

Acton Boxborough Regional School District
Master Plan – Phase 1: Site & Building Assessments



Final Presentation: Phase 1

4 February 2016

Agenda

- **Scope, Process and Schedule**
- **Existing Conditions Overview**
- **Capital Improvement Plan (CIP)**
 - **What is it? How is it Used?**
 - **Cost Estimates**
- **Next Steps: Phase 2**
- **Questions**



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Site and Building Assessment

Scope

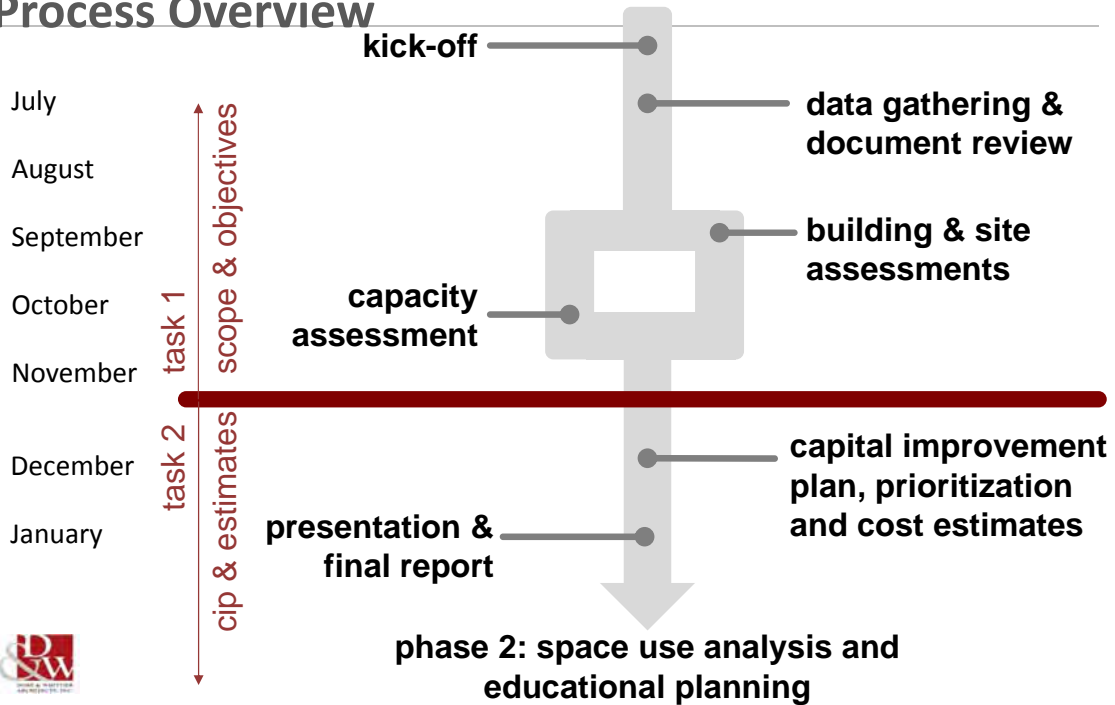
Phase 1: Physical Condition

- Evaluate the physical condition of each building and site
- Document – narratively and with photographs
- Provide Recommendations
- Sort into categories and prioritization
- Provide cost estimates



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Process Overview



School Buildings Evaluated



R.J. Grey Jr. High School



Parker Damon



Blanchard



Acton-Boxborough Regional High School



Admin Building



Conant



Gates



Douglas

Existing Conditions Overview

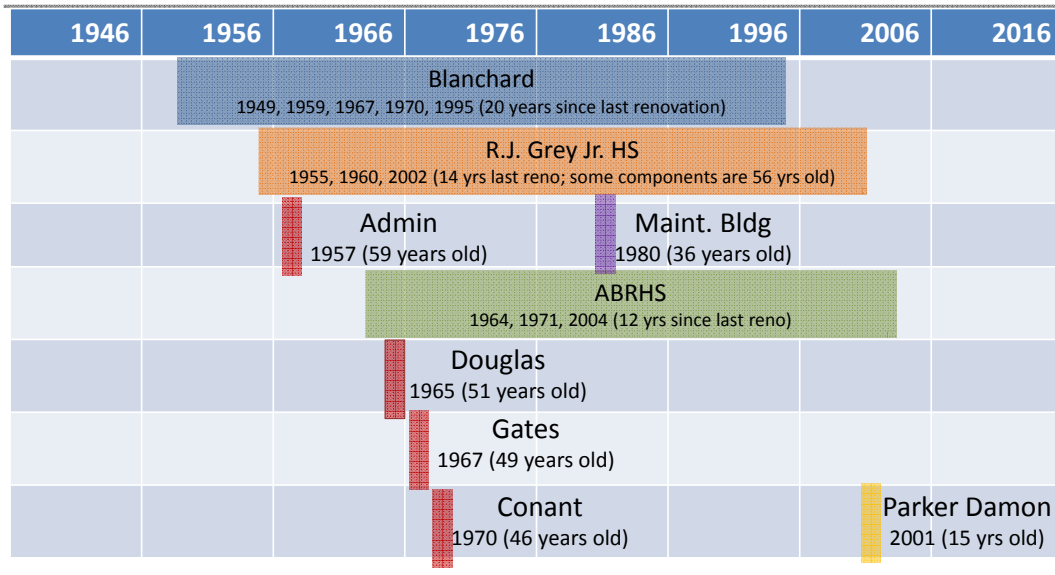
- Codes have changed significantly over the past 60 years:
 - fire and life safety
 - handicap accessibility
 - ventilation
 - energy and water efficiency

- Building infrastructure systems and components can be expected to last 25 to 35 years before needing replacement.

- District has been doing an excellent job performing annual maintenance with in-house staff to extend the life of buildings.



Age of Buildings and Renovations



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Capital Improvement Plan – What is it?

- Prioritized needs** per building in categories of :
 - “immediate needs” = 1 – 2 years
 - “short term needs” = 3 – 6 years
 - “long term needs” = 7 + years
- Estimate Cost for **replacement** or **repair** of items noted in the CIP



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Capital Improvement Plan

Category	Description	2016	2017	2018	2019	2020
1 Health, Safety & Welfare						
1.01	Remove and replace fire alarm system in its entirety.	\$102,698	\$10,270	\$10,270	\$20,540	\$143,777
1.02	Provide proper ventilation, climate control, and acoustic separation to all teaching and office spaces currently in intended storage areas.	\$273,961	\$27,396	\$27,396	\$54,772	\$383,405
1.03	Patch and repair roof as needed (short term). Provide test cuts in roofing to confirm thickness and type of insulation, and to verify if any existing roofing exists below membrane. Test samples for hazardous materials. Perform structural analysis of roof structure and snow loading. For estimating purposes, remove existing membrane roofing and insulation down to deck and replace with tapered insulation (R-30 continuous MIL) and new roofing membrane, roof drains and fascia.	\$25,000	\$2,500	\$2,500	\$5,000	\$35,000
1.04	Patch and repair failed flashing at roof chimney.	\$1,013,357	\$101,336	\$101,336	\$202,671	\$1,418,700
1.05		\$10,000	\$1,000	\$1,000	\$2,000	\$14,000
	SUB-TOTALS	\$1,424,916	\$142,492	\$142,492	\$284,983	\$1,994,882
2 Code Compliance (Items not noted above)						
2.01	Remove and replace interior doors, borrowed lights and frames with fire-rated type to meet code.	\$228,218	\$22,822	\$22,822	\$45,644	\$319,505
	SUB-TOTALS	\$228,218	\$22,822	\$22,822	\$45,644	\$319,505
3 Functional Use of Building (Impact on Learning - below MSBA standards)						
3.01	Remove and replace built-in casework.	\$228,218	\$22,822	\$22,822	\$45,644	\$319,505
	SUB-TOTALS	\$228,218	\$22,822	\$22,822	\$45,644	\$319,505
4 Handicap Accessibility (includes only items not noted above)						
4.01	Remove and replace inaccessible classroom and teacher work room sinks. (see 5.01)	\$0	\$0	\$0	\$0	\$0
	SUB-TOTALS	\$0	\$0	\$0	\$0	\$0
5 Maintenance - Extending the Life of the Building (includes only items not noted above)						
5.01	Remove and replace built-in casework.	\$228,218	\$22,822	\$22,822	\$45,644	\$319,505
	SUB-TOTALS	\$228,218	\$22,822	\$22,822	\$45,644	\$319,505
6 Energy Efficiency / Energy, Water Saving (includes only items not noted above)						
6.01	Replace all windows and curtainwall systems with new thermal high-performance windows tuned to building's solar orientation. For estimating purposes, use commercial grade-curtainwall system (similar to EFCO X-Therm).	\$912,870	\$91,287	\$91,287	\$182,574	\$1,278,018
	SUB-TOTALS	\$912,870	\$91,287	\$91,287	\$182,574	\$1,278,018
7 Hazardous Materials Abatement						
7.01	UEC Abatement Estimate	\$1,075,000	\$107,500	\$107,500	\$215,000	\$1,305,000

- Divided into Categories
- Itemized
- Prioritized
- Includes estimates for General Conditions, Overhead & Profit, Contingencies, A/E fees and all project-related expenses



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Immediate Needs 1-2 years (2016-2018)

1. Health, Safety and Welfare

- Potential Indoor Air Quality
- Poor Electrical Devices
- Structural Issues of Concern
- Life Safety Concerns
- Poor Site Circulation
- Roofing Concerns

2. Code Compliance

- Issues not in compliance with CURRENT Codes

3. Functional Use of Building

- Programmatic / space analysis of existing facilities done on a limited basis

4. Handicap Accessibility

- Accessibility to the building and site per ADA & MAAB requirements

5. Maintenance-Extend Life of Building

- Deterioration of fixtures, finishes, and building systems

6. Energy Efficiency

- Mechanical, Electrical & Plumbing Systems
- Building Envelope

7. Hazardous Materials

- Materials in poor condition or that need to be abated or removed per code
- Materials that need to be abated at the time of renovation or demolition



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Short Term Needs 3-6 years (2019-2022)

- 1. **Health, Safety and Welfare**
 - Potential Indoor Air Quality
 - Poor Electrical Devices
 - Structural Issues of Concern
 - Life Safety Concerns
 - Poor Site Circulation
- 2. **Code Compliance**
 - Issues not in compliance with CURRENT Codes
- 3. **Functional Use of Building**
 - Programmatic / space analysis of existing facilities done on a limited basis
- 4. **Handicap Accessibility**
 - Accessibility to the building and site per ADA & MAAB requirements
- 5. **Maintenance – Extend Life of Building**
 - Deterioration of fixtures, finishes, and building systems
- 6. **Energy Efficiency**
 - Mechanical, Electrical & Plumbing Systems
 - Building Envelope
- 7. **Hazardous Materials**
 - Materials in poor condition or that need to be abated or removed per code
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Long Term Needs 7+ years (2023-beyond)

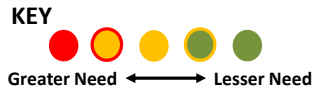
- 1. **Health, Safety and Welfare**
 - Potential Indoor Air Quality
 - Poor Electrical Devices
 - Structural Issues of Concern
 - Life Safety Concerns
 - Poor Site Circulation
- 2. **Code Compliance**
 - Issues not in compliance with CURRENT Codes
- 3. **Functional Use of Building**
 - Programmatic / space analysis of existing facilities done on a limited basis
- 4. **Handicap Accessibility**
 - Accessibility to the building and site per ADA & MAAB requirements
- 5. **Maintenance**
 - Deterioration of fixtures, finishes, and building systems
- 6. **Energy Efficiency**
 - Mechanical, Electrical & Plumbing Systems
 - Building Envelope
- 7. **Hazardous Materials**
 - Materials in poor condition or that need to be abated or removed per code
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District Wide Overview

	ABRHS 1964, 1971, 2004	RIG-JHS 1955, 1960, 2002	Parker Damon 2001	Douglas 1965	Gates 1967	Conant 1970	Blanchard 1949, 1959, 1967, 1970, 1995	Admin 1957	Maintenance 1980's
Health, Safety & Welfare									
Code Compliance									
Functional Use									
Handicap Accessibility									
Maintenance									
Energy Efficiency									
Hazardous Materials									



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Capital Improvement Plan – How is it used?

- “Living-Breathing” Document
- “Big Picture” Budget
- Recommendations for Capital Improvements as well as on-going maintenance
- Some items can be addressed by “In-house” District Staff, resulting in significant cost savings



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Capital Improvement Plan – How is it used?

- ❑ Due to the conceptual nature and the complexity of existing conditions:
 - multiple solutions are possible
 - detailed analysis of specific projects is recommended
 - some work may trigger additional scope



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Capital Improvement Plan – Considerations

- ❑ Possible Code Triggers:
 - Handicap Accessibility
 - Seismic / Structural Upgrades
 - Fire Protection (Sprinklers)



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Capital Improvement Plan – Considerations

- Handicap Accessibility
 - where the cost of the work amounts to **30% or more** of the assessed value of the building then the entire building is required to comply.
 - where the cost of the work amounts to \$100,000 then an accessible entrance and restroom must be provided



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Capital Improvement Plan – Considerations

- Seismic / Structural Upgrades
 - if renovations, additions or alterations of an existing building exceed **50% of the aggregate area** of the building then the entire facility must be upgraded to meet current seismic codes.



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Capital Improvement Plan – Considerations

- ❑ Fire Protection (Sprinklers)
 - new buildings over 7,500 sq.ft. are required to have an automatic fire suppression system.
 - for additions to existing buildings that cause the entire building to exceed 7,500 sq.ft. the entire facility must be upgraded to meet current codes.
 - for major alterations to existing buildings that exceed 7,500 sq.ft. the entire facility must be upgraded to meet current codes.



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Capital Improvement Plan – Overview

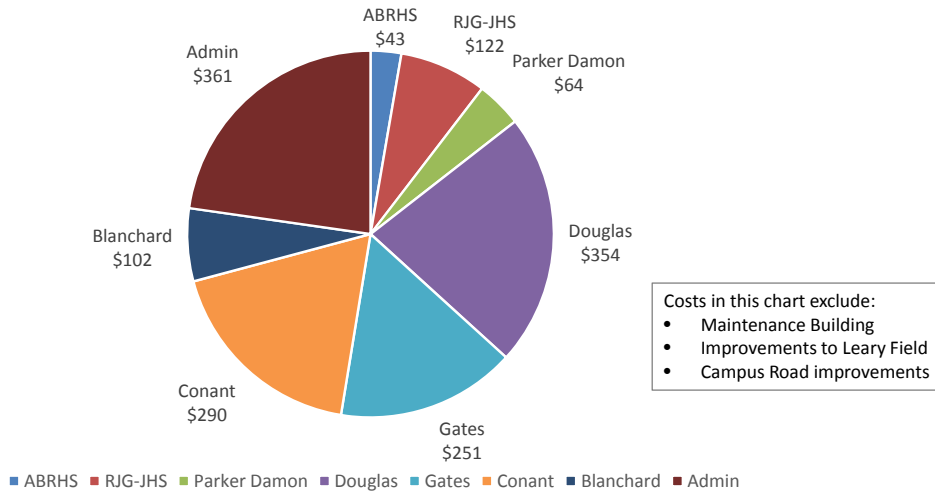
Acton-Boxborough Regional School District Capital Improvements Plan Cost Summary January 15, 2016			
	CIP	Haz Mat	Total
Acton Boxborough Regional HS	\$ 14,067,387	\$ 319,125	\$ 14,386,512
Campus Site and Leary Field	\$ 4,391,250		\$ 4,391,250
RJ Grey Jr HS	\$ 17,744,365	\$ 324,300	\$ 18,068,665
Parker Damon ES	\$ 9,029,801	\$ -	\$ 9,029,801
CT Douglas ES	\$ 16,980,970	\$ 840,248	\$ 17,821,218
Gates ES	\$ 13,578,764	\$ 1,131,773	\$ 14,710,537
Luther Conant ES	\$ 15,953,403	\$ 1,685,670	\$ 17,639,073
Blanchard ES	\$ 7,244,486	\$ 998,775	\$ 8,243,261
Administration Bldg	\$ 12,998,195	\$ 821,100	\$ 13,819,295
Maintenance Building	\$ 2,064,300	\$ 26,738	\$ 2,091,038
Subtotal	\$ 114,052,922	\$ 6,147,728	
		GRAND TOTAL	\$ 120,200,650



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Capital Improvement Plan – Overview

Overview of Cost/SF



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Phase 2 Study Overview

Educational Visioning and Master Plan Study - (Feb - Nov, 2016)

- Define current and future educational needs relating to:
 - 21st century educational models
 - grade configurations
 - desired school size (enrollment)
 - enrollment projections
 - space needs and optimal adjacencies of related programs
- Inclusionary process for staff at all schools, students, parents and community members



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Phase 2 Study Overview

Educational Visioning and Final Master Plan Study - (Feb - Nov, 2016)

- Development and evaluation of conceptual options taking into consideration:
 - capital improvement needs (Phase 1)
 - future educational needs and options (Phase 2)
 - cost estimates
- Options will range from repair only, renovations, renovations/additions, consolidation, new construction
- Development of priority project(s)
- Preparation for a Statement of Interest (SOI) for MSBA consideration



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Phase 2 Study Overview

Determining Optimal Fiscal Value for School District

HYPOTHETICAL EXAMPLE

Results from Phase 1

- Example – Conant Repair = \$17.6M
 - (infrastructure needs only no educational needs) 100% Local Share = \$17.6M

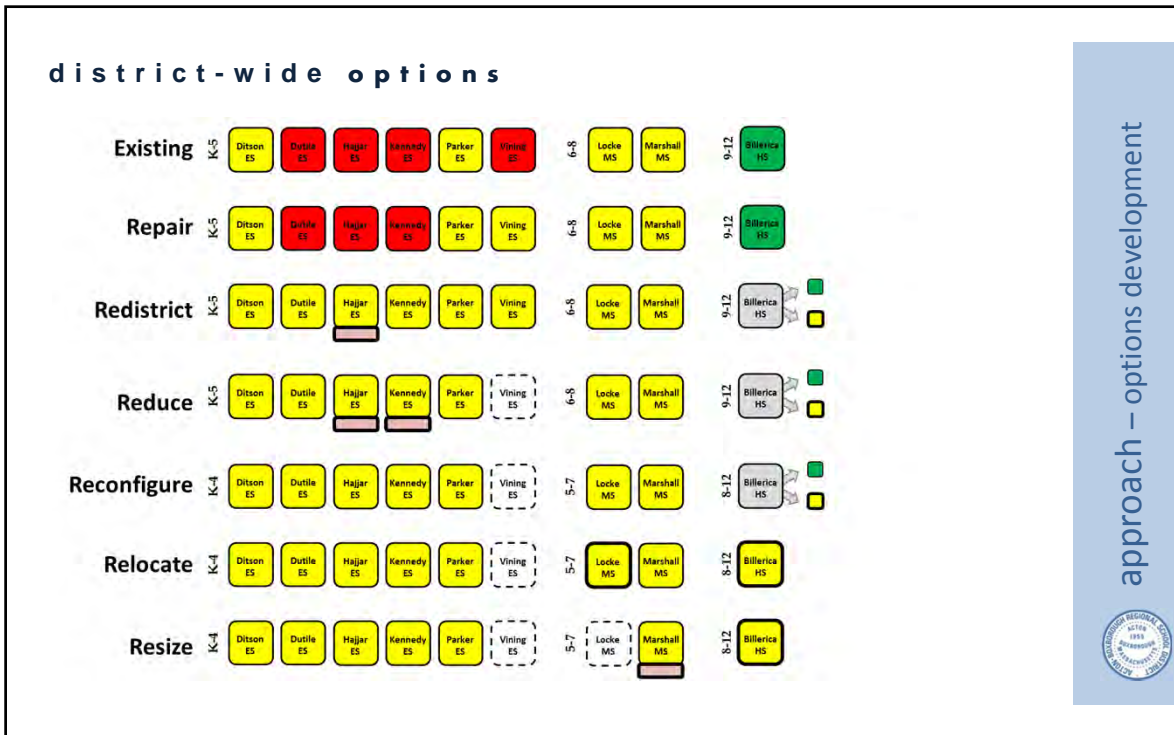
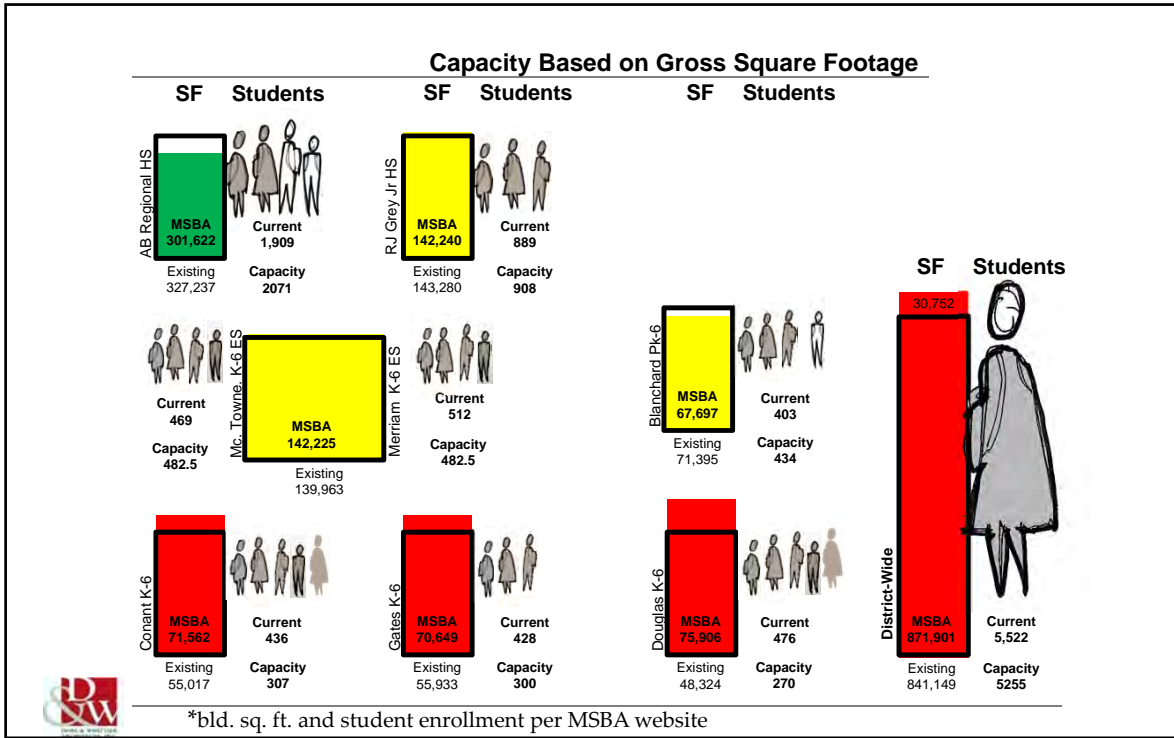
Results from Phase 2

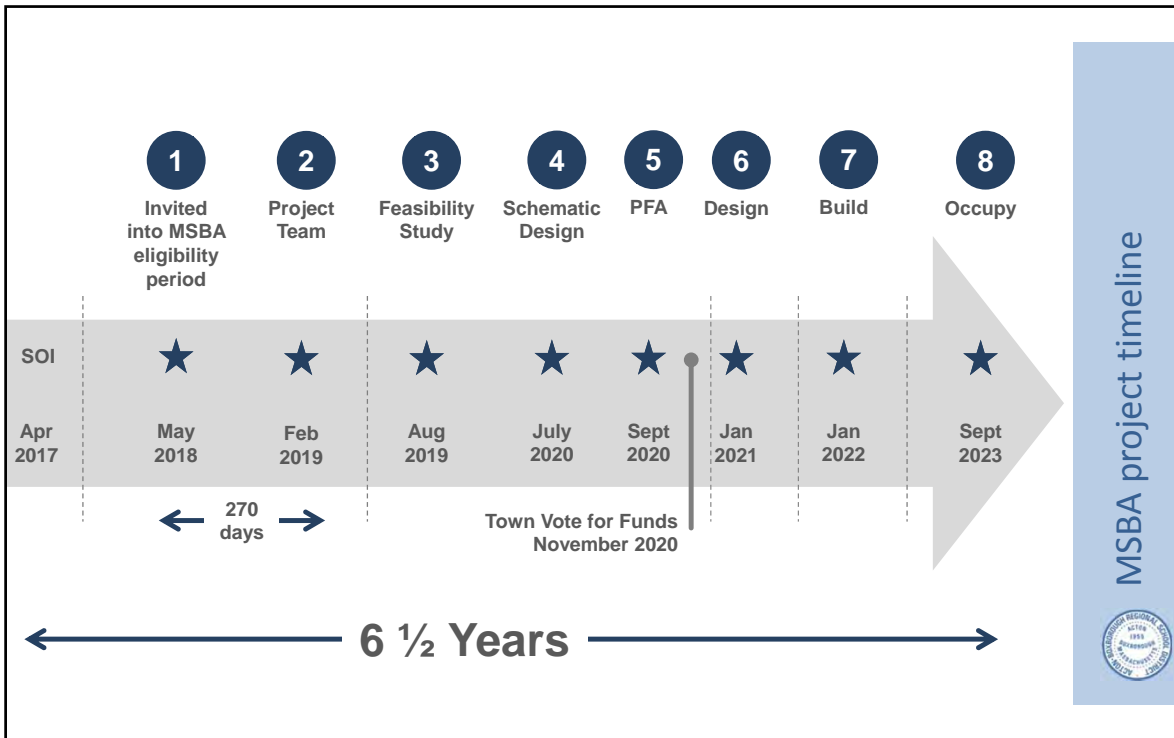
- Example – Conant MSBA project = \$30M (new bldg)
 - (new building, accommodates all educational needs) 50%* Local Share = **\$15M**

* District is confirming actual base reimbursement rate for a potential MSBA project



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Questions, Comments, Reactions



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