

Whitman Middle School

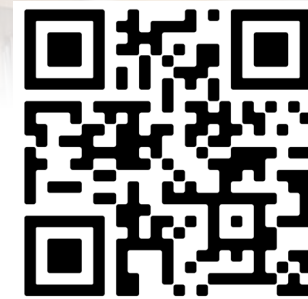
School Building Committee // April 25, 2023

Agenda

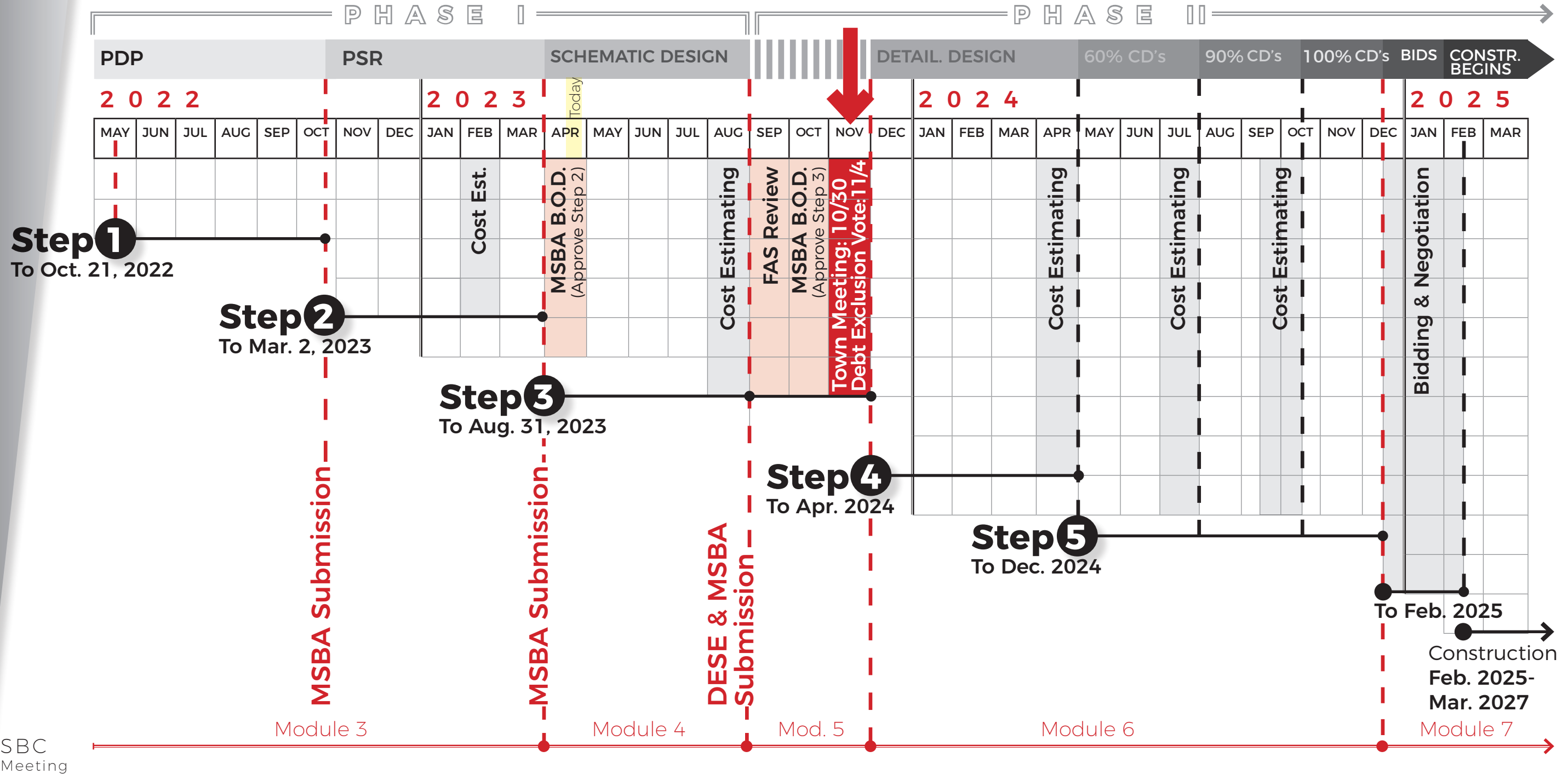
- // Schematic Design (SD) Activities & Milestones
- // SBC Determinations (**VOTE**)
 - / Energy Goals
- // Intro. to Proprietary Items
- // Design Update
- // Upcoming Events

www.wmsproject.org

Whitman Middle School
Project Website

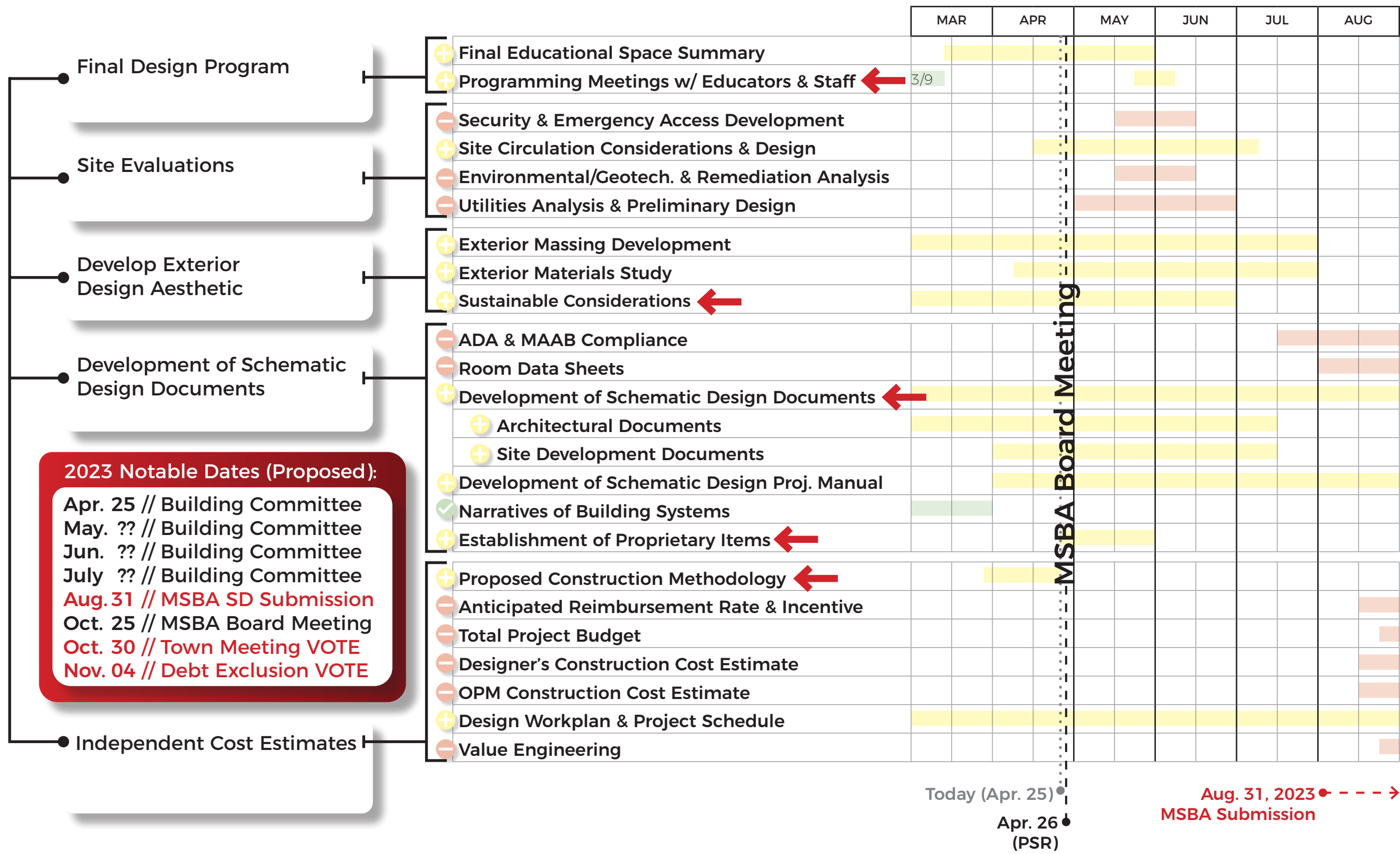


WMS Project Schedule Overview



Step 3 Schematic Design (SD) Submission

Apr. - Oct. 2023



2023 Notable Dates (Proposed):
 Apr. 25 // Building Committee
 May. ?? // Building Committee
 Jun. ?? // Building Committee
 July ?? // Building Committee
Aug. 31 // MSBA SD Submission
 Oct. 25 // MSBA Board Meeting
Oct. 30 // Town Meeting VOTE
Nov. 04 // Debt Exclusion VOTE

Completed
 Initiated
 Pending

Today (Apr. 25) ●
 Apr. 26 ● (PSR)
 Aug. 31, 2023 ● - - - ->
MSBA Submission

School Building Committee Determinations

Selection of Project Delivery Method for Construction:

VOTE

Ch. 149 Design-Bid-Build (DBB)

or

Ch. 149a Construction Manager at Risk (CMr)

Selection of Energy Goal Pathway for Project:

VOTE

Mass Save Path 1

Commitment to a Net Zero & Low EUI Building (EUI of 25 or less)

**\$2.00/sf Incentive* = \$277,208 +
\$1.50/sf Post Occ. Bonus* = \$207,906**

or

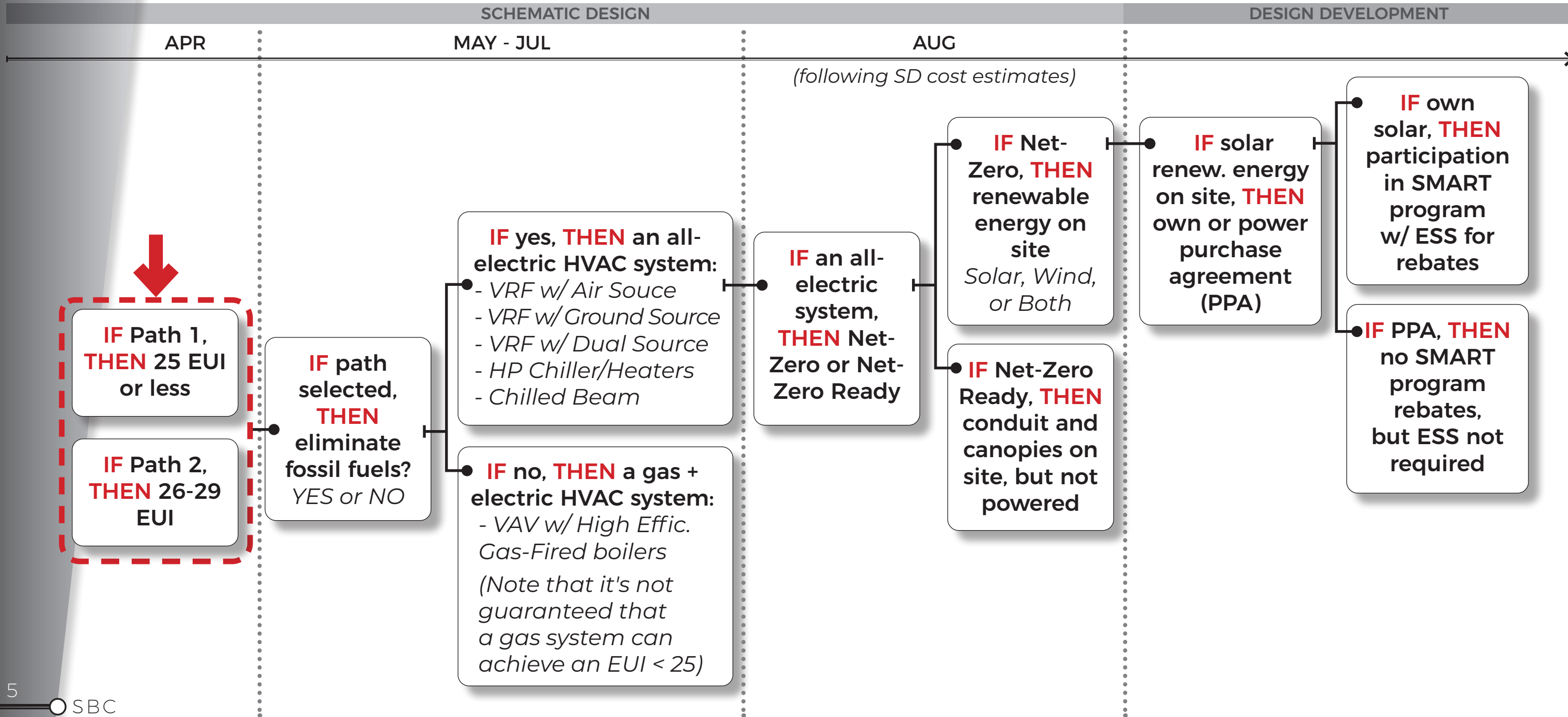
Mass Save Path 2

Commitment to a Reduction in Whole Building EUI (10% reduction)

\$1.25/sf Incentive* = \$173,255

**1-time pay out following construction*

Energy Goals: Decision Making Tree



Life-Cycle Analysis per HVAC System

SAMPLE project with an area of 177,360 sf *

	A	B	C	D	E	F	G	H	I	J	K	L	M
HVAC System	Gross Capital Cost (\$)	Annual Electric Use (kWh)	Annual Gas Use (MBtu)	Annual Electric Cost (\$)	Annual Gas Cost (\$)	Total Utility Cost (\$)	Annual Utility Cost/SF (\$/sf)	Annual EUI (kBtu/sf)	Annual O&M Cost (\$)	15-year Replace. Cost (\$)	Combined Annual Expense (\$)	Combined Expense Savings (\$)	Total Life-Cycle Savings (\$)
VAV with Gas-Fired Boilers <i>Code-Compliant</i>	\$10.6 mil	2,020,046	2865	\$242,405	\$36,501	\$278,456	\$1.57	55.1	\$46,710	\$175,000	\$325,166	-	-
VAV with Gas-Fired Boilers <i>High-Efficiency, Exceeds Code</i>	\$9.1 mil	1,239,201							\$46,000	\$175,000	\$209,118	\$116,048	\$4.6 mil
VRF with Ground-Source Heat Pumps <i>w/ Supplemental Electric Boiler</i>	\$12.2 mil	1,426,301							\$960	\$0	\$208,084	\$117,082	\$3.2 mil
VRF with Ground-Source Heat Pumps	\$12.8 mil	1,409,139	0	\$169,097	\$0	\$169,097	\$0.96	27.2	\$35,460	\$0	\$204,557	\$120,609	\$2.7 mil
VRF with Air-Source Heat Pumps	\$6.6 mil	1,299,531	0	\$155,944	\$0	\$155,944	\$0.88	25.0	\$34,000	\$0	\$189,944	\$135,222	\$4.1 mil

PENDING

WMS Life-Cycle Cost Analysis

**Will be provided at a future SBC meeting;
required determination of EUI goals**

*The above sample project uses values from 2021. A comparative analysis would be conducted specific to WMS using current values.

Introduction to Proprietary Items

WHAT ARE PROPRIETARY ITEMS?

// Descriptions of materials that cite a **specific brand name** such that only one vendor or manufacturer can supply the desired items

// Per M.G.L. c.30, §39M(b), a governmental body must document the reasons [for proprietary items] and provide them in writing (*Refer to the next slide for reference*)

REASONS TO USE:

// The item is **currently used throughout the District** and deviating would create a hardship in the maintenance, training, or use of spare parts inventory currently stored

// Extensive **time, effort, and training** has been invested by the District in the education of staff and personnel on the use of such specific items

// An item has been **deployed as a standard** throughout the District and other Town offices and is required for the seamless integration of other components

// The item offers unique and unmatched advantages for the District in the deployment of **technology** or educational delivery

// It is determined that **no other equal products exist** after the investigation, research, and testing of the selected product was conducted

DISADVANTAGES:

// Can limit competition which can lead to increased prices

Typical Proprietary Items for School Projects:

Door Hardware & Security items:

- // Locks & Key Systems
- // Door Closers
- // Egress Components, like panic devices

Technology items:

- // Security related components such as cameras, access control, and intrusion detection items
- // Video recorders and management system

Life Safety items:

- // Fire Alarm Panel

...any other Items requested by the District?

NEXT STEPS

Proprietary Items will need a **VOTE** by the SBC at a future meeting to be included in the project and SD Submission

Introduction to Proprietary Items

Language from Massachusetts General Law for Reference

PROPRIETARY SPECIFICATIONS UNDER M.G.L. c.149, §§44A-M

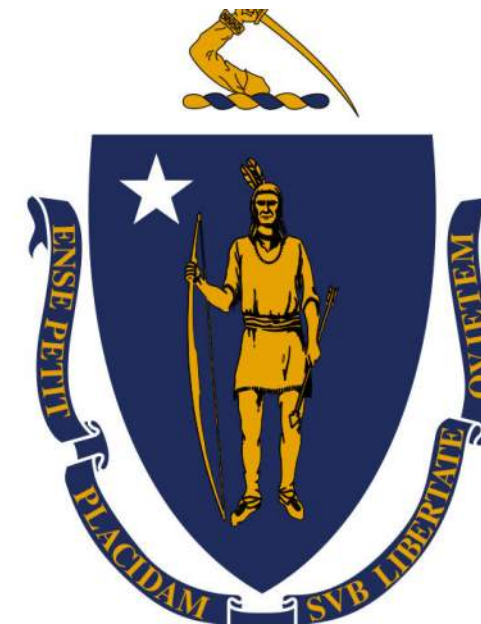
// M.G.L. c.30, §39M(b) requires that proprietary specifications for public construction projects, including buildings, shall only be used “... for sound reasons in the public interest stated in writing in the public records of the awarding authority ... such writing to be prepared after reasonable investigation.” A governmental body must document the reasons and provide them in writing to anyone making a written request for the information. M.G.L. c.30, §39M(b) expressly applies to construction contracts procured under M.G.L. c.149, §§44A-M as well as to construction contracts procured under M.G.L. c. 30, §39M.

// The governmental body therefore has the responsibility for ensuring that a reasonable investigation is conducted before proprietary specifications can be used in an invitation for bids (IFB) for a public construction project.

// Proprietary specifications, while permitted by Massachusetts construction law, may be used only after careful consideration and proper documentation that the use is justified by sound reasons in the public interest.

// There are cases where, after a reasonable investigation, a governmental body concludes that only one acceptable brand of product exists, or that technology has advanced so rapidly that fewer than three brands or manufacturers of a particular material are available in the commercial marketplace.

// The proprietary specifications must still include an “or equal” clause.



Design Update



Round 1 of WMS Staff Programming

Overview of Meetings on March 7-9, 2023

Purpose of Meetings

- // To provide an overview of the current building plan, design, and site layout
- // To understand how the existing educational spaces are being used
- // To understand how to meet occupant needs in the new building
- // To hear directly from staff, educators, and administrators

ADMINISTRATORS:

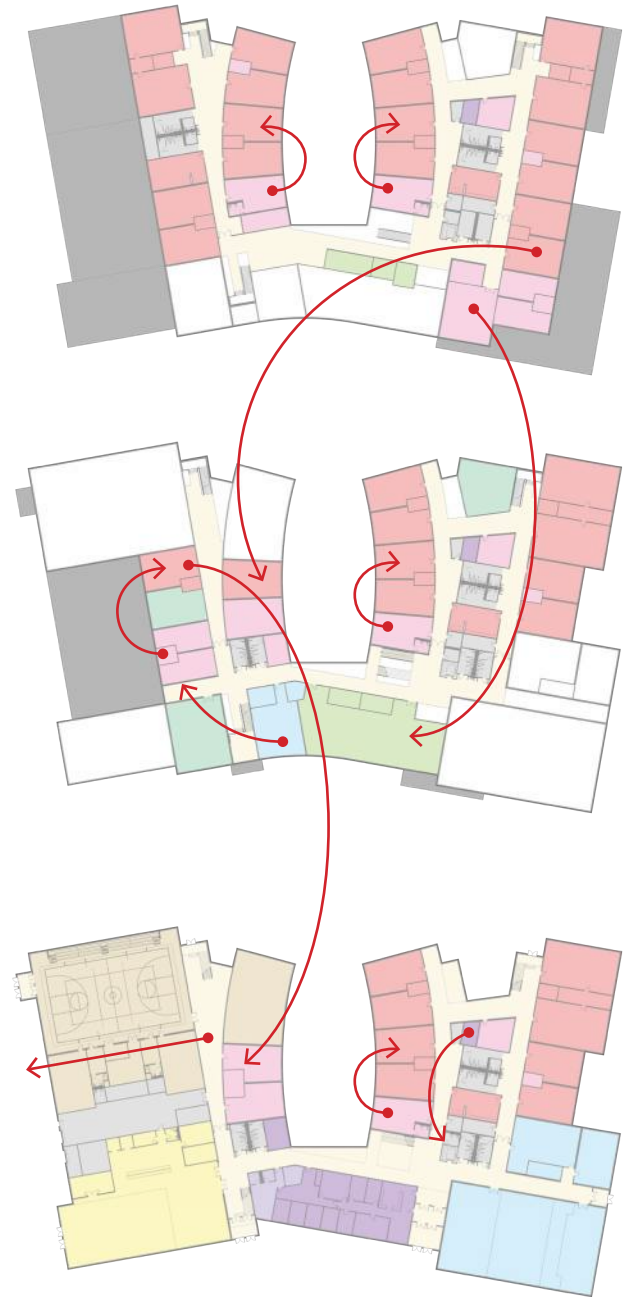
- // Administration
 - / Administrative Assistant
 - / Assistant Principal
 - / Principal
- // Guidance Counselors
- // School Adjustment Counselor
- // School Nurse

BUILDING PERSONNEL:

- // Kitchen & Food Service Staff
- // Custodial Staff
- // Student Resource Officer

EDUCATORS:

- // Grade-Level Teachers
 - / Math
 - / Science
 - / English Language Arts
 - / Social Studies
 - / Grade 5 Teachers
- // English-Language (EL) Teacher
- // Related Arts Teachers
 - / Art
 - / C.I.T.Y.
 - / Physical Education
 - / Music & Band
 - / Intervention
- // S.T.E.A.M. & Tech. Apps. Teachers
- // Special Education Staff and Liasons



Plans used during programming with arrows indicating resulting program shifts

MSBA Review Comments for PSR

Space Summary Impacts per Comments Received on April 3, 2023

Whitman Middle School	Existing Conditions			New			Total			Difference to MSBA Guidelines			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
Teacher Planning/Collaboration				600	4	2,400		4	2,400							

// Of the 2,400 nsf proposed for Teacher Planning/
Collaboration, the MSBA will participate in 2,060 nsf

// Therefore, the 340 nsf in excess will be considered
ineligible for reimbursement

Whitman Middle School	Existing Conditions			New			Total			Difference to MSBA Guidelines			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)				
NON-PROGRAMMED SPACES				% of GFA	46,201	% of GFA	46,201										
Other Occupied Rooms (list separately)				0%		0%											
Music Storage				0%		0%											
Town Bball Storage				0%		0%											
Toilet rooms for changing				0%		0%											
Unoccupied MEP/FP Spaces				0%		0%											
Unoccupied Closets, Supply Rooms & Storage Rooms				0%		0%											
Toilet Rooms				0%		0%											
Circulation (corridors, stairs, ramps & elevators)				0%		0%											
Remaining ³				33%	46,201	33%	46,201										
Total Building Gross Floor Area (GFA) ²			105,004		138,604		138,604			26,264						112,339	
Grossing factor (GFA/NFA)			1.37		1.50		1.50									1.48	

// Categorize Music Storage, Town Bball Storage,
and Toilet Rooms for Changing (for Auditorium
use) as Non-Programmed Spaces

// The resulting shift in the space summary reduces
the overall GSF of the new building



Site & Recreation Coordination

Overview of Meeting on April 13, 2023

REPRESENTATION:

- // Recreation Commission Chairperson
- // Recreation Director
- // Whitman Little League Baseball
- // Whitman-Hanson Softball
- // Whitman-Hanson Youth Soccer
- // Professional Team & SBC Representation

OUTCOME:

// The Rec. Dept. will begin reviewing options for alternative softball (& potentially baseball) fields while WMS is under construction, such as:

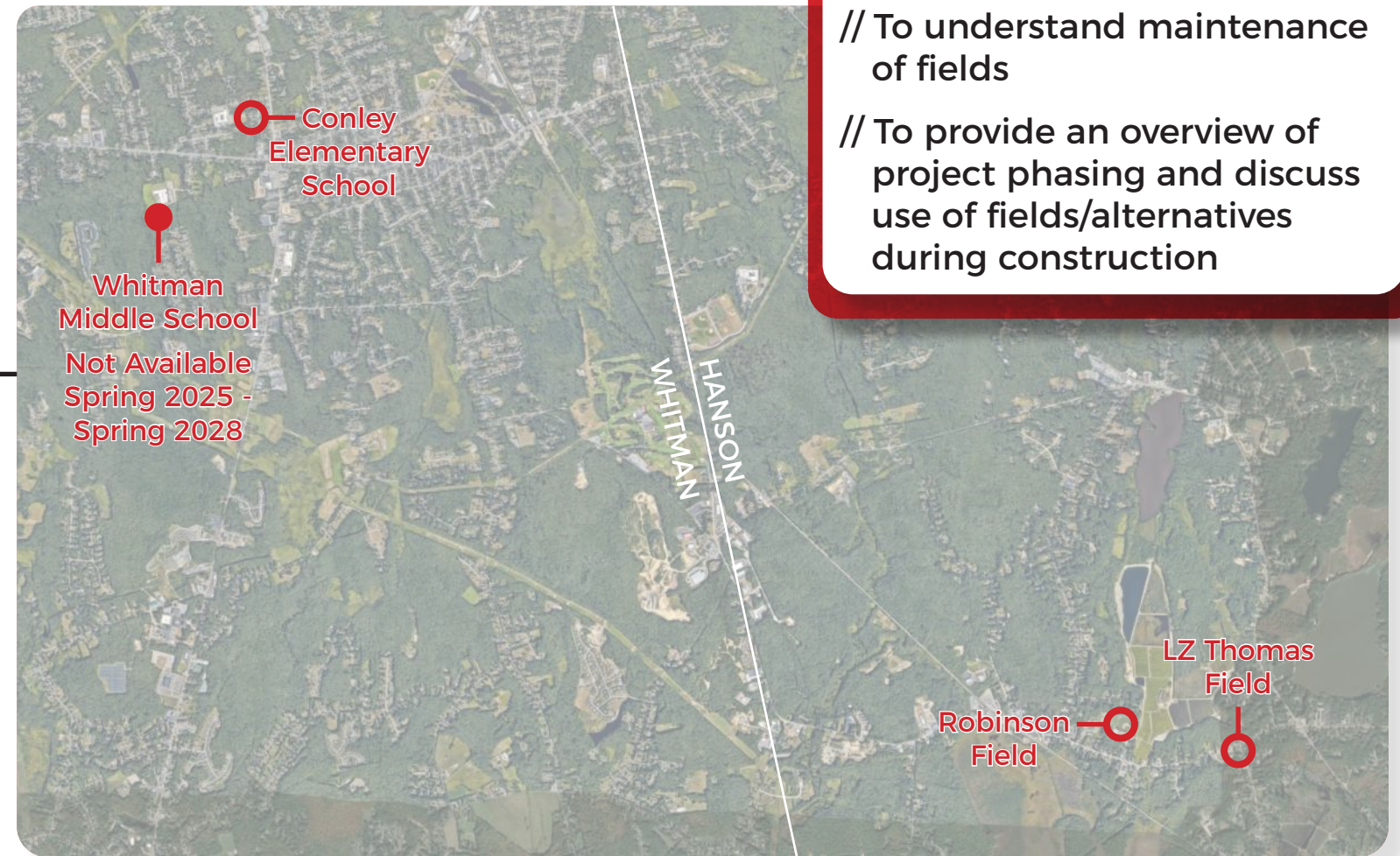
1. Robinson Field
2. LZ Thomas Field
3. Conley ES (using CPC grant funds to reno.)

// As design progresses & phasing is refined, the professional team will coordinate with the Rec. Dept. on when fields will be unavailable

// Other than replacement of the field(s) required during construction, the existing Town athletic fields **do not require** scope within the new WMS project budget

// The SBC should consider action for the existing concession stand:

- / Moving allowance: apx. \$30,000
(included in PSR Estimate)
- / Replacement allowance: apx. \$800,000
(included as an add-alternate in PSR Estimate)

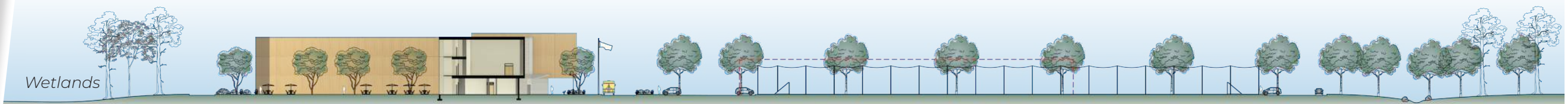


Purpose of Meeting

- // To understand who uses the recreation/athletic fields on the current WMS site and frequency of use
- // To understand maintenance of fields
- // To provide an overview of project phasing and discuss use of fields/alternatives during construction

(3) Alternative Fields for Whitman-Hanson Softball (or Baseball) Use during Project Construction

Whitman MS Preferred Schematic



- Add-Alternate Scope
- Outline of Existing
- Emergency Access
- Parent Drop-off
- Bus Drop-off
- Main Entry



Existing Parking Spaces = 159

Proposed Parking Spaces = 180

13

SBC Meeting



Wetlands

Rain garden

Setback line

Property line

Covered outdoor classroom

Outdoor classroom w/ seating & native planting

Basketball & hardscape play

(1) field included in base bid (space will be needed during construction)

Dumpster w/ enclosure

Re-do (3) Town fields as add-alternate

Outdoor dining w/ fixed tables & chairs

Broom finished concrete

Existing path

Re-located concessions stand

Rain garden

(3) Multi-use fields:

- sod turf, 6" sandy loam soil mix, sand gravel; base to meet grades
- 2" sand silt drains with perforated piping drainage system
- irrigation included

220' x 330'

150' x 210'

180' x 240'

Re-do (1) Town field as add-alternate

Field parking

(1) Multi-use field:

- sod turf, 6" sandy loam soil mix, sand gravel; base to meet grades
- 2" sand silt drains with perforated piping drainage system
- irrigation included

Vehicular barrier gate

Wetlands

20' safety netting w/ split rail fencing

Green Space

150' x 210'

Daylight stream

Outdoor classroom w/ boulder seating, stone dust paving, & cedar shade structure

Preferred Option 9b

New Construction // Grades 5-8 w/ Auditorium

Floor Plan 1



Examples of protected outdoor learning environments



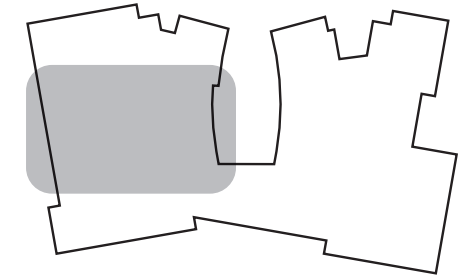
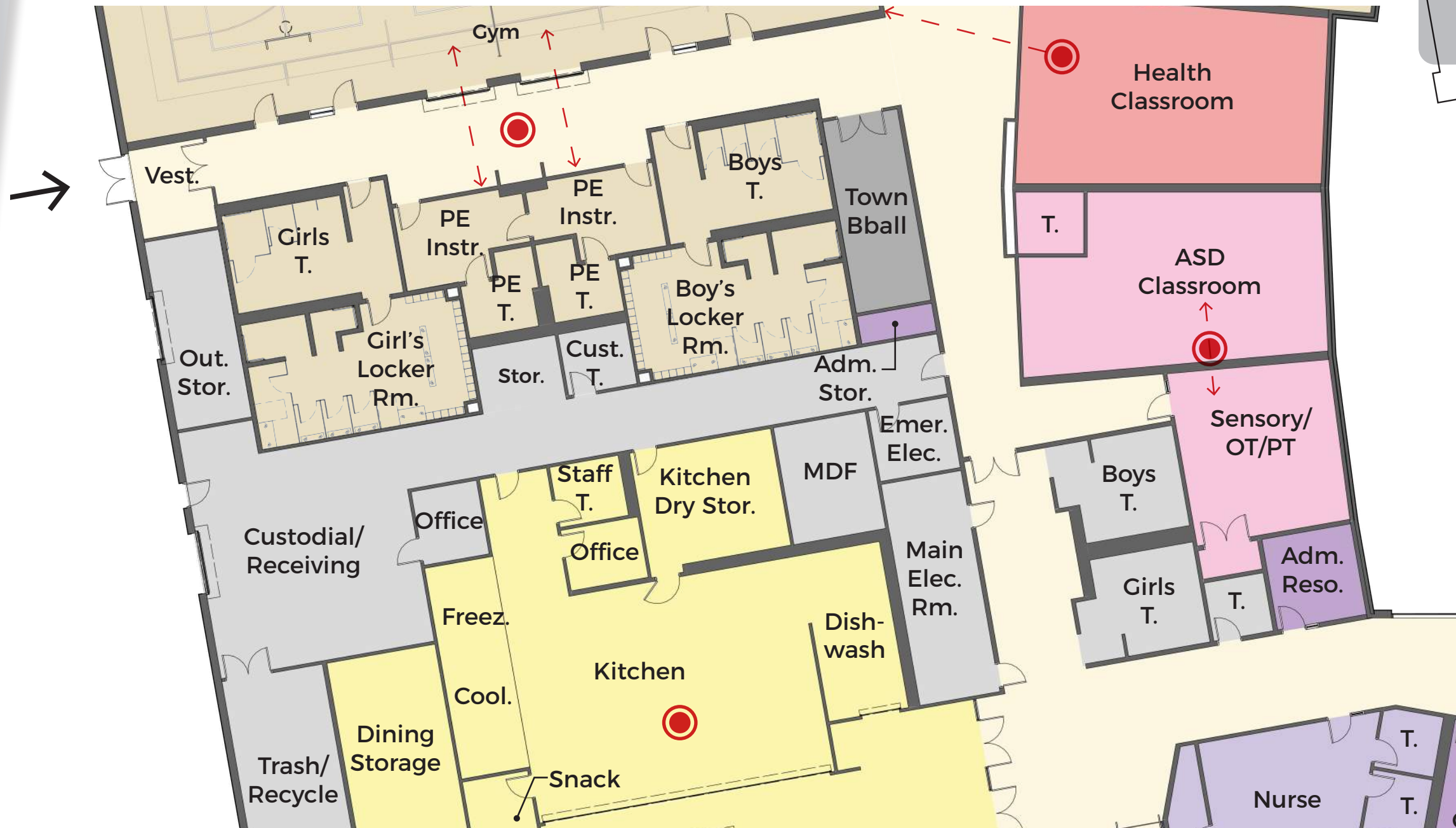
Central common space with upper bridge and direct connection to open courtyard



Preferred Option 9b

New Construction // Grades 5-8 w/ Auditorium

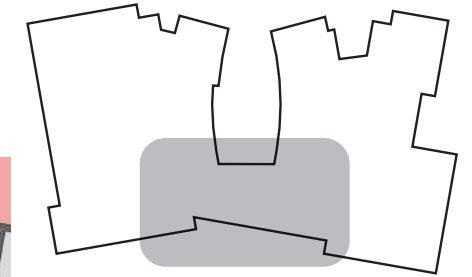
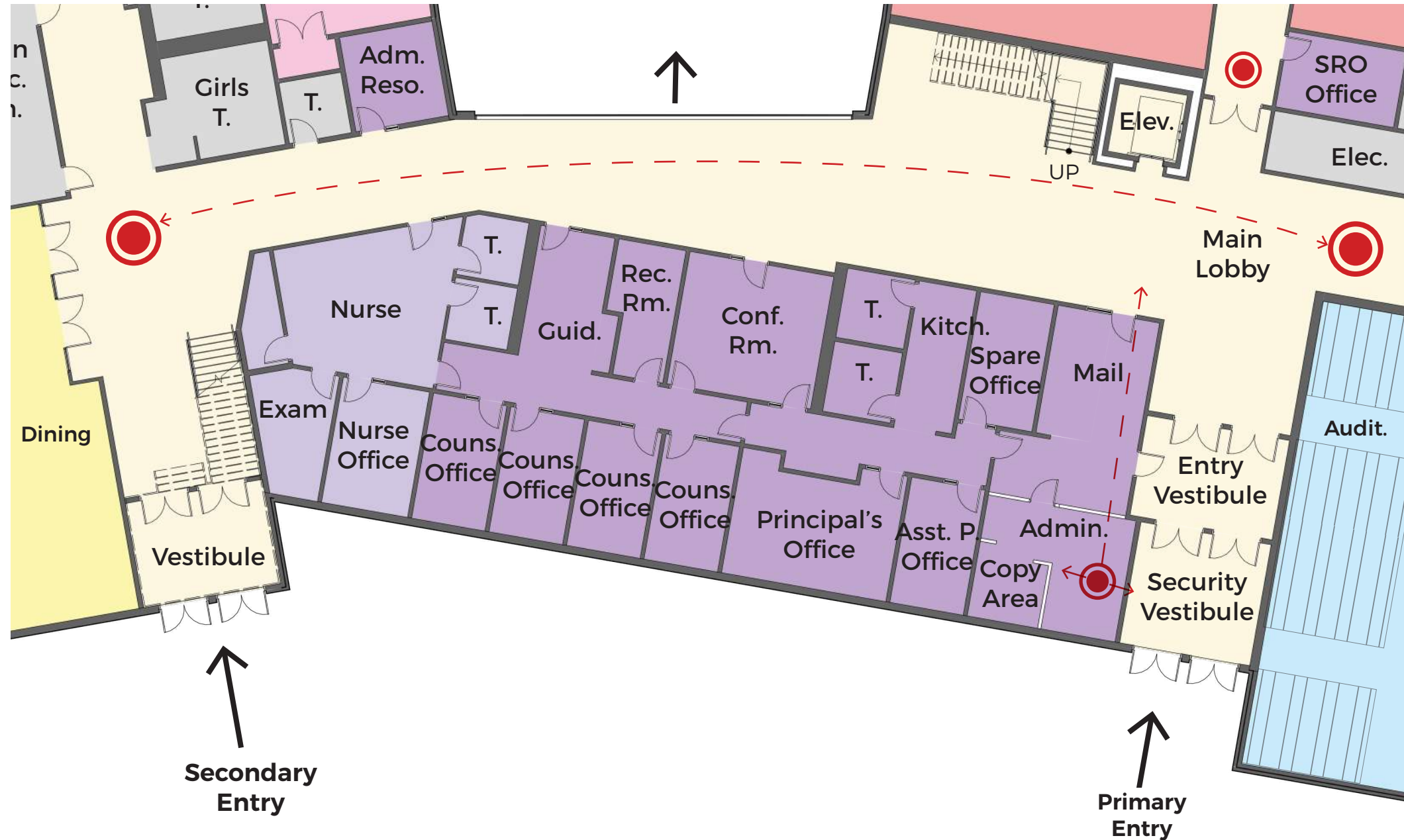
Floor Plan 1



Preferred Option 9b

New Construction // Grades 5-8 w/ Auditorium

Floor Plan 1



Preferred Option 9b

New Construction // Grades 5-8 w/ Auditorium

Floor Plan 2



Examples of built-in open collaboration areas within academic neighborhoods



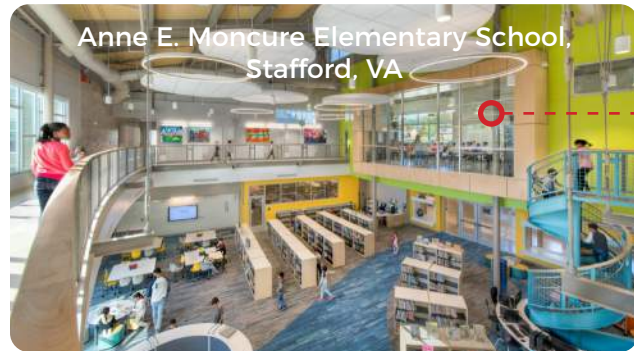
Example of occupiable roof portion



Preferred Option 9b

New Construction // Grades 5-8 w/ Auditorium

Floor Plan 3



Examples of visual connections, like into the media center or centralized resource rooms



Presence and shared use of dining plaza at building corner



Upcoming Events

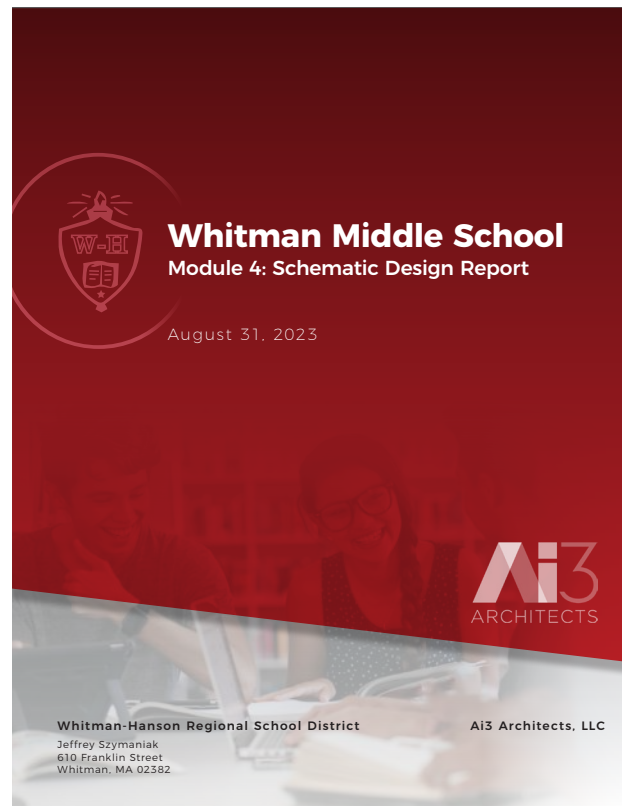
Dates & Content

SD Submission

THURSDAY

AUG 31, 2023

Due to MSBA



Submission of
the Schematic
Design (SD)
Documents,
Project Manual,
& Report

Town Meeting VOTE

MONDAY

OCT 30, 2023

Debt Exclusion VOTE

SATURDAY

NOV 4, 2023



Questions?

Thank you

www.wmsproject.org

**Whitman Middle School
Project Website**

