



Bristol Warren Regional School District RIDE Necessity of School Construction



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SCHOOL BUILDING COMMITTEE | 09.21.2023

AGENDA

- I. OPEN MEETING**
- II. PUBLIC COMMENTS**
- III. INTRODUCTIONS**
- IV. DISCUSSION AND/OR POSSIBLE ACTION**
 - A. Approval of 9/7/23 Meeting Minutes - VOTE
 - B. Design Updates
 - 1. Stage II Scope Recap
 - 2. Building Systems Summary
 - a) Elevator Upgrade Details
 - b) Emergency Power Summary (existing systems)
 - c) HVAC Summary (existing systems)
 - 3. Lifecycle Cost Update – Hybrid vs Full Geothermal
 - C. Project Schedule / Next Steps
 - D. Community Outreach
- I. ADJOURNMENT**

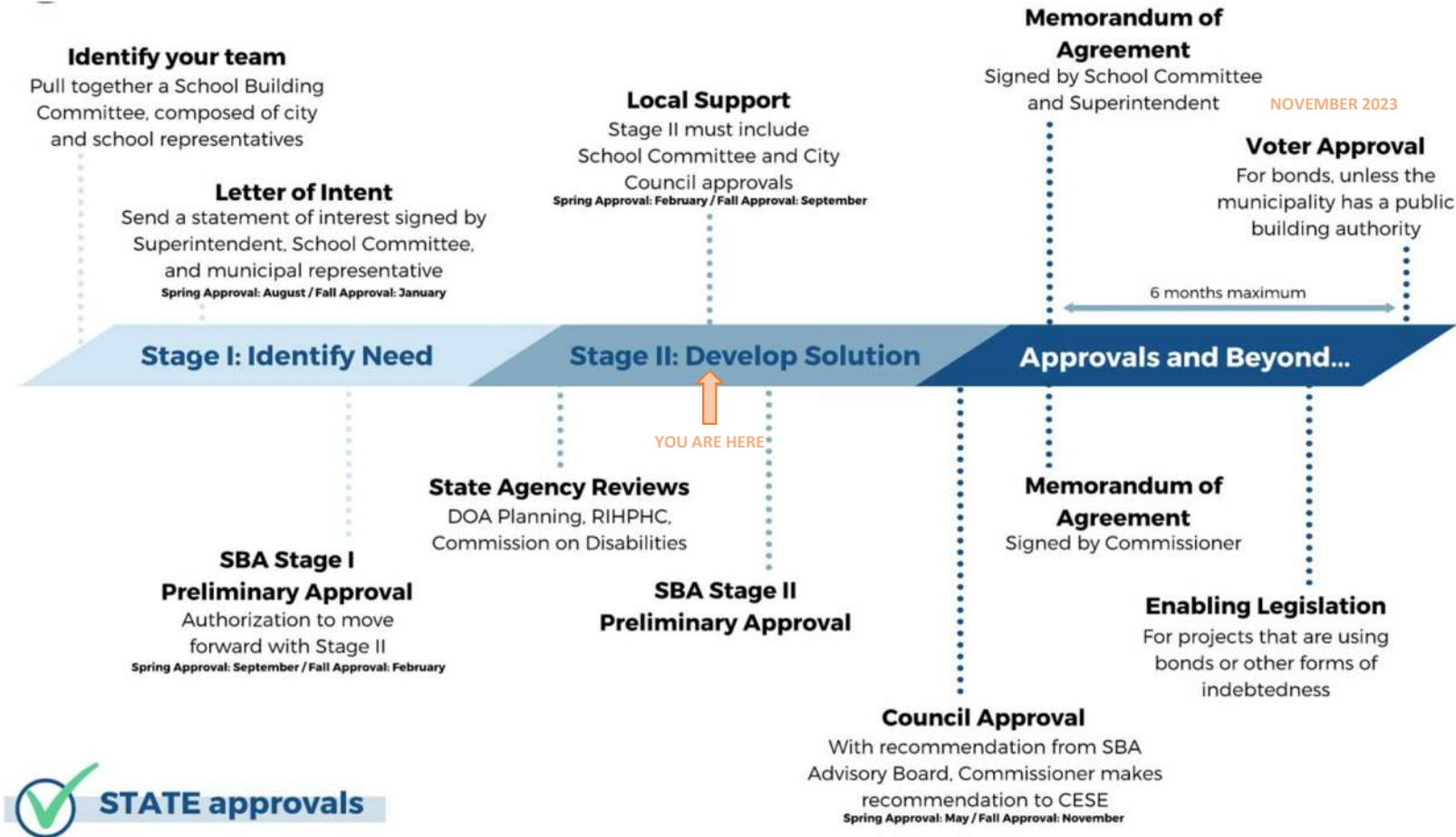
General Update



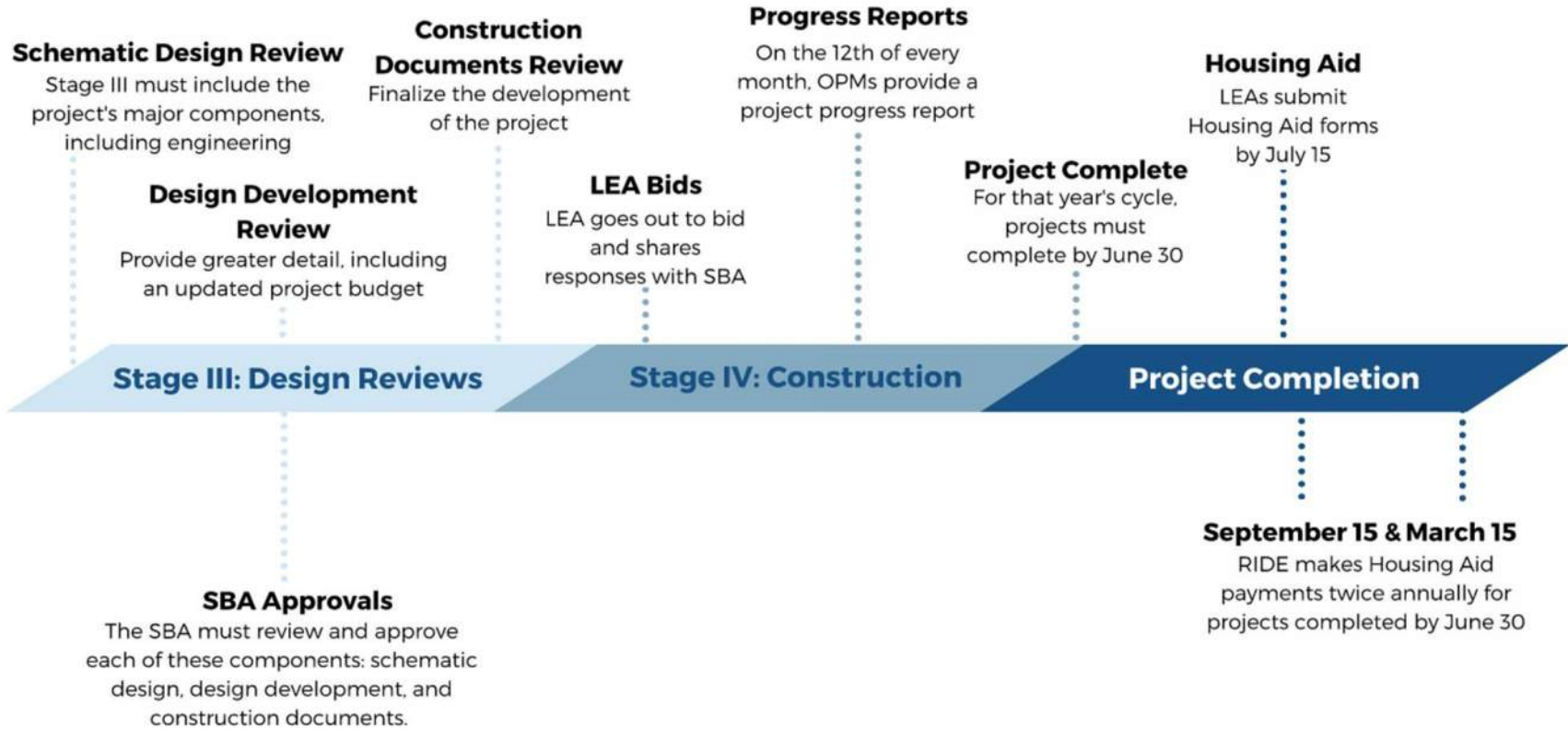
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RIDE PROCESS OVERVIEW



RIDE PROCESS OVERVIEW



STATE to-dos

STAGE II PROGRESS UPDATE

- 20Aug23 - Warren Concert Series (Outreach)
- 23Aug23 - Class of 2027 Welcoming Night (Outreach)
- 24Aug23 - AE/OPM Coordination Meeting: Weekly
- 27Aug23 - Warren Concert Series (Outreach)
- 28Aug23 - Geotechnical Borings @ MHHS (wk of 8/28, date to be confirmed)
- 28Aug23 - Planning Dept Technical Review Committee 10AM
- 28Aug23 - School Committee Meeting
- 30Aug23 - Integrated Design Meeting (Security)
- 31Aug23 - AE/OPM Coordination Meeting: Weekly
- 07Sep23 - School Building Committee

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- 07Sep23 - AE/OPM Coordination Meeting: Weekly
 - 08Sep23 - First Home MHHS Football Game (Outreach)
 - 11Sep23 - School Committee Meeting
 - 12Sep23 - Warren Town Council Presentation
 - 13Sep23 - Bristol Town Council Presentation
 - 14Sep23 - AE/OPM Coordination Meeting: Weekly
 - 15Sep23 - RIDE Stage II Submission
 - 17Sep23 - Bristol Porchfest

Since Last SBC Meeting

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- 21Sep23 - School Building Committee
 - 21Sep23 - AE/OPM Coordination Meeting: Weekly
 - 23Sep23 - East Bay Running Festival (Outreach)
 - 27Sep23 - School Committee
 - 08Oct23 - Warren Walkabout
 - 14Oct23 - Harvest Festival (Outreach)
 - 28Oct23 - Halloween Walkabout (Outreach)
 - 07Nov23 - Referendum Vote

Upcoming

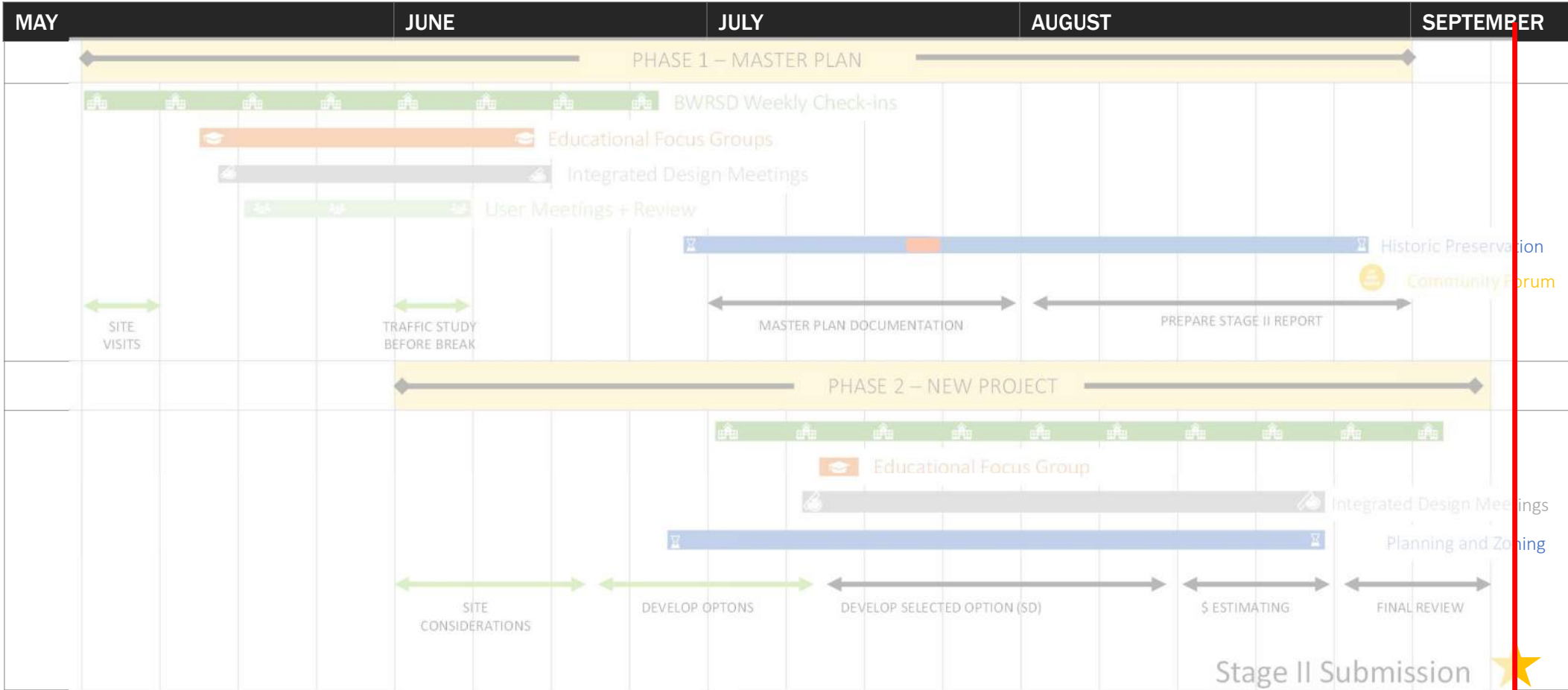
Design Update



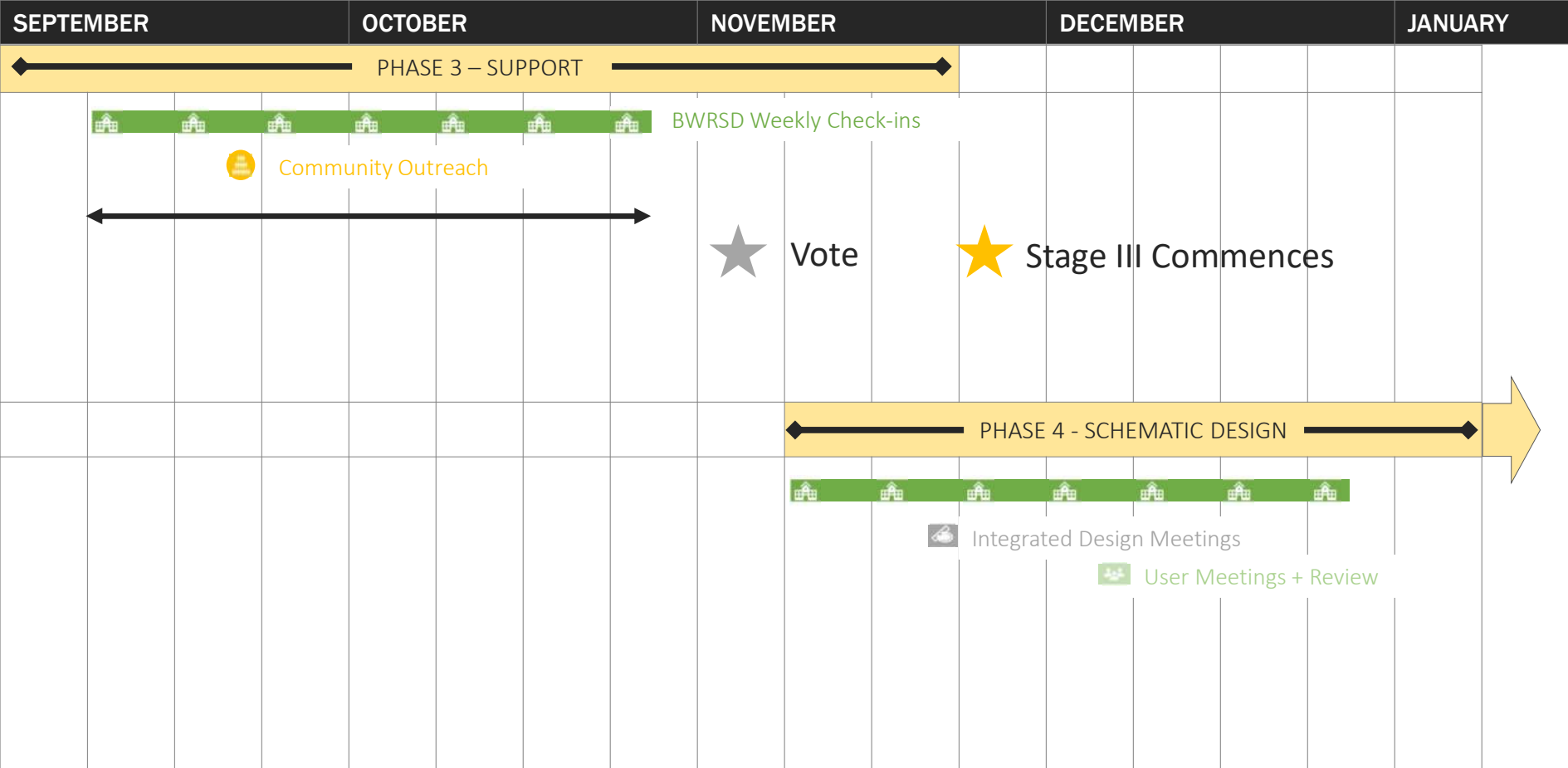
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Proposed Schedule - Summer



Proposed Schedule - Fall



DESIGN UPDATE

Underway:

- Developing Exterior and Interior Renderings for Mt. Hope High School
- Developing Lobby Entry Renderings for Kickemuit Middle School
- Developing Playground Rendering for the Hugh Cole Elementary School
- Developing Prekindergarten Playground Rendering for Rockwell Elementary School
- Developing additional site options for the Colt Andrews Elementary School
- Approval of amendment for drilling of monitoring wells at Mt. Hope High School

Upcoming:

- School Committee Meeting – September 26th
- Stage II comments from RIDE - TBD
- Neighborhood meeting for High School project – TBD
- Community Forum - TBD
- Bristol Town Council Meeting to review Bradford Street - TBD
- Historic Preservation Review – After the first of the year
- Planning Board review – After the first of the year

MHHS SITE



MHHS 1ST FLOOR



MHHS 1ST FLOOR



MHHS 3RD FLOOR



MHHS NORTHEAST AXONOMETRIC



MHHS SOUTHWEST AXONOMETRIC



Elevator and Emergency Power

Elevator Upgrade Details

- Existing Mt. Hope High School Elevator requires full modernization -New High School underway to replace tired building
- Existing Kickemuit Middle School is nearing its useful life and will need to be replaced within the next few years – District to review as a deferred maintenance project
- Existing Elevators in the Colt and Andrews Schools are in fair condition, the replacement of these elevators can be delayed for 8-10 years.

Emergency Power Summary

- New life safety emergency generator is part of the new Mt. Hope High School project
- Kickemuit Middle School will be getting a new emergency generator this year (District has on order)
- The new emergency generator at the existing Mt. Hope High School should be relocated to one of the Elementary Schools

Mechanical Systems

Existing School	System	Year	AC	Ventilation
Kickemuit Middle School	Majority of the Building is building is heated only with baseboard heaters, cabinet heaters, unit heaters and unit ventilators.	1997 - Major Renovation Project	AC in District IT office and select classrooms	Ventilation in cafeteria, auditorium, gymnasium, locker rooms
Hugh Cole Elementary School	2-pipe unit ventilator HVAC system, air-cooled chiller, and standard efficiency dual fuel natural gas / fuel-oil boiler plant provides heating and cooling for the 2006 building addition. The original building contains older heating-only systems	2006 Major Renovation Project (system is 17years old)	AC in addition	Dedicated outside air ventilation in the addition. Ventilation system in Gymnasium
Andrews Elementary School	2-pipe fan coil unit HVAC system, mechanical dedicated outside air systems, air-cooled chiller, and standard efficiency natural gas-fired boiler plant provides heating and cooling for the 2008 building addition. The original building contains older heating-only systems	2008 Major Renovation Project (system is 15years old)	AC in Andrews Addition and some Classrooms in the existing building have AC units (mini splits)	Dedicated outside air ventilation in the addition
Colt Elementary School	2-pipe fan coil unit HVAC system, mechanical dedicated outside air systems, air-cooled chiller, and standard efficiency natural gas-fired boiler plant provides heating and cooling for the 2008 building addition	2008 Major Renovation Project (system is 15years old)	AC	Dedicated outside air ventilation
Rockwell Elementary School	The building is heated only with baseboard heaters, cabinet heaters, unit heaters and unit ventilators.	1992 and 2006 Addition and Renovation Project (system is 31years old)	No AC	Ventilation in the media center, main office, kitchen and gymnasium

Kickemuit Middle School

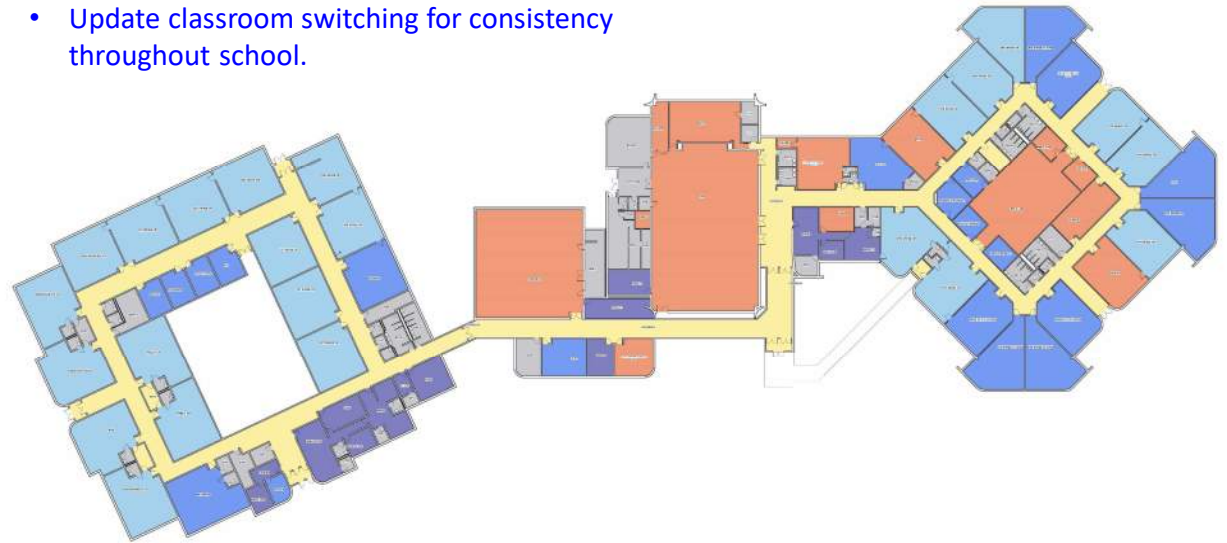
- Replace ballasted roof
- Replace damaged exterior doors and hardware
- ~~Repoint masonry and re-caulk windows~~
Deferred Maintenance
- ~~Replace damaged exterior wall lights~~
Deferred Maintenance
- Replace damaged exterior railings at ramp and stairs
- Replace ACT at second floor corridors and classrooms
- Replace Intercom system
- Install an additional egress door in the gymnasium
- Replace hardware in egress doors
- Install continuous handrails in stairs
- Repair exterior walkway for accessibility
- Replace exhaust fans on roof
- Add new entry for 5th and 6th grade academy
- New electrical service
- Relocate electrical panel by water pump
- Build in exterior exhaust for two gas fired boilers



Hugh Cole

- Replace membrane roof on original building
- ~~Repoint masonry and caulk windows on original building~~– Deferred Maintenance
- ~~Replace ACT in original building~~– Deferred Maintenance
- Abate asbestos ceiling tiles
- Renovate toilet rooms in original building to comply to ADA
- Provide ADA compliant door hardware in original building
- Modify door swing or hardware in classroom to conform to ADA
- Replace intercom system
- Add fire alarm to courtyard
- Replace hot water loop and insulate piping
- Replace exhaust fans in original building
- Repair AC units in data rooms
- Replace sprinkler piping that was installed with incorrect pipe size
- Repair asphalt play area
- Replace pavement to main loop
- Insulate piping so it is continuous to prevent condensation.

- Replace rusting piping and insulate piping at classroom unit ventilators.
- Add new ductwork, reinsulate, and add reheat coil at Library.
- Add fresh air to cafeteria to meet code requirements.
- Update classroom switching for consistency throughout school.



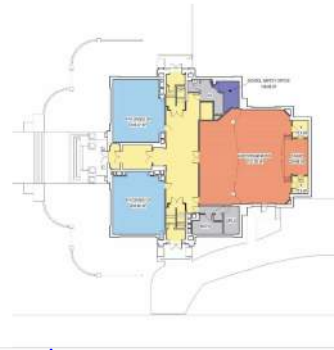
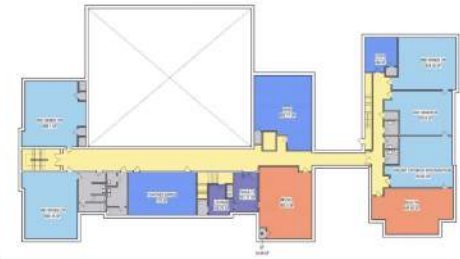
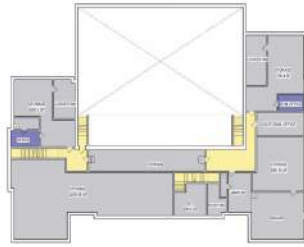
Rockwell

- Replace exterior doors and hardware
- ~~Caulk all windows~~—Deferred Maintenance
- ~~Paint exterior wood trim~~—Deferred Maintenance
- Replace intercom system
- Add drainage to playground area to address ponding issues
- Replace pavement and repair concrete at driveway
- Add new prekindergarten playground
- Replace mechanical system in kind (new boilers and unit ventilators with fresh air intake)



Colt - Andrews

- ~~Repair exterior doors and repaint wood windows at Colt- Deferred Maintenance~~
- ~~Repair pilaster damage in Colt auditorium- Deferred Maintenance~~
- ~~Wash masonry and paint wood trim in Andrews- Deferred Maintenance~~
- ~~Refinish exterior railings in Andrews- Deferred Maintenance~~
- ~~Investigate water infiltration in Colt basement - Deferred Maintenance~~
- Add automatic door openers to doors with noncompliant clearance
- Replace Chiller in Andrews
- Replace piping insulation in Colt and Andrews
- Replace Intercom system in both Colt and Andrews
- Replace refrigerant lines in Colt
- Replace Boiler in Andrews
- Investigate water damage in Andrews ceilings (roof repair)
- Create safer connection between Colt and Andrews



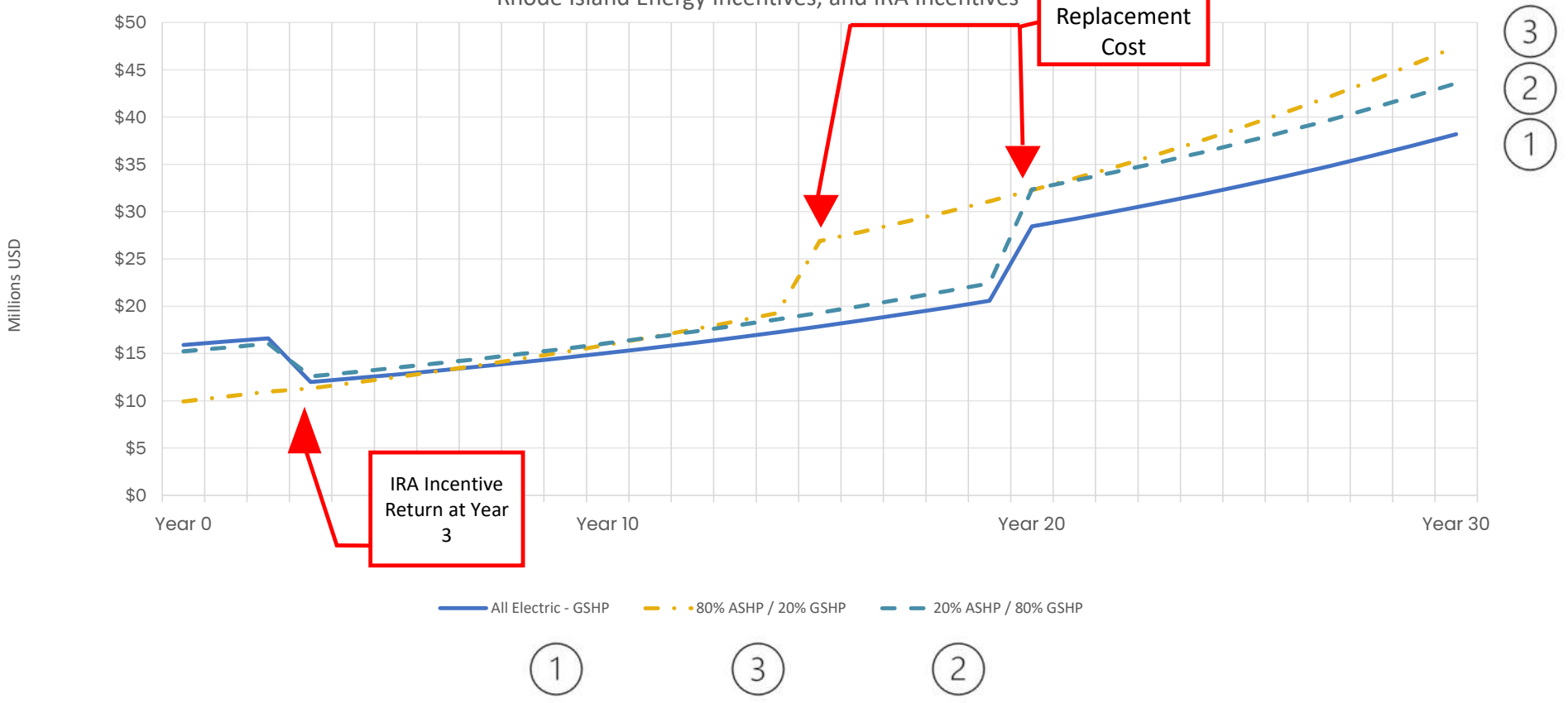
- Replace R-22 refrigerant.
- Replace non functioning backflow preventer in Colt
- Remove and replace all HVAC insulation in Andrews

System Analysis

LCCA w/o Solar	Option 1a Ground Source Heat Pump (pEUI = 28)	Option 1b 80% ASHP / 20% GSHP (pEUI = 46)	Option 1c 20% ASHP / 80% GSHP (pEUI = 32)
Total Initial Investment	\$15,912,500	\$9,936,100	\$15,242,500
Rhode Island Energy Incentives	\$209,000	\$209,000	\$209,000
IRA Incentives	\$4,774,000	--	\$3,658,000
Annual Energy Cost	\$247,500	\$406,000	\$287,000
Annual Maintenance Cost	\$92,000	\$100,500	\$100,500
Future Replacement Cost	\$7,094,000	\$9,060,000	\$6,868,000
30 Year Life Cycle Cost	\$43.2 million	\$47.6 million	\$43.4 million
30 Year Life Cycle Cost (with Incentives)	\$38.2 million	\$47.4 million	\$43.6 million

Long term vs. Short term Value - Life Cycle Cost without Solar

System Life Cycle Cost with no Solar, Rhode Island Energy Incentives, and IRA Incentives



ALTERNATES

Item	Bldg.	Description	Value w/ M/U
50	MHHS	ADD ALTERNATE: Triple Glazed Curtainwall (windows) (Double glazed in base, cost benefit analysis doesn't justify)	1,373,195
60	MHHS	ADD ALTERNATE: Media Center Roof 7 Ply and Gluelam	616,875
110	MHHS	ADD ALTERNATE: Radon Mitigation Piping (\$3.10/LF) (TBD if required)	322,905
260	MHHS	ADD ALTERNATE: Change 1st Floor Windows to Schoolguard Glass (Base carries 3M Film @ 1st Floor Windows \$14/SF @ 2,675SF)	184,375
570	MHHS	ADD ALTERNATE: HVAC System Alternate - Change to full Geothermal System (144 Geothermal Wells)	3,682,931
670	MHHS	ADD ALTERNATE: Vertical Granite Curb (7,193 @ \$51.65/LF = \$371,518) (Precast curb in Base)	186,559
710	MHHS	ADD ALTERNATE: Media Ctr Terrace Free Form Seating Allowance (\$129,125)	167,450
720	MHHS	ADD ALTERNATE: Courtyard Plaza Free Form Seating Allowance (\$129,125)	167,450
780	MHHS	ADD ALTERNATE: Press Box @ Baseball and Softball (2@\$82,640/ea = \$165,280)	214,336
790	MHHS	ADD ALTERNATE: Allowance for Seat Walls at Courtyard Plaza (\$206,600)	267,920
800	MHHS	ADD ALTERNATE: Irrigation at Fields (175,285 @ \$1.81/SF = \$317,266) (Lower value if Turf)	411,433
810	MHHS	ADD ALTERNATE: Increase allowance for Shrubs (brings to \$232,425 Total, 50% in base, 50% as alternate)	160,752
850	Colt Andrews	ADD ALTERNATE: Kitchen Modifications (\$254,471)	254,471
880	Colt	ADD ALTERNATE: Clean 25% of Façade (includes lift)	26,028
890	Colt	ADD ALTERNATE: Scrape and Paint Windows (includes lift)	43,152
940	Colt	ADD ALTERNATE: Elevator Modernization per Syka Hennessy	397,004
960	Colt	ADD ALTERNATE: AV Equipment (Allowance per Arch) w/ Rough in and power (1 of 2 location TBD)	201,240
970	Colt	ADD ALTERNATE: AV Equipment (Allowance per Arch) w/ Rough in and power (2 of 2 location TBD)	201,240
1000	Andrews	ADD ALTERNATE: Wash 25% Brick with Muriatic Acid Wash (4,598 @ \$8.40/SF = \$38,624)	52,875
1050	Andrews	ADD ALTERNATE: HVAC - new hood and EF above warming oven (\$26,250)	26,250
1080	Andrews	ADD ALTERNATE: Lighting Upgrades	16,136
1100	Andrews	ADD ALTERNATE: AV Upgrade (allowance)	201,240
1180	Colt Andrews	ADD ALTERNATE: Site Lighting and Power Upgrades	539,036
1220	Hugh Cole	ADD ALTERNATE: Replace Existing Ceiling Tile (\$401,370)	401,370
1230	Hugh Cole	ADD ALTERNATE: Remove Ceiling Lights & Install New (\$1,460,435)	1,460,435
1240	Hugh Cole	ADD ALTERNATE: Repoint Exterior Masonry (1,000 SF @ \$52.50/SF = \$52,500)	71,871
1330	Hugh Cole	ADD ALTERNATE: Replace accessible lift at stage	57,497
1402	Hugh Cole	ADD ALTERNATE: Site electric & lighting upgrades	539,036
1440	KMS	ADD ALTERNATE: Repoint Exterior Masonry & New Joint Sealants	821,411
1490	KMS	ADD ALTERNATE: Ceilings - new ACT throughout, misc repairs	639,655
1500	KMS	ADD ALTERNATE: Elevator Upgrade	335,400
1590	KMS	ADD ALTERNATE: AV - equipment allowance	201,240
1680	Rockwell	ADD ALTERNATE: Remove Existing Ceiling Tile (\$303,937)	303,937
1690	Rockwell	ADD ALTERNATE: Remove Ceiling Lights & Install New (\$512,164)	512,164
1700	Rockwell	ADD ALTERNATE: Repair VCT flooring in Corridors (\$20,835)	20,835
1710	Rockwell	ADD ALTERNATE: Clean Stained Brick: 25% of total (\$30,755)	30,755
1720	Rockwell	ADD ALTERNATE: Prep and Paint Wood Cupola, fascia, siding (includes lift)	34,047

SCHEDULE / NEXT STEPS



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KEY DATES / NEXT STEPS

Key Dates

15Sep23
07Nov23
19Dec23

- **RIDE Stage II Submission**
- **Project Funding Authorization Vote**
- **RIDE Stage II Approval Target**

Upcoming

23Sep23
27Sep23
08Oct23

- Outreach – East Bay Running Festival
- School Committee
- Outreach – Warren Walkabouts



COMMUNITY OUTREACH



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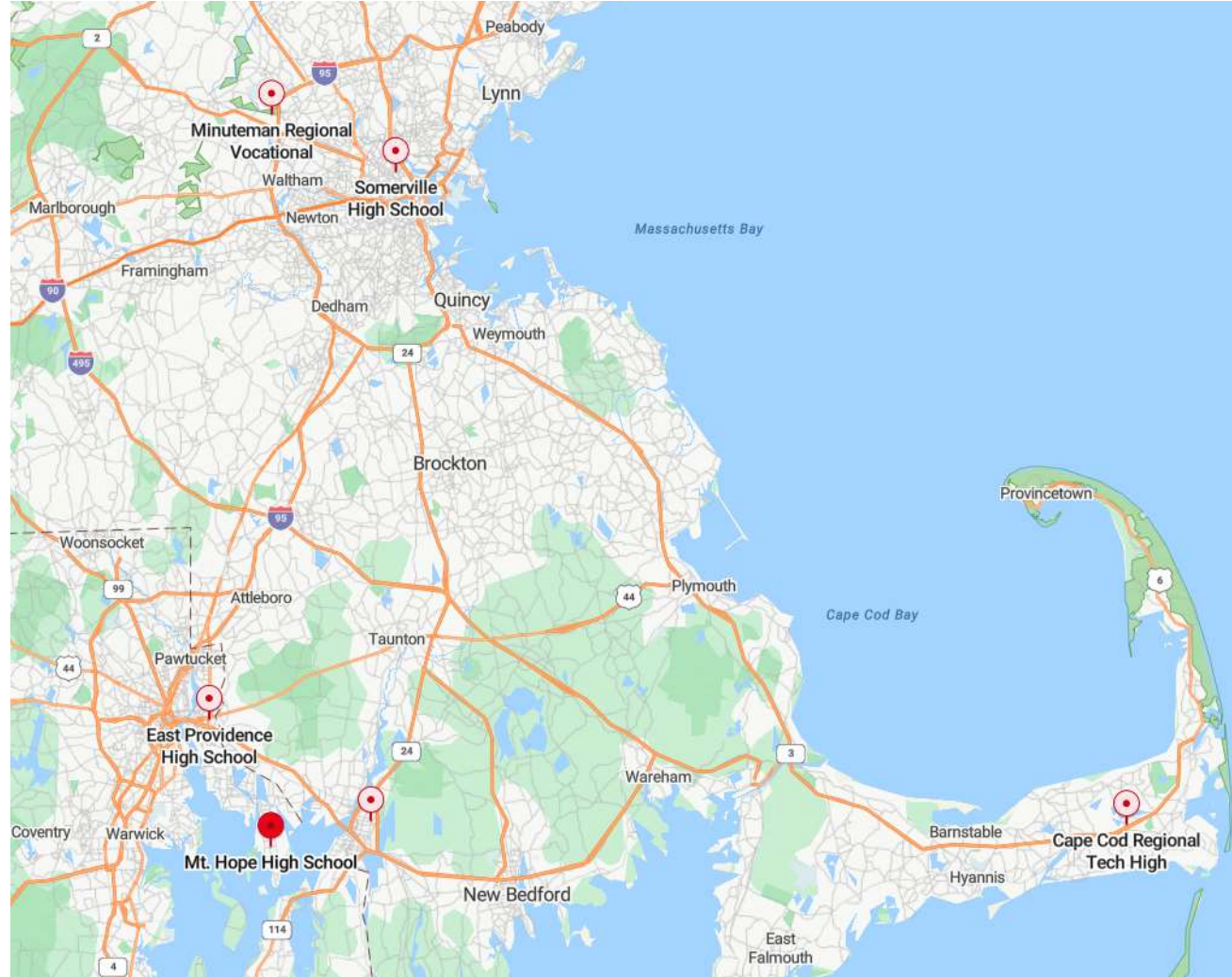
OUTREACH

- ✓ Website Updates
- ✓ Bristol Concert Series
- ✓ Warren Concert Series
- ✓ Hope & Main Schoolyard Markets
- ✓ Bristol Community Night Out (8/16)
- ✓ MHHS Class of 2027 Welcoming (8/23)
- ✓ MHHS Home Football Game (9/8)
- ✓ Bristol Porchfest (9/17)
- East Bay Running Festival (9/23)
- Community Forum (10/2 – *tentative date*)
- Abutters Meeting (TBD)
- Warren Walkabout (10/8 – 10/29)
- Harvest Festival (10/14)
- Halloween Walkabout (10/28)
- Community Forum (week of 10/30)
- Social Media Launch (September)

BUILDING TOURS

Upcoming Tours:

- Somerville High School
(CTE w/ Construction)
- Minuteman Tech
(CTE w/ Construction)
- Cape Cod Tech
(CTE w/ Construction)
- Durfee HS
(CTE w/ Construction)
- East Providence HS
(CTE w/ Construction)



BRISTOL PORCHFEST





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QUESTIONS? | THANK YOU!