li> <li>• Maintains operating/maintenance costs for all 3 buildings</li> <li>• Town may need to invest money every year to fix continuous problems outside of the upgrades proposed as part of this scope</li> <li>• Only addresses select problems in each building</li> </ul>

# Next Steps

- **QA+M**

- Finalize the Master Plan & Facilities Needs Assessment
- Determine the reimbursement eligibility of each item in the Master Plan & Facilities Needs Assessment
- Provide cost estimate based on recommendations

- **Town of East Windsor & East Windsor Public Schools**

- Review and analyze Options A-F to determine plan for facility improvements
- Determine Town funding availability



**CSG**

**End.**