



**PERKINS —  
EASTMAN**

Photo courtesy of TripAdvisor



# **DENNIS-YARMOUTH SCHOOL PROJECT**

**SCHOOL BUILDING COMMITTEE**

December 13, 2017



# SCHEDULE AND DECISIONS

Tuesday, Dec. 12 – MSBA Comments on PDP Submission

Tuesday, Dec. 26 – District/Design Team Responses Due to the MSBA

Wednesday, Jan. 3 – Joint BoS, Finance, School Comm. (update)

Week of Jan 8-12 – Faculty Focus Group Meetings

Wednesday, Jan. 10 – SBC (refined site/floor plans)

Wednesday, Jan 31 – Abutters Meeting + SBC (massing studies, traffic)

Week of Feb 5-9 – Sustainability, Security & MEP Workshops

Thursday, Feb. 15 – SBC (prelim. energy models, MEP systems)

Wednesday, Feb. 28 – SBC Selection of Preferred Solution

Wednesday, Mar. 7 – SBC (final scope review, what's in/what's out)

Thursday, Mar. 8 – Local Actions & Approvals of Solution (BoS/Fin Com/SC)

Wednesday, Apr. 11 – SBC (cost discussion)

Monday, Apr. 23 - Joint BoS, Finance, School Committee (update)

Wednesday, Apr. 25 – SBC (vote to select preferred plan)

Wednesday, May 2 – SBC (vote to certify minutes)

Wednesday, May 9 - Compile & Submit PSR

Wednesday, May 23 – MSBA Facilities Assessment Subcommittee Meeting

Wednesday, Jun. 27 – MSBA Board of Directors Approval of PSR

## What's Missing if We Repair?

- **Extra Transitions Will Remain** (transitions have been shown to negatively impact learning)
- **Inefficient Building Envelope** (continued thermal discomfort which also impacts leaning and wasted energy/operating cost)
- **Keeps Bad Solar Orientation** (vs proper daylight which is tied to improved test scores)
- **Low Floor Height** (limits ability to provide modern air systems and more effective lighting)
- **Classrooms Kept Undersized** (larger rooms are necessary to support current best practices including Co-Teaching and Project Based Learning within)
- **Inadequate Science Labs** (current standards require more flexible/adaptable labs)
- **Special Education Space** are not purpose-built and not configured to serve each program well. More space, properly configured is needed
- **Unable to Cluster Classrooms with Good Visibility + Pull-Out** (collaborative clusters allow far more educational opportunity, supports varied group work & small learning communities, which are linked to improved educational outcomes.

Why Not Just Repair the School(s)?

Why Not Do a Little at a Time?

Why Address Both Schools Now?

Can We Afford to Do This?

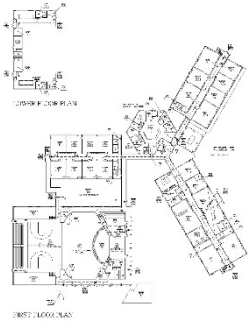
Why are the Costs So High, What are They Based On?

## REPAIR, RENOVATE OR BUILD NEW?

- **Repairs Alone Will Not Address the Educational Plan** (a requirement for core program funding).  
Repairs will Also Trigger Code Required Upgrades and may Cost the District More Than Doing an Addition/Renovation or Building a New Facility
- **Even Individual Repairs** (like heating/ventilating systems) **Would Trigger Upgrades, and would be Slow/Disruptive** (not all can be done off-hours)
- Both Mattacheese and Wixon are in Need of Major Repairs & System Replacements that will Need to be Addressed within the Next Decade
- **Overall Costs are Far Less to the District when Addressing Both Schools Now, Rather Than the Combined Cost of Doing Them Separately**
- Estimated Costs are In-Line with State Averages, are Escalated as Required for Future Work and Represents Appropriate School Design Standards



# SCOPE - OPTIONS (455, GRADE 6-7)



## MRX MATTACHEESE SITE CODE + REPAIRS ONLY

Relatively Flat Site, 70 acres  
(40 useable)

Limited Constraints  
- Aquafer Protection Distr.  
- Adjacent Wetland

**Building assessed value vs. repair cost triggers 30% threshold requiring full accessibility compliance & Renovation**

**Waffle slab construction difficult to renovate – limited room for modern mechanical systems**

**Will not meet educational program – MSBA Core Program will not support (separate, limited repairs possible under a separate MSBA program)**

**Occupied phased renovation cost prohibitive & disruptive**

Est. Constr. Cost = \$34.6m  
Est. Project Cost = \$42.7m



## MR1 MATTACHEESE SITE ADD/RENO(GR. 6-7)

Relatively Flat Site, 70 acres  
(40 useable, 21 developed)

Limited Constraints  
- Aquafer Protection Distr.  
- Adjacent Wetland

**Able to satisfy educational program**

**Reuses existing lrg gym and auditorium located near fields (outdoor theater)**

**Limits impact to school**

**Develops previously disturbed areas**

**May prohibit use of more cost effective chapter 149 procurement due to phasing requirements**

**Does not address existing deficiencies at Wixon as outlined in SOI**

Est. Constr. Cost = \$55.5m  
Est. Project Cost = \$66.7m  
**DISTRICT SHARE = \$41.7m**



## M1 MATTACHEESE SITE ALL NEW (GR. 6-7)

Relatively Flat Site, 70 acres  
(40 useable, 21 developed)

Limited Constraints  
- Aquafer Protection Distr.  
- Adjacent Wetland

**Able to satisfy educational program**

**Virtually no impact to school**

**Allows use of more cost effective chapter 149 procurement**

**Does not address existing deficiencies at Wixon as outlined in SOI**

Est. Constr. Cost = \$51.4m  
Est. Project Cost = \$61.7m  
**DISTRICT SHARE = \$40.0m**



## W1 WIXON SITE ALL NEW (GR. 6-7)

Partial Sloping Site, 34.4 a  
(30 useable, 23 developed)

Several Constraints  
- Wellhead Protection Distr  
- Old King Highway Historic  
- Adjacent Wetland

**Able to satisfy educational program**

**Access to bikeway, existing playground**

**Limits impact to school**

**Allows use of more cost effective chapter 149 procurement**

**Eliminates track and field**

**Does not address existing deficiencies at Wixon as outlined in SOI**

**Not centrally located**

Est. Constr. Cost = \$49.9m  
Est. Project Cost = \$60.0m  
**DISTRICT SHARE = \$38.6m**



## S1 STATION AVE. SITE ALL NEW (GR. 6-7)

Relatively Flat Site, 148 acre  
(57 useable, 20 developed)

Limited Constraints  
- part Aquafer Protect Distr.  
- Wetlands

**Able to satisfy educational program**

**Limits impact to school**

**Allows use of more cost effective chapter 149 procurement**

**Centrally located**

**Campus setting**

**Tight proximity to residential**

**Does not address existing deficiencies at Wixon as outlined in SOI**

Est. Constr. Cost = \$46.8m  
Est. Project Cost = \$56.2m  
**DISTRICT SHARE = \$36.0m**



## S3 STATION AVE. SITE ALL NEW (GR. 6-7)

Relatively Flat Site, 148 acre  
(57 useable, 23 developed)

Limited Constraints  
- part Aquafer Protect Distr.  
- Wetlands, but not adjacent

**Able to satisfy educational program**

**Virtually no impact to school(s)**

**Allows use of more cost effective chapter 149 procurement**

**Centrally located**

**Campus setting; connects to HS + fields**

**Does not address existing deficiencies at Wixon as outlined in SOI**

**Approach dominated by solar array**

**Loss of athletic field**

Est. Constr. Cost = \$48.7m  
Est. Project Cost = \$58.5m  
**DISTRICT SHARE = \$38.1m**



## S5 STATION AVE. SITE ALL NEW (GR. 6-7)

Relatively Flat Site, 148 acre  
(57 useable, 22 developed)

Limited Constraints  
- part Aquafer Protect Distr.  
- Wetlands, but not adjacent

**Able to satisfy educational program**

**Virtually no impact to school(s)**

**Allows use of more cost effective chapter 149 procurement**

**Centrally located**

**Campus setting, Street presence**

**Does not address existing deficiencies at Wixon as outlined in SOI**

**Dependent upon cost and terms of relocating existing solar panel array**

Est. Constr. Cost = \$48.4m  
Est. Project Cost = \$58.1m  
**DISTRICT SHARE = \$37.7m**



## G1 W. GREAT WESTERN ALL NEW (GR. 6-7)

Relatively Flat Site

Limited Constraints

**Able to satisfy educational program**

**No impact to existing school(s)**

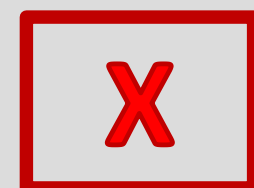
**Allows use of more cost effective chapter 149 procurement**

**Hilly, narrow access road and potential traffic issues**

**Extensive clearing required**









**Station Ave is more viable**

**Does not address existing deficiencies at Wixon as outlined in SOI**



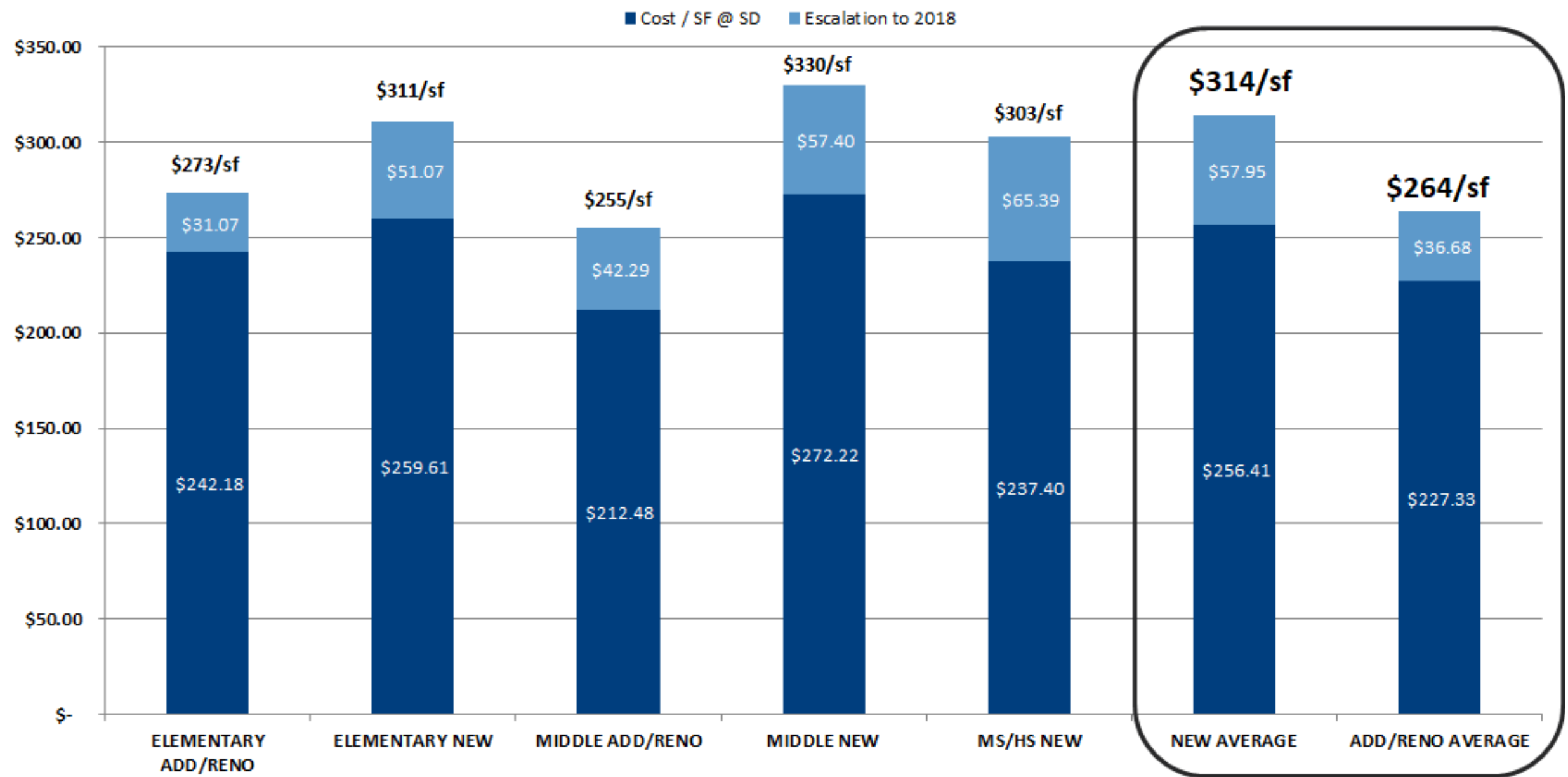


# SCOPE - OPTIONS (940, GRADE 4-7)

							
<b>MR2 MATTACHEESE SITE ADD/RENO (GR. 4-7)</b>	<b>WR2 WIXON SITE ADD/RENO (GR. 4-7)</b>	<b>M2 MATTACHEESE SITE ALL NEW (GR. 4-7)</b>	<b>W2 WIXON SITE ALL NEW (GR. 4-7)</b>	<b>S2 STATION AVE. SITE ALL NEW (GR. 4-7)</b>	<b>S4 STATION AVE. SITE ALL NEW (GR. 4-7)</b>	<b>S6 STATION AVE. SITE ALL NEW (GR. 4-7)</b>	<b>G2 W. GREAT WESTERN ALL NEW (GR. 4-7)</b>
Relatively Flat Site, 70 acres (40 useable, 23 developed)	Partial Sloping Site, 34.4 a (30 useable, 17 developed)	Relatively Flat Site, 70 acres (40 useable, 25 developed)	Partial Sloping Site, 34.4 a (30 useable, 23 developed)	Relatively Flat Site, 148 acre (57 useable, 21 developed)	Relatively Flat Site, 148 acre (57 useable, 24 developed)	Relatively Flat Site, 148 acre (57 useable, 22 developed)	Relatively Flat Site, Limited Constraints
Limited Constraints - Aquafer Protection Distr. - Adjacent Wetland	Several Constraints - Wellhead Protection Distr - Old King Highway Historic - Adjacent Wetland	Limited Constraints - Aquafer Protection Distr. - Adjacent Wetland	Several Constraints - Wellhead Protection Distr - Old King Highway Historic - Adjacent Wetland	Limited Constraints - part Aquafer Protect Distr. - Wetlands	Limited Constraints - part Aquafer Protect Distr. - Wetlands, but not adjacent	Limited Constraints - part Aquafer Protect Distr. - Wetlands, but not adjacent	Able to satisfy educational program
Able to satisfy educational program	Able to satisfy educational program	Able to satisfy educational program	Able to satisfy educational program	Able to satisfy educational program	Able to satisfy educational program	Able to satisfy educational program	No impact to existing school(s)
Reuses existing lrg gym and auditorium located near fields (outdoor theater)	Access to bikeway, existing playground	Virtually no impact to school	Access to bikeway, existing playground	Limits impact to school	Limits impact to schools	Virtually no impact to school(s)	Allows use of more cost effective chapter 149 procurement
Limits impact to school	<b>Not centrally located</b>	Allows use of more cost effective chapter 149 procurement	Limits impact to school	Allows use of more cost effective chapter 149 procurement	Allows use of more cost effective chapter 149 procurement	Allows use of more cost effective chapter 149 procurement	Does address existing deficiencies at Wixon as outlined in SOI
Develops previously disturbed areas	<b>More disruptive to school than other options</b>	Will require demolition of existing buildings – Should be reimbursable	Allows use of more cost effective chapter 149 procurement	Centrally located	Does address existing deficiencies at Wixon as outlined in SOI	Centrally located	<b>Hilly, narrow access road and potential traffic issues</b>
<b>Limits use of more cost effective chapter 149 procurement</b>	Est. Constr. Cost = \$94.2m Est. Project Cost = \$113.1m <b>DISTRICT SHARE = \$71.1m</b>	<b>Not centrally located</b>	<b>Not centrally located</b>	<b>Tight proximity to residential</b>	Centrally located	<b>Dependent upon cost and terms of relocating existing solar panel array</b>	<b>Extensive clearing required</b>
<b>Not centrally located</b>		Est. Constr. Cost = \$85.8m Est. Project Cost = 103.1m <b>DISTRICT SHARE = \$66.0m</b>	Est. Constr. Cost = \$84.4m Est. Project Cost = \$101.3m <b>DISTRICT SHARE = \$64.4m</b>	Est. Constr. Cost = \$81.0m Est. Project Cost = \$97.3m <b>DISTRICT SHARE = \$61.6m</b>	<b>Tight to existing maintenance buildings</b>	Est. Constr. Cost = \$82.5m Est. Project Cost = \$99.2m <b>DISTRICT SHARE = \$63.3m</b>	<b>Station Ave is more viable</b>
Est. Constr. Cost = \$96.2m Est. Project Cost = \$115.5m <b>DISTRICT SHARE = \$72.7m</b>					<b>Loss of athletic field</b>		
					Est. Constr. Cost = \$82.9m Est. Project Cost = \$99.5m <b>DISTRICT SHARE = \$63.6m</b>		

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# AVERAGE SCHOOL COSTS



# PRELIMINARY OPTIONS COSTS

