



# DENNIS-YARMOUTH SCHOOL PROJECT

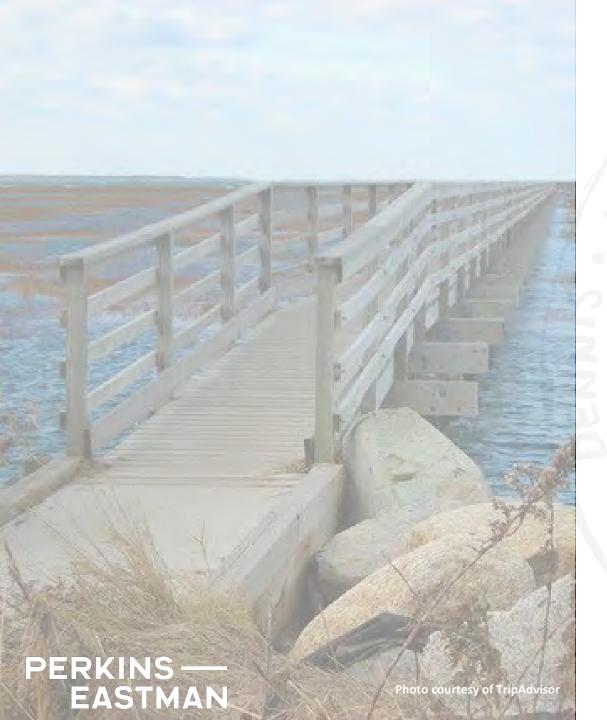
JOINT DENNIS-YARMOUTH BOARD OF SELECTMEN
DYRSD FINANCE COMMITTEE
DYRSD SCHOOL COMMITTEE

November 6, 2017









# **AGENDA**:

- PROCESS/SCHEDULE & SCOPE
- EXISTING CONDITIONS
- SBC/COMMUNITY/FACULTY NOTES
- EDUCATIONAL PLAN/VISION
- PRELIMINARY PROGRAM
- PLANNING OPTIONS
- RELATIVE COSTS







# PROCESS/SCHEDULE

## Feasibility Study (Two Major MSBA Submissions)

## **Preliminary Design Program**

- Existing Cond's/Site Assessments
- Educational/Sustainability Visioning
- Educational Program (by District)
- Educ Specifications/Space Needs
- Develop & Assess Prelim. Options
- Select Preferred Site/Plan Options

## Preferred <u>Schem</u>. Report

- Refinement of Plan Options
- Scope/Systems Comparisons
- Massing/Design Studies
- Final Assessment & Select (1)

## Schematic Design

## Schem. Design Report

- Exterior/Interior Design
- Detailed Room Layouts
- Finalize Project Scope

**June '17** 

# Nov. '17 Vote to Submit PDP

- Educ-Program
- Space Summary
- Assessed Opt/Sites

# Mar. '18 Vote to Submit PSR

- Updated Educ-Prgm
- & Space Summary
- Final (1) Option/Site

**Sept. '18** 

# PROCESS/SCHEDULE

Architect, PMA, District	"Kick-Off" Meeting with Designers	Thursday, June 15, 2017
Architect, PMA, District	Education Program Refined with Designer Input	Friday, October 6, 2017
Building Committee	Final Acceptance of Education Program	Friday, October 13, 2017
Architect, PMA, District	Preliminary Evaluation of Alternatives	Wednesday, October 18, 2017
Architect	Draft Initial Space Summary	Thursday, October 19, 2017
Architect, PMA, District	Cost & Schedule Analysis of PDP Alternatives	Wednesday, November 8, 2017
Architect, PMA, District	Final Evaluation of Alternatives	Wednesday, November 15, 2017
Building Committee	Recommend Preferred Solution (SBC VOTE REQUIRED!)	Wednesday, November 15, 2017
Architect, PMA, District	Finalize & Submit Design Program (PDP) to MSBA	Tuesday, November 21, 2017
MSBA	MSBA Review Period	Tuesday, December 12, 2017
Architect, PMA, District	Respond to MSBA PDP Review Comments	Tuesday, December 26, 2017
Architect, PMA, District	Identification & Development of Preferred Solution	Thursday, March 1, 2018
Building Committee	Local Actions & Approvals of PSR (BoS+FinCom+SC)	Thursday, March 8, 2018
Building Committee	Compile and Submit PSR (SBC VOTE REQUIRED)	Wednesday, May 9, 2018
Architect, PMA, District	MSBA Facilities Assesment Subcommittee Meeting	Wednesday, May 23, 2018
MSBA	MSBA Board of Directors Approval of PSR	Wednesday, June 27, 2018





### Separate Schools (w/ Focus on MMS Now)

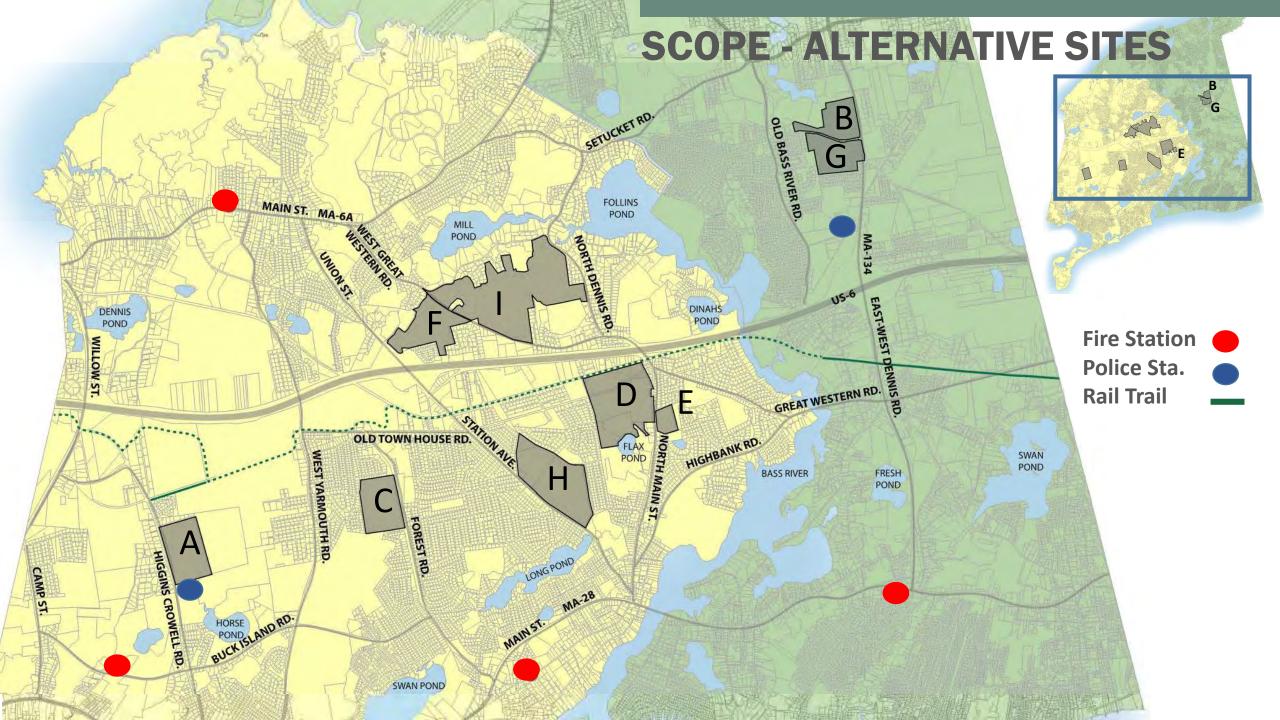
- Maintains Small School Experience
- Keeps 2 Auditoriums + More Gym Space (accommodates separate town venues)
- Less Cost Now, More Later
- More Transitions for Students
- Short-Term Inequity (both schools in need)
- Operationally Inefficient

# **SCOPE - CONFIGURATION/SIZE**



#### **Combined School** (addresses MMS+WIS now)

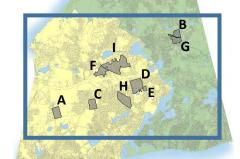
- Larger School (would need scaled feel)
- Age Range May Warrant Separate Zones
- Potential for Student Mentoring
- Longer Span for Student/Teacher/Parent Familiarity, Relationships & Involvement
- Fosters Continuity of Curriculum
- Improved Access to Support/Services
- May Include Staggered Schedules/Busing

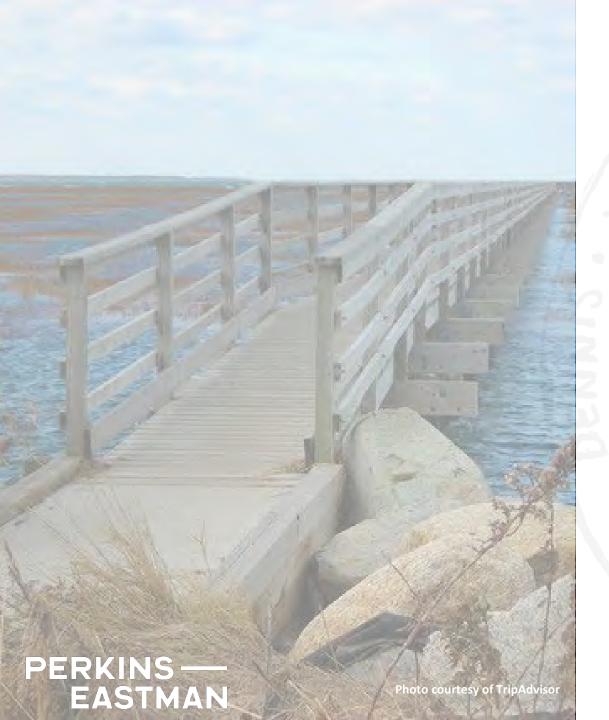


# **SCOPE - ALTERNATIVE SITES**

	Α	В	С	D	E	F	G	Н	ı
CONSIDERATIONS	Existing Site (Mattacheese)	Wixon Site	450 Forest Rd	Flax Pond Recreation Area	340 North Main St	245 W Great Western Rd	815 Route 134	286 Station Ave (Elem/High)	200-236 W Great W Rd
SITE / LOCATION	Υ	D	Υ	Υ	Υ	Υ	D	Υ	Υ
1 Available + Town/Distr. Owned	T	T	T	T	T	T	T	T/D	X
2 Legal Restrictions, Park etc.				X			X		
3 Wellfield Sites (Restricted)	N	N	X	X	X	N	N	N	N
4 Overall Size of Site (acres)	70.0	34.4	61.4	117.7	114.2	67.6	40.0	147.9	215.5
5 Approx. Buildable Area (acres)	40	30						57	
6   Shape of Site (fits all program)	Υ	Υ						Υ	
7 Remoteness (miles to Distr Ctr)	6.1	4.3	3.2	1.0	0.5	1.5	3.5	2.2	1.5
8 Time from District Center (minutes)	11	8	7	3	1	3	8	5	3
9 Proximity to Police/Fire*	0.4/1.4	0.9/3.6	1.7/3.0	5.9/3.6	4.8/2.1	5.4/1.9	0.6/3.2	4.4/2.0	5.4/1.9
10 Proximity to C.C. Rail Trail	0.4	1.8	0.6	0.1	0.5	0.7	1.6	0.7	0.7
11 Walkable (sidewalks leading)	N	Υ	Υ	Y/N	N	N	Υ	Υ	N
11 Range of Travel Time on Buses	TBD**	TBD**						TBD**	
13 Access & Traffic Issues	REMOTE	REMOTE				X		TRAFFIC	X
COST FACTORS									
14 Site Development	TBD	TBD				X		TBD	X
15 Site Remediation	TBD	TBD						TBD	
16 Access to Utilities									
17 Phasing/Swing Space Required	N	N						N	
18 Busing Increase	TBD**	TBD**						TBD**	
RECREATIONAL IMPACT									
19 Field Replication Required	MAYBE	MAYBE						MAYBE	
20 Temporary Loss of Use	MAYBE	MAYBE						MAYBE	

<sup>\*</sup> per respective town \*\*staggered school schedule(s) might mitigate bussing increase or travel time





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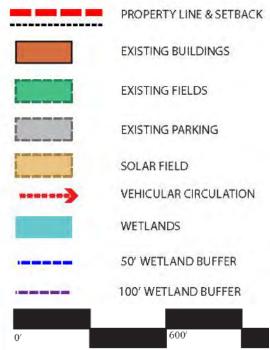


# **SITE A - EXISTING MATTACHEESE**

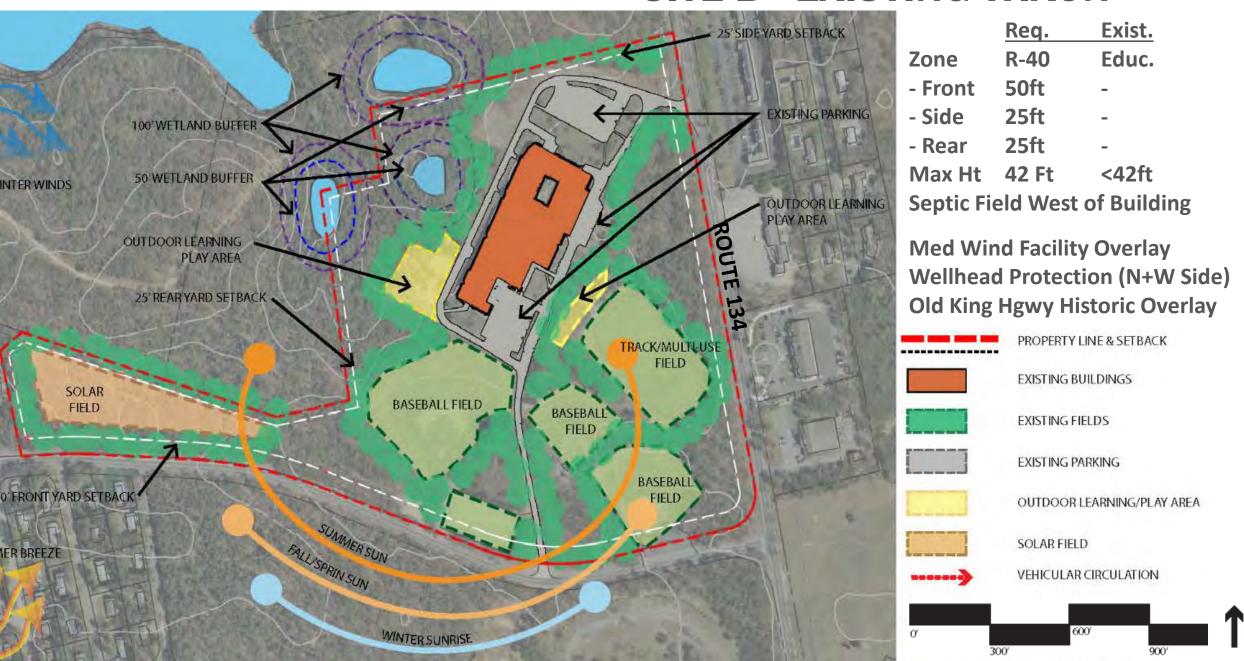


Exist. Req. R-40 Educ. Zone 257ft - Front 30ft - Side **20ft** 325ft **20ft** 50ft - Rear Max Ht 35 Ft <35ft **Septic Tanks Behind Each Wing** 

Aquifer Protection Overlay (migratory birds, long eared bat)



## **SITE B - EXISTING WIXON**

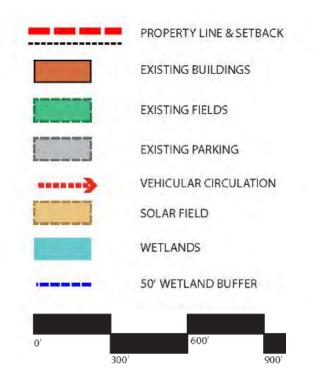


# SITE H - 286 STATION AVE



	Req.	Exist.
Zone	R-40	Educ.
Setbacks	5:	
- Front	30ft	257ft
- Side	<b>20ft</b>	325ft
- Rear	<b>20ft</b>	50ft
Max Ht	35 Ft	<35ft

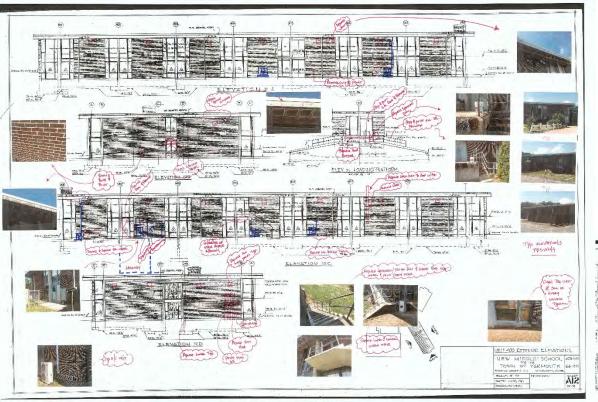
# Sewage Plant Behind High School Aquifer Protection Overlay



## **EXISTING CONDITIONS - MMS**

#### **MAJOR ISSUES - INTERIOR**

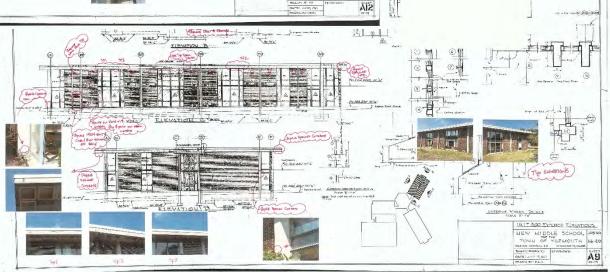
- 80% OF ENTRY DOORS TO CLASSROOMS NOT ACCESSIBLE
- RESTROOMS NOT ACCESSIBLE
- FLOOR TO FLOOR AT 8'-8" CURRENT SYSTEM
   UV WITH EXHAUST FAN
- LOCKER ROOMS NOT ACCESSIBLE
- GYM BLEACHERS NOT ACCESSIBLE
- NO ACCESSIBLE SEATING AT AUDITORIUM
- STAGE / PLATFORM NOT ACCESSIBLE
- HAZARDOUS MATERIALS
- **EXIT STAIRS** 
  - NOT RATED / ENCLOSED
  - HANDRAILS AND GUARDS
  - OPEN TREADS



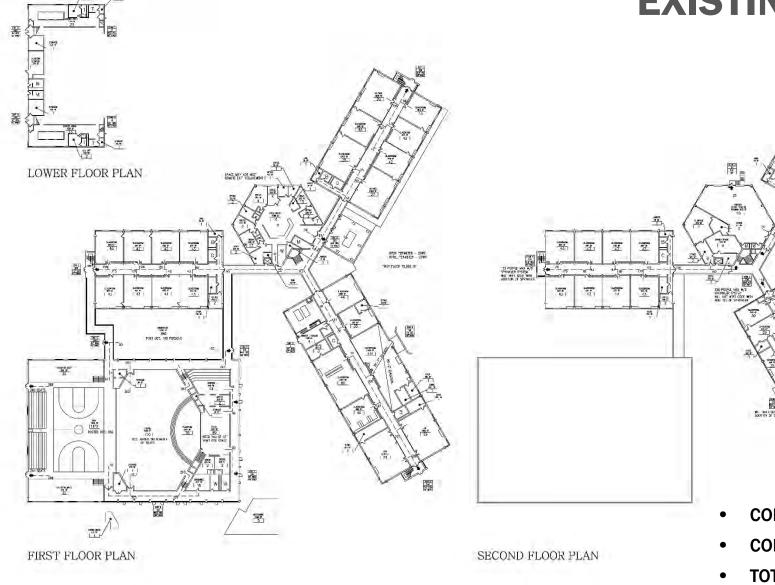
## **EXISTING CONDITIONS**

#### **MAJOR ISSUES - EXTERIOR**

- WINDOWS AND DOORS SINGLE PANE GLASS
   AGED AND INEFFICIENT
- EXTERIOR ENVELOPE INEFFICIENT
- SPALLED CONCRETE AT EXPOSED FASICA AND BASE OF BUILDING
- EXPOSED TECTUM DAMAGED
- ROOF 15 YEARS INSTALLED 1996
- EXTERIOR STAOIRS BEING USED FOR EGRESS –
  HANDRAILS AND GUARDS DO NOT MEET
  CURRENT CODE
- ARE BEYOND USEFUL LIFESPAN



# **EXISTING CONDITIONS - CODE**

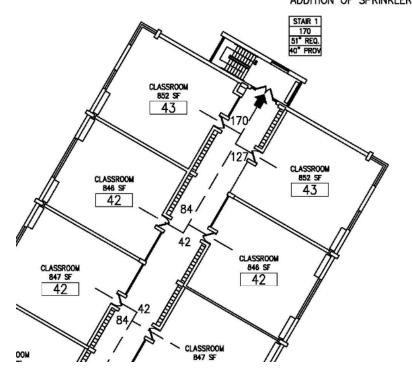


- CONSTRUCTED 1969
- CONSTRUCTION TYPE 2B
- TOTAL SQUARE FOOTAGE 121,280
- ASSESSED VALUE \$10,402,400
- AREA PER FLOOR 21,750 EXSITING NON CONFORMING

# FIRST FLOOR PLAN SECOND FLOOR PLAN

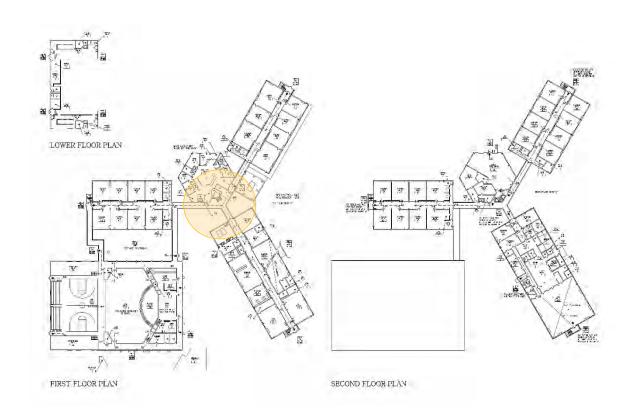
# **EXISTING CONDITIONS - CODE**

133 PEOPLE MAX W/O SPRINKLER SYSTEM WILL MEET CODE WITH ADDITION OF SPRINKLER

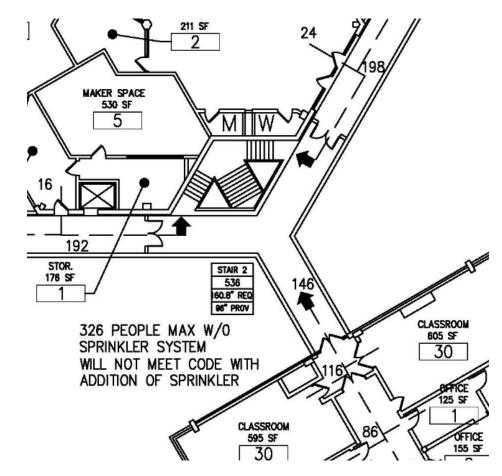


#### **SECOND FLOOR CLASSROOM WING EGRESS**

 AS BUILT THE EGRESS STAIRS AT THE ENDS OF THE CLASSROOM WINGS DO NOT PROVIDE ADEQUATE EGRESS WIDTH TO SUPPORT FULL OCCUPANCY



# **EXISTING CONDITIONS - CODE**

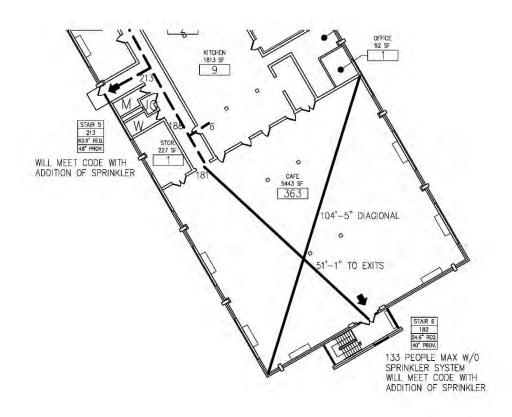


#### **CENTRAL STAIR**

• THE BUILDINGS CENTRAL STAIR IS NOT OF A WIDTH THAT IS ADEQUATE TO SUPPORT THE OCCUPANT LOAD – THE STAIR IS ALSO NOT SEPERATED APPROPIATELY

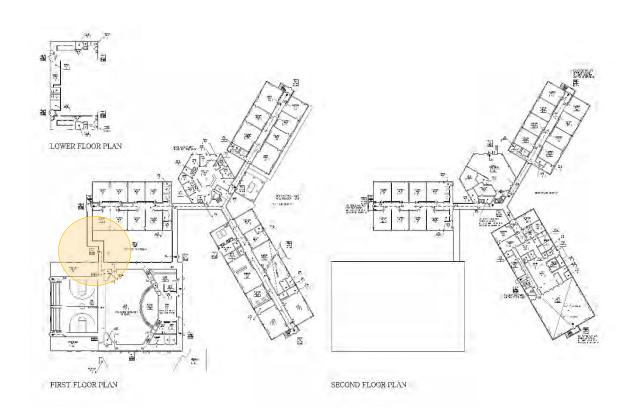
# FIRST FLOOR PLAN SECOND FLOOR PLAN

# **EXISTING CONDITIONS - CODE**

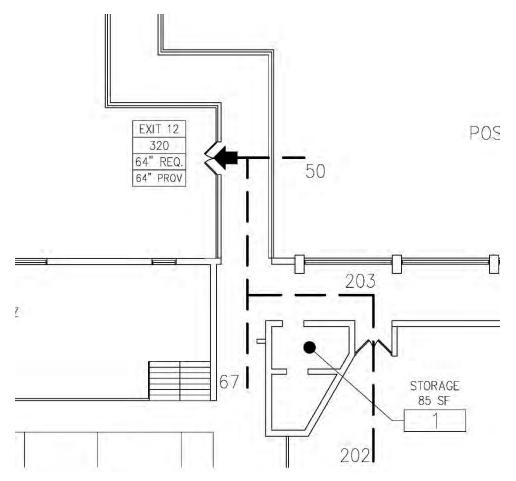


#### **EXIT REMOTENESS**

• (3) SPACES, LIBRARY, CAFÉ AND ORIGINAL TECH LAB NOT CURRENTLY IN COMPLIANCE WITH 1015.2.1



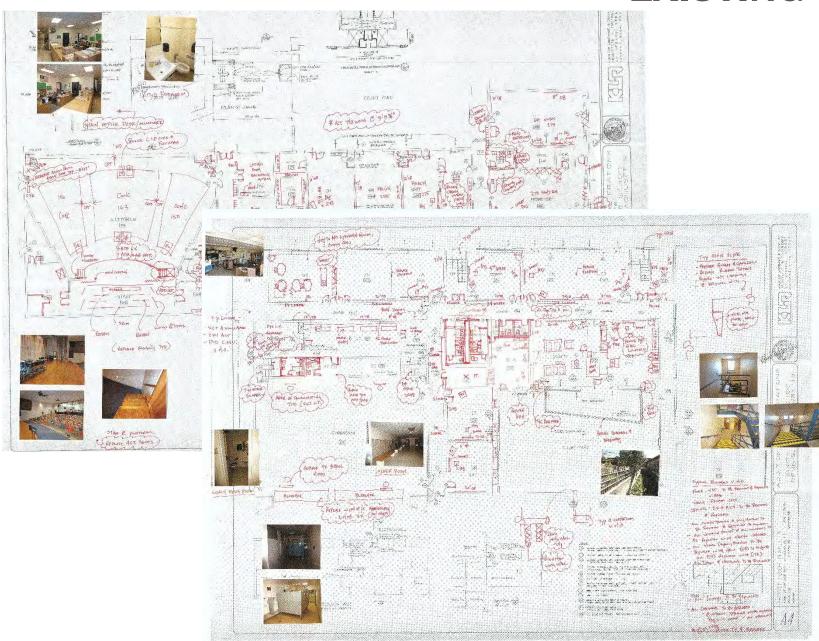
## **EXISTING CONDITIONS - CODE**



#### **EXIT PINCH POINT**

 AT THE COURTYARD NORTH EXIT – THE EXISTING EXIT, ORIGINALLY A DOUBLE DOOR IS NOW A SINGLE DOOR, WITH THE ORIGINAL OPENING THE SPOT IS AN EXIT CONVERGENCE ISSUE – SERVING THE COURTYARD, GYM AND AUDITORIUM WITH A SINGL EDOOR LEAF

## **EXISTING CONDITIONS - WIXON**



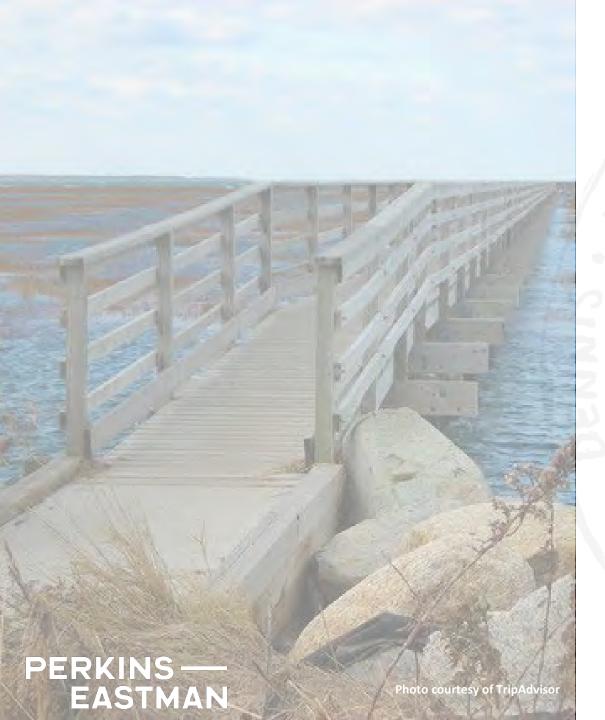
#### **MAJOR ISSUES - INTERIOR**

- 80% OF ENTRY DOORS TO CLASSROOMS NOT ACCESSIBLE
- RESTROOMS NOT ACCESSIBLE
- LOCKER ROOMS NOT ACCESSIBLE
- GYM BLEACHERS NOT ACCESSIBLE
- NO ACCESSIBLE SEATING AT AUDITORIUM
- STAGE / PLATFORM NOT ACCESSIBLE
- LIBRARY RAMPS
- EXIT STAIRS
  - HANDRAILS AND GUARDS
  - TREADS AT ORIGINAL BUILDING NON-COMPLIANT NOSINGS
  - CONSTRUCTED 1969 ADD 1990
  - CONSTRUCTION TYPE 2B
  - TOTAL SQUARE FOOTAGE 117,901
  - ASSESSED VALUE \$5,096,600
  - AREA PER FLOOR 22,563 EXSITING NON CONFORMING

# **EXISTING CONDITIONS - WIXON**

#### **MAJOR ISSUES – EXTERIOR**

- EXPOSED TECTUM DECK DAMAGE
- DOORS, WINDOWS AND LOUVERS AT
   ORIGINAL BUILDING AT THE END OF USEFUL LIFE
- ROOF AT END OF USEFUL LIFESPAN



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## **SBC NOTES**

What's Wrong with MMS/WIS: **Failing Building Systems** (Acoustics/Lighting/HVAC) **Accessibility – Repairs Doesn't Meet Space Needs Not Flexible/Adaptable Spaces Different Educ Model & Delivery Not Enough Science/Tech Not Enough Storage For Students' Limited Tech Due To Ceilings/Walls** Inefficient **Smaller Area In 1 Building** 

What are the Opportunities: **Fewer Transitions Better Clusters and Consistency More Flexible Staffing Greater Sense of Community** Help Keep Kids in the District **Better Arts and STEAM Spaces Quicker Improvement for Both** 

#### **COMMUNITY THOUGHTS/IDEAS**

- (3) Longer grade span fosters relationships, improves parent involvement and teacher collaboration
- (3) Older kids behave better interacting with younger kids
- (3) Flexible spaces promote different styles of learning
- (2) Safe, welcoming, and comfortable environment

#### **CONCERNS**

- (3) Concerned about getting the schools together
- (3) Location some families may choose to leave
- (3) Concerned about construction during school
- (2) Concerned about the number of students in larger schools Smaller learning communities with shared amenities

#### **QUESTIONS**

- (2) Is there land large enough for a new/larger building?
- (2) When do we expect a building to be ready?
- (1) Where will the school be sited?
- (1) Is there enough room to build/renovate Wixon for 4-7?
- (1) Is new construction cheaper than renovation?
- (1) Outreach to senior centers?

## **COMMUNITY THOUGHTS**

### **LONGER GRADE SPAN BENEFITS**

(Builds Relationships, Parent Involvement, Fosters Collaboration and Mentoring)

FLEXIBILITY/ADAPTIBILITY
SAFE/WELCOMING

LARGE SCHOOL CONCERNS
REMOTE SITE CONCERNS
CONSTRUCTION CONCERNS

WHAT (COST)? WHERE? WHEN?

## **FACULTY THOUGHTS**

#### SITE AND OUTDOOR OR SEPARATE FACILITIES

- (5+4) Gardens (Inside/Out) + Greenhouse
- (4+3) Fitness Facilities/Community Use (track, pool, rink, etc.)
- (4) Outdoor Classroom Space

#### WHOLE BUILDING/ORGANIZATIONAL OBJECTIVES

- (4+3) Classroom Flexibility + for Varied Groupings
- (4) Separate 4/5 and 6/7 Areas and Identities
- (4) Sustainability/Green School

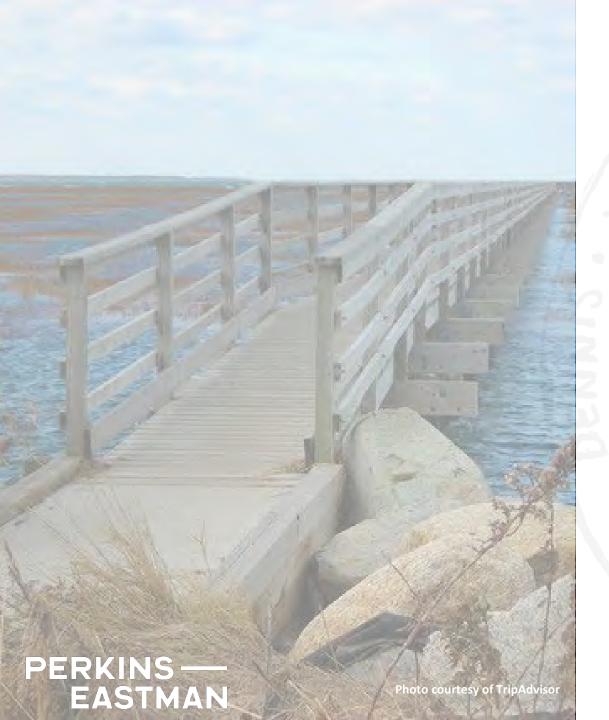
#### **PROGRAM AND SPACE NEEDS**

- (6+4) More Restrooms & Gender Neutral (+ more for staff)
- (9) Auditorium/Performance Space
- (5+3) Natural Lighting and Large Windows
- (7) Larger Classrooms
- (7) Flexible/Adjustable Furniture
- (5) Teacher Planning/Meeting Space

#### **SYSTEMS & PERFORMANCE**

(17+7+5) Thermal, Air Quality & Acoustic Comfort (8+7) Robust Technology + WiFi

INDOOR/OUT CONNECTIONS **SMALL SCHOOL EXPERIENCE COMMUNITY USE SPACES** LARGE CLASSROOM AREAS **SMALL GROUP AREAS FLEXIBILITY COMFORT DAYLIGHT & VIEWS TECHNOLOGY RICH** 



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#### **GUIDING PRINCIPLES**

- 1. School and Community Learning Center (82 votes)
- 2. Whole Child (51 votes)
- 3. Adaptability and Evolution (43 votes)
- **4. Sustainability** (52 votes)
- Small School Feel, Large School Pride (31 votes)
- 6. Safety (20 votes)

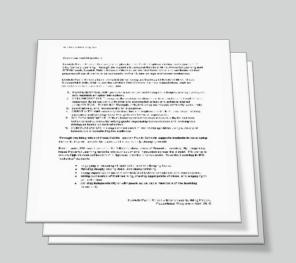
#### **DESIGN PATTERNS**

- Academic Neighborhoods (25 votes)
  - Neighborhood Pods
  - Functional Team Spaces
- Outdoor Learning Spaces (20 votes)
  - Outdoor Connections
  - Welcoming Outdoor Spaces
  - Outdoor Learning
  - Community Gathering
- Community Access (20 votes)
  - Community Integration
- Flexible and Agile Spaces (15 votes)
  - Adaptable Spaces
  - Modular Furniture
- Seamless Technology (15 votes)
- o Common Spaces (15 votes)
  - Breakout Sapces
  - Kids and Adults
  - Eddies
- Transparency (10 votes)
  - Subtle Security
- Multi-Use Performance Spaces (10 votes)

## **VISIONING OUTCOMES**

**COMMUNITY USE/CONNECTIONS** COLLABORATIVE CLUSTERS (SUPPORT PBL/STEAM/VARIED) ADAPTABLE/FLEXIBLE INDOOR/OUT & SUSTAINABLE **SMALL SCHOOL EXPERIENCE** SAFETY/WAYFINDING SEEMLESS TECHNOLOGY SM. GROUP/BREAK-OUT AREAS

# PROCESS/SCHEDULE



#### **EDUCATIONAL PLAN/VISION**

- Preference for a Combined School (small school feel)
- Lrg Classrooms, Clustered
   w/ Push-In/Pull-Out Spaces
- Increased Special Needs
- Robust Arts/Integrated Tech
- Flexible/Adaptable Design
- Large Auditorium/Gym
- Community Use/Access





#### PROGRAM/SPACES (455 or 940)

- Program for Sm Class Sizes
   455 Gr.6-7 or 940 Gr.4-7
- Larger Classrooms (co-tch'g) (or sized for small groups)
- Planned for Special Needs
- Pervasive Techn. (less labs)
- Multi-Purpose Maker Space (via Tech Lab, Library & Caf.)
- Auditorium Included (at750)





#### **ASSESSING SITE/CONFIGURATION**

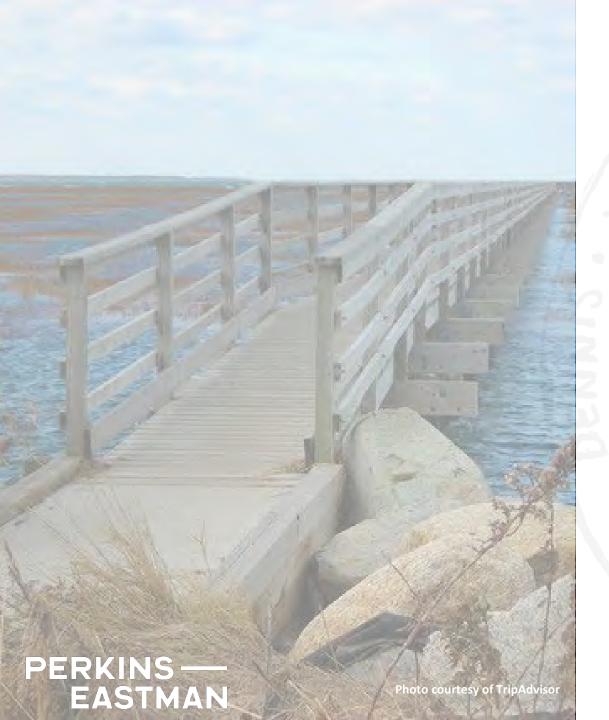
- Sites A & B are Remote
- Site F has Access Road Concerns
- Educational Disruption
- Relative Costs



VS



- Desire to Minimize Transitions
- Concern for Losing Big Gym/Aud.
- Need Separate/Sm School Feel
- Combined Educ./Oper. Efficiency
- Benefits of Longer Grade Span



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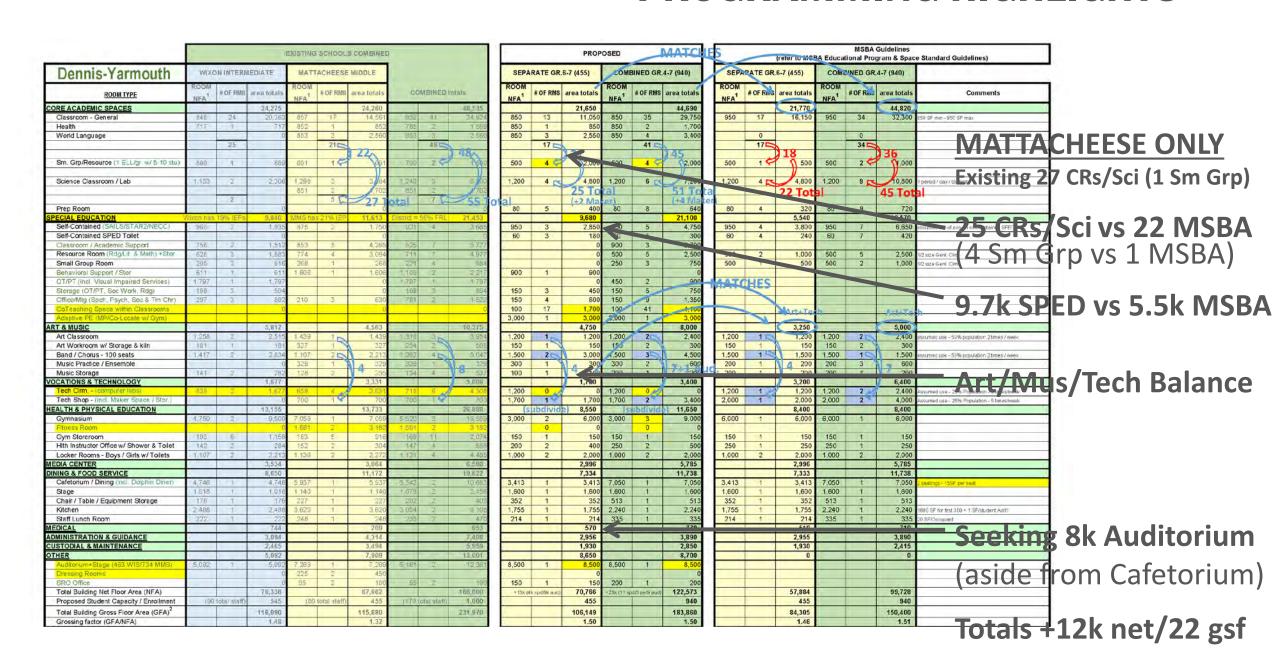
	Monday	Tuesday	Master Schedule 8 Wednesday	Thursday	Friday
8:05-8:15			Students Arrive		
8:15-8:25			uncements and Atte		
8:25-9:10	Art 1 -Hill	Art 1 - Kuntzman	PLC: Dunn	Art 1 - PREP	Art 1 - Quilty
A Period	PE 1 -Kuntzman	PE1-HIII	Art 1 -Fournier	PE1-Gilrein	PE 1 - Somes Health-
	Health - Dunn Music - Govoni	Health - Quilty Music -Neter	PE 1 -Koumantzelis	Health - Brembt Music - Slevin	Kuntzman
25	Art 2 – W. Walker	Art 2 - PREP	Health - Hill	Art 2 -Govoni	Music - PREP
95 m	PE 2 - Gilrein	PE 2 -Hennessey	Music - Renzi	PE 2 -Kuntzman	Art 2 -Gilrein
	Lib/Tech	Lib/Tech	Art 2 -Somes	Lib/Tech - Quilty	PE 2 - Hill
	-Brembt	-Eldredge	PE 2 - Dunn		Lib/Tech
		<b>V. VA A B</b>	A 16. SIL		-Fournier
9:10-9:55	Art 1 – Govoni	A A Irei	A 1 Vath	1	Art 1 - Neter
B Period	PE 1 - PREP	at ter	A Land	nessey	PE 1 -Vath
	Health - PREP	Health -Eldredge	Health - Govoni	PE 1-PREP	Health - PREP
	Music - PREP	Music - Olson	Music - HIII	Health - W.	Music - Brembt
	Art 2 – K. Walker PE 2 –Brembt	Art 2 -PREP PE 2 -Govoni	Art 2 - Eldredge PE 2 - PREP	Walker Music -PREP	PE 2 -Olson
	Lib/Tech - Hill	Lib/Tech -PREP	Lib/Tech -Dweer	Art 2 - PREP	Lib/Tech _
0.0	LID/10011 - III	LIU/ HOIT-FIXER	CID/ IECH -DW-BI	PE 2-PREP	-Kir / mr
×n				b e S-Slevin	411
UU			JUC		TU
9:55-10:00	Art 1 - PREP	PLC: Goode	Art 1 - HR/Smith	A 1 - Olson	Art 1 -PREP PE 1 -W. Walker
C Period	PE 1 -Ames Health - Olson	Art 1 - Ames PE 1 - K. Walker	PE 1 ~Olson Health – Ames	PE 1 - PREP Health - PREP	PE 1 -W. Walker Health - K.
	Music -	Health - Dwyer	Music - PREP	Music - Ames	Walker
	Demanch	Music -	Art 2 - V	Art 2 - III	Tusic -
	Art H /S hith	O II II O	12-1. Value	MA PIN	P R/Smith
	PF & DI VE	- 40	Ib/Te PRE	I b/ ac	At2-Ames
	Ib. dell PLEP	w ja		-tiannon	LIb/Tech -PREP
		Lib/Tecn - W. Walker			TID/ I GCH -PREP
10:40-11:25	Art 1 -	Art 1 - PREP	Art 1 -K, Walker	Art 1 -	PLC: Eldredge
D Period	Kor tzelis	PE 1 -HR/Smith	PF - REP	Demanche P Dan	Art 1 - Eldredge
-	He th C re n	At ic PREP	Vi ic Plan	1 all 6 a	l ealti =
	Music	Art 2 - Harmon	Art z - Quilty	Music -Eidredge	Hennessey
40	-Hennessey	PE 2 -Vath	PE 2 -Ames	Art 2 - Dwyer	Music - Quilty
1560	Art 2 -PREP PE 2 - Renzi	Lib/Tech - Ames	Lib/Tech -Neter	PE 2 -HR/Smith	Art 2 - Neter PE 2 + Slevin
	Lib/Tech -PREP			LIB/Tech -PREP	Lib/Tech - Dunr
				Tiloo a	Eldi / Soli
11:25-11:45					
11:45-12:10		Lund	ord p.B	1 11111	
11:55-12:15	1-15	Recess	Group #2		
12:15-12:40		Lunch	Group #2 Group #1		
12:45-1:10	115	Lunch	Group #1		
12:55-1:15	- dr	Recess	Group #4		-
1:15-1:40	77)	Lunch	Group #4		
11:25-12:10	Art 1 - Somes	Art 1 -Renzi	Art 1 - PREP	Art1-	Art 1 - Dwyer
E Period	PE 1 -Fournier	PE 1 - Dwyer	PE 1 -Renzi	PE 1 - Quilty	PE 1 -PREP
	Health -Ronzi	Health - Fournier	Health	Health - Somes	Health =
_	Music - Dwyer Art 2 - Demanche	Music - Somes Art 2 -Koumantzells	-Koumantzelis Music - Fournier	Music - K. Walker	Music -
45	PE 2 - Quilty	2 - Demarche	Art PREP	Art Cournier	Koumanmelis
1 200	VA/CONT	ID e V.	PE A Sond	PE DIAG	Add - epsi
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12:10-12:55	Delated Arte Lucro	h	1	-	in the second
12:10-12:55	Art 1 - Harmon	Art 1 -Dunn	Art 1 -W. Walker	PLC: Brembt	Art 1 - Slevin
F Period	PE 1 - Eldredge	PE1-PREP	PE 1 -Brembt	Art 1 - Brembt	PE 1 -Henness
. I uitud	Health - Neter	Health - Slevin	Health -Harmon	PE 1 -Harmon	Health -PREP
	Music -Vath	Music -W.	Music - Dunn	Health -	Music - Harmon
100	Art 2 -	Walker	Art 2 -Slevin	HR/Smith	Art 2 - Dunn
45m	Hennessey	Art 2 -Brembt	PE 2 -PREP	Music -Gilrein	PE 2 -Eldredge
120	PE 2 - PREP	PE 2 -Harmon Lib/Tech - Vath	Lib/Tech -Hennessey	Art 2 -Vath PE 2 -W. Walker	Lib/Tech -Govo
	HD/Smith	Lib/Tech - Vath	-деппевьеу	Li Tech	
		K I I I I	-nri		Ont
	ICU I				CIIL
1:40-2:25	Enrichment	RTI	Enrichment	RTI	Enrichment
G Period		PtC: Capparella		PLC:	
Enrichment		1		Library/Tech	
& RTI		MUSIC			

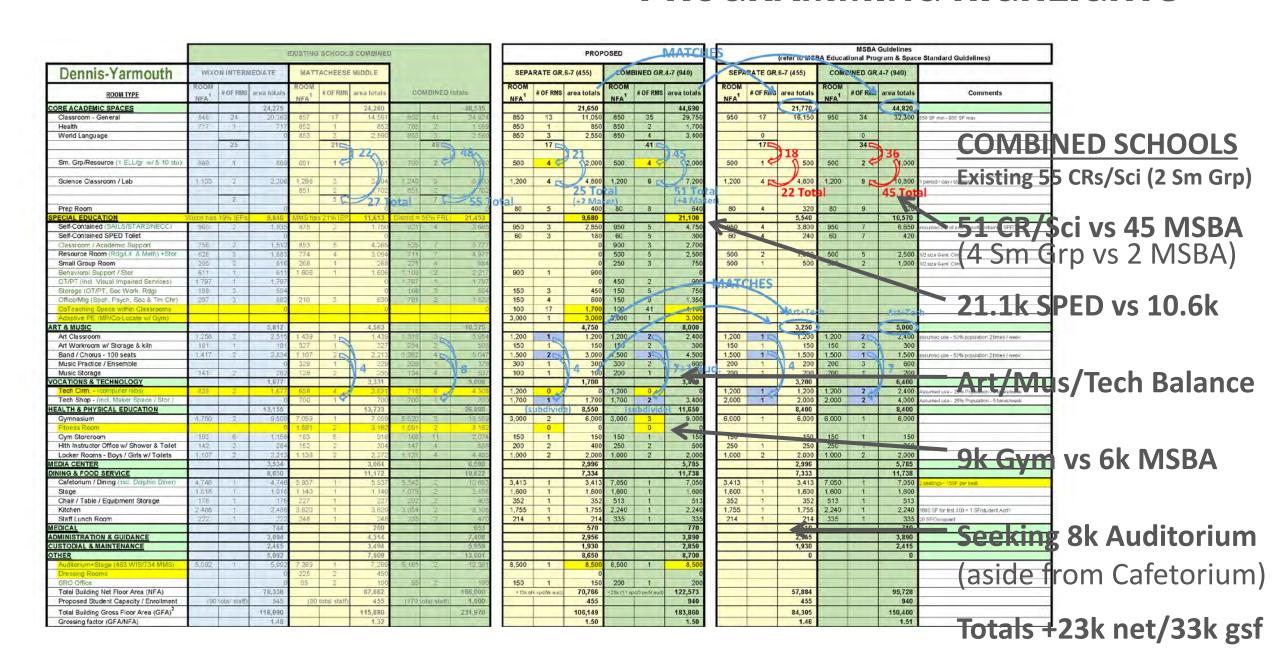
Daily Time Schedule 2017-2018

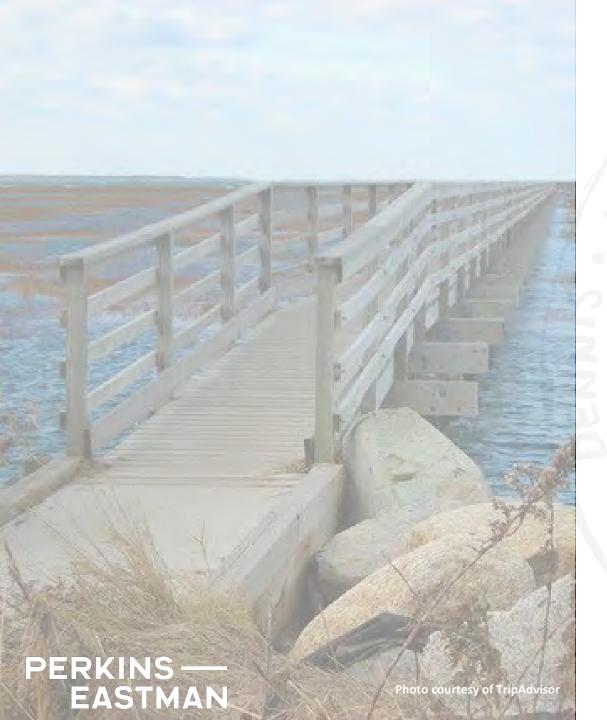
8:25 - 8:35	Advisory	10 minutes						
	Passing	2 minutes	8:35-8:37					
8:37-9:24	A RS PE IO		1 5					
IV	Fussing		9:24 - 9:26					
9:26 - 10:13	SECOND PERIOD	47 Minutes						
5.20 10.10	Passing	2 minutes	_ 10:13-10:15					
7n	ariods V	6days -	12					
10:15 - 11:02	THRO PERIOD	O C47 min les	72					
	Passing	2 minutes	11:02 - 11:04					
10	iv /17min	6 MINUSH 2	11:04-11:34					
11:04-12:21	ix 47min	• Se minutes	9)					
	FOURTH PERIOD	Passing	11:34-12:21					
+	10 Thin.	ACVISOR	11:54-12:21					
		- 47 Imiliatos	,					
		7th Grade CLASS_	11:04-11:51					
_	2min.P							
٦		a55111g(5						
	7 <sup>TH</sup> GRADE	Passing	112222					
		7th Grade LUNCH	11:51-12:21					
		30 minutes						
	Passing	2 minutes	12:21-12:23					
12:23-1:10	FIFTH PERIOD	47 minutes						
	Passing	2 minutes	1:10-1:12					
1:12 – 1:59	SIXTH PERIOD	47 minutes						
1.12 - 1.00	Passing	2 minutes	1:59-2:01					
201212								
2:01-2:40	SEVENTH PERIOD	39 minutes	Will not rotate					
2:50-3:50	Data B. Are	Extra Help, Make-Up	L . D. d L'					
	Detention, After School Activities, Faculty Meetings, Athletic Times as Posted							
3:55	Late Buses	Millette Fillles as Posted						
	I SIE BIISES							

	Homeroom	Homeroom	Homeroom	Homeroom	Homeroom		
\	50 min.						
3	50 min.	Advisory	Advisory	Advisory	Advisory	Advisory	Advisory
	50 min.						
	50 min.						
	RECESS-1						LUNCH-1
	RECESS-2						LUNCH-2
	50 min.						
i	ENRCHMNT +RTI BLOCK						
•							

Dennis-Varmouth		EXISTING SCHOOLS COMBINED						PROPOSED MATCHES (reter to MSBA Educational Program & Space Standard Guidelines)													e Standard Guidelines)		
## Communication   1970   1	Dennis-Yarmouth	ennis-Yarmouth WIXON INTERMEDIATE MATTACHEESE MIDDLE					SEPA	ARATE GR	.6-7 (455)	COME	BINED GR	.4-7 (940)	SEP			COMENED GR.4-7 (940)							
Susception   Sus	ROOM TYPE	NFA <sup>1</sup>	# OF RMS	area totals	ROOM NFA <sup>1</sup>	# OF RMS	area totals	COI	MBINED to	ials	0,000	# OF RMS	area totals	ROOM NFA <sup>1</sup>	# OF RMS	area totals		# OF Rms	area totals	ROOM NFA <sup>1</sup>	# OF Ring	area totals	Comments
Water   1975   1	ORE ACADEMIC SPACES			24,275			24,260			48,535			21,650			44,690			21,770			44,820	
Word Lawrence   Column   Col	Classroom - General	848	24	20,363	857	17	14,561	952	4.1	34 924	850	13	11,050	850	35	29,750	950	17	16,150	950	34	32,300	850 SF min = 950 SF max
President   Superior	Health	717	1	. 717	852	1	852	785	2	1.569	850	1	850	850	2	1,700							
Series Conference (T.E.L.) with 5 to 30 to 1 to 50 to 50 to 1 to 50 t	World Language		1	0	853	3	2,560	853	3	2.560	850	3	2,550	850	4	3,400		0			0		
Bit Complement Recovery (1.0)  Fig. 1			25			21			46		1	17			41			17			34		
Control Cont				/			222		- 3	484	7.		121			145			18			336	
Fig. Room	Sm. Grp/Resource (1 ELL/gr. w/ 5-10 stu)	889	.1	889	691	16	691	790	25	1 500	500	4 💝	(2,000	500	4 4	2,000	500	16	1 500	500	2 💝	V.000	
Fig.   Som				1			11			1	1		1)			)			))			)	
PER-NOTE   1	Science Classroom / Lab	1.153	2	2,306	1.298	3	3,94	1,240	-5	6.000	1,200	4	4,800	1,200	6	7,200	1,200	4 [5	4,800	1,200	9 [4	10,800	1 period / day / student
For Example 1					851	2	702	851	2	#702	1		25 To	tal		51 To	ta		22 Tot	ol.		AS TO	1
Free Roon			2			5.5	127 T	nénI	7 1	PEE .	lotal			toe)			reni		22 100	-		43 100	-
## AUSTROLATION   18.5	Pren Room				-		-	A LOS			80	5		80	3		80	4	320	80	9	720	
Self-Considered (SMLIGHT ARTIFICATION)  Self-C		Alicon has	19% IEPs	9.840	MMSha	5 2 1% IEP	11.613	District = 5	685 FRI	21.453	7				- 1								
Self-Commend SPED Totel  Commend SPED Totel  C	Self-Contained (SA/LS/STAR2/NECC)	968	2		875	2	1.750	H25	-4	3.685	950	3		950	5		950	4		950	7		esturned 8% of pop in self-contained SPED
Control Austrian Engage   1966   2   1,514   503   5   4,766   50   7   577				F			0			1													
## Security Support Room (1964)   1		756	2	1,512	853	5	4.265	825	7	5.771	-		0					-	2,40			(2.9)	
Small Group Room			3		774	4	1000		7	4 977			0	2.22			500	2	1.000	500	5	2.500	1/2 size Geni Cim
Secretary   Company   Co						-	-		-0				0									2012000	
## A USB 2   1   1   1   1   1   1   1   1   1			7			4			-9	9-947	900	4	900	200		750	300	-	500	500		1,000	tra sady own. Came
Storage Offier, Rev York, Right   198   3   5.94   0   0   0   0   3   65   0   1   1   1   1   1   1   1   1   1			4		1,005	-	1,000		4:	4.707	800		000	450	2	000	4447	CLICC					
## Supplied Control of the Control o				504		_	0	The second second	2		460	2	460				TOTAL STREET	THE?					
100   17   1700   100   1   1700   100   1   1700   100   1   1700   100   1   1700   1700   1   1700   1700   1   1700   1700   1   1700   1700   1   1700   1700   1   1700   1700   1   1700   1700   1   1700   1700   1   1700   1700   1   1700   1700   1   1700   1700   1   1700   1700   1   1700   1700   1   1   1700   1   1   1700   1   1   1700   1   1   1700   1   1   1700   1   1   1700   1   1   1700   1   1   1   1   1   1   1   1   1				394	242	-	C20	1	3	0.000					3			1					
According   Company   Co		1297	2	092	210	3	630	767	-6	11-344					9								
N. A. MUSIC		_		J.		_	U	_	_			_						-	Art + To	th:		ArbiTo	h.
At Classroom   1256   2   2515   1438   1   144   1318   1518   1519   150   150   1   120   150   150   1   120   1				2012	_	_	1 7 7 7		_	Va New	3,000	1		000	_			31					
Art Worksom with Straigne 4 kilbs   1   15   377   1   277   554   2   508   1   150		1.000		_	4.100		-			10,375	1.000			1.000			1000			1 200			
Band Formus   1417   2   2.58   1.07   2   2.21   1.022   4   5.097			2		2,10.0	R	27,110,00	1,378	30	3/954								_	753-77				essumed use - 50% population 2 times / week
Music Plane				0.00			327		5 1	40.00													
Multi-Stronge		1.417	2	2,834	311101	25	2,213	10,000	401	5.047	11200												assumed use - 50% population 2 times / week
COCATIONS   TECHNOLOGY				.0		1.	4 329			329											3		
		141	2	282	128	2	255	134	-4	537	100	1	100	200	1		200	1		200	1		
Tech Stop - (Incl. Maker Stope / Stor.)   0 700 1 700 1 700 20 1 100 20 20 1 100 20 20 2 4,000 20				1,677			3,331			5,008	5		1,700			3,400							
		823	2	1,677	65.8	1 1	2,831	718	8	4.308			0			0							
Cymnasium   4,750   2   9,500   7,059   1   7,059   5,620   3   15,559   1,600   1,600   1   6,000				0	700	18	700	700	18	300	1,700			1,700	2		2,000	1		2,000	2	-	Assumed use - 25% Population - 5 times (week
Finest Room							13,733			26,888	1			5	abdivid								
Cym Shoreroom   19.8   6	Gymnasium	4,750	2	9,500	7,059	1	7,059	5/520	3	15 559	3,000	2	6,000	3,000	3	9,000	6,000	1	6,000	6,000	1	6,000	
Hith instructor Office w/Shower & Totel 142 2 2 324 152 2 304 147 4 555 Locker Rooms - Boys / Grids w/Totels 1 1 07 2 2 275 1 138 2 2 277 1 134 4 4 405 Locker Rooms - Boys / Grids w/Totels 1 1 07 2 2 275 1 138 2 2 277 1 1 4 4 4 405 Locker Rooms - Boys / Grids w/Totels 1 1 07 2 2 275 1 138 2 2 277 1 1 1 4 4 405 Locker Rooms - Boys / Grids w/Totels 1 1 07 2 2 275 1 1 1 4 4 405 Locker Rooms - Boys / Grids w/Totels 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				0	1.591	2	3,182	1,100-0.1	2	3 182	1		0	-	0	0							
Locker Rooms - Boys / Girls w/ Toilets   1,07   2   2,213   1,138   2   2,272   1,12   4   4,405   5,805   1,900   2   2,900   1,000   2   2,000   1,000						5				2,074													
April   Apri		1,100	2	200	152	2	304		4	588		_		2.000	-		250		79.55				
DINING & FOOD SERVICE   8,650		1.107	2		1.136	2	40,000 00	1.121	-4	-41,494	1,000	2		1,000	2		1,000	2		1.000	2		
Cafetorium / Dining (nol. Dophin Diner)																							
Stage							11,172			19,822													
Chair / Table / Equipment Storage 176 1 176 227 1 227 202 2 407	Cafetorium / Dining (Incl. Dolphin Diner)		1 10			-11	5,537	5.342	2	10 683		1			141			1			t		2 seatings - 15SF per seat
Kitchen   2,488   1   2,488   3,620   1   3,620   3,054   2   6,100	Stage	1 518	1	1,018	1.140	-1	1,140	1,079	2	2.158	1,600	1	1,600	1,600	1	1,600	1,600	1	1,600	1,600	1	1,600	
Staff Lunch Room   222   1   222   248   1   248   235   2   470   953   570   770   510   710   510   710   510   710	Chair / Table / Equipment Storage	176	1	176	227	1	227	202	2	401	352	1	352	513	1	513	352	1	352	513	1	513	
Staff Lunch Room   222   1   222   248   1   248   235   2   470   255   2		2.488	1	2,488		1	3.620	3.054	2	6.108	1,755	1			1	2,240		1		2.240	1	2.240	1600 SF for first 300 + 1 SF/student Add1
IEDICAL   744   709   953   770	Staff Lunch Room	222	1	222	248	-7-	248	235	2	470		1	214		1			1			1		
DMINISTRATION & GUIDANCE   3,094   4,314   7,400   1,900   1				744			209			953											1111		
1,930   2,850   1,930   2,85	DMINISTRATION & GUIDANCE			3,094			4,314			7,400				0					2,955			3,890	
DTHER   5,092   7,909   13,00f   8,500   8,700   1										5,959													
Auditorium+Stage (463 WIS/734 MMS)   5,092   1   5,092   7,289   1   7,269   5   181   2   12,381   8,500   1   8,500   8,500   1   8,50									-	13,001				0					0			-	
Cressing Rooms   Cres		5.092	1		7 269	1	7.289	5181	2	1000	8.500	1		8.500	1								
SRC Office 0 95 2 190 65 2 190 150 1 150 200 1 200   Total Building Net Floor Area (GFA) <sup>2</sup> 115,990 1 15,880 2 115,880 2 115,880 2 115,880 2 115,400 1 15,880 2 115,400 1 15,880 2 115,400 1 15,880 2 115,400 1 15,880 2 115,400 1 15,880 2 115,400 1 15,880 2 115,400 1 15,880 2 115,400 1 15,880 2 115,400 1 15,400		- HICHE		0	225	2	450				9,200		0,500	9,044		0,300							
Total Building Net Floor Area (NFA) 78,338 87,662 166,000 158,				0		2	100	85	2	100	150	1	150	200	1	200							
Proposed Student Capacity / Enrollment         (90 total staff)         545         (00 total staff)         455         (170 total staff)         1,000         455         940         455         940           Total Building Gross Floor Area (GFA) <sup>2</sup> 116,090         115,880         231,970         106,149         183,860         84,305         150,400				70 330	- 33	-	67.662	.00	-	166 000					10 no 0 a - 0			+	57 894			99 720	
Total Building Gross Floor Area (GFA) <sup>2</sup> 115,090 115,880 231,970 106,149 183,860 84,305 150,400		(ion	Lobs Cate 40		(80	total staffs		11701	otal istati)		+ 138 (	ev sharak and)		. X98 (1.) St	mo baia and)								
	1	130	(Marada)	-	100	total stell)		Titlette	ores assure	24.5	1					-		-				-	
Grossing factor (GFA/NFA) 1.48 1.32 1.50 1.50 1.46 1.51										231,970													







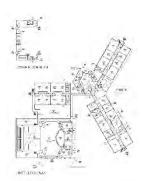
# **AGENDA**:

- PROCESS/SCHEDULE & SCOPE
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#### MR0 MATTACHEESE SITE REPAIRS ONLY (GR. 6-7)

Relatively Flat Site, 70 acres (40 useable)

**Limited Constraints** 

- Aguafer 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 = \$43.1m Est. Project Cost = \$53.9m DISTRICT SHARE = \$56.9m



#### MR1 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

Reuses existing Irg 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.
- Adiacent 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, 22 developed)

Several Constraints

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

Not Viable to Swap Wixon and Mattacheese Sites & Does not address existing deficiencies at Wixon as outlined in SOI



# **OPTIONS FOR 445, GRADE 6-7**



#### 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



#### **MR2 MATTACHEESE SITE** ADD/RENO (GR. 4-7)

Relatively Flat Site, 70 acres (40 useable, 23 developed)

Limited Constraints

- Aguafer Protection Distr.
- Adiacent Wetland

Able to satisfy educational program

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

Limits impact to school

Develops previously disturbed areas

Does address existing deficiencies at Wixon as outlined in SOI

Limits use of more cost effective chapter 149 procurement

#### Not centrally located

Est. Constr. Cost = \$96.2m Est. Project Cost = \$115.5m DISTRICT SHARE = \$72.7m



#### **M2 MATTACHEESE SITE ALL NEW (GR. 4-7)**

Relatively Flat Site, 70 acres (40 useable, 25 developed)

**Limited Constraints** 

- Aguafer Protection Distr.
- Adiacent Wetland

Able to satisfy educational program

Virtually no impact to school

Allows use of more cost effective chapter 149 procurement

Does address existing deficiencies at Wixon as outlined in SOI

Will require demolition of existing buildings - Should be reimbursable

#### Not centrally located

Est. Constr. Cost = \$85.8m Est. Project Cost = 103.1m DISTRICT SHARE = \$66.0m



#### **WR2 WIXON SITE** ADD/RENO (GR. 4-7)

Partial Sloping Site, 34.4 a (30 useable, 17 developed)

**Several Constraints** 

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

Able to satisfy educational program

Access to bikeway, existing playground

#### Not centrally located

More disruptive to school than other options

Est. Constr. Cost = \$94.2m Est. Project Cost = \$113.1m **DISTRICT SHARE = \$71.1m** 



#### **W2 WIXON SITE ALL NEW (GR. 4-7)**

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

#### Not centrally located

Est. Constr. Cost = \$84.4m Est. Project Cost = \$101.3m DISTRICT SHARE = \$64.4m



#### **S2 STATION AVE. SITE ALL NEW (GR. 4-7)**

Relatively Flat Site, 148 acre (57 useable, 21 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

Est. Constr. Cost = \$81.0m Est. Project Cost = \$97.3m **DISTRICT SHARE = \$61.6m** 



#### **S4 STATION AVE. SITE ALL NEW (GR. 4-7)**

Relatively Flat Site, 148 acre (57 useable, 24 developed)

Limited Constraints

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

Able to satisfy educational program

Limits impact to schools

Allows use of more cost effective chapter 149 procurement

Does address existing deficiencies at Wixon as outlined in SOI

Centrally located

Tight to existing maintenance buildings

#### Loss of athletic field

Est. Constr. Cost = \$82.9m Est. Project Cost = \$99.5m DISTRICT SHARE = \$63.6m



#### **S6 STATION AVE. SITE ALL NEW (GR. 4-7)**

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

Dependent upon cost and terms of relocating existing solar panel array

Est. Constr. Cost = \$82.5m Est. Project Cost = \$99.2m DISTRICT SHARE = \$63.3m



#### **G2 W. GREAT WESTERN ALL NEW (GR. 4-7)**

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

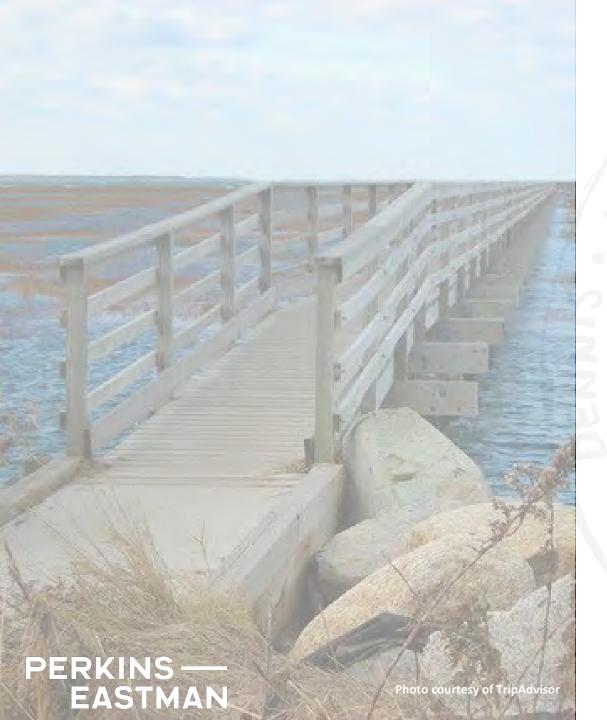
Does address existing deficiencies at Wixon as outlined in SOI

Hilly, narrow access road and potential traffic issues

Extensive clearing required

Station Ave is more viable





### **AGENDA**:

- PROCESS/SCHEDULE & SCOPE
- EXISTING CONDITIONS
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### MSBA Cost Data 2012-Present Elementary

#### Cost Data - Similar MSBA Projects Since 2012 (70k sf min size)

						2018	2017	2016	2015	2014	2013	2012
# Years (to start)						1	2	: 3	4	5	6	7
Escalation Rate						0.00%	5.00%	5.00%	6.67%	6.42%	6.00%	4.83%
<b>Escalation Factor</b>						1	1.05	1.1025	1.176037	1.251538	1.326631	1.390707
			\$/\$	sf @ SD Es	calated							
NTARY SCHOOL COST DATA												
Cabot ES	Elementary	Add/Reno	\$	289.48 \$	319.15			\$319.15				
<b>Edward Devotion</b>	Elementary	Add/Reno	\$	255.01 \$	299.90				\$ 299.90			
Sylvester ES	Elementary	Add/Reno	\$	182.06 \$	200.72			\$ 200.72				
		AVERAGE:	\$	242.18 \$	273.26							
Hillside ES	Elementary	New	\$	318.63 \$	351.29			\$351.29				
Wildwood ES	Elementary	New	\$	275.34 \$	303.56			\$ 303.56				
Peebles ES	Elementary	New	\$	264.64 \$	291.77			\$ 291.77				
Clyde Brown ES	Elementary	New	\$	281.48 \$	295.55	\$	295.55					
Maria Hastings ES	Elementary	New	\$	273.31 \$	286.98	\$	286.98					
Riverbend	Elementary	New	\$	231.50 \$	307.11						\$ 307.11	
A.E. Angier	Elementary	New	\$	244.28 \$	324.07						\$ 324.07	
Nelson Place	Elementary	New	\$	265.19 \$	331.89					\$ 331.89		
Woodland	Elementary	New	\$	240.33 \$	300.79					\$ 300.79		
John Hannigan	Elementary	New	\$	277.31 \$	326.13				\$ 326.13			
Wyman Hurid ES	Elementary	New	\$	258.15 \$	303.60				\$ 303.60			
Carver Elementary	Elementary	New	\$	235.80 \$	277.31				\$ 277.31			
Early Elementary	Elementary	New	\$	262.62 \$	308.85				\$ 308.85			
Maquan ES	Elementary	New	\$	222.18 \$	294.76						\$ 294.76	
Staff Sargeant James J. Hill	Elementary	New	\$	234.54 \$	311.15						\$ 311.15	
Templeton Center ES	Elementary	New	\$	268.38 \$	356.04						\$ 356.04	
		AVERAGE:	\$	259.61 \$	310.68							

### MSBA Cost Data 2012-Present Middle

### **Cost Data - Similar MSBA Projects Since 2012 (70k sf min size)**

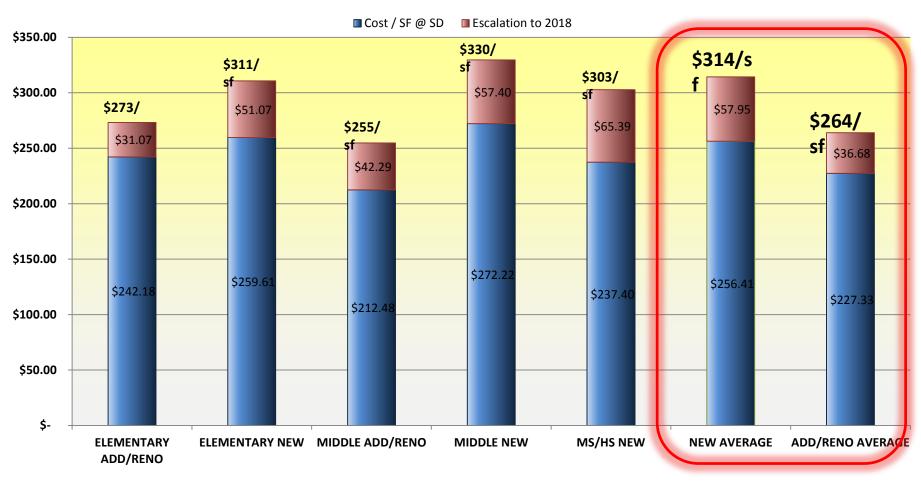
							2018	2017	2016	2015	2014	2013	20:
# Years (to start)							1	2	2 3	4	5	6	
Escalation Rate							0.00%	5.00%	5.00%	6.67%	6.42%	6.00%	4.83
Escalation Factor							1	1.05	1.1025	1.176037	1.251538	1.326631	1.39070
			\$/:	sf @ SD	Esc	alated							
SCHOOL COST DATA													
Conte Middle School	Middle	Add/Reno	\$	185.88	\$	258.51							\$ 258.5
East Middle School	Middle	Add/Reno	\$	239.07	\$	251.02	\$	251.02					
		AVERAGE:	\$	212.48	\$	254.77							
Auburn Middle School	Middle	New	\$	232.59	\$	308.56						\$ 308.56	
J. Henry Higgins Middle School	Middle	New	\$	224.37	\$	297.65						\$ 297.65	
Mountain View Middle School	Middle	New	\$	229.48	\$	304.43						\$ 304.43	
Thurgood Marshall MS	Middle	New	\$	274.48	\$	364.14						\$ 364.14	
Dearborn	Middle	New	\$	285.69	\$	357.55					\$ 357.55		
Caleb Distin Hunking Middle													
School	Middle	New	\$	232.75	\$	291.30					\$ 291.30		
Clark Avenue Middle School	Middle	New	\$	254.36	\$	318.34					\$ 318.34		
Gates Intermediate School	Middle	New	\$	264.89	\$	331.51					\$ 331.51		
New Beverly Middle School													
(Briscoe MS)	Middle	New	\$	271.92	\$	319.78				\$ 319.78			
Reay E Sterling MS (5-8)	Middle	New	\$	308.88	\$	340.54			\$ 340.54				
Pickering Middle School	Middle	New	\$	338.16	\$	355.07	\$	355.07					
West Lynn Middle School	Middle	New	\$	349.08	\$	366.54	\$	366.54					
		AVERAGE:	\$	272.22	\$	329.62							
Chicopee Academy	Middle	Renovation	\$	125.36	\$	166.31						\$ 166.31	
		AVERAGE:	\$	125.36	\$	166.31							

## MSBA Cost Data 2012-Present Middle/High

### Cost Data - Similar MSBA Projects Since 2012 (70k sf min size)

			2018	2017	2016	2015	2014	2013	2012
# Years (to start)			1	2	3	4	5	6	7
Escalation Rate			0.00%	5.00%	5.00%	6.67%	6.42%	6.00%	4.83%
<b>Escalation Factor</b>			1	1.05	1.1025	1.176037	1.251538	1.326631	1.390707
		\$/sf @ SD Escalated							
MIDDLE/HIGH SCHOOL COST DAT	<sup>-</sup> A								
Winthrop Sr/HS	Middle/High New	\$ 226.79 \$ 300.86						\$ 300.86	
Lunenburg HS	Middle/High New	\$ 245.71 \$ 307.52					\$ 307.52		
Frolio Jr HS	Middle/High New	\$ 239.71 \$ 300.00					\$ 300.00		
	Middle/High New	\$ 237.40 \$ 302.79							

# MSBA Cost Data 2012- Present Building Cost Only Comparison



## Grade 6-7 Cost Scenarios (Page 1/2)

					Matta	cheese Only [GRADE	S 6, 7]			
		IN	ICLUDES RENOVATION	ON			ALL N	IEW		
		Option MR-X	Option MR-0	Option MR-1	Option M-1	Option W-1	Option S-1	Option S-3	Option S-5	Option G-1
DATA IS ROUGH ORDER MAGNITUDE ESTIMATE OF CONCEPTS		Base Repair Code Upgrades Mattacheese	Fully Renovate Existing Mattacheese 6-7	Addition / Renovate Existing Mattacheese 6- 7	New Construction Mattacheese Site 6-7	New Construction Wixon 6-7	New Construction Station Avenue 6-7 Wooded Area	New Construction Station Avenue 6-7 Behind Solar Move	New Construction Station Avenue 6-7 Relocate Solar	New Construction West Great Western 6-7
	TOTAL CE.	122207	122207	100500	105330	105330	105220	Garage	105220	105220
TO	TOTAL SF: AL NEW SF:	122207	122207	109500 77456	106329 106329	106329 106329	106329 106329	106329 106329	106329 106329	106329 106329
тот	AL RENO SF: . REPAIR SF:	122207	61103.5 61103.5	32044	106329	106329	106329	100329	106329	106329
New Building Construction Costs @ \$314/SF	314	\$0	\$0	\$24,321,184	\$33,387,306	<del>\$33,</del> 387,306	\$33,387,306	\$33,387,306	\$33,387,306	<del>\$33,387,30</del> 6
Base Repair/Reno Costs @ \$264/SF	264	\$0	\$16,131,324	\$8,459,616	\$0	\$0	\$0	\$0	\$0	\$0
Base Repair Costs @ \$150/SF	150	\$18,331,050	\$9,165,525	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Additional Escalation due Wixon (5 years behind MMS @ 5% annually escalation = 27.6% premium)	0.276									
Remove Hazardous Materials (FROM PM&C BASE REPAIR ESTIMATE!!)		\$1,349,200	\$1,349,200	\$1,349,200	\$1,349,200	\$1,216,000	\$0	\$0	\$0	\$0
Demolish Existing Building (HIGH LEVEL BALLPARK ESTIMATE!!) Need Discussion					\$750,000	\$750,000	\$0	\$0	\$0	\$0
Selective Demolition of Existing Building (FROM BASE REPAIR ESTIMATE)		\$764,404	\$764,404	\$764,404						
Soils Remediation (HIGH LEVEL BALLPARK ESTIMATE!!)		\$68,750	\$68,750	\$68,750	\$68,750	\$68,750				
Septic System or WWTP (HIGH LEVEL BALLPARK ESTIMATE!!)		\$451,587	\$451,587	\$451,587	\$451,587	\$451,587	\$0	\$0	\$0	\$451,587
Relocation of Garage and Storage (HIGH LEVEL BALLPARK ESTIMATE!!)		\$0	\$0	\$0	\$0	\$0	\$0	\$1,500,000	\$0	
Solar Array Relocation Allowance (HIGH LEVEL BALLPARK ESTIMATE!!)		\$0	\$0	\$0	\$1,000,000	\$0	\$0	\$0	\$1,250,000	\$C
Sitework @ 10% for Renovations/Repairs	0.1	\$1,833,105	\$2,529,685	\$845,962	\$0	\$0	\$0	\$0	\$0	\$0
Sitework @ 12% for New	0.12	\$0	\$0	\$2,918,542	\$4,006,477	\$4,006,477	\$4,006,477	\$4,006,477	\$4,006,477	\$4,006,477
Sub-Total		\$22,798,096	\$30,460,475	\$39,179,245	\$41,013,320	<del>\$39</del> ,880,120	\$37,393,783	\$38,893,783	\$38,643,783	<del>\$37,845,37</del> 0
General Conditions (8% for D-B-B)	0.08	\$1,823,848	\$2,436,838	\$3,134,340	\$3,281,066	<del>\$3,19</del> 0,410	\$2,991,503	\$3,111,503	\$3,091,503	<del>\$3,027,6</del> 30
CMAR Premium for Reno & Add/Reno (9%: 3% CMAR Contingency + 6% GCs)	0.09	\$2,051,829	\$2,741,443		\$0		\$0	\$0	\$0	\$C
Phasing Premium (3% for Reno)	0.03	\$683,943	\$913,814	\$1,175,377	\$0	\$0	\$0	\$0	\$0	\$0
Escalation (captured in SF costs above)		-		-	-		-	-	-	
Sub-Total Sub-Total		\$27,357,715		<del></del>	\$44,294,385	<del>\$43,070,529</del>	\$40,385,285	\$42,005,285	\$41,735,285	<del>\$40,872,99</del> 9
General Requirements (2%)		Incl in GC/OH		<del></del>	Incl in GC/OH		Incl in GC/OH	Incl in GC/OH	Incl in GC/OH	Incl in GC/OH
Sub-Total Sub-Total		\$27,357,715	\$36,552,570		\$44,294,385	<del>\$43,070,529</del>	\$40,385,285	\$42,005,285	\$41,735,285	<del>\$40,872,999</del>
Bonds (1%)	0.01	\$273,577.15		•	\$442,943.85	<del>\$43</del> 0,705.29	\$403,852.85	\$420,052.85	\$417,352.85	<del>\$408,72</del> 9.99
Insurance (1.3%)	0.013	\$359,206.80	\$479,935.24	\$617,308.18	\$581,585.28	<del>\$565,516.05</del>	\$530,258.80	\$551,529.40	\$547,984.30	<del>\$536,662.4</del> 8
Permit (Assumes Fees Waived)		-		-	-		-	-	-	
Sub-Total Sub-Total		\$27,990,499			\$45,318,914		\$41,319,397	\$42,976,868	\$42,700,622	<del>\$41,818,392</del>
Design Contingency (10% on new construction)	0.1	\$2,799,049.92	<del></del>	+	\$4,531,891.44	<del>\$4,40</del> 6,675.06	\$4,131,939.70	\$4,297,686.76	\$4,270,062.25	
Design Contingency Premium for Reno & Add/Reno (2% premium)	0.02	\$559,809.98		<del></del>	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00
Pricing Contingency (3%)	0.03	\$940,480.77			\$1,495,524.18		\$1,363,540.10		\$1,409,120.54	\$ <del>1,380,006</del> .93
Total Construction Co	st	\$32,289,840	\$43,142,368	\$55,491,105	\$51,346,330	\$4 <del>9,927,</del> 628	\$46,814,877	\$48,692,791	\$48,379,805	\$ <del>47,380,</del> 238

## Grade 6-7 Cost Scenarios (Page 2/2)

	Mattacheese Only [GRADES 6, 7]												
	IN	CLUDES RENOVATIO	N			ALL N	IEW						
	Option MR-X Base Repair	Option MR-0	Option MR-1 Addition / Renovate	Option M-1	Option W-1	Option S-1	Option S-3	Option S-5	Option G-1				
DATA IS ROUGH ORDER MAGNITUDE ESTIMATE OF CONCEPTS	Code Upgrades Mattacheese	Fully Renovate Existing Mattacheese 6-7	Existing Mattacheese 6-	New Construction Mattacheese Site 6-7	New Construction Wixon 6-7	New Construction Station Avenue 6-7	New Construction Station Avenue 6-7	New Construction Station Avenue 6-7	New Construction West Great Western 6-7				
						Wooded Area	Behind Solar Move Garage	Relocate Solar					
PROJECT SOFT COST DATA IS BASED UPON PERCENTAGE OF CONSTRUCTION COSTS FOR ALL OPTIONS													
PROJECT SOFT COSTS (ROUGH ORDER MAGNITUDE)	\$8,607,968	\$10,778,474	\$11,198,221	\$10,319,266	§10,035,526	\$9,412,975	\$9,788,558	\$9,725,961					
Reimbursable Soft Cost Allowance per MSBA (20% of Construction Costs)	\$6,457,968	\$8,628,474	\$11,098,221	\$10,269,266	\$9,985,526	\$9,362,975	\$9,738,558	\$9,675,961	\$9,476,048				
FF&E and IT Allowance @ \$1200/student each (Incl Above)	=	-	-	-		-	=	-					
OPM Costs (Incl Above)	-	=	-	-		-	=	-					
Architect / Engineering Fees (Incl Above)	=	-	-	-		-	-	-					
Legal Fees, Owner / Architect Subconsultants & Testing Costs (Incl Above)	-	=	-	-		-	-	-					
Utilities Allowance (Incl Above)	4450 000	-	-	450,000		450.000	450,000	450.000					
Movers Allowance (Est)	\$150,000	\$150,000	\$100,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000				
Swing Space Allowance (Est)	\$2,000,000	\$2,000,000	4		*	4	4	4	4				
Total Project Cost	\$40,897,808	\$53,920,842	\$66,689,326	\$61,665,596	\$59,963,154	\$56,227,852	\$58,481,349	\$58,105,766	<del>\$56</del> ,906,285				
Owner Construction Contingency (Est. 6%) 0.0	6 \$1,937,390.39	\$2,588,542.10	\$3,329,466.29	\$3,080,779.80	<del>\$2,99</del> 5,657.71	\$2,808,892.61	\$2,921,567.46	\$2,902,788.32	<del>\$2,842,814.27</del>				
Owner Soft Cost Contingency (Est. 4%) 0.0	4 \$344,318.72	\$431,138.95	\$447,928.84	\$412,770.64	<del>\$401,421.03</del>	\$376,519.01	\$391,542.33	\$389,038.44	\$381,041.90				
Total Project Budget	\$43,179,517	\$56,940,523	\$70,466,721	\$65,159,147	<del>\$63,360,233</del>	\$59,413,264	\$61,794,459	\$61,397,593	<del>\$60</del> ,130,142				
"WHAT-IF SCENARIO" - TYPICAL INELIGIBLE COSTS PER MSBA REGS	44 004 500 50	44 705 504 70	40.040.544.40	40.557.045.50	40.40	40.040.740.04	40.404.500.55	40.440.000.00	40.00				
Construction Contingency Reimbursement - 2% Max on Reno, 1% Max on New	\$1,291,593.59	\$1,725,694.73	\$2,219,644.19	\$2,567,316.50		1 1 1	\$2,434,639.55	\$2,418,990.26					
Owner Contingency Reimbursement - assume 33% of budget eligible	\$227,250.35	\$284,551.70	\$295,633.03	\$272,428.62		' '	\$258,417.94	\$256,765.37					
GMP Contingency Reimbursement - assume 33% of budget eligible	\$893,776.56	\$1,194,172.46	\$1,535,983.11	\$0.00			\$0.00	\$0.00	·				
Sitework Costs exceeding 8% of Direct Building Cost	\$886,958.00	\$1,026,273.98	\$1,662,376.68	\$2,855,829.24	\$1,855,829.24	\$1,335,492.24	\$2,835,492.24	\$2,585,492.24					
Legal Fees - Approximate	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00 \$50,000.00			\$50,000.00	\$50,000.00 \$50,000.00					
Moving Costs Swing Space Costs	\$150,000.00 \$2,000,000.00	\$150,000.00 \$2,000,000.00	\$100,000.00 \$0.00	\$50,000.00			\$50,000.00 \$0.00	\$50,000.00					
Ineligible Abatement Costs (VAT) - Ballpark Estimate Value	\$2,000,000.00	\$2,000,000.00	\$0.00	\$269,840.00			\$0.00	\$0.00					
Ineligible Construction over Allowable SF and \$326/SF (Grades 4-7)  15040		\$209,640.00	\$209,640.00	\$209,640.00	3243,200.00	\$0.00	\$0.00	\$0.00	\$0.00				
Ineligible Construction over Allowable SF and \$326/SF (Grades 4-7)  8430		100% INELIGIBLE	\$5.297.370.00	\$5.903.876.00	\$ <del>5.903.876.</del> 00	\$5.903.876.00	\$5,903.876.00	\$5,903,876.00	\$5.903.876.00				
TOTAL POTENTIAL INELIGIBLE COSTS	100% INELIGIBLE	100% INELIGIBLE	\$11,430,847.02	\$11,969,290.37		\$9,928,614.63	\$11,532,425.73	\$11,265,123.88					
TOTAL OF LITTLE INCLIDENCE COSTS	20070 INCLIGIBLE	20070 HTLLIGIBLE	Ç11, 100,047.02	Q12,303,290.37		Ç3,323,014.03	Ç11,002,120.70	Q11,200,123.00					
POTENTIAL ELIGIBLE COSTS (PRORATED FOR INELIGIBLE COSTS)	\$0	\$0	\$59,035,874	\$53,189,856	<del>\$52,496,008</del>	\$49,484,649	\$50,262,033	\$50,132,469	\$49,718,687				
POTENTIAL REIMBURSEMENT FROM MSBA (reimbursement rates below)	\$0	\$0	\$28,758,261	\$25,132,207	<del>\$24,804,364</del>	\$23,381,497	\$23,748,811	\$23,687,592					
44.25% Base Reimbursement Rate (Base Rate Floating Until SD)	44.25%	44.25%	44.25%	44.25%	44.25%	44.25%	44.25%	44.25%	44.25%				
5% Renovation Incentive (Pro-rated)	0.00%	2.50%	1.46%	0.00%	0.00%		0.00%	0.00%					
2% Energy Efficiency Incentive	2.00%	2.00%	2.00%	2.00%			2.00%	2.00%					
1% Maintenance Incentive Assumed (Plug Value)	1.00%	1.00%	1.00%	1.00%			1.00%	1.00%					
POTENTIAL DISTRICT SHARE OF TOTAL PROJECT BUDGET	\$43,179,517	\$56,940,523	\$41,708,460	\$40,026,939	\$3 <del>8,55</del> 5,869	\$36,031,767	\$38,045,648	\$37,710,001	\$ <del>36,63</del> 8,062				

## Grade 4-7 Cost Scenarios (Page 1/2)

				D/\	Intermediate Midd	e School [GRADES 4-	7]		
		INCLUDES R	ENOVATION			ALL N	IEW		
		Option MR-2	Option WR-2	Option M-2	Option W-2	Option S-2	Option S-4	Option S-6	Option G-2
DATA IS ROUGH ORDER MAGNITUDE ESTIMATE OF CONCEPTS		Addition / Renovation Existing Mattacheese 4- 7	Addition / Renovation Existing Wixon 4-7	New Construction Mattacheese Site 4-7	New Construction Wixon 4-7	New Construction Station Avenue 4-7 Wooded Area	New Construction Station Avenue 4-7 Behind Solar Move Garage	New Construction Station Avenue 4-7 Relocate Solar	New Construction West Great Western 4-7
1	OTAL SF:	190500	183500	183920	183920	183920	183920	183920	183920
	NEW SF: RENO SF: PAIR SF:	158456 32044	168500 15000	183920	183920	183920	183920	183920	183920
New Building Construction Costs @ \$314/SF	314	\$49,755,184	\$52,909,000	\$57,750,880	\$57,750,880	\$57,750,880	\$57,750,880	\$57,750,880	<del>\$57,</del> 750,880
Base Repair/Reno Costs @ \$264/SF	264	\$8,459,616	\$3,960,000	\$0	\$0	\$0	\$0	\$0	\$0
Base Repair Costs @ \$150/SF	150	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Additional Escalation due Wixon (5 years behind MMS @ 5% annually escalation = 27.6% premium)	0.276								
Remove Hazardous Materials (FROM PM&C BASE REPAIR ESTIMATE!!)		\$1,349,200	\$1,216,400	\$1,349,200	\$1,216,400	\$0	\$0	\$0	\$0
Demolish Existing Building (HIGH LEVEL BALLPARK ESTIMATE!!) Need Discussion				\$750,000	\$750,000	\$0	\$0	\$0	\$0
Selective Demolition of Existing Building (FROM BASE REPAIR ESTIMATE)		\$764,404	\$897,927						
Soils Remediation (HIGH LEVEL BALLPARK ESTIMATE!!)		\$68,750	\$68,750	\$68,750	\$68,750				
Septic System or WWTP (HIGH LEVEL BALLPARK ESTIMATE!!)		\$677,381	\$677,381	\$677,381	\$677,381	\$0	\$0	\$0	\$677,381
Relocation of Garage and Storage (HIGH LEVEL BALLPARK ESTIMATE!!)		\$0	\$0	\$0	\$0	\$0	\$1,500,000	\$0	
Solar Array Relocation Allowance (HIGH LEVEL BALLPARK ESTIMATE!!)		\$0	\$0	\$1,000,000	\$0	\$0	\$0	\$1,250,000	
Sitework @ 10% for Renovations/Repairs	0.1	\$845,962	\$396,000	\$0	\$0	\$0	\$0	\$0	\$0
Sitework @ 12% for New	0.12	\$5,970,622		\$6,930,106	\$6,930,106	\$6,930,106	\$6,930,106	\$6,930,106	\$6,930,106
Sub-Total Sub-Total		\$67,891,119	\$66,474,538	\$68,526,317	\$67,393,517	\$64,680,986	\$66,180,986	\$65,930,986	<del>\$65,358,367</del>
General Conditions (8% for D-B-B)	0.08	\$5,431,289		\$5,482,105.33	\$5,391,481.33	\$5,174,478.85	\$5,294,478.85	\$5,274,478.85	<del>\$5,228,66</del> 9.33
CMAR Premium for Reno & Add/Reno (9%: 3% CMAR Contingency + 6% GCs)	0.09	\$6,110,201	\$5,982,708	\$0	\$0	\$0	\$0	\$0	\$0
Phasing Premium (3% for Reno)	0.03	\$2,036,734	\$1,994,236	\$0	\$0	\$0	\$0	\$0	\$0
Escalation (captured in SF costs above)		-	-	-	-	-	-	-	
Sub-Total Sub-Total		\$81,469,342		\$74,008,422	\$72,784,998	\$69,855,464	\$71,475,464	\$71,205,464	<del>\$70,587,036</del>
General Requirements (2%)		Incl in GC/OH	Incl in GC/OH	Incl in GC/OH	Incl in GC/OH	Incl in GC/OH	Incl in GC/OH	Incl in GC/OH	Inct in GC/OH
Sub-Total Control Cont	0.01	\$81,469,342		\$74,008,422	\$72,784,998	\$69,855,464	\$71,475,464	\$71,205,464	<del>\$70,587,036</del>
Bonds (1%)	0.01	\$814,693.42	\$797,694.46	\$740,084.22	\$727,849.98	\$698,554.64	\$714,754.64	\$712,054.64	<del>\$70</del> 5,870.36
Insurance (1.3%)	0.013	\$1,069,692.47	\$1,047,372.82	\$971,730.58	\$955,667.02	\$917,202.25	\$938,472.85	\$934,927.75	<del>\$92</del> 6,807.78
Permit (Assumes Fees Waived)		402.252.522	404 644 544	- 67F 700 007	-	- -	670.400.500	472.050.117	A70-730-74
Sub-Total  Design Continuous (10% or any construction)	0.1	\$83,353,728		\$75,720,237	\$74,468,515	\$71,471,221	\$73,128,692	\$72,852,447	\$72,219,714
Design Contingency (10% on new construction)	0.1	\$8,335,372.83	. , ,	\$7,572,023.67	\$7,446,851.49	\$7,147,122.13	\$7,312,869.19	\$7,285,244.68	<del>\$7,221,97</del> 1.41
Design Contingency Premium for Reno & Add/Reno (2% premium)	0.02	\$1,667,074.57 \$2.800.685.27	\$1,632,290.26	\$0.00	\$0.00 \$2.457.460.99	\$0.00 \$2.358.550.30	\$0.00	\$0.00	\$0.00 \$2,383,250.56
Pricing Contingency (3%)	0.03	. , ,	. , ,	\$2,498,767.81	. , ,	. , ,	\$2,413,246.83	\$2,404,130.75	
Total Construction Cost		\$96,156,861	\$94,150,502	\$85,791,028	\$84,372,827	\$80,976,894	\$82,854,808	\$82,541,822	\$ <del>81,824,</del> 936

## Grade 4-7 Cost Scenarios (Page 2/2)

				D/\	/ Intermediate Midd	le School [GRADES 4	-7]		
		INCLUDES RE	NOVATION			ALL I	NEW		
		Option MR-2	Option WR-2	Option M-2	Option W-2	Option S-2	Option S-4	Option S-6	Option G-2
DATA IS ROUGH ORDER MAGNITUDE ESTIMATE OF CONCEPTS		Addition / Renovation existing Mattacheese 4- 7	Addition / Renovation Existing Wixon 4-7	New Construction Mattacheese Site 4-7	New Construction Wixon 4-7	New Construction Station Avenue 4-7	New Construction Station Avenue 4-7 Behind Solar Move	New Construction Station Avenue 4-7	New Construction West Great Western 4-7
						Wooded Area	Garage	Relocate Solar	
PROJECT SOFT COST DATA IS BASED UPON PERCENTAGE OF CONSTRUCTION COSTS FOR ALL OPTIONS									
PROJECT SOFT COSTS (ROUGH ORDER MAGNITUDE)		\$19,331,372	\$18,930,100	\$17,258,206	\$16,974,565	\$16,295,379			\$16,464,9
Reimbursable Soft Cost Allowance per MSBA (20% of Construction Costs)		\$19,231,372	\$18,830,100	\$17,158,206	\$16,874,565	\$16,195,379	\$16,570,962	\$16,508,364	<del>\$16,364,9</del> 8
FF&E and IT Allowance @ \$1200/student each (Incl Above)		-	-	-	-	=	-	-	
OPM Costs (Incl Above)		-	-	-	-	-	-	-	
Architect / Engineering Fees (Incl Above)		-	-	-	-	-	-	-	
Legal Fees, Owner / Architect Subconsultants & Testing Costs (Incl Above)		-	-	-	-	-	-	-	
Utilities Allowance (Incl Above)		- 6100.000	-	- 6100.000	- 6100 000	- 6100 000	- 6100 000	ć100.000	\$100,00
Movers Allowance (Est) Swing Space Allowance (Est)		\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,00
		Ć11F 400 222	ć112 000 c02	ć102 040 224	ć101 247 202	- - 	- - -	Ć00 1F0 107	¢09-300-03
Total Project Cost		\$115,488,233	\$113,080,602	\$103,049,234	\$101,347,393	\$97,272,273	\$99,525,770	\$99,150,187	<del>\$98</del> ,289,92
Owner Construction Contingency (Est. 6%)	0.06	\$5,769,411.66	\$5,649,030.12	\$5,147,461.69	\$5,062,369.64	\$4,858,613.63	\$4,971,288.48	\$4,952,509.34	\$ <del>4,909,4</del> 96.1
Owner Soft Cost Contingency (Est. 4%)	0.04	\$773,254.89	\$757,204.02	\$690,328.23	\$678,982.62	\$651,815.15	\$666,838.46	\$664,334.58	<del>\$658,599.4</del>
Total Project Budget		\$122,030,900	\$119,486,837	\$108,887,024	\$107,088,745	\$102,782,701	\$105,163,897	\$104,767,031	\$103,858,019
			. , ,	. , ,	. , ,	. ,		. , ,	
"WHAT-IF SCENARIO" - TYPICAL INELIGIBLE COSTS PER MSBA REGS									
Construction Contingency Reimbursement - 2% Max on Reno, 1% Max on New		\$3,846,274.44	3766020.082	\$4,289,551.41	\$4,218,641.37	\$4,048,844.69	\$4,142,740.40	\$4,127,091.11	<del>\$4,091,24</del> 6.8
Owner Contingency Reimbursement - assume 33% of budget eligible		\$510,348.23	\$499,754.65	\$455,616.63	\$448,128.53	\$430,198.00		\$438,460.82	\$434,675.6
GMP Contingency Reimbursement - assume 33% of budget eligible		\$2,661,603.42	\$2,606,067.79	\$0.00	\$0.00	\$0.00			·
Sitework Costs exceeding 8% of Direct Building Cost		\$2,905,530.68	\$2,941,691.00	\$4,056,166.20	\$3,056,166.20	\$2,310,035.20		\$3,560,035.20	
Legal Fees - Approximate		\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00		\$50,000.00	\$50,000.0
Moving Costs		\$100,000.00	\$100,000.00	\$100,000.00	\$100,000.00	\$100,000.00	\$100,000.00	\$100,000.00	\$100,000.0
Swing Space Costs  Incligible Abstract Costs (VAT) Religent Estimate Value		\$269,840.00	\$243,280.00	\$269,840.00	\$243,280.00	\$0.00	\$0.00	- \$0.00	\$0.0
Ineligible Abatement Costs (VAT) - Ballpark Estimate Value Ineligible Construction over Allowable SF and \$326/SF (Grades 4-7)  1	150400	\$9,184,400.00	\$7,838,600.00	\$8,720,480.00	\$8,720,480.00	\$8,720,480.00		\$0.00 \$8,720,480.00	\$8, <del>720,48</del> 0.0
	84305	\$9,164,400.00	\$7,656,600.00	\$6,720,460.00	\$6,720,460.00	\$6,720,460.00	\$6,720,460.00	\$6,720,460.00	<del></del>
TOTAL POTENTIAL INELIGIBLE COSTS	84303	\$19,527,996.76	\$18,045,413.52	\$17,941,654.24	\$16.836.696.10	\$15,659,557,89	\$17,263,368.98	\$16,996,067.14	\$ <del>16,383,818,6</del>
TOTAL TENTIAL INCLINED COSTS		Ç15,527,530.70	Ç10,010,113.32	Q17,541,054.E4	Ç10,030,030.10	Q10,000,007.00	Q17,E00,000.50	Ç10,550,507.14	
POTENTIAL ELIGIBLE COSTS (PRORATED FOR INELIGIBLE COSTS)		\$102,502,903	\$101,441,423	\$90,945,370	\$90,252,049	\$87,123,143	\$87,900,528	\$87,770,964	<del>\$87,474,</del> 20
POTENTIAL REIMBURSEMENT FROM MSBA (reimbursement rates below)		\$49,294,722	\$48,345,683	\$42,971,687	\$42,644,093	\$41,165,685		\$41,471,780	\$41,331,56
44.25% Base Reimbursement Rate (Base Rate Floating Until SD)		44.25%	44.25%	44.25%	44.25%	44.25%	44.25%	44.25%	44.25
5% Renovation Incentive (Pro-rated)		0.84%	0.41%	0.00%	0.00%	0.00%			0.00
2% Energy Efficiency Incentive		2.00%	2.00%	2.00%	2.00%	2.00%			
1% Maintenance Incentive Assumed (Plug Value)		1.00%	1.00%	1.00%	1.00%				
POTENTIAL DISTRICT SHARE OF TOTAL PROJECT BUDGET		\$72,736,178	\$71,141,153	\$65,915,337	\$64,444,652	\$61,617,016	\$63,630,897	\$63,295,250	\$ <del>62,5</del> 26,459

## Grade 4-5 Cost Scenarios (Page 1/2)

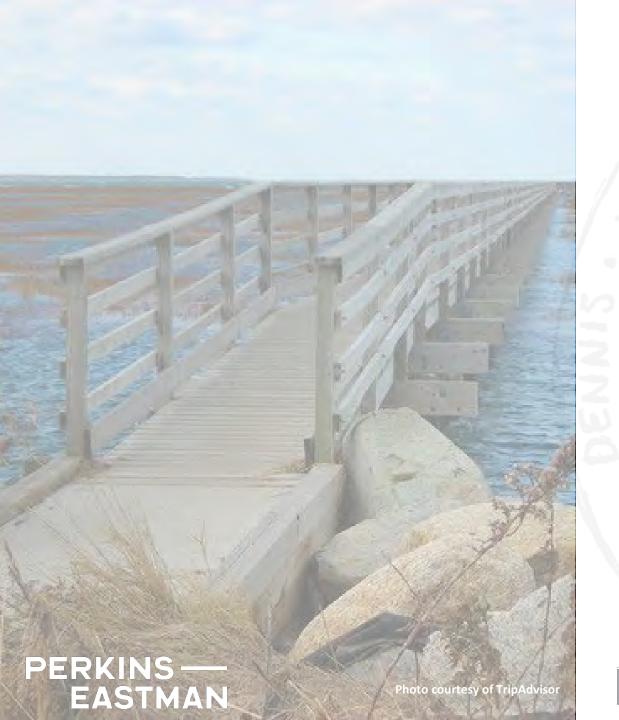
		Wixon Grades 4-5	NOT VIABLE OPTION	UNDER CURRENT
NOT AN MSBA APPROVED SCENARIO				
NOT AN WISDA ATTROVED SCENARIO		Option W-X0	Option W-X1	Option W-X2
DATA IS ROUGH ORDER MAGNITUDE ESTIMATE OF CONCEPTS		Base Repair Code Upgrades Wixon	Fully Renovate Existing Wixon 4-5	New Construction Wixon 4-5
	TOTAL SF:	116,090	116,090	116,090
	L NEW SF:	110,030	110,030	116,090
	RENO SF:		58,045	110,000
	EPAIR SF:	116,090	58,045	
New Building Construction Costs @ \$314/SF	314	\$0	\$0	\$36,452,260
Base Repair/Reno Costs @ \$264/SF	264	\$0	\$15,323,880	\$0
Base Repair Costs @ \$150/SF	150	\$17,413,500	\$8,706,750	\$0
Additional Escalation due Wixon (5 years behind MMS @ 5% annually escalation = 27.6% premium)	0.276	\$4,806,126	\$6,632,454	\$10,060,824
Remove Hazardous Materials (FROM PM&C BASE REPAIR ESTIMATE!!)		\$1,216,400	\$1,216,400	\$1,216,400
Demolish Existing Building (HIGH LEVEL BALLPARK ESTIMATE!!) Need Discussion		\$0	\$0	\$750,000
Selective Demolition of Existing Building (FROM BASE REPAIR ESTIMATE)		\$897,927.00	\$897,927.00	
Soils Remediation (HIGH LEVEL BALLPARK ESTIMATE!!)		\$68,750.00	\$68,750.00	\$68,750.00
Septic System or WWTP (HIGH LEVEL BALLPARK ESTIMATE!!)		\$451,587.00	\$451,587.00	\$451,587.00
Relocation of Garage and Storage (HIGH LEVEL BALLPARK ESTIMATE!!)				
Solar Array Relocation Allowance (HIGH LEVEL BALLPARK ESTIMATE!!)		\$0.00	\$0.00	\$0.00
Sitework @ 10% for Renovations/Repairs	0.1	\$1,741,350	\$2,403,063	\$0
Sitework @ 12% for New	0.12	\$0	\$0	\$4,374,271
Sub-Total		\$26,595,640	\$35,700,811	\$53,374,092
General Conditions (8% for D-B-B)	0.08	\$2,127,651.20	\$2,856,064.87	\$4,269,927.36
CMAR Premium for Reno & Add/Reno (9%: 3% CMAR Contingency + 6% GCs)	0.09	\$2,393,608	\$3,213,073	\$0
Phasing Premium (3% for Reno)	0.03	\$797,869	\$1,071,024	\$(
Escalation (captured in SF costs above)		-	-	
Sub-Total		\$31,914,768	\$42,840,973	\$57,644,019
General Requirements (2%)		Incl in GC/OH	Incl in GC/OH	Incl in GC/OF
Sub-Total		\$31,914,768	\$42,840,973	\$57,644,019
Bonds (1%)	0.01	\$319,147.68	\$428,409.73	\$576,440.19
Insurance (1.3%)	0.013	\$419,040.90	\$562,501.98	\$756,865.97
Permit (Assumes Fees Waived)		-	-	
Sub-Total Sub-Total		\$32,652,957	\$43,831,885	\$58,977,325
Design Contingency (10% on new construction)	0.1	\$3,265,295.66	\$4,383,188.48	\$5,897,732.5
Design Contingency Premium for Reno & Add/Reno (2% premium)	0.02	\$653,059.13	\$876,637.70	\$0.00
Pricing Contingency (3%)	0.03	\$1,097,139.34	\$1,472,751.33	\$1,946,251.7
Total Construction Cost		\$37,668,451	\$50,564,462	\$66,821,310

## Grade 4-5 Cost Scenarios (Page 2/2)

		Wixon Grades 4-5	NOT VIABLE OPTION	UNDER CURRENT
NOT AN MSBA APPROVED SCENARIO		Option W-X0	Option W-X1	Option W-X2
DATA IS ROUGH ORDER MAGNITUDE ESTIMATE OF CONCEPTS		Base Repair Code Upgrades Wixon	Fully Renovate Existing Wixon 4-5	New Construction Wixon 4-5
PROJECT SOFT COST DATA IS BASED UPON PERCENTAGE OF CONSTRUCTION COSTS FOR ALL OPTIONS				
PROJECT SOFT COSTS (ROUGH ORDER MAGNITUDE)		\$9,683,690	\$12,262,892	\$13,464,26
Reimbursable Soft Cost Allowance per MSBA (20% of Construction Costs)		\$7,533,690		\$13,364,26
FF&E and IT Allowance @ \$1200/student each (Incl Above)		-	710,112,032	713,304,202
OPM Costs (Incl Above)		_	_	
Architect / Engineering Fees (Incl Above)		-	_	
Legal Fees, Owner / Architect Subconsultants & Testing Costs (Incl Above)		-	_	
Utilities Allowance (Incl Above)		-	_	
Movers Allowance (Est)		\$150,000	\$150,000	\$100,000
Swing Space Allowance (Est)		\$2,000,000		7100,000
Total Project Cost		\$47,352,141		\$80,285,572
Owner Construction Contingency (Est. 6%)	0.06	\$2,260,107.04	ļ	\$4,009,278.59
Owner Soft Cost Contingency (Est. 4%)	0.04	\$387,347.61	\$490,515.70	\$538,570.48
Total Project Budget		\$49,999,596	\$66,351,738	\$84,833,421
"WHAT-IF SCENARIO" - TYPICAL INELIGIBLE COSTS PER MSBA REGS				
Construction Contingency Reimbursement - 2% Max on Reno, 1% Max on New		\$1,506,738.03	\$2,022,578.49	\$3,341,065.49
Owner Contingency Reimbursement - assume 33% of budget eligible		\$255,649.42		\$355,456.5
GMP Contingency Reimbursement - assume 33% of budget eligible		\$1,042,655.47	\$1,399,614.59	\$0.0
Sitework Costs exceeding 8% of Direct Building Cost		\$868,607.00		\$1,978,427.4
Legal Fees - Approximate		\$50,000.00		\$50,000.00
Moving Costs		\$150,000.00		\$100,000.00
Swing Space Costs		\$2,000,000.00		<i>ϕ</i> 100,000.00
Ineligible Abatement Costs (VAT) - Ballpark Estimate Value		\$243,280.00		\$243,280.0
	150400	-	\$2.10,200.00	\$2.15,250.00
Ineligible Construction over Allowable SF and \$326/SF (Grades 6-7)	84305	-\$10,069,930.00	-\$3,452,800.00	\$8,968,830.00
TOTAL POTENTIAL INELIGIBLE COSTS		100% INELIGIBLE		100% INELIGIBLE
POTENTIAL ELIGIBLE COSTS (PRORATED FOR INELIGIBLE COSTS)		\$0	<del> </del>	\$
POTENTIAL REIMBURSEMENT FROM MSBA (reimbursement rates below)		\$0	<u> </u>	\$
44.25% Base Reimbursement Rate (Base Rate Floating Until SD)  5% Renovation Incentive (Pro-rated)		44.25% 0.00%		44.25 0.00
2% Energy Efficiency Incentive	-	2.00%		2.00
1% Maintenance Incentive Assumed (Plug Value)		1.00%		1.00
POTENTIAL DISTRICT SHARE OF TOTAL PROJECT BUDGET		\$49,999,596		\$84,833,420

## Cost Comparisons







## DENNIS-YARMOUTH SCHOOL PROJECT

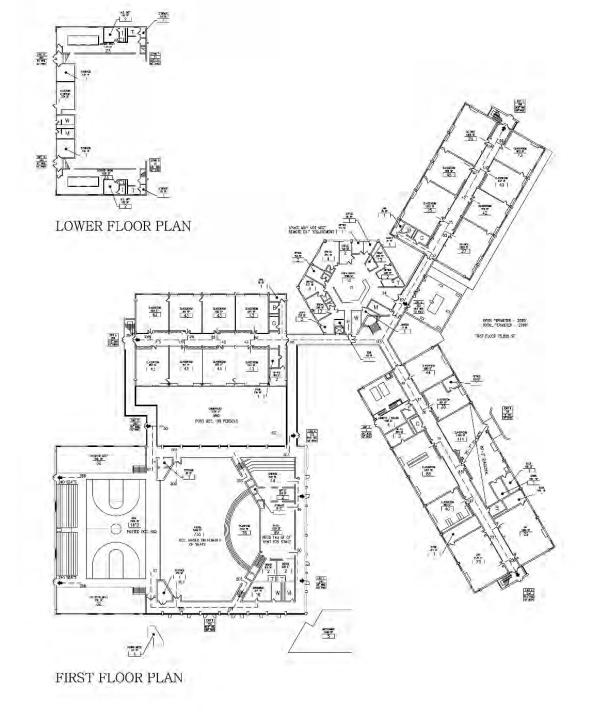
JOINT DENNIS-YARMOUTH BOARD OF SELECTMEN
DYRSD FINANCE COMMITTEE
DYRSD SCHOOL COMMITTEE

November 6, 2017









### BASE REPAIR STUDY - MRO MATTACHEESE REPAIRS (GR. 6-7)

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 = \$43.1m

Est. Project Cost = \$53.9m

**DISTRICT SHARE = \$56.9m** 





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 Irg 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** 





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** 





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

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

**Limited Constraints** 

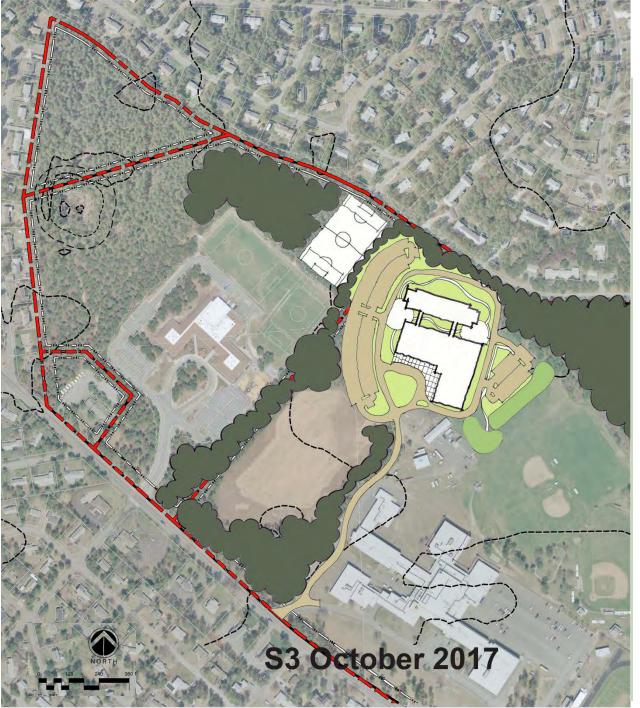
- part Aquafer Protect Distr.
- Wetlands
- Able to satisfy educational program
- Limits impact to school
- Allows use of more cost effective chapter 149 procurement
- Centrally located
- Campus setting
- Tight proximity to residential
- Does not address existing deficiencies at Wixon as outlined in SOI

Est. Constr. Cost = \$46.8m

Est. Project Cost = \$56.2m

**DISTRICT SHARE = \$36.0m** 





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

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

**Limited Constraints** 

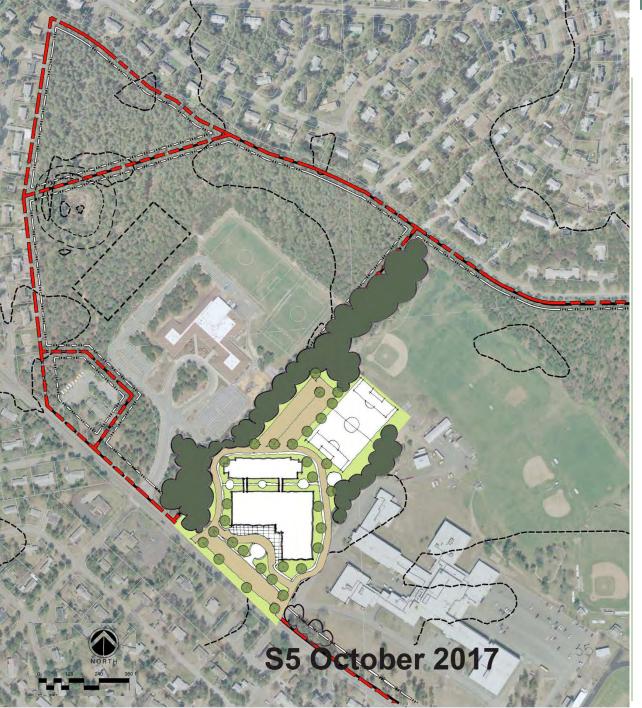
- part Aquafer Protect Distr.
- Wetlands, but not adjacent
- Able to satisfy educational program
- Virtually no impact to school(s)
- Allows use of more cost effective chapter 149 procurement
- Centrally located
- Campus setting; connects to HS + fields
- Does not address existing deficiencies at Wixon 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** 





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** 





MATTACHEESE SITE ADD/RENO (GR. 4-7)

Relatively Flat Site, 70 acres (40 useable, 23 developed)

**Limited Constraints** 

- Aquafer Protection Distr.
- Adjacent Wetland
- Able to satisfy educational program
- Reuses existing Irg gym and auditorium located near fields (outdoor theater)
- Limits impact to school
- Develops previously disturbed areas
- Does address existing deficiencies at Wixon as outlined in SOI
- Limits use of more cost effective chapter 149 procurement
- Not centrally located

Est. Constr. Cost = \$96.2m

Est. Project Cost = \$115.5m

**DISTRICT SHARE = \$72.7m** 





MATTACHEESE SITE ALL NEW (GR. 4-7)

Relatively Flat Site, 70 acres (40 useable, 25 developed)

**Limited Constraints** 

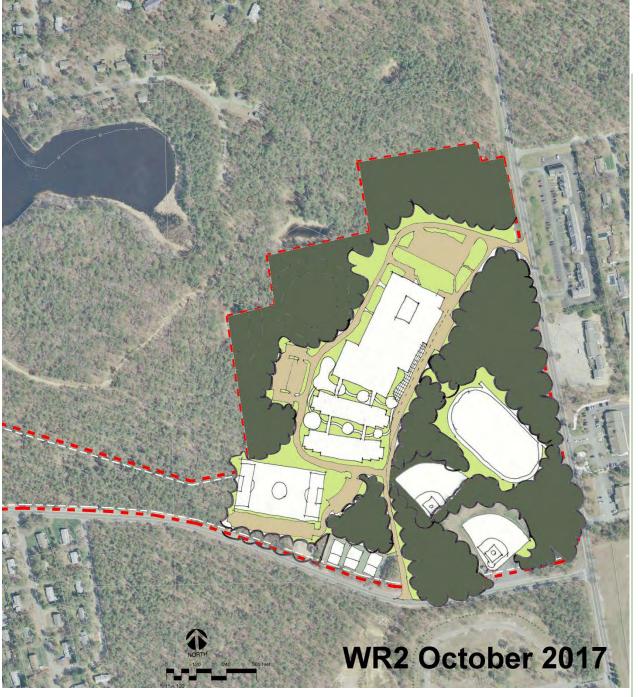
- Aquafer Protection Distr.
- Adjacent Wetland
- Able to satisfy educational program
- Virtually no impact to school
- Allows use of more cost effective chapter 149 procurement
- Does address existing deficiencies at Wixon as outlined in SOI
- Will require demolition of existing buildings Should be reimbursable
- Not centrally located

Est. Constr. Cost = \$85.8m

Est. Project Cost = 103.1m

**DISTRICT SHARE = \$66.0m** 





WIXON SITE ADD/RENO (GR. 4-7)

Partial Sloping Site, 34.4 a (30 useable, 17 developed)

**Several Constraints** 

- Wellhead Protection Distr
- Old King Highway Historic
- Adjacent Wetlands
- Able to satisfy educational program
- Access to bikeway, existing playground
- Not centrally located
- More disruptive to school than other options

Est. Constr. Cost = \$94.2m

Est. Project Cost = \$113.1m

**DISTRICT SHARE = \$71.1m** 



WIXON SITE ALL NEW (GR. 4-7)

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

**Several Constraints** 

- Wellhead Protection Distr
- Old King Highway Historic
- Adjacent Wetlands
- Able to satisfy educational program
- Access to bikeway, existing playground
- Limits impact to school
- Allows use of more cost effective chapter 149 procurement
- Not centrally located

Est. Constr. Cost = \$84.4m

Est. Project Cost = \$101.3m

**DISTRICT SHARE = \$64.4m** 





STATION AVE. SITE ALL NEW (GR. 4-7)

Relatively Flat Site, 148 acre (57 useable, 21 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

Est. Constr. Cost = \$81.0m

Est. Project Cost = \$97.3m

**DISTRICT SHARE = \$61.6m** 



STATION AVE. SITE ALL NEW (GR. 4-7)

Relatively Flat Site, 148 acre (57 useable, 24 developed)

**Limited Constraints** 

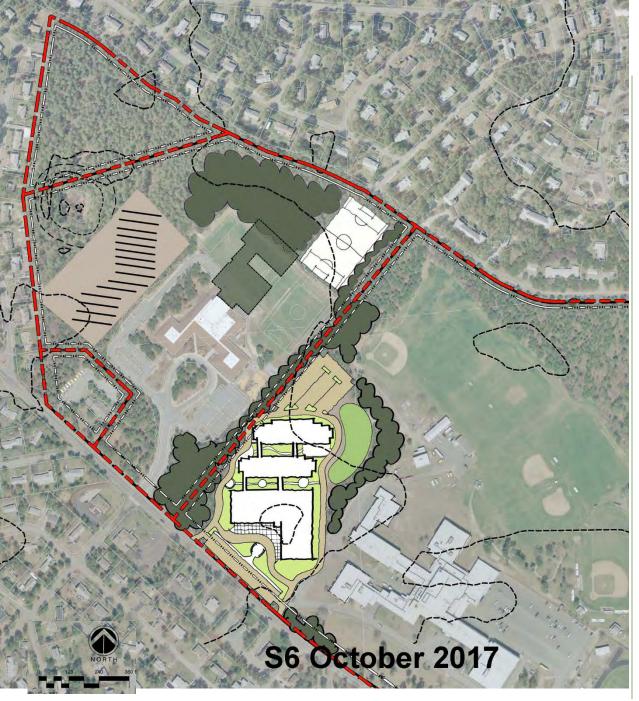
- part Aquafer Protect Distr.
- Wetlands, but not adjacent
- Able to satisfy educational program
- Limits impact to schools
- Allows use of more cost effective chapter 149 procurement
- Does address existing deficiencies at Wixon as outlined in SOI
- Centrally located
- Tight to existing maintenance buildings
- Loss of athletic field

Est. Constr. Cost = \$82.9m

Est. Project Cost = \$99.5m

**DISTRICT SHARE = \$63.6m** 





STATION AVE. SITE ALL NEW (GR. 4-7)

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

Est. Constr. Cost = \$82.5m

Est. Project Cost = \$99.2m

**DISTRICT SHARE = \$63.3m**