



Somerville High School

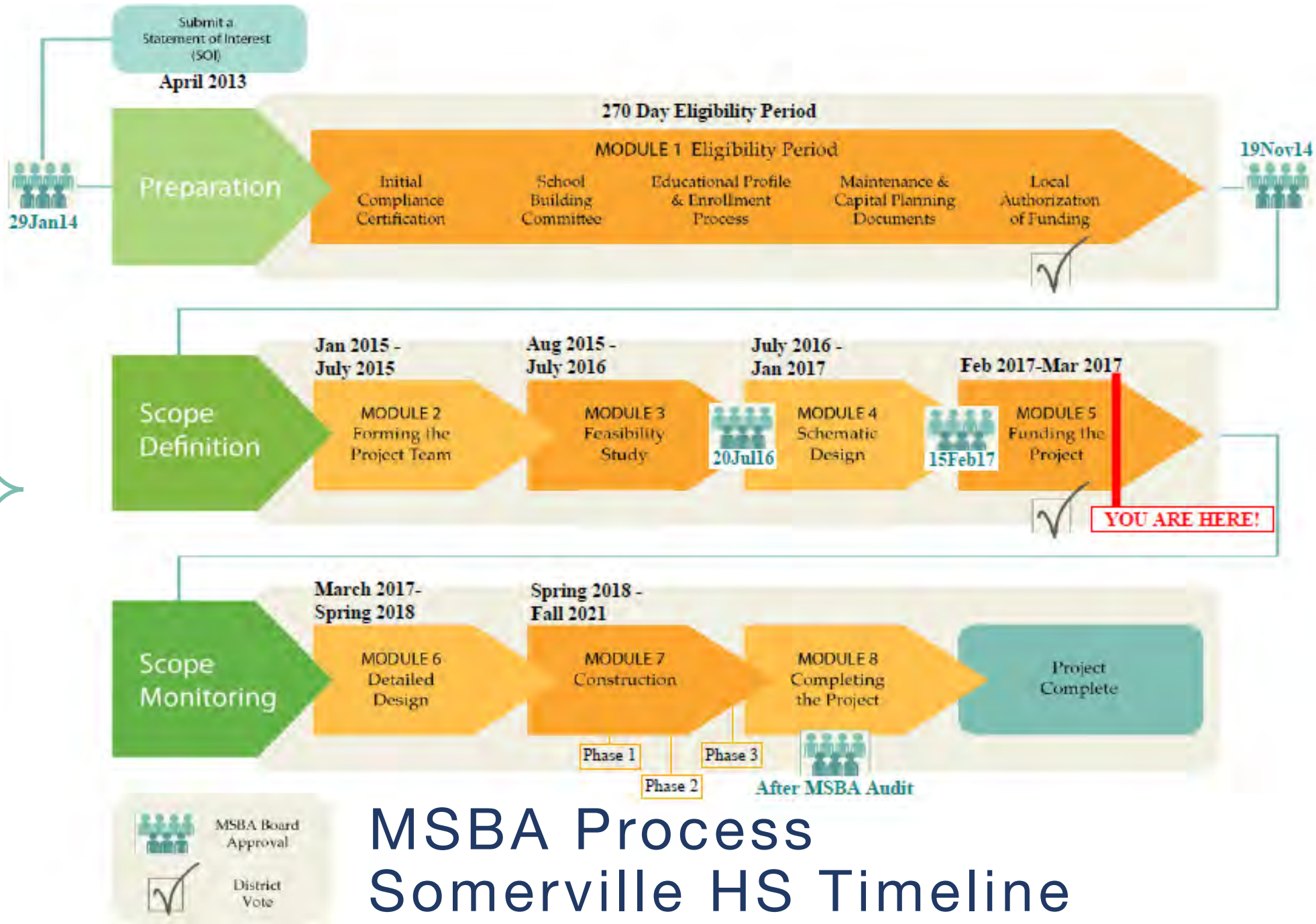
Board of Alderman: Finance Committee Meeting



March 22, 2017

Presentation Agenda

- Introductions
- SHS Timeline
 - Public Process & Approvals
- Central Hill SHS & Site Design
 - Site Plan
- Educational Program and Planning
 - MSBA & DESE Process & Approvals
- Budget, CM@Risk and Cost Control & Risk Mitigation
- Schedule & Questions



MSBA Process Somerville HS Timeline

SHS Timeline

SHS - Building Committee Meetings

- September 09, 2015
- September 23, 2015
- October 14, 2015
- November 4, 2015
- December 02, 2015
- January 06, 2016
- January 20, 2016
- February 03, 2016
- February 10, 2016
- March 14, 2016
- March 28, 2016
- April 11, 2016

- May 09, 2016
- May 23, 2016
- May 26, 2016
- July 21, 2016
- August 15, 2016
- September 12, 2016
- September 26, 2016
- October 13, 2016
- November 14, 2016
- November 28, 2016
- December 12, 2016
- December 20, 2016
- February 27, 2017

Project Public Forums

- 11/19/2015
- 02/09/2016
- 03/22/2016
- 03/29/2016 – Youth Outreach with High School Students
- 04/5/2016
- 04/26/2016

Public tours of existing high school

- March 16, 2016

Support at PAC Public Forums

- STEAM Open House events 3/31/2016
- September 28, 2016 – Aeronaut Brewery
- October 5, 2016 – VNA

School Committee Finance & Facilities Sub Committee Meeting

- Feb 11, 2016

School Committee Meetings

- August 29, 2016
- November 21, 2016

SHS Timeline

School Building Committee Presentations

Presentation to SBC

- April 11, 2016

MSBA Facilities Assessment Subcommittee Presentation

- June 15, 2016

Presentation to Board of Aldermen Financial Subcommittee

- July 6, 2016

Presentation to SBC on CMAR

- July 21, 2016

Presentation to PAC at Tufts

- August 23, 2016

Project Information Presentation

- September 28, 2016

CM Selection Meetings

November 09, 2016

November 17, 2016

Somerville Historic and Preservation Committee Meetings

March 15, 2016

March 23, 2016

March 29, 2016

GLX Coordination Meetings

December 14, 2015

April 13, 2016

August 12, 2016

School Visit

Essex Tech - December 1, 2015

Winchester High School - December 9, 2015

Ayer-Shirley - September 9, 2016

Quincy High School - November 17, 2016

MSBA

MSBA Project Update Meeting

- April 12, 2016

MSBA Facilities Assessment Subcommittee

- June 15, 2016

MSBA Board of Director's Meeting PSD

- July 20, 2016

Project Scope and Budget

- January 31, 2017

MSBA Board of Director's Meeting PFA

- February 15, 2016

SHS Timeline

Working Groups/Focused Design Meetings

Project Planning - April 11, 2016

Sustainable Design - August 18, 2016, August 21, 2016

Site - August 2, 2016, August 31, 2016; September 7, 2016,
September 14, 2016, September 19, 2016, September 21, 2016,
October 5, 2016, October 11, 2016

Safety & Security - September 1, 2016

Project Phasing - September 1, 2016, December 21, 2016

Building Exterior - September 1, 2016, October 12, 2016

Educational Planning - September 8, 2016

MEP/FP - July 21, 2016, September 15, 2016

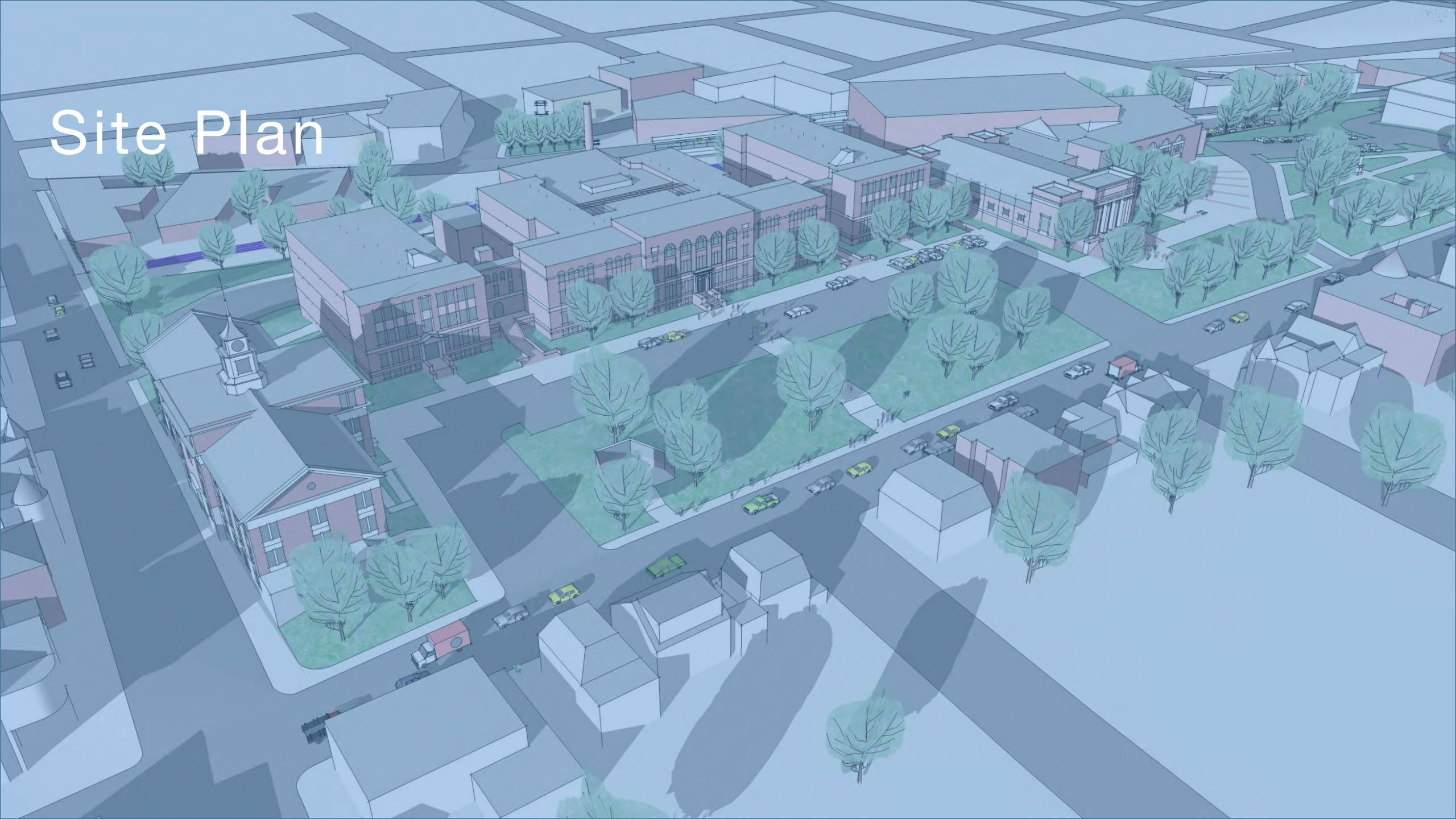
Interior Design - September 28, 2016

Green Charrette - August 3, 2016

Recent Critical Milestones

- Nov 17, 2016 - CM Selection committee chooses SUFFOLK Construction as the Construction Manager for the project
- Jan 04, 2017 - Schematic Design Submission to the Massachusetts School Building Authority
- Feb 15, 2017 - MSBA Approves the Project Grant

Site Plan





Existing to Remain

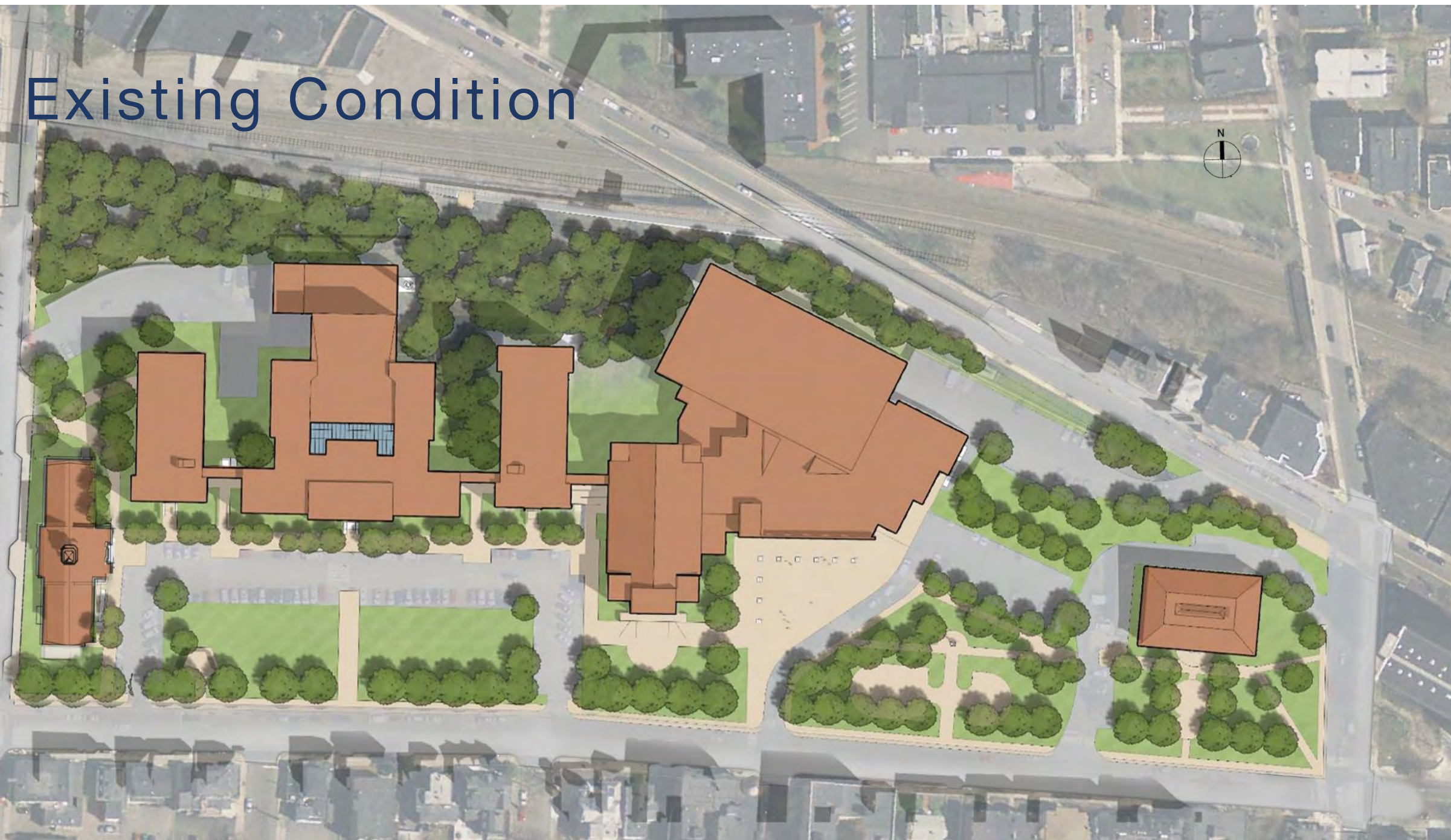
Building Connections: Linking Gilman Square to Union Square via the Central Hill Civic Campus



Somerville *by*
DESIGN

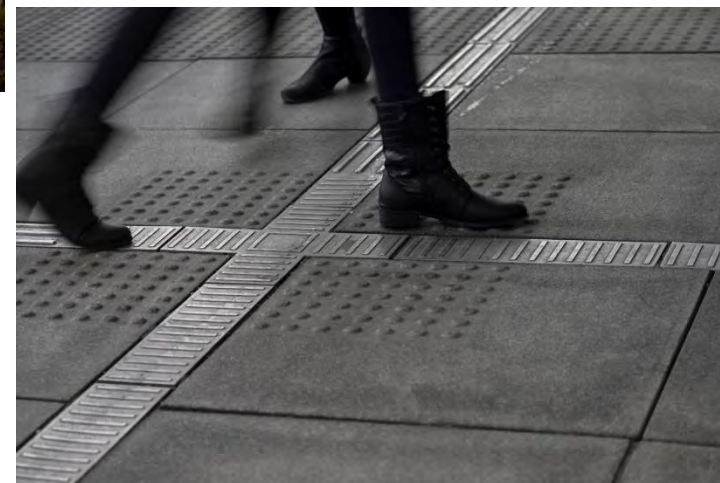


Existing Condition



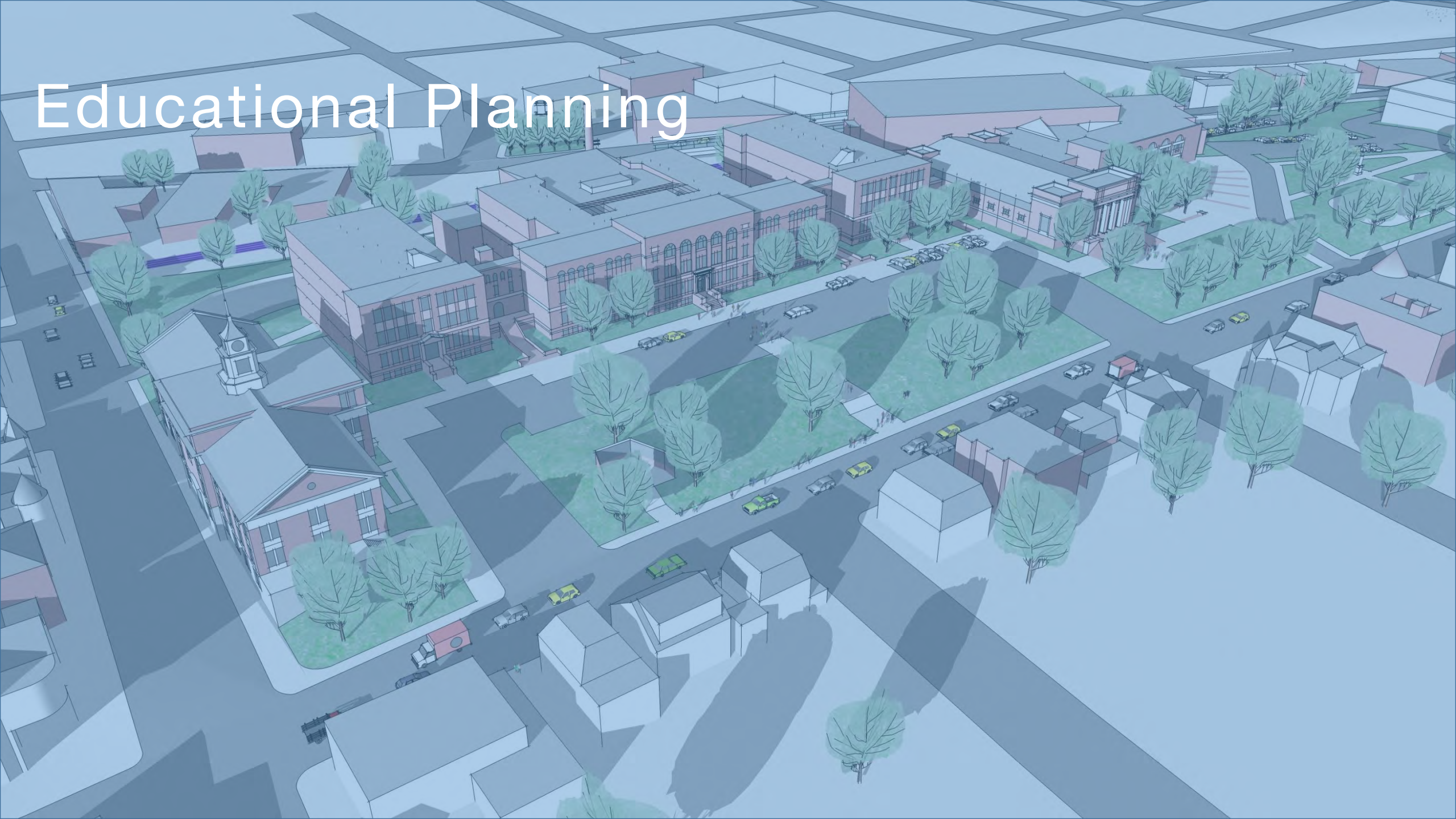
Proposed Site Plan

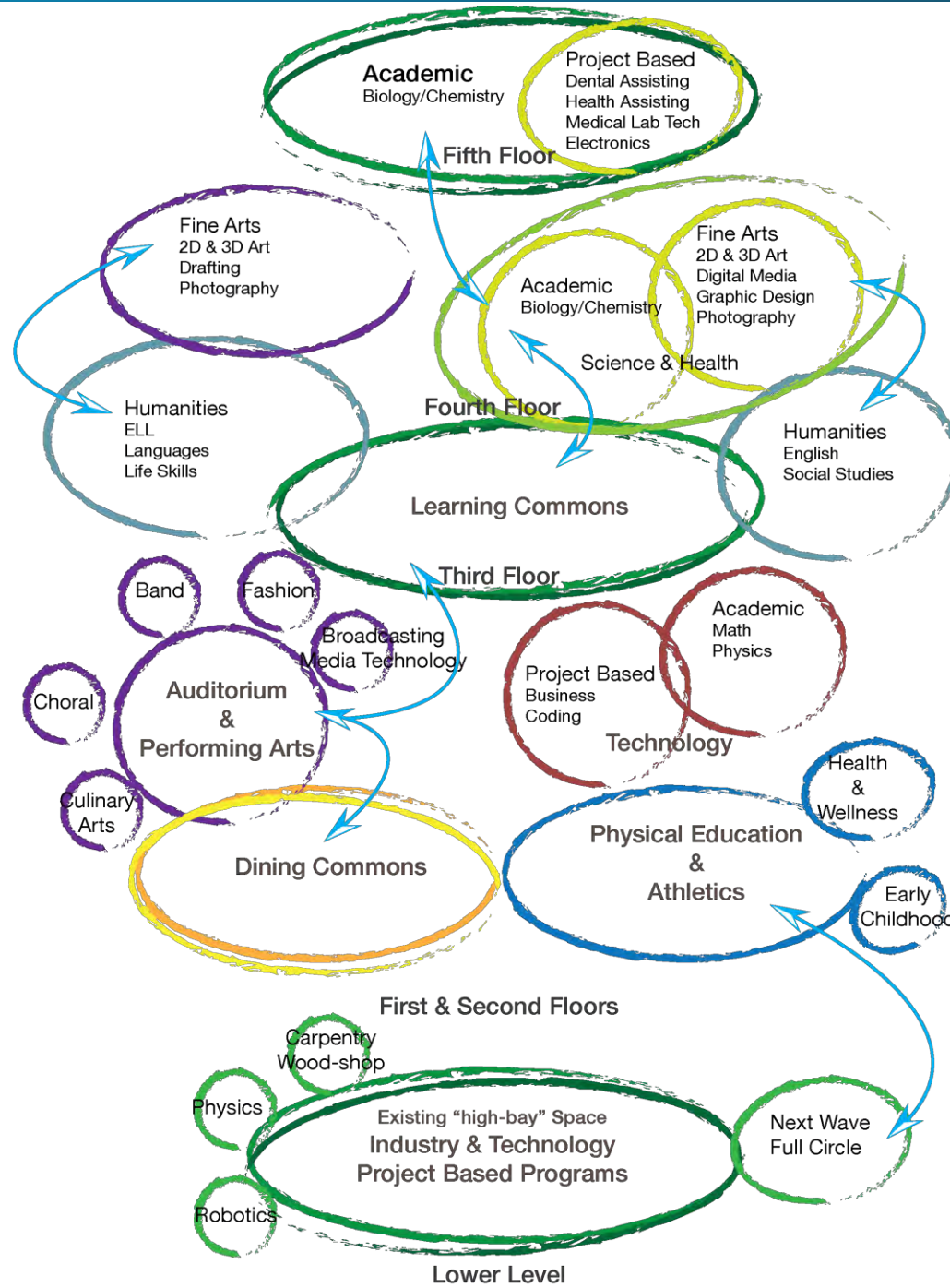




Site Elements

Educational Planning





Program Distribution Diagram

1st Floor Plan

Major Public Event Spaces

Academic Zones

Commons & Core Areas as Bridge/Link

Dining Commons

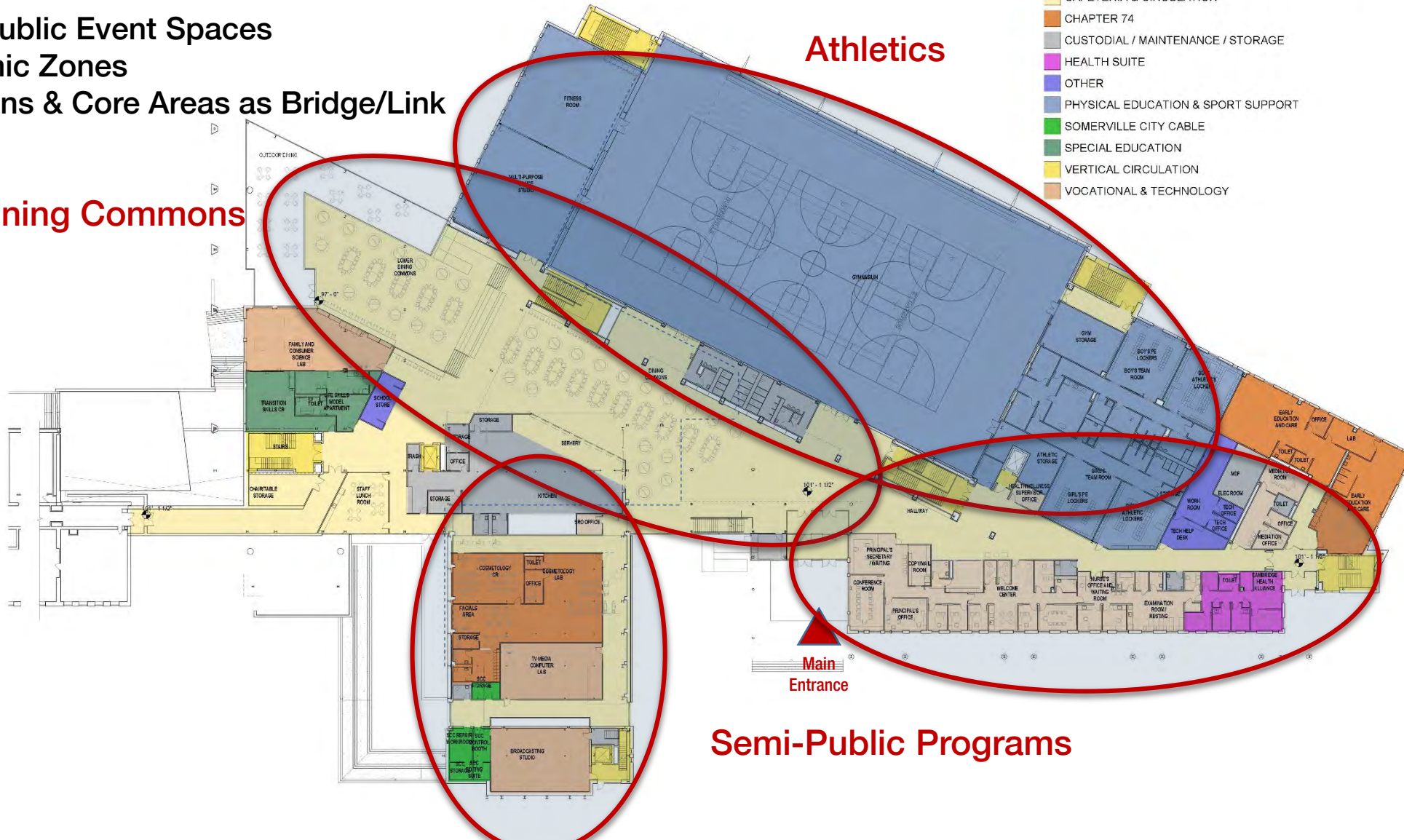
Athletics

Main
Entrance

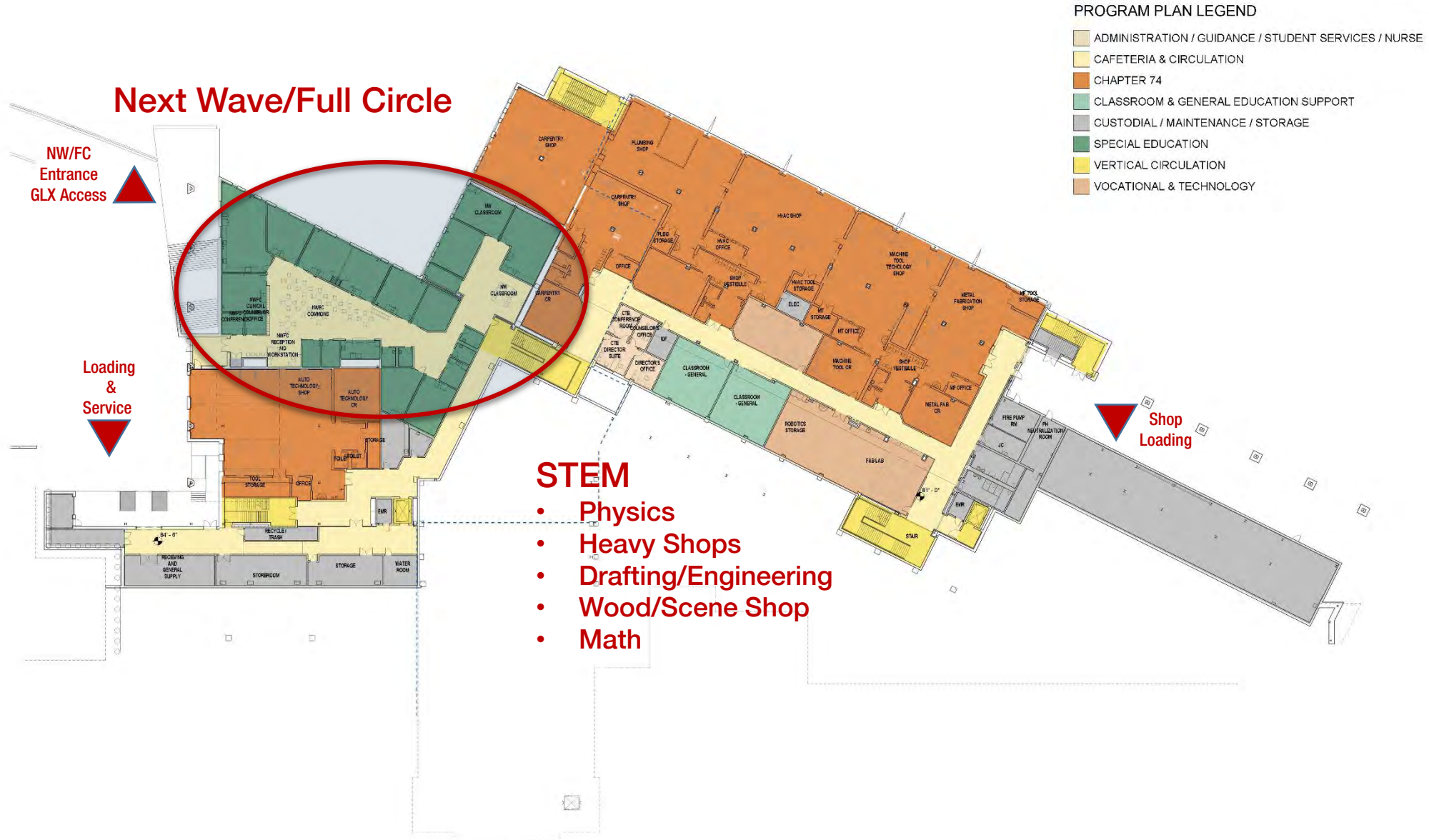
Semi-Public Programs

PROGRAM PLAN LEGEND

- ADMINISTRATION / GUIDANCE / STUDENT SERVICES / NURSE
- CAFETERIA & CIRCULATION
- CHAPTER 74
- CUSTODIAL / MAINTENANCE / STORAGE
- HEALTH SUITE
- OTHER
- PHYSICAL EDUCATION & SPORT SUPPORT
- SOMERVILLE CITY CABLE
- SPECIAL EDUCATION
- VERTICAL CIRCULATION
- VOCATIONAL & TECHNOLOGY



Lower Level Floor Plan



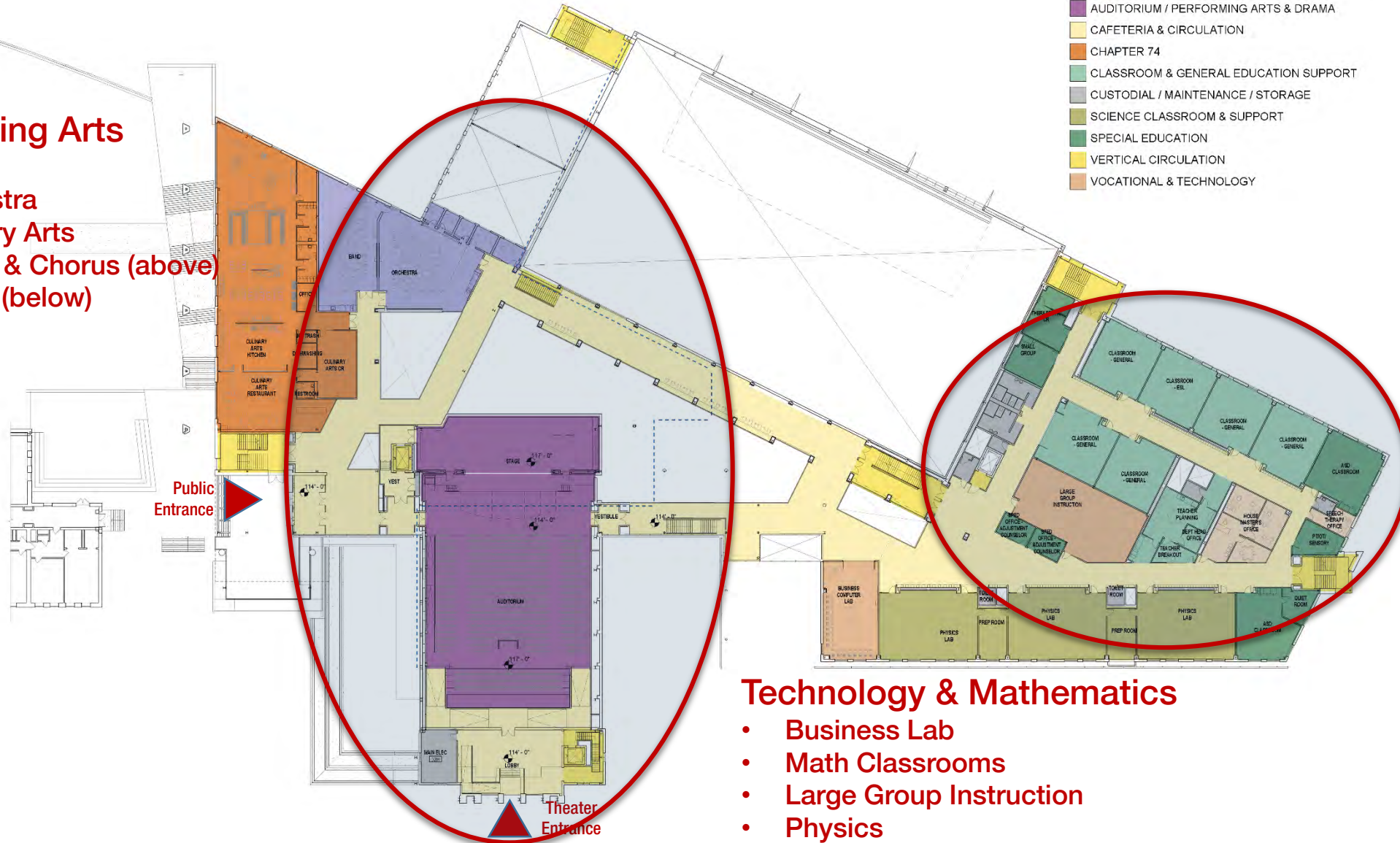
2nd Floor Plan

Performing Arts

- Band
- Orchestra
- Culinary Arts
- Drama & Chorus (above)
- Dance (below)

PROGRAM PLAN LEGEND

- ADMINISTRATION / GUIDANCE / STUDENT SERVICES / NURSE
- ART & MUSIC
- AUDITORIUM / PERFORMING ARTS & DRAMA
- CAFETERIA & CIRCULATION
- CHAPTER 74
- CLASSROOM & GENERAL EDUCATION SUPPORT
- CUSTODIAL / MAINTENANCE / STORAGE
- SCIENCE CLASSROOM & SUPPORT
- SPECIAL EDUCATION
- VERTICAL CIRCULATION
- VOCATIONAL & TECHNOLOGY



Technology & Mathematics

- Business Lab
- Math Classrooms
- Large Group Instruction
- Physics

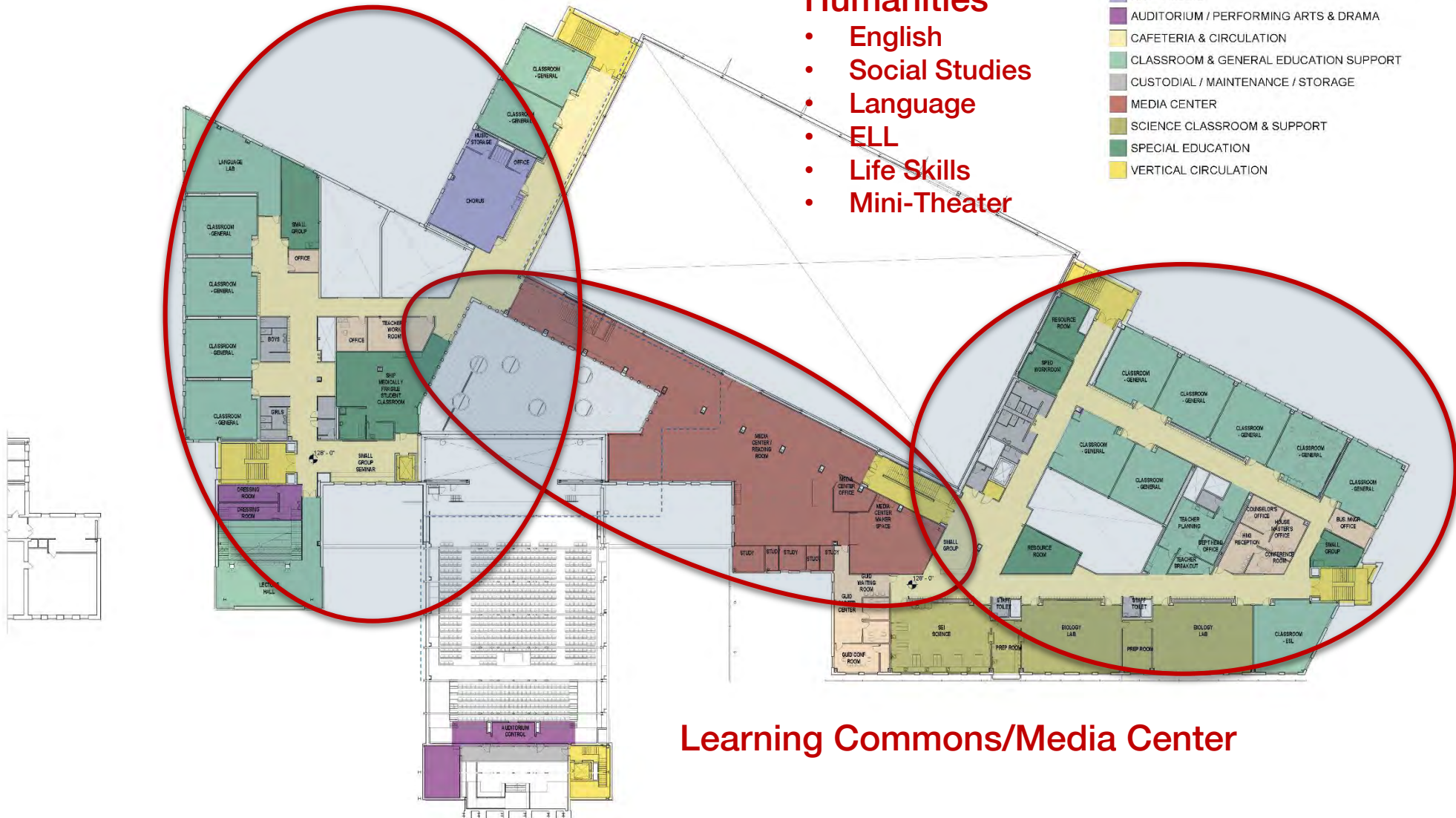
3rd Floor Plan

Humanities

- English
- Social Studies
- Language
- ELL
- Life Skills
- Mini-Theater

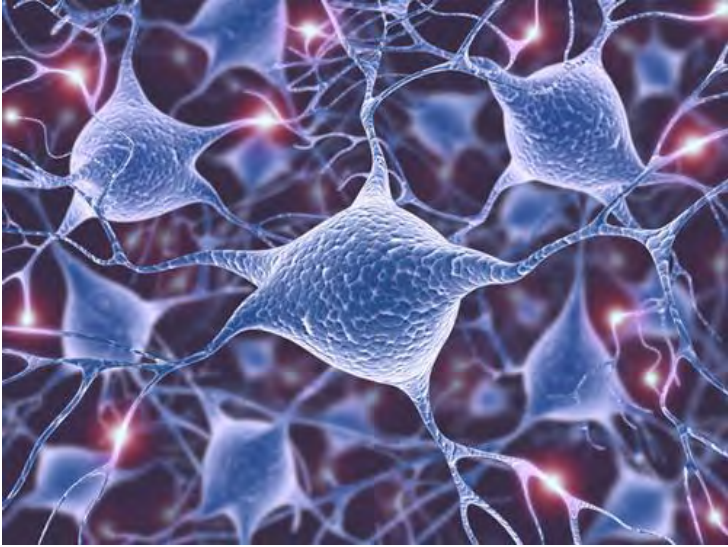
PROGRAM PLAN LEGEND

	ADMINISTRATION / GUIDANCE / STUDENT SERVICES / NURSE
	ART & MUSIC
	AUDITORIUM / PERFORMING ARTS & DRAMA
	CAFETERIA & CIRCULATION
	CLASSROOM & GENERAL EDUCATION SUPPORT
	CUSTODIAL / MAINTENANCE / STORAGE
	MEDIA CENTER
	SCIENCE CLASSROOM & SUPPORT
	SPECIAL EDUCATION
	VERTICAL CIRCULATION



Learning Commons/Media Center

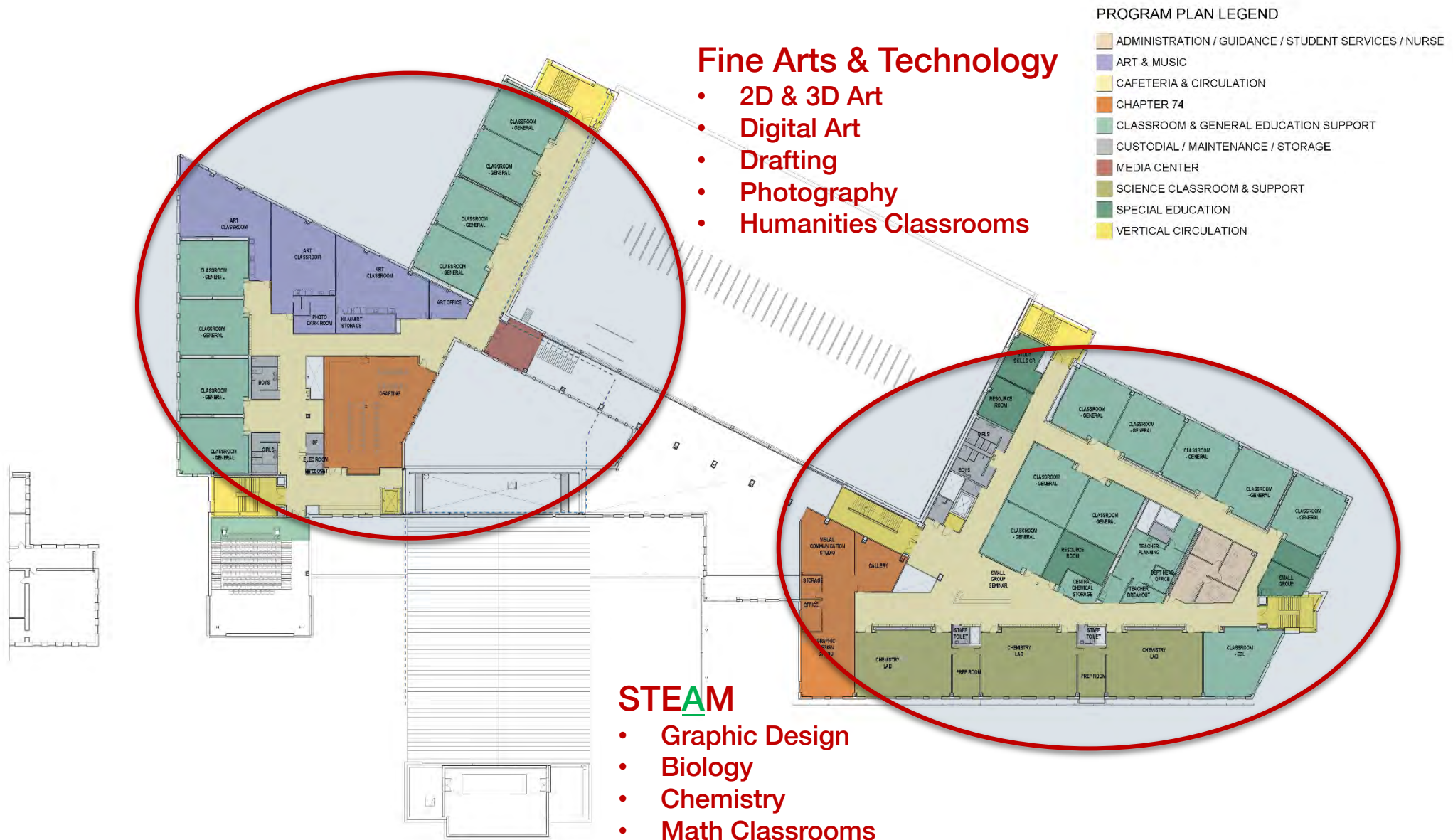
Networking



Media Center: Learning Commons



4th Floor Plan



5th Floor Plan

PROGRAM PLAN LEGEND

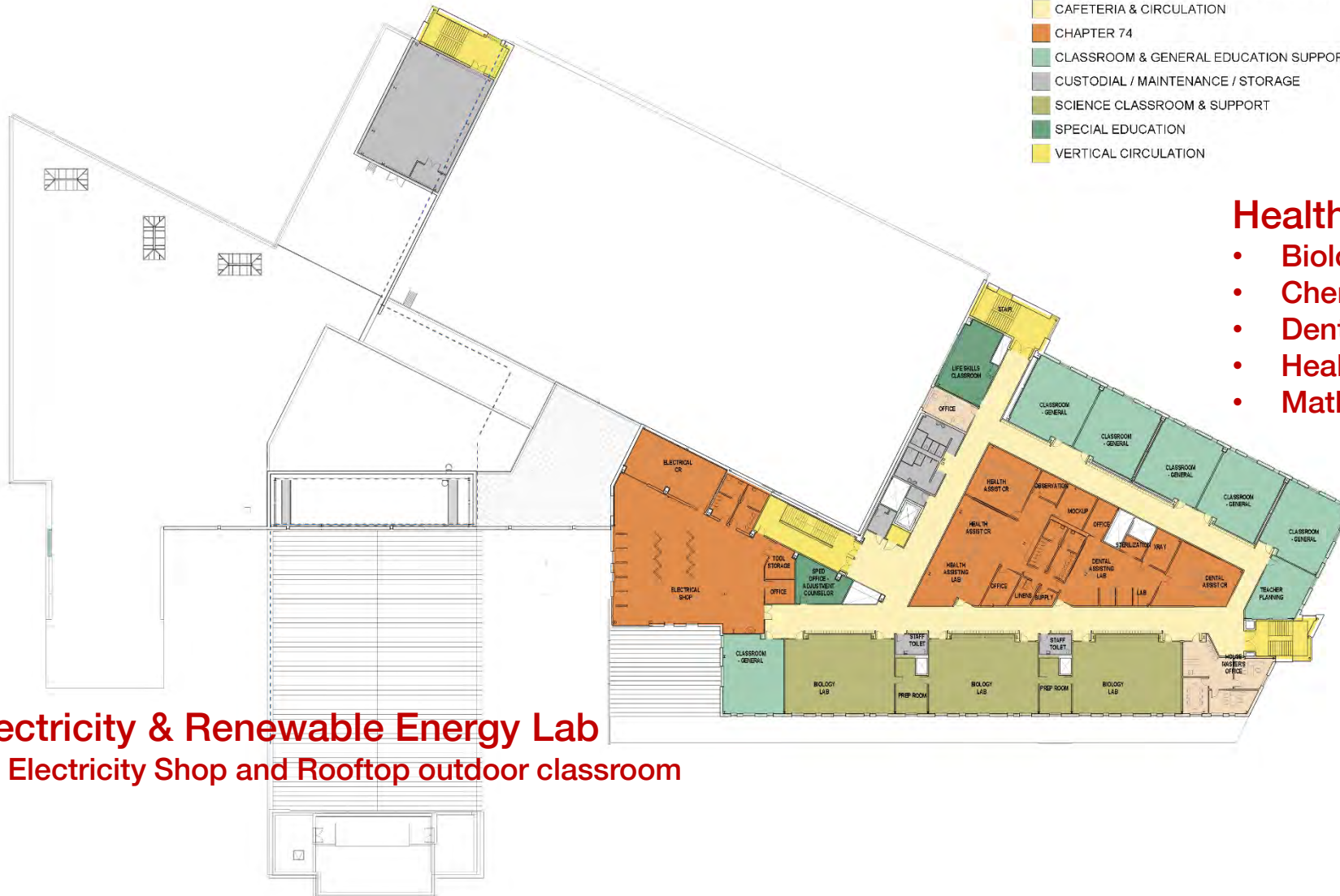
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- CHAPTER 74
- CLASSROOM & GENERAL EDUCATION SUPPORT
- CUSTODIAL / MAINTENANCE / STORAGE
- SCIENCE CLASSROOM & SUPPORT
- SPECIAL EDUCATION
- VERTICAL CIRCULATION

Health Sciences

- Biology
- Chemistry
- Dental Assisting
- Health Assisting
- Math Classrooms

Electricity & Renewable Energy Lab

- Electricity Shop and Rooftop outdoor classroom



Science Labs

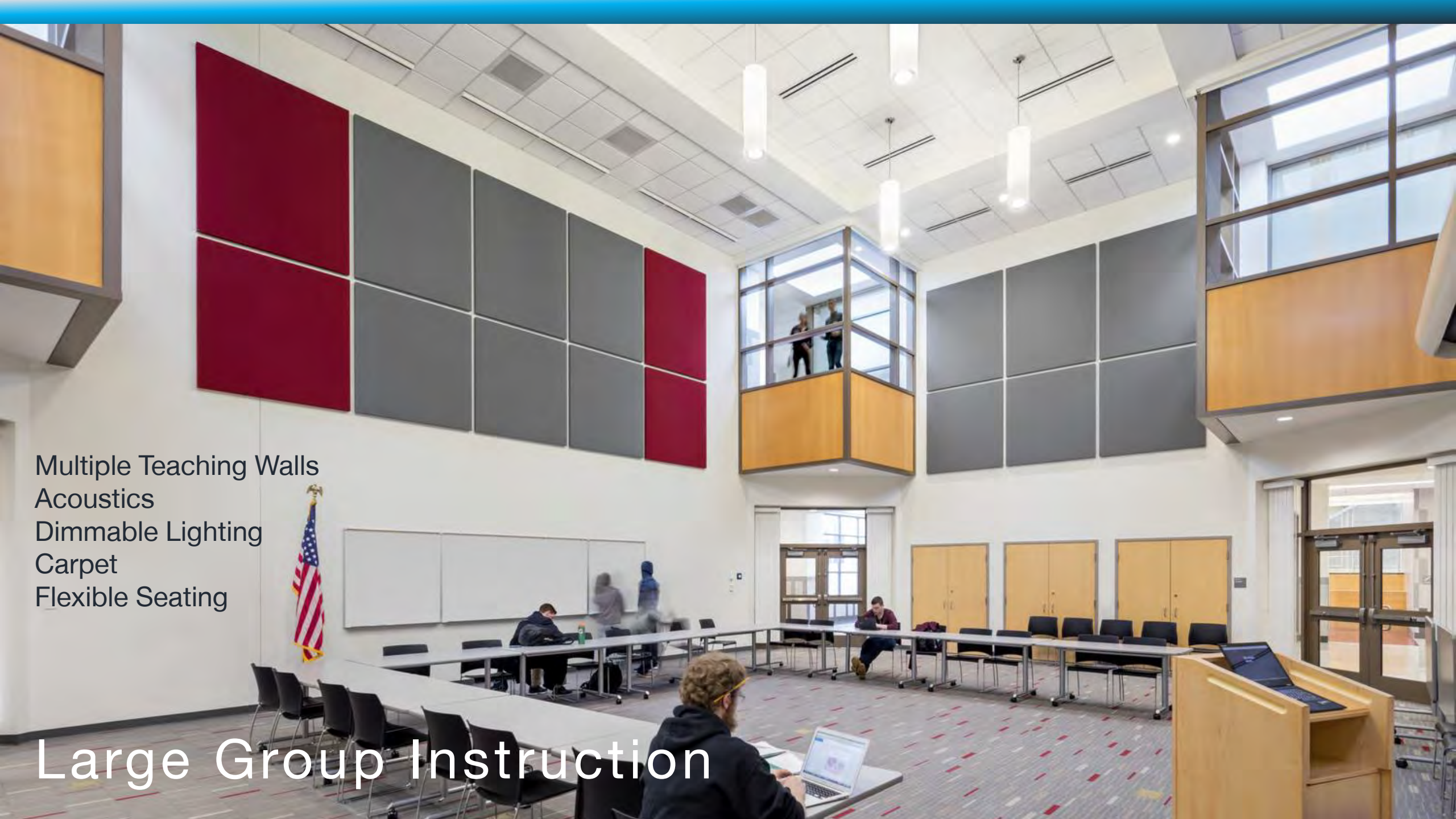


Teaching Wall
Movable Tables
Movable Stools
Perimeter Casework
Storage Cabinets
Natural Light

Art Rooms



- Full Height Tack board display/gallery
- Track Lighting
- Natural Light from multiple sources
- Concrete Floors
- Epoxy Countertops
- Display Cases internal & external to space
- Large Tables w/ stools



Multiple Teaching Walls
Acoustics
Dimmable Lighting
Carpet
Flexible Seating

Large Group Instruction

Small Theater & Large Group Instruction



Teaching Wall w/ projection
Acoustical surface treatments throughout
Dimmable theatrical and classroom lighting
Carpet
Lecture & performance style seating

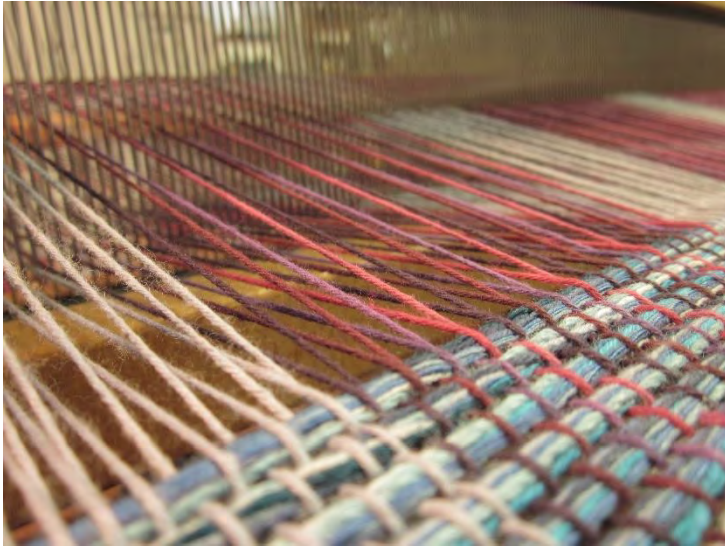


Common Areas



Learning outside the classroom

Weaving



Auditorium



Auditorium



Dining/Student Commons



Budget, CM@Risk & Cost Control



Cost Estimating and Value Engineering

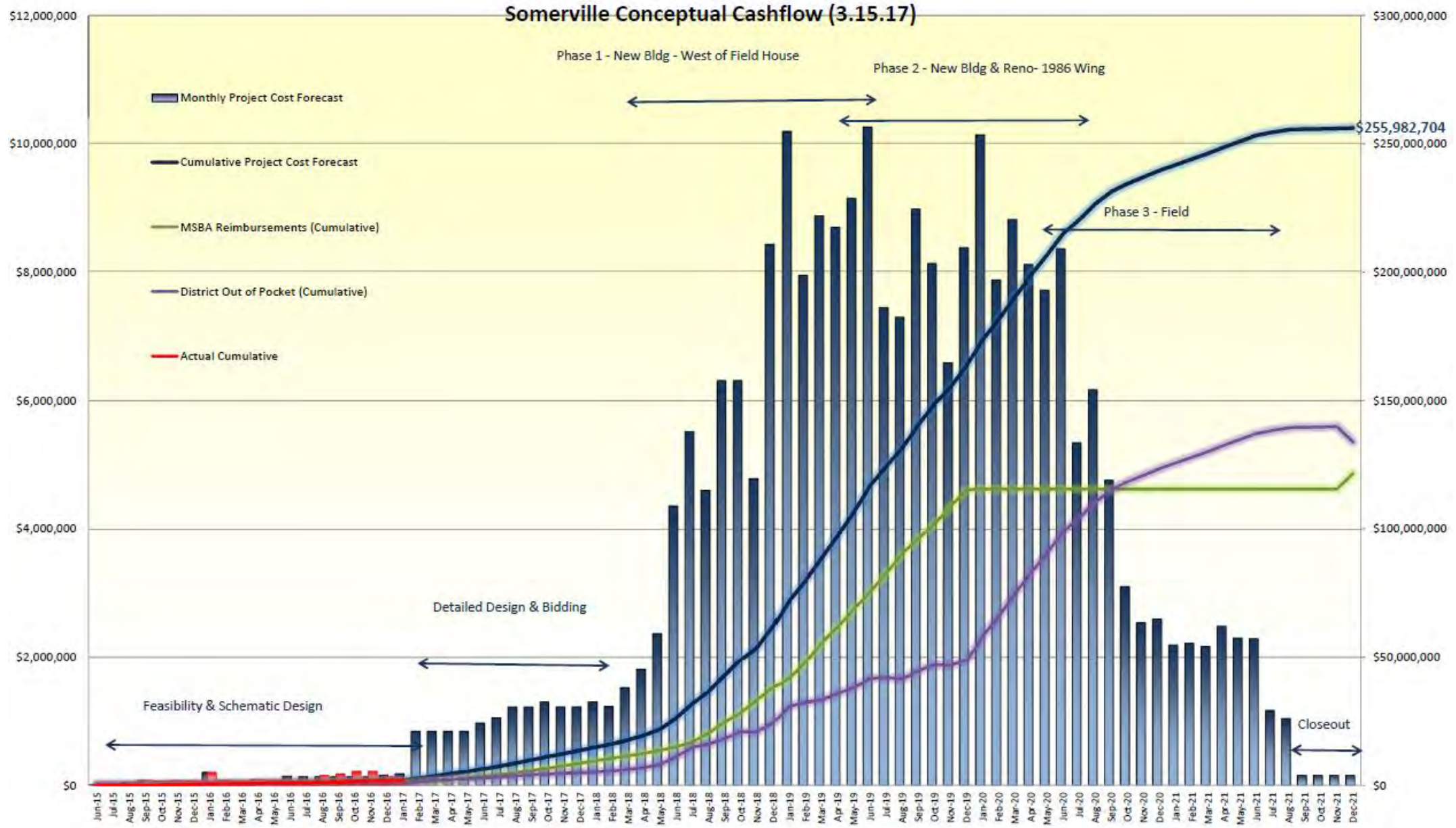
- Two independent estimates during Feasibility Study
 - Reconciled to within $< 1.5\%$
- Three independent estimates during Schematic Design
 - Added CM's estimate (Suffolk Construction)
 - Reconciled to within $< 0.5\%$
- Value Engineering
 - 91 items for consideration (unusual detail for SD)
 - Reviewed and ranked by the committee
 - 6 items accepted
- VE Process occurs three more times (at each remaining estimate)
 - End of Design Development, 60% CD's, 90%CD's

MSBA Project Funding Agreement Summary

Board Authorization	
Design Enrollment	1,590
Total Building Gross Floor Area (GSF)	369,496
<hr/>	
Total Project Budget (excluding Contingencies)	\$241,546,035
Scope Items Excluded or Otherwise Ineligible	\$82,551,497
Third Party Funding (Ineligible)	\$0
Estimated Basis of Maximum Total Facilities Grant	\$158,994,538
Reimbursement Rate	75.29%
Est. Max. Total Facilities Grant	\$119,706,988

Construction Contingency	\$12,764,470
Ineligible Construction Contingency	\$8,783,436
"Potentially Eligible" Construction Contingency	\$3,981,034
Owner's Contingency	\$1,672,199
Ineligible Owner's Contingency	\$0
"Potentially Eligible" Owner's Contingency	\$1,672,199
Total Potentially Eligible Contingency	\$5,653,233
Reimbursement Rate	75.29%
Potential Additional Contingency Grant Funds	\$4,256,319
Maximum Total Facilities Grant	\$123,963,307
Total Project Budget	\$255,982,704

Phasing & Early Cash flow Projections



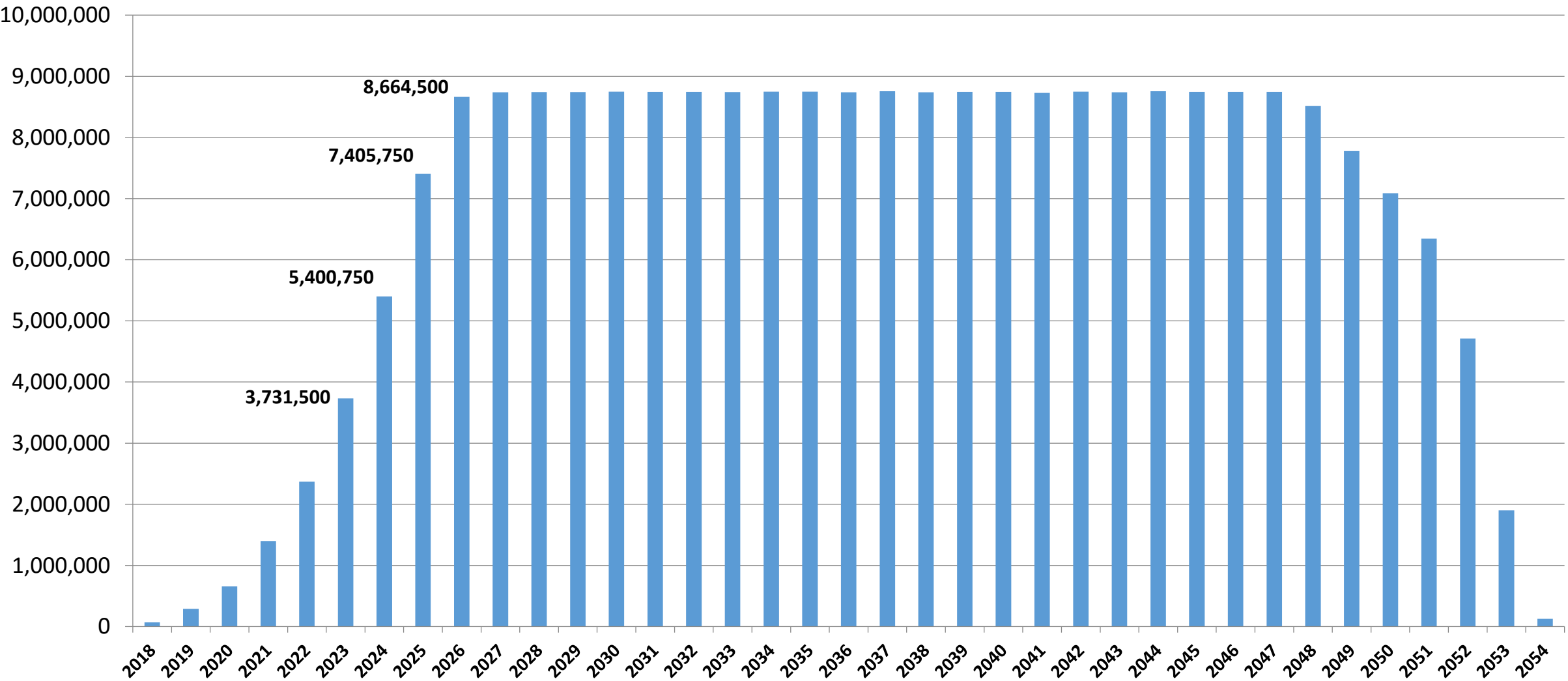
Projected 30-Year Debt Service

\$130,300,000 Bonds - 30 Years

	A	B	C	D	E	F	G	H	I
Fiscal Year	\$3.4M Bonds dated 6/1/2019 (BANs dated 6/1/2017)	Plus: \$11.1M Bonds dated 6/1/2020 (BANs dated 6/1/2018)	Plus: \$10.3M Bonds dated 6/1/2021 (BANs dated 6/1/2019)	Plus: \$11M Bonds dated 6/1/2022 (BANs dated 6/1/2020)	Plus: \$24.3M Bonds dated 6/1/2023 (BANs dated 6/1/2021)	Plus: \$41.9M Bonds dated 6/1/2024 (BANs dated 6/1/2022)	Plus: \$26.4M Bonds dated 6/1/2025 (BANs dated 6/1/2023)	Plus: \$1.9M Bonds dated 6/1/2026 (BANs dated 6/1/2024)	Equals: Projected Debt Service
2018	68,000	-	-	-	-	-	-	-	68,000
2019	68,000	222,000	-	-	-	-	-	-	290,000
2020	230,000	222,000	206,000	-	-	-	-	-	658,000
2021	227,000	745,000	206,000	220,000	-	-	-	-	1,398,000
2022	229,000	745,500	690,000	220,000	486,000	-	-	-	2,370,500
2023	230,750	745,500	691,250	740,000	486,000	838,000	-	-	3,731,500
2024	227,250	745,000	692,000	740,500	1,630,000	838,000	528,000	-	5,400,750
2025	228,750	744,000	692,250	735,500	1,629,250	2,810,000	528,000	38,000	7,405,750
2026	230,000	747,500	692,000	740,250	1,632,500	2,814,250	1,770,000	38,000	8,664,500
2027	226,000	745,250	691,250	739,250	1,629,500	2,811,500	1,772,500	125,000	8,740,250
2028	227,000	742,500	690,000	737,750	1,630,500	2,812,000	1,773,750	128,500	8,742,000
2029	227,750	744,250	693,250	735,750	1,630,250	2,810,500	1,773,750	126,750	8,742,250
2030	228,250	745,250	690,750	738,250	1,633,750	2,812,000	1,772,500	130,000	8,750,750
2031	228,500	745,500	692,750	740,000	1,630,750	2,811,250	1,770,000	128,000	8,746,750
2032	228,500	745,000	694,000	736,000	1,631,500	2,813,250	1,771,250	126,000	8,745,500
2033	228,250	743,750	689,500	736,500	1,630,750	2,812,750	1,771,000	129,000	8,741,500
2034	227,750	746,750	689,500	736,250	1,633,500	2,814,750	1,774,250	126,750	8,749,500
2035	227,000	743,750	693,750	740,250	1,629,500	2,814,000	1,770,750	129,500	8,748,500
2036	226,000	745,000	692,000	738,250	1,629,000	2,810,500	1,770,750	127,000	8,738,500
2037	229,750	745,250	689,500	740,500	1,631,750	2,814,250	1,774,000	129,500	8,754,500
2038	228,000	744,500	691,250	736,750	1,632,500	2,809,750	1,770,250	126,750	8,739,750
2039	226,000	742,750	692,000	737,250	1,631,250	2,812,250	1,774,750	129,000	8,745,250
2040	228,750	745,000	691,750	736,750	1,633,000	2,811,250	1,772,000	126,000	8,744,500
2041	226,000	746,000	690,500	740,250	1,632,500	2,811,750	1,772,250	128,000	8,747,250
2042	228,000	745,750	693,250	737,500	1,629,750	2,813,500	1,770,250	129,750	8,747,750
2043	229,500	744,250	689,750	738,750	1,629,750	2,811,250	1,771,000	126,250	8,740,500
2044	230,500	746,500	690,250	738,750	1,632,250	2,815,000	1,774,250	127,750	8,755,250
2045	226,000	747,250	689,500	737,500	1,632,000	2,814,250	1,769,750	129,000	8,745,250
2046	226,250	746,500	692,500	740,000	1,629,000	2,814,000	1,772,750	125,000	8,746,000
2047	231,000	744,250	689,000	736,000	1,633,250	2,814,000	1,772,750	126,000	8,746,250
2048	-	745,500	689,250	740,750	1,629,250	2,814,000	1,769,750	126,750	8,515,250
2049	-	-	693,000	738,750	1,632,250	2,813,750	1,773,750	127,250	7,778,750
2050	-	-	-	740,250	1,631,750	2,813,000	1,774,250	127,500	7,086,750
2051	-	-	-	-	1,632,750	2,811,500	1,771,250	127,500	6,343,000
2052	-	-	-	-	-	2,814,000	1,769,750	127,250	4,711,000
2053	-	-	-	-	-	-	1,774,500	126,750	1,901,250
2054	-	-	-	-	-	-	-	126,000	126,000
Total	6,523,500	21,307,000	19,767,750	21,114,250	46,645,750	80,430,250	50,673,750	3,644,500	250,106,750

Full Debt Service Payments Start in 2026

Projected Somerville High School Debt Service - Annual Payments

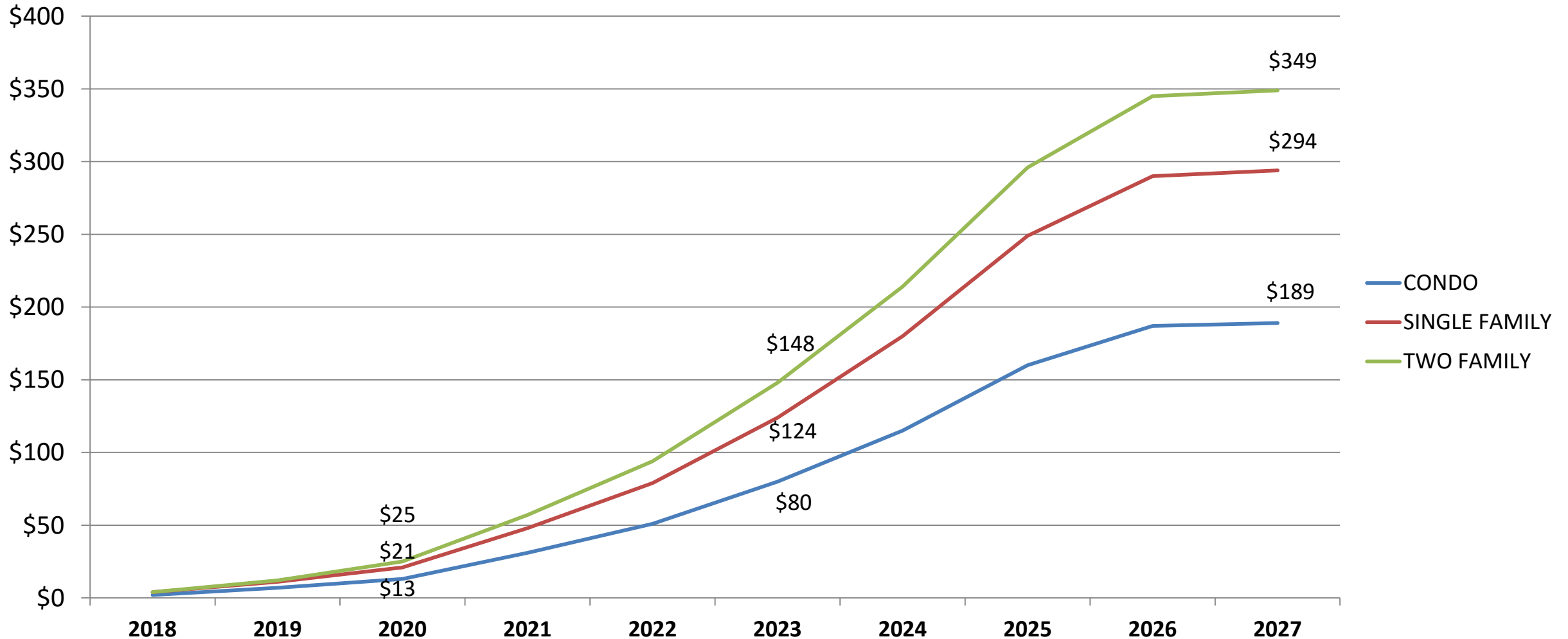


Projected Impact of Debt Exclusion

SUMMARY IMPACT OF DEBT EXCLUSION FY 2018 - FY 2027											
ADDITIONAL PROPERTY TAX INCREASE (PROJECTED) BASED UPON FY 2016 AVERAGE VALUES*											
WITH RESIDENTIAL EXEMPTION											
	FY	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
	DEBT SERVICE	\$68,000	\$290,000	\$658,000	\$1,398,000	\$2,370,500	\$3,731,500	\$5,400,750	\$7,405,750	\$8,664,500	\$8,740,250
USE											
CONDO		\$2	\$7	\$13	\$31	\$51	\$80	\$115	\$160	\$187	\$189
SINGLE FAM		\$4	\$11	\$21	\$48	\$79	\$124	\$180	\$249	\$290	\$294
TWO FAM		\$4	\$12	\$25	\$57	\$94	\$148	\$214	\$296	\$345	\$349
THREE FAM		\$5	\$15	\$30	\$70	\$116	\$181	\$262	\$362	\$423	\$428
4-8 FAM		\$7	\$21	\$41	\$96	\$158	\$248	\$358	\$495	\$578	\$585
9+ FAMILY		\$31	\$93	\$185	\$432	\$709	\$1,110	\$1,604	\$2,221	\$2,591	\$2,622
COMM. & IND.		\$19	\$95	\$190	\$418	\$703	\$1,102	\$1,615	\$2,204	\$2,584	\$2,603
ASSUMES RESIDENTIAL EXEMPTION FOR CONDO, 1, 2, 3, 4-8 UNIT USES											
WITHOUT RESIDENTIAL EXEMPTION											
CONDO		\$4	\$13	\$26	\$60	\$99	\$155	\$224	\$311	\$362	\$367
SINGLE FAM		\$6	\$17	\$33	\$78	\$128	\$200	\$289	\$400	\$466	\$472
TWO FAM		\$6	\$19	\$37	\$87	\$143	\$223	\$322	\$446	\$521	\$527
THREE FAM		\$7	\$21	\$43	\$100	\$164	\$257	\$371	\$513	\$599	\$606
4-8 FAM		\$9	\$27	\$54	\$126	\$206	\$323	\$467	\$646	\$754	\$763
9+ FAMILY		\$31	\$93	\$185	\$432	\$709	\$1,110	\$1,604	\$2,221	\$2,591	\$2,622
COMM. & IND.		\$19	\$95	\$190	\$418	\$703	\$1,102	\$1,615	\$2,204	\$2,584	\$2,603
*DEBT SERVICE CONTINUES UNTIL FY 2054 AT AN AMOUNT MORE OR LESS EQUAL TO FY 2027 NUMBER											

Projected Impact of SHS on Property Tax

SUMMARY IMPACT OF DEBT EXCLUSION FY2018 - FY2027 WITH RESIDENTIAL EXEMPTION

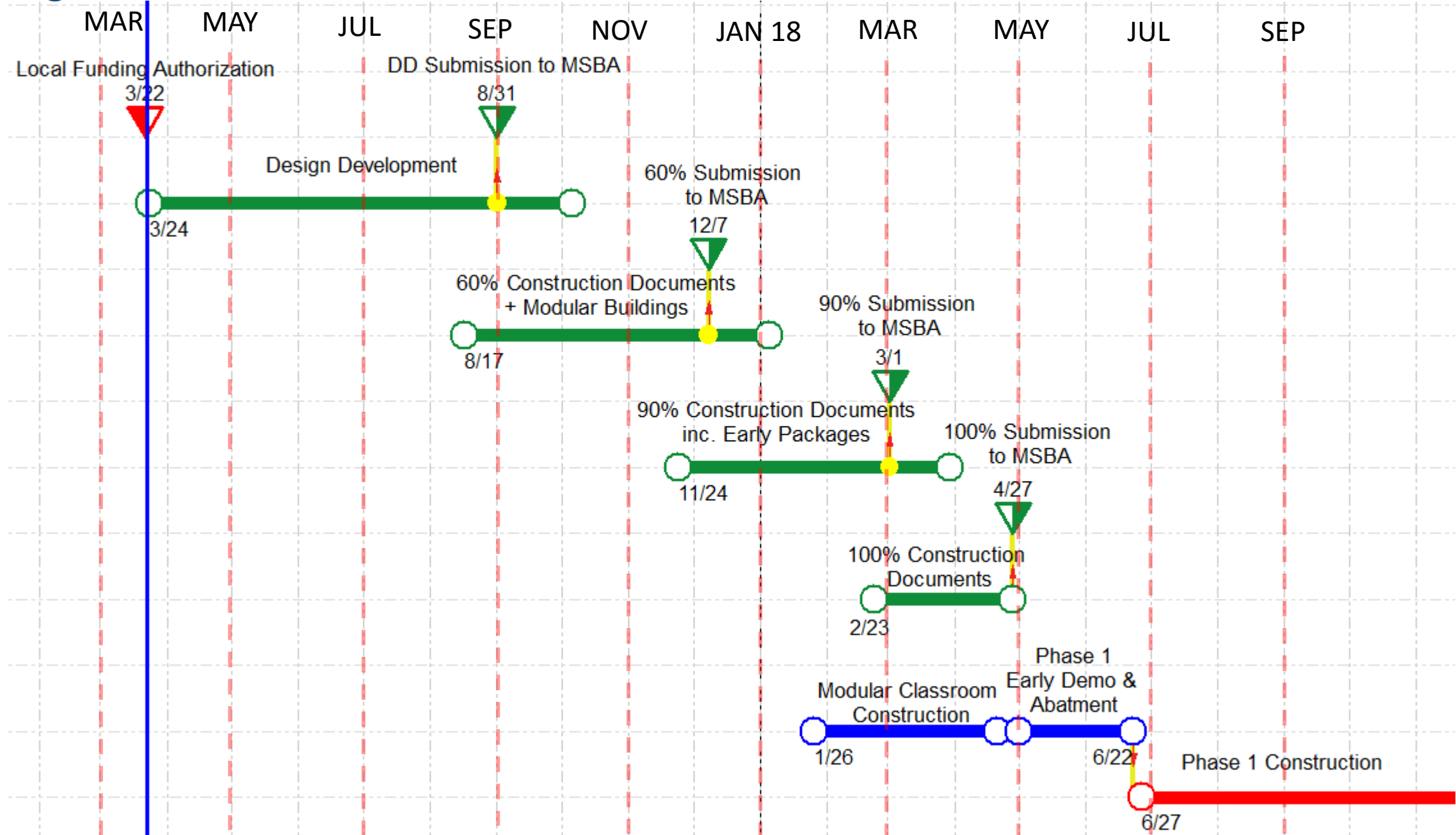


Based on FY2016 Average Values

Schedule Moving Forward



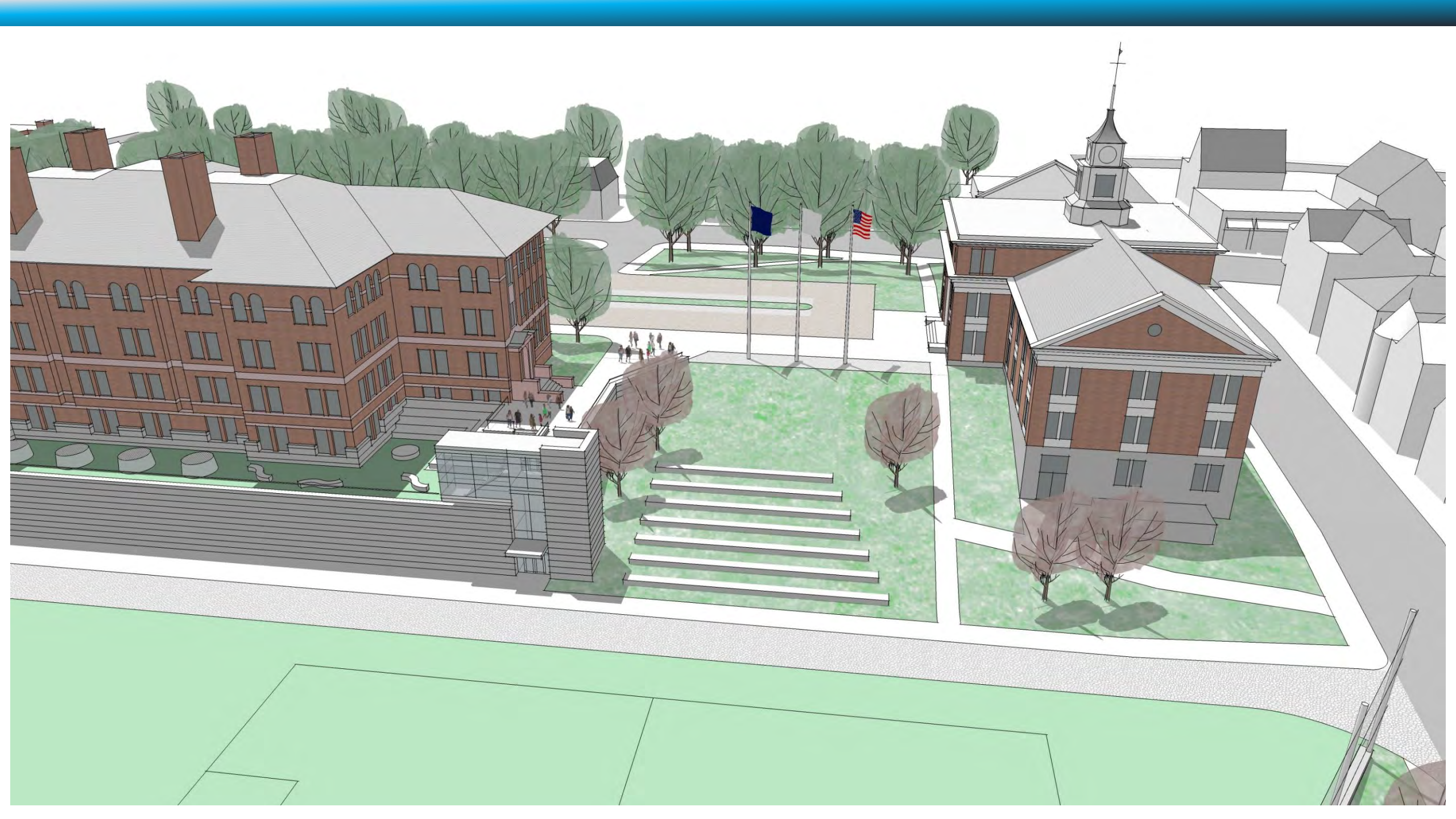
Design Timeline





SOMERVILLE
HIGH
SCHOOL











Questions?

Thank You!