



Bristol Warren Regional School District

RIDE Necessity of School Construction Stage II



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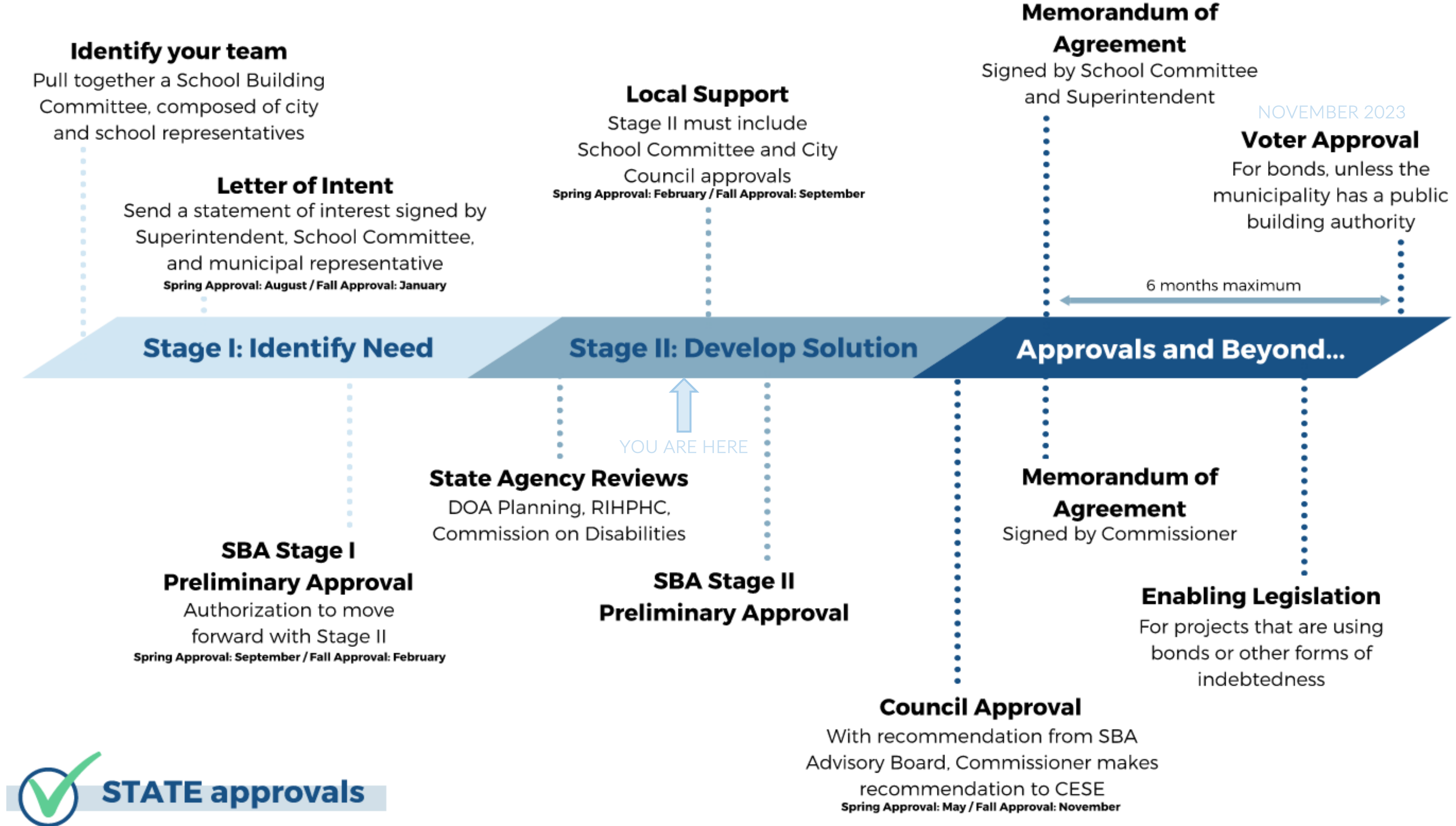
**PERKINS —
EASTMAN**

BUILDING COMMITTEE | 08.10.2023

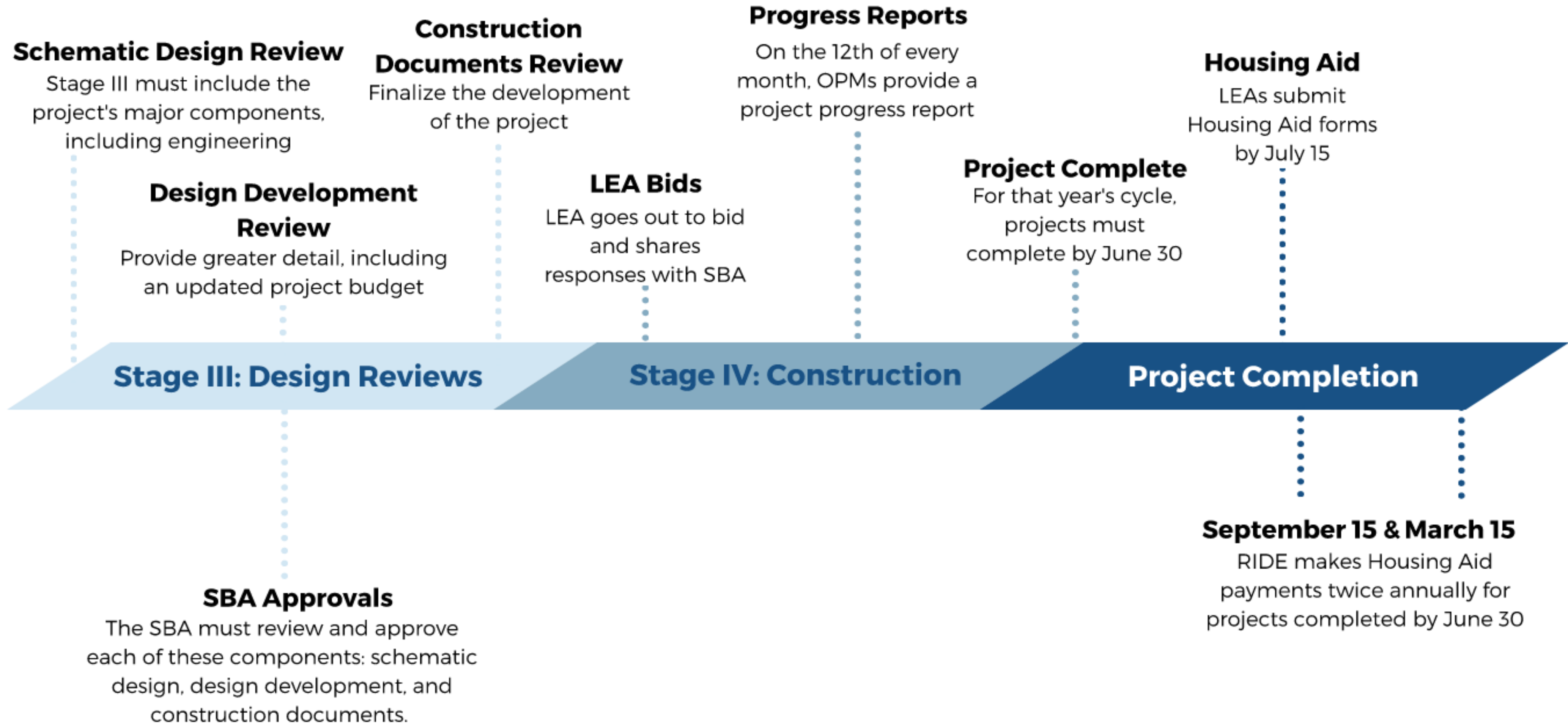
AGENDA

- I. OPEN MEETING**
- II. PUBLIC COMMENTS**
- III. INTRODUCTIONS**
- IV. DISCUSSION AND/OR POSSIBLE ACTION**
 - A. Approval of 7/27/23 Meeting Minutes - VOTE
 - B. RIDE Stage II Progress Update
 - 1. General Updates
 - a) RIDE Check-in
 - 2. Development of Preferred Solution(s)
 - a) HS Design Updates
 - b) ES/MS Updates
 - 3. Community Outreach
 - a) Warren Concert Series
 - b) Hope and Main School Yard Markets
 - c) Bristol Town Center event (August)
 - d) MHHS August 23rd Forum (Class of 2027 Welcoming)
 - C. Next Steps / Key Dates
 - 1. Tours of Recently Built Schools
- I. ADJOURNMENT**

RIDE PROCESS OVERVIEW



RIDE PROCESS OVERVIEW



STATE to-dos



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PROGRESS UPDATE

STAGE II PROGRESS UPDATE

23Jul 23 - Warren Concert Series
26Jul 23 - Hope & Main Schoolyard Market
27Jul 23 - Building Committee (RIDE Presentation)

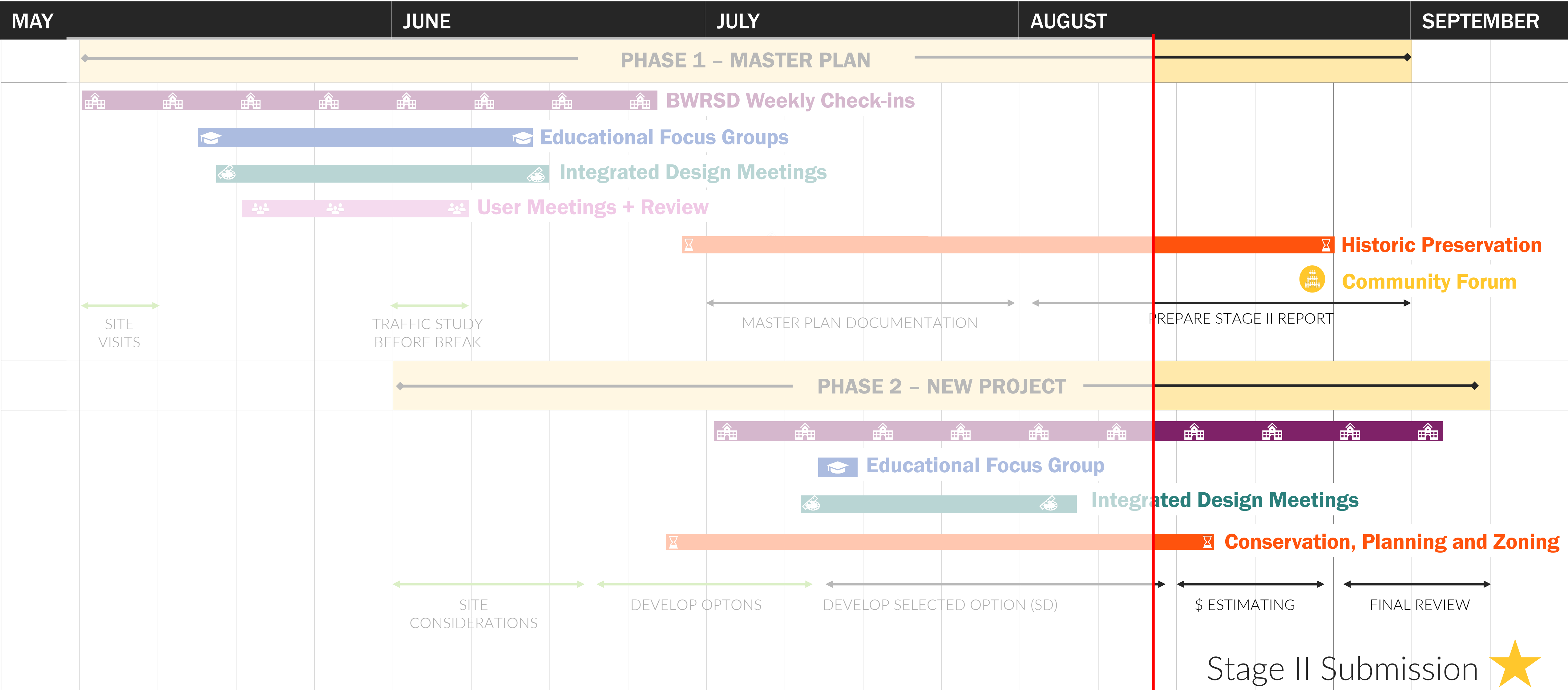
27Jul 23 - AE/OPM Coordination Meeting: Weekly
30Jul 23 - Warren Concert Series
01Aug23 - Enrollment Review with Urbanomics
02Aug23 - Integrated Design Meeting (Building Systems)
02Aug23 - Hope & Main Schoolyard Market
03Aug23 - AE/OPM Coordination Meeting: Weekly
03Aug23 - RIDE Stage II Check-in #2
07Aug23 - Integrated Design Meeting (NE-CHPS)
09Aug23 - Hope & Main Schoolyard Market
10Aug23 - HS Programming Meeting
10Aug23 - Building Committee

Since Last SBC Meeting

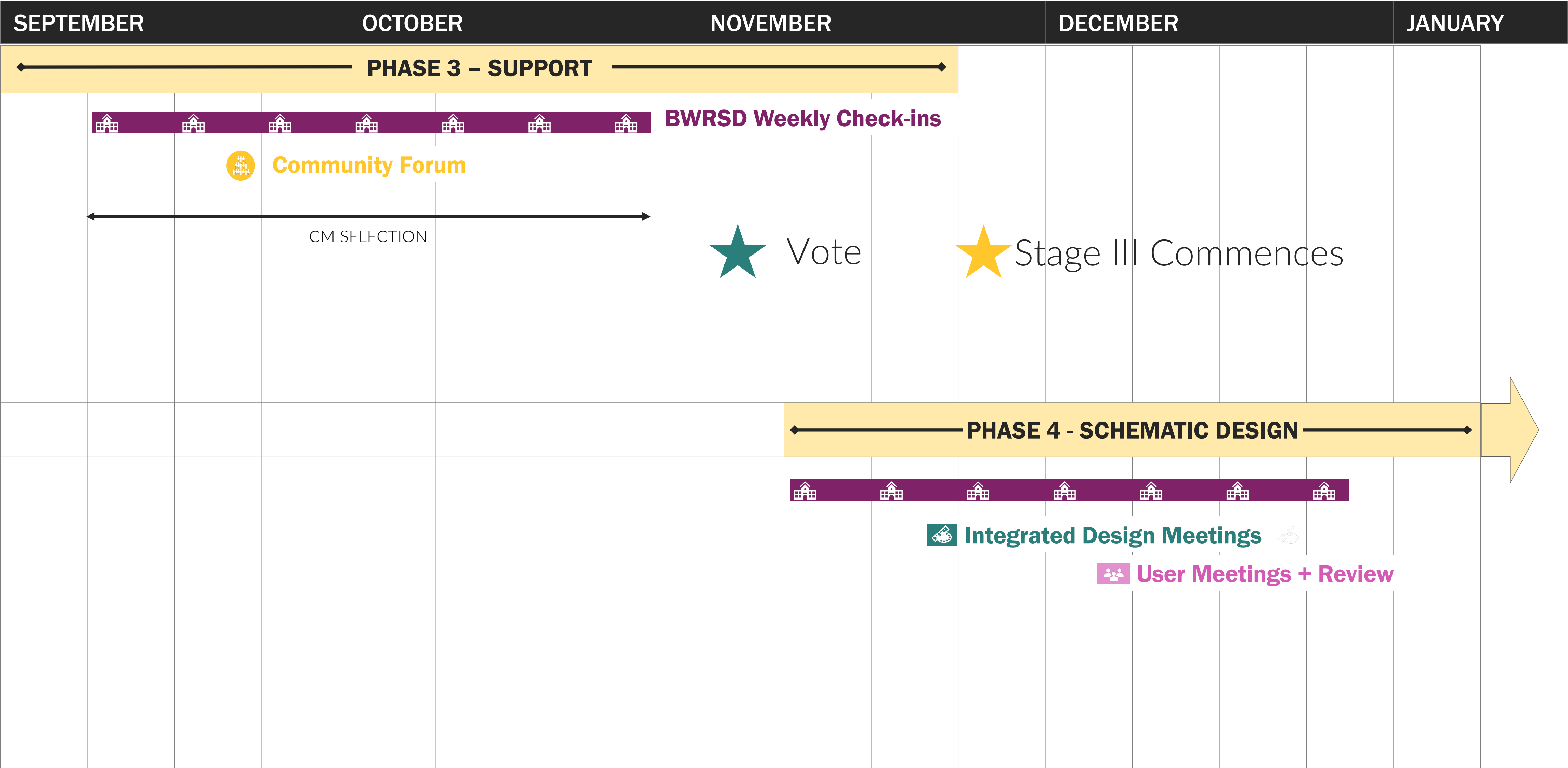
10Aug23 - AE/OPM Coordination Meeting: Weekly
13Aug23 - Warren Concert Series
14Aug23 - Elevator Consultant Site Visit
16Aug23 - Community Night Out
17Aug23 - Geotechnical Borings @ MHHS
20Aug23 - Warren Concert Series
23Aug23 - Bristol Town Council Presentation (Bradford St Discussion)
23Aug23 - Community Forum & MHHS Tours (Class of 2027 Welcoming Night)
27Aug23 - Warren Concert Series
TBD - Planning Dept Technical Review Committee
TBD - Integrated Design Meeting (Security)
28Aug23 - School Committee Meeting
07Sep23 - Historic District Commission
15Sep23 - RIDE Stage II Submission Deadline
18Sep23 - Board of Elections Approval of Referendum Question(s)

Upcoming

Proposed Schedule - Summer



Proposed Schedule - Fall



DESIGN UPDATE

Underway:

- Traffic Study – Reports received
- Hazmat Review – All reports have been received
- Elementary Schools & Middle School Improvement reports are being developed and issued for pricing
- User Meetings – High School Program meeting on August 10th
- Geo-environmental Studies are underway (draft to issued this week)
- Town Council– Proposed option for Colt Andrews to be reviewed by on August 23rd
- Technical review meeting with Town Departments – application submitted on August 10th
- NE CHPS – Working on Tools for Schools and School as a Tool
- Code Analysis – in process with JS Consulting
- Technology scope – review of school needs is underway
- FF&E budget – underway, next step is to review with district

Upcoming:

- Historic Preservation Review – Sept. 7th
- Elevator Inspections – August 14th
- Geo-technical – Drilling on August 17th and 18th
- Town Council Meeting – August 23rd
- Neighborhood meeting for High School project - TBD
- Technical Review with Town Departments – August meeting TBD
- Planning Board review – submit in Sept. for Oct. meeting
- Security Workshop - TBD



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RECAP OF RIDE STAGE II CHECK-IN

MEETING AGENDA

- ☐ Update on Site Alternatives Evaluation
- ☐ Concept Plan/Estimates
- ☐ Demographics/Enrollment
- ☐ CTE Programming
- ☐ FCI Update
- ☐ Legislative Updates
- ☐ Targeted Bonuses
- ☐ Update on Local Funding
- ☐ Delivery Methods for Construction
 - Early Packages

- ✓ M/WBE: 10->15%
- ✓ Bonus Extension: Now 6/30/24
- ✓ Completion Deadline: 6/30/29
- ✓ \$/SF Cap - \$529SF Confirmed
 - RECENTLY UPDATED - No additional change anticipated near-term

MAXIMIZING FUNDING

BWRSD

63% Base

+ up to 20% Bonus

In the "Bonus"

Permanent

School Safety & Security

If 75% of a project is for the purposes of School Safety & Security, then the project shall receive a 5% bonus.

In order to qualify for the increased share ratio for the temporary bonuses, 25% of the project costs, or a minimum of \$500,000, must be specifically directed to these purposes.

Commence by 2022 - Complete by 2027



Health & Safety

Projects that address Health and Safety Deficiencies shall receive a 5% bonus.



Educational Enhancements

Projects that address Educational Enhancements such as Early Childhood Education and Career and Technical Education shall receive a 5% bonus.

Commence by 2023 - Complete by 2028



Replacement

Replacement of a facility that has a Facility Condition Index of 65% or higher shall receive a 5% bonus.



Decrease Overcrowding

New construction or renovation that decreases overcrowding from more than 120% functional utilization to between 85% and 105% shall receive a 5% bonus.



Newer & Fewer

Consolidation of two or more school buildings (Newer and Fewer) into one school building shall receive a 5% bonus.



Increase Utilization

New construction or renovation that increases functional utilization from less than 60% to more than 80% shall receive a 5% bonus.



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Systems Updates

Agenda

- Summary from previous session
- HVAC priority exercise
- HVAC system selection options
- NZE
- Incentives
- Prelim systems cost analysis



HVAC Systems - What is Important to You?

ACTUAL RESULTS FROM EXERCISE

High Priority

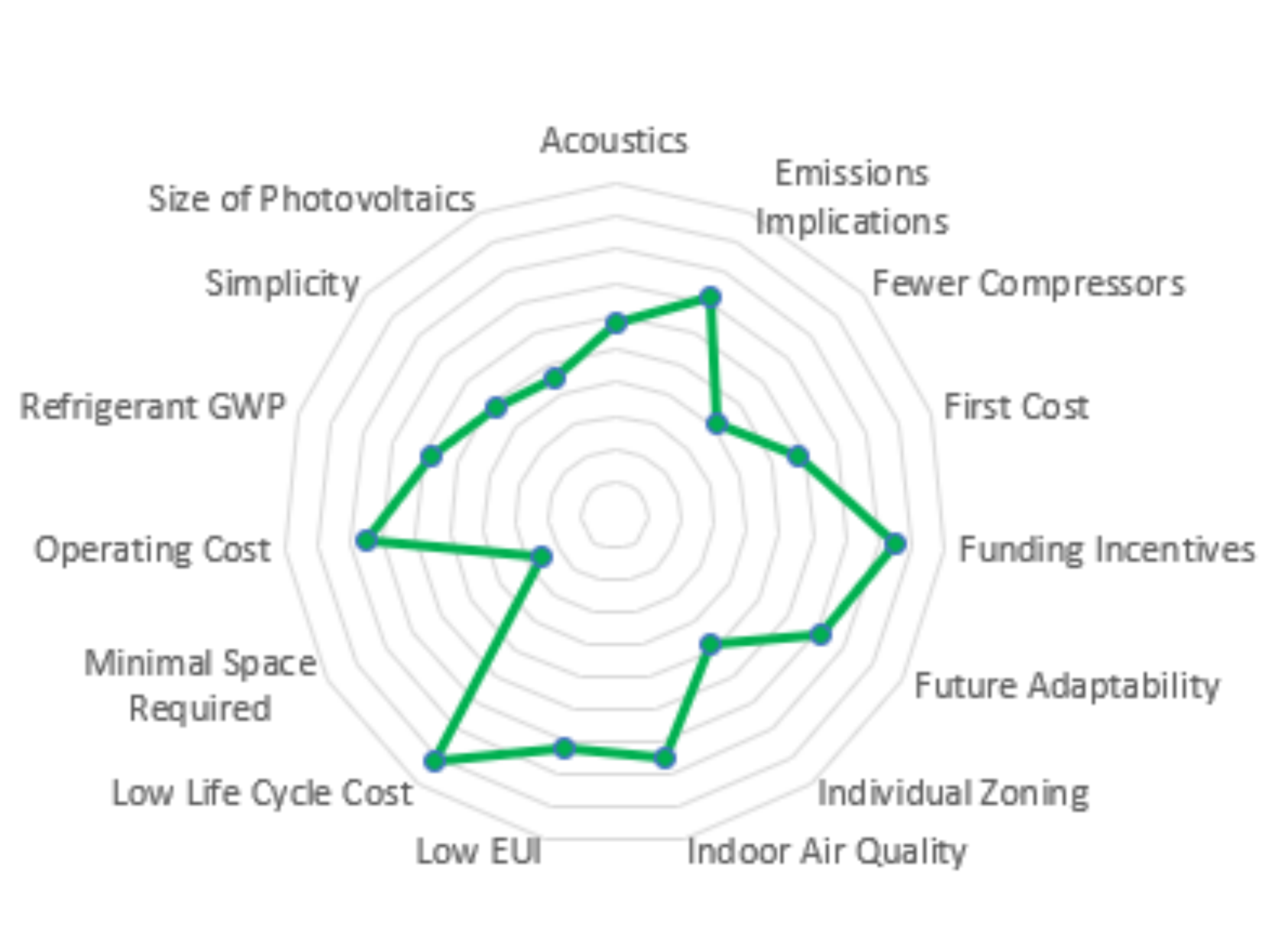
- Low Life Cycle Cost
- Funding Incentives
- Low EUI
- IAQ
- Emission Implications
- Future Adaptability
- Operating Cost

Medium Priority

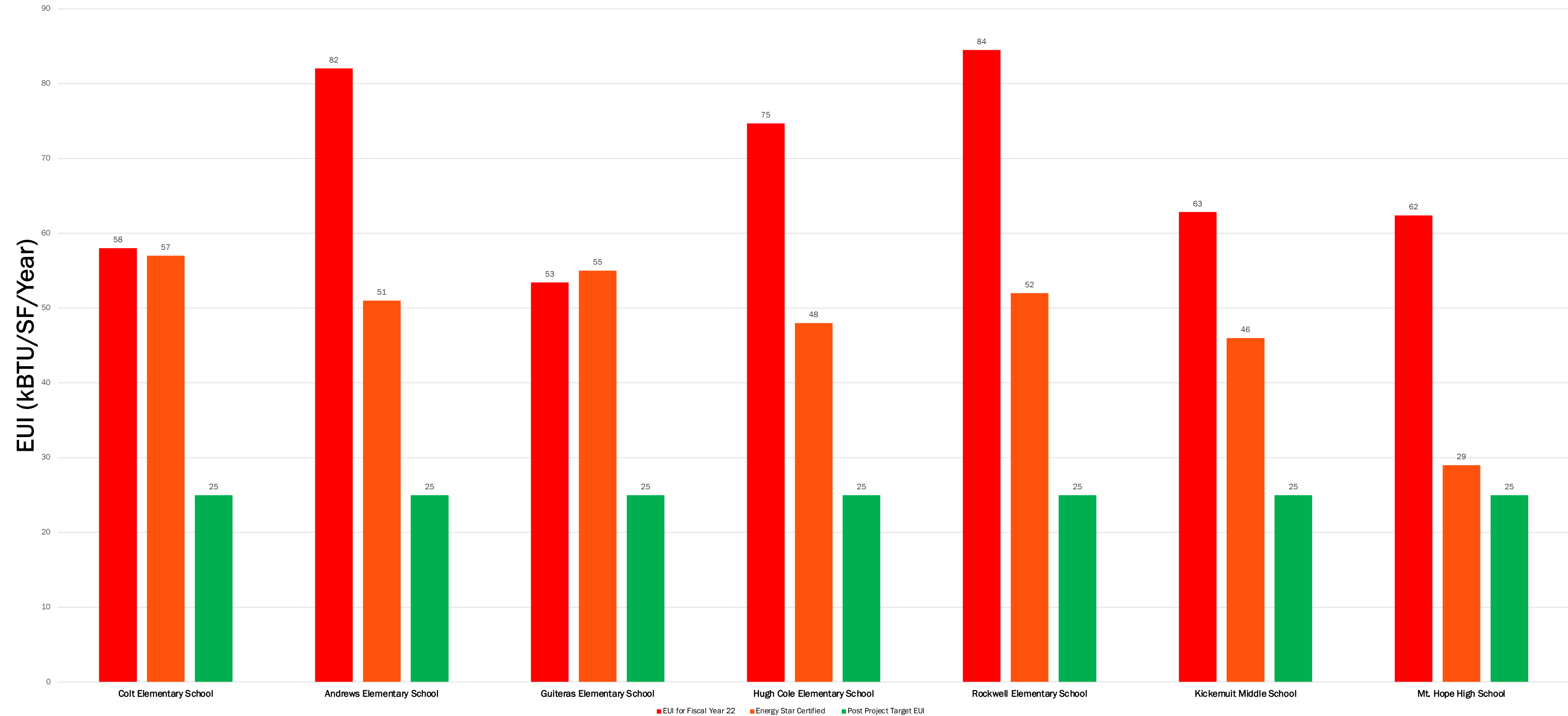
- Acoustics
- First Cost
- Refrigerant GWP
- Individual Zoning
- Fewer Compressors
- Simplicity
- PV Size

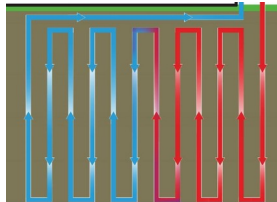

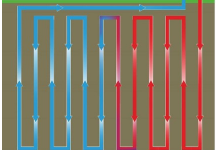



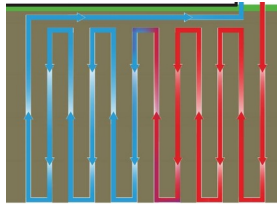

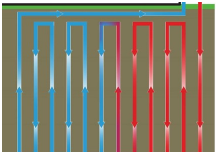






Low Priority

- Minimal Space Required



District Energy Benchmarking



	Option 1a – Electric GSHP	Option 1b - Electric VRF	Option 1c – Electric GSHP / ASHP	Option 2 – Natural Gas - VAV
Heating Source	Ground Source 	Air Source 	Ground & Air Source  	 
Cooling Source	Ground Source 	Air Source 	Ground & Air Source  	
Distribution	Heat Pump Unit 	Ceiling Cassette 	Heat Pump Unit 	

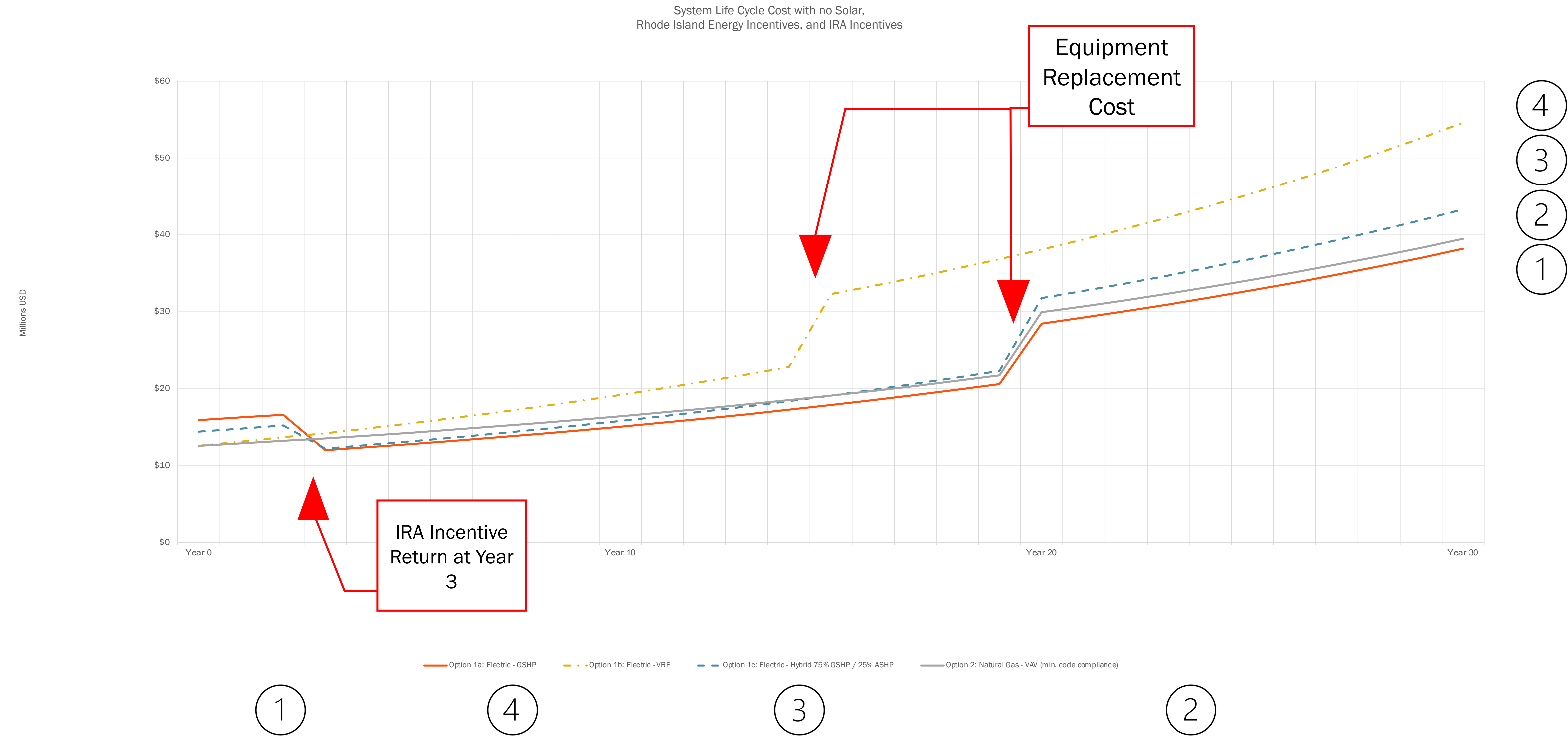
System Analysis without Solar PV

LCCA w/o Solar	Option 1a Ground Source Heat Pump (pEUI = 28)	Option 1b Air Source VRF (pEUI = 50)	Option 1c Hybrid GSHP/ASHP (pEUI = 34)	Option 2 Variable Air Volume (pEUI = 55)
Total Initial Investment	\$15,912,500	\$12,562,500	\$14,405,000	\$12,562,500
Rhode Island Energy Incentives	\$209,000	\$84,000	\$209,000	\$59,000
IRA Incentives	\$5,025,000	--	\$3,392,000	--
Annual Energy Cost	\$247,500	\$445,500	\$297,000	\$131,000
Annual Maintenance Cost	\$92,000	\$100,500	\$100,500	\$109,000
Future Replacement Cost	\$7,094,000	\$8,454,000	\$8,562,000	\$7,467,000
30 Year Life Cycle Cost	\$38.2 million	\$54.6 million	\$43.4 million	\$39.5 million

Assumptions:

- Utility Costs- used blended rates of \$0.182/kWh & \$1.2078/therm based on existing utility bills from Frates Center.
- Maintenance Costs- Rates used respectively are based on \$/sf standards.
- Replacement Cost- reflects Central Plant Equipment/Systems at year 20. The well field portion of first cost is excluded as the lifespan of the average well field is 50 years. Replacement portions vary by system.
- Market escalation rate: 2%.
- 30 Year LCC- This is the cumulative cost over 30 years. Includes first cost, energy cost, maintenance costs, replacement cost, and incentives. Market escalation, 2%. Electricity inflation, 5%.

Long term vs. Short term Value - Life Cycle Cost without Solar



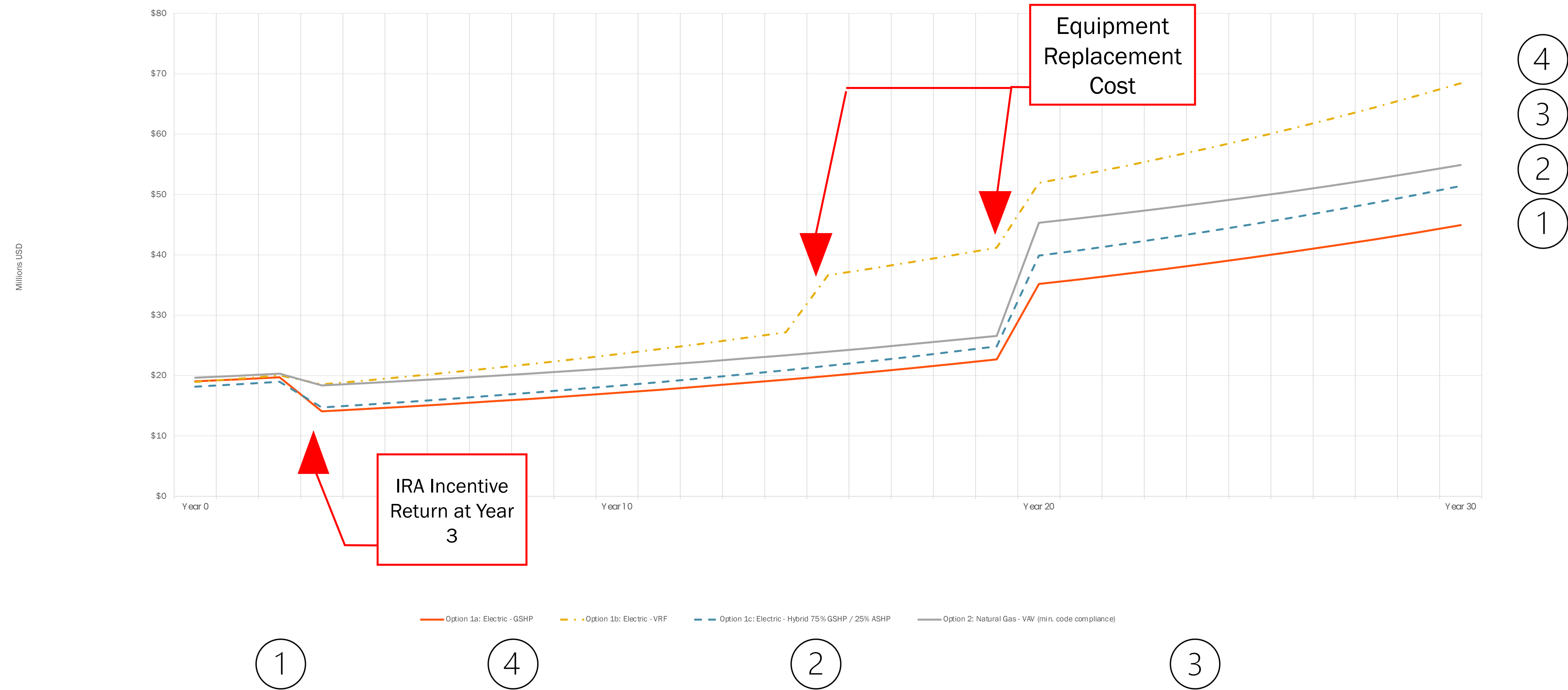
System Analysis with Solar PV

LCCA With Solar For Net Zero	Option 1a Ground Source Heat Pump (pEUI = 28)	Option 1b Air Source VRF (pEUI = 50)	Option 1c Hybrid GSHP/ASHP (pEUI = 34)	Option 2 Variable Air Volume (pEUI = 55)
Total Initial Investment	\$15,912,500 + \$3,124,000	\$12,562,500 + \$6,372,000	\$14,405,000 + \$3,749,000	\$12,562,500 + \$7,091,000
Rhode Island Energy Incentives	\$209,000 + \$100,000	\$84,000 + \$100,000	\$209,000 + \$100,000	\$59,000 + \$100,000
IRA Incentives	\$5,025,000 + \$937,000	\$1,912,000	\$3,392,000 + \$1,125,000	\$2,127,000
Annual Energy Cost	\$247,500	\$445,500	\$297,000	\$131,000
Annual Maintenance Cost	\$92,000	\$100,500	\$100,500	\$109,000
Future Replacement Cost	\$7,094,000 + \$4,642,000	\$8,454,000 + \$9,469,000	\$8,562,000 + \$5,571,000	\$7,467,000 + \$10,537,000
30 Year Life Cycle Cost	\$44.9 million	\$68.4 million	\$51.4 million	\$54.9 million

- Assumptions:
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Long term vs. Short term Value - Life Cycle Cost with Solar

System Life Cycle Cost with Solar, Rhode Island Energy Incentives, and IRA Incentives



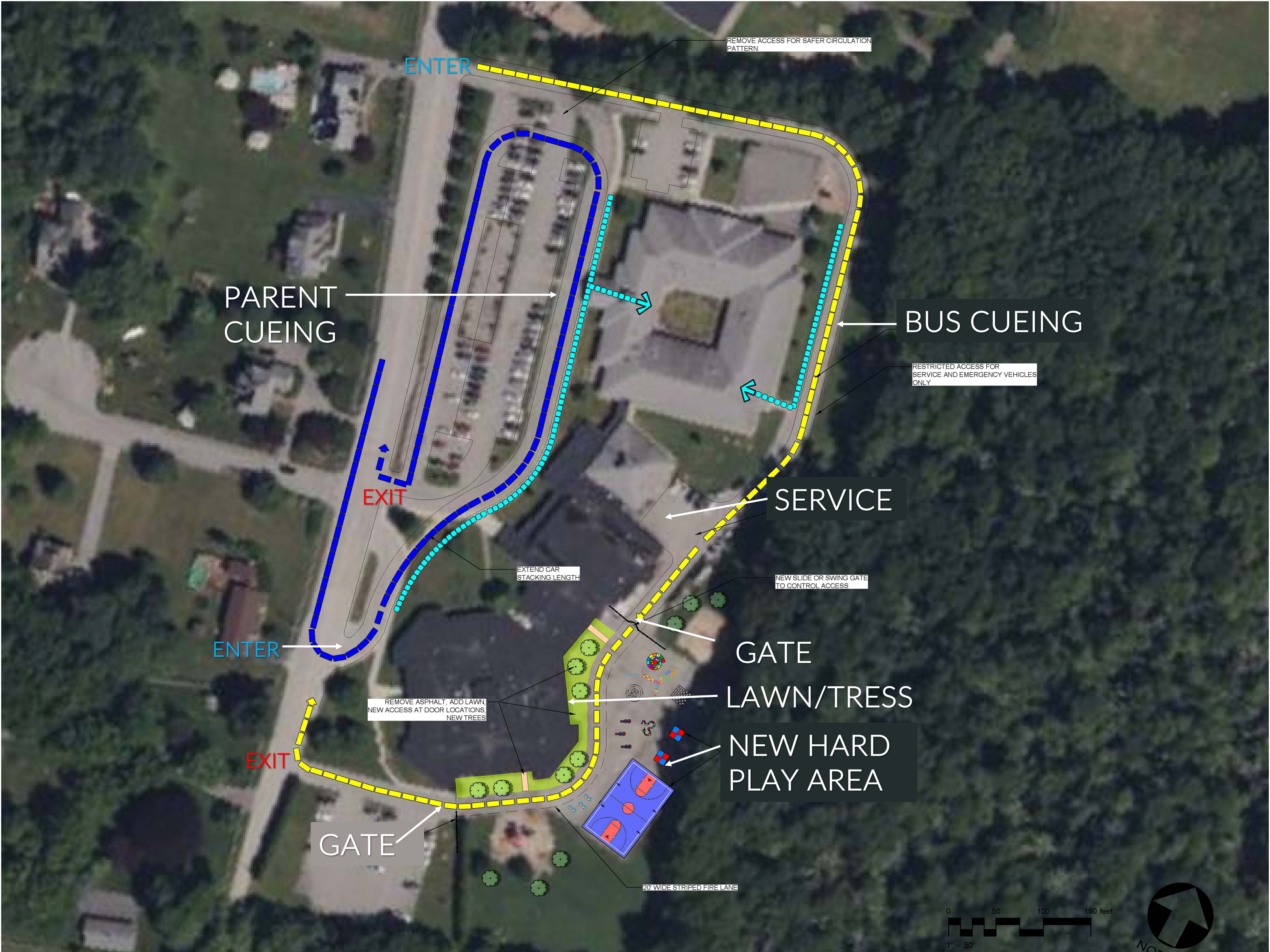


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ES/MS Site Improvements

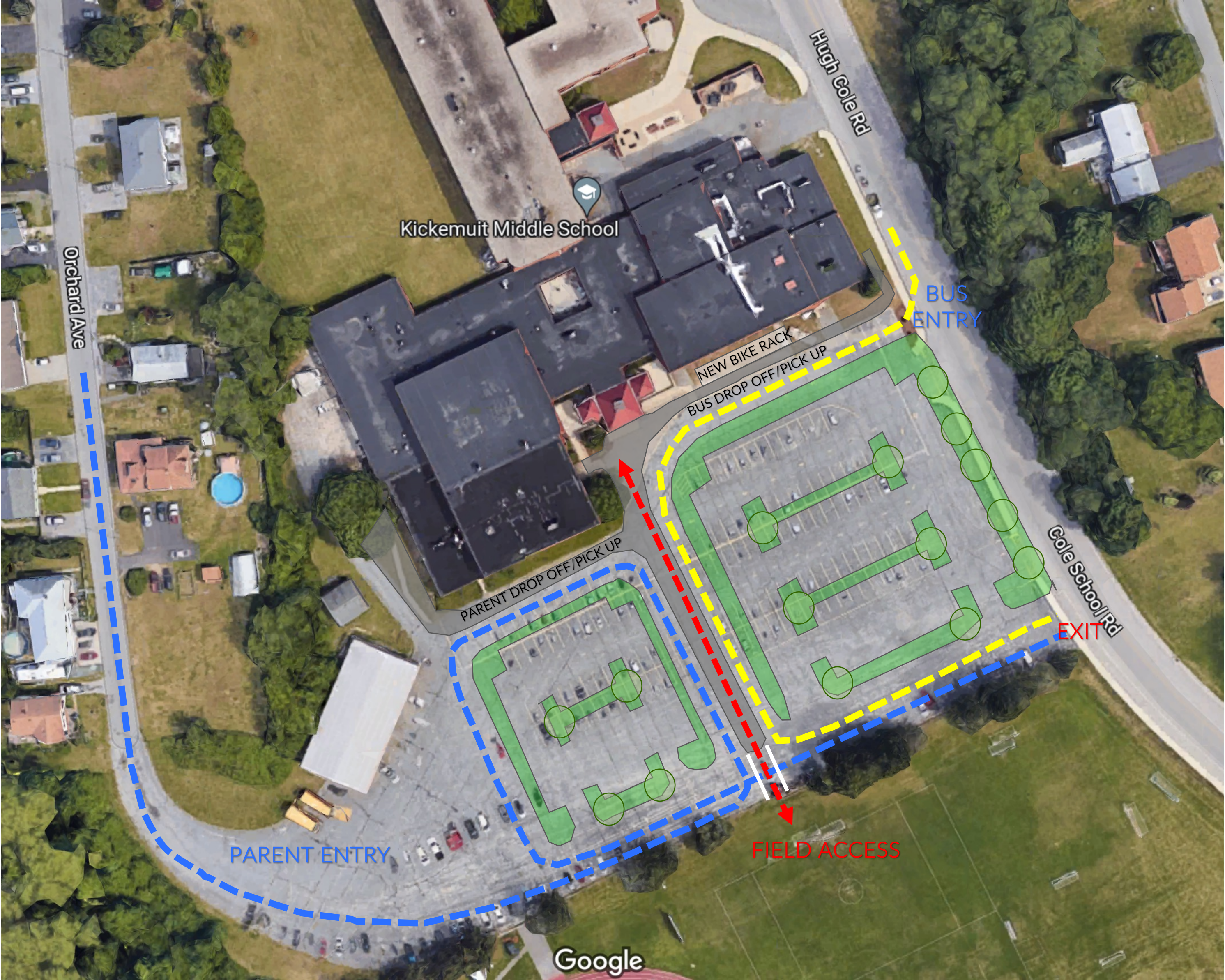
Hugh Cole Elementary School

SAFETY
IMPROVEMENTS: NEW
PLAY AREA AND DROP
OFF/PICK UP PATTERN



Kickemuit Middle School

SAFETY
IMPROVEMENTS: NEW
PARKING LOT
IMPROVEMENTS





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ES/MS Updates

Existing & Projected Enrollments

EXISTING FY '23 (RIDE), PROJECTED FY'28 (8/'23 URBANOMICS REPORT)

Existing (2022/23)		NESDEC	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	K-12 (w/o PK)
RIDE Database October 22																	
B	Colt-Andrews		20	35	43	44	42	58	58								280
B	Guiteras			42	34	34	36	45	43								234
W	Hugh-Cole		40	88	74	85	77	68	78								470
B	Rockwell			46	48	32	47	44	47								264
All Elementary			60	211	199	195	202	215	226								1248
W	Kickemuit									210	221	219					650
B	MHHS												221	194	244	220	879

Projected (2027/28)		PK	K	1	2	3	4	5	6	7	8	9	10	11	12	K-12
Urbanomics Cohort Survival Model - 5yr Method w/ RE Augment																(w/o PK)
B	Colt-Andrews		46	46	46	40	39	34								251
B	Guiteras		38	38	38	34	34	46								228
W	Hugh-Cole		85	82	80	65	65	87								464
B	Rockwell		41	41	42	36	39	50								249
All Elementary		66	210	207	206	175	177	217								1192
Kickemuit									206	200	204					610
MHHS												202	207	197	220	826
Urbanomics Cohort Survival Model - 5yr Method w/ RE Augment + Reconfiguration																(w/o PK)
B	Colt-Andrews		84	84	84	74	73									399
B	Guiteras															0
W	Hugh-Cole		85	82	80	65	65									377
B	Rockwell		41	41	42	36	39									199
All Elementary		66	210	207	206	175	177									975
Kickemuit								217	206	200	204					827
MHHS												202	207	197	220	826

* Note: Special Education - Transitions Program to return to the District and students added to MHHS

Colt-Andrews Elementary School

EXISTING PROGRAM (FY2023)

280 Students K-5 + 20 PK

13 CRs (2/Gr, 3/5th) +1 PK

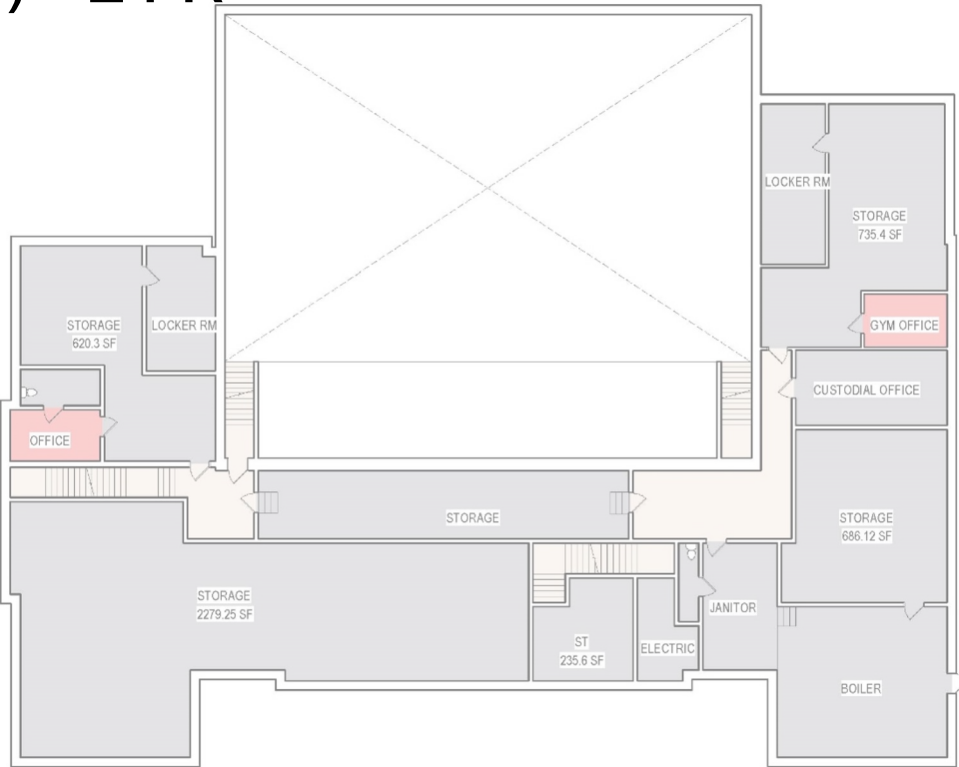
4 CRs Available

LEGEND

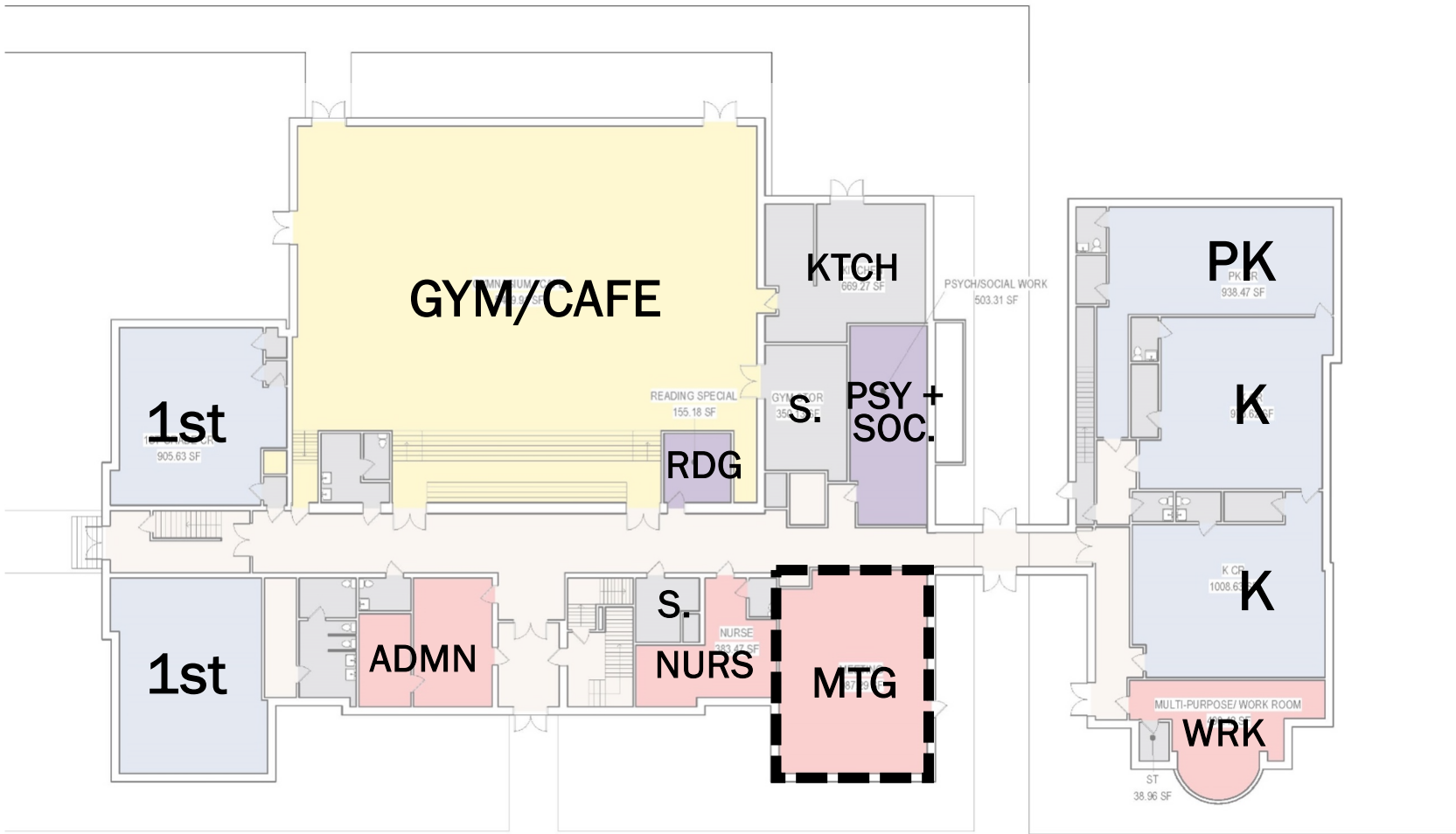
- ADMINISTRATION
- CTE / SC / ART /MUSIC
- GENERAL EDUCATION
- SPECIAL EDUCATION
- GYM/CAF/AUD/SPECIAL
- SPACES
- UTILITY/SUPPORT
- AVAILABLE ROOMS

ABBREVIATION LEGEND

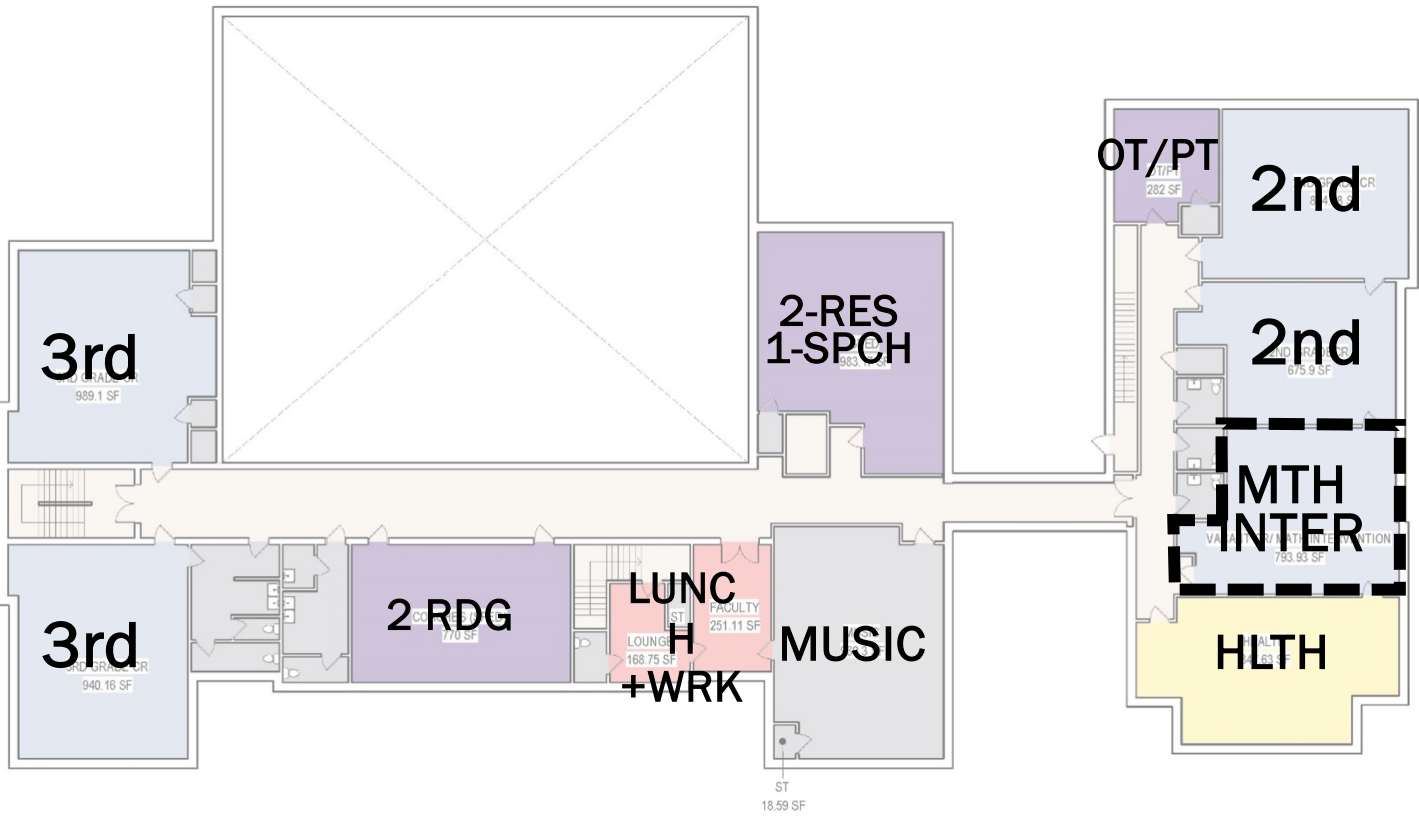
- AP – Assist. Principal
- C – Custodial
- CR – Classroom
- COZ – After School Program
- ISS – In School Suspension
- KTCH – Kitchen
- MECH – Mechanical
- MLL – Multi-Lang Lnrs
- MTG – Meeting/Conf.
- MTH – Math Specialist
- O – Office
- PSY – Psychologist
- RDG – Reading
- RES – SPED Resource
- S – Storage
- SCI – Science Lab
- SENS – SPED Sensory Rm
- SOC – Social Worker
- SM – Small Group
- SPCH -Speech
- SSO – Safety Officer
- WL – World Language
- WRK – Teacher Work



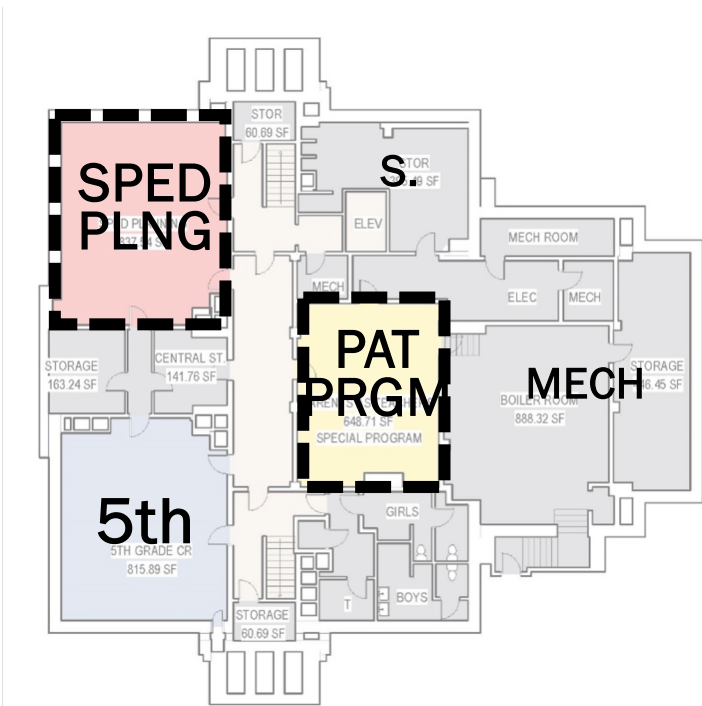
ANDREWS SCHOOL
BASEMENT LEVEL



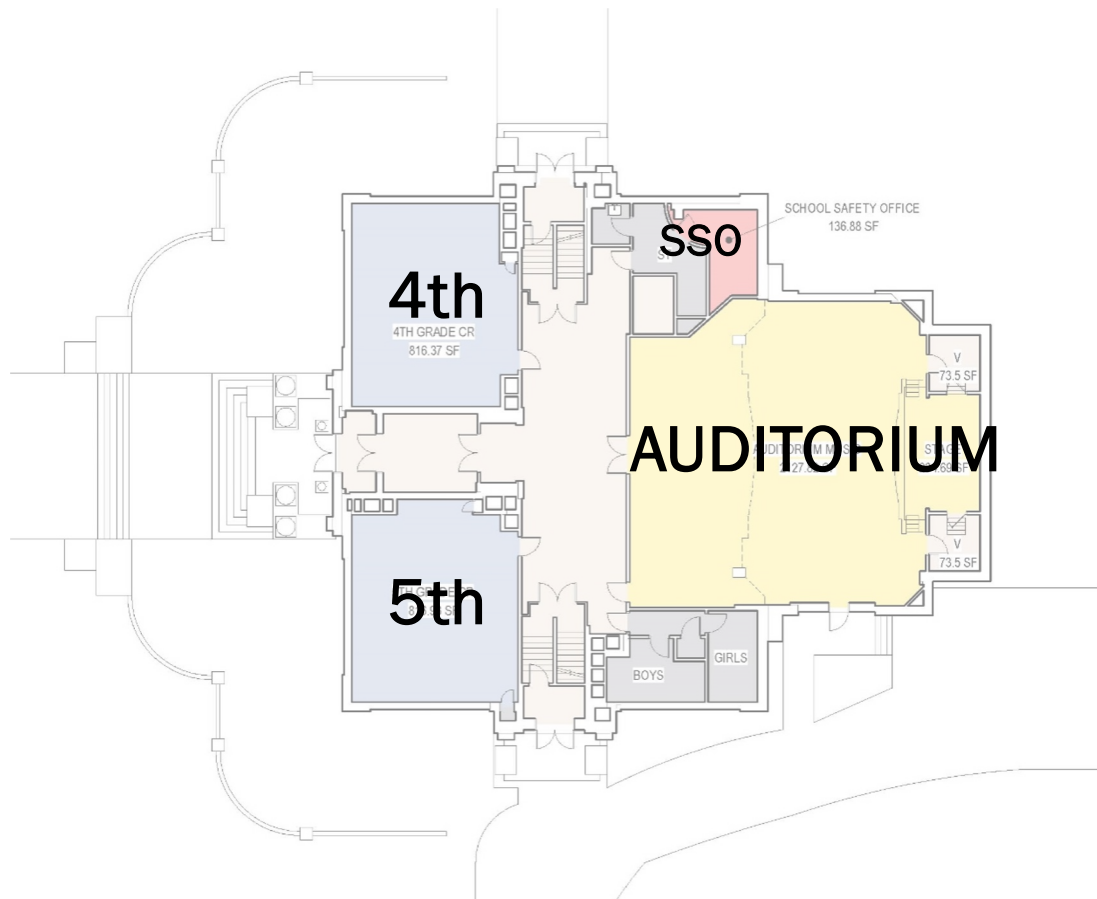
FIRST FLOOR
LEVEL



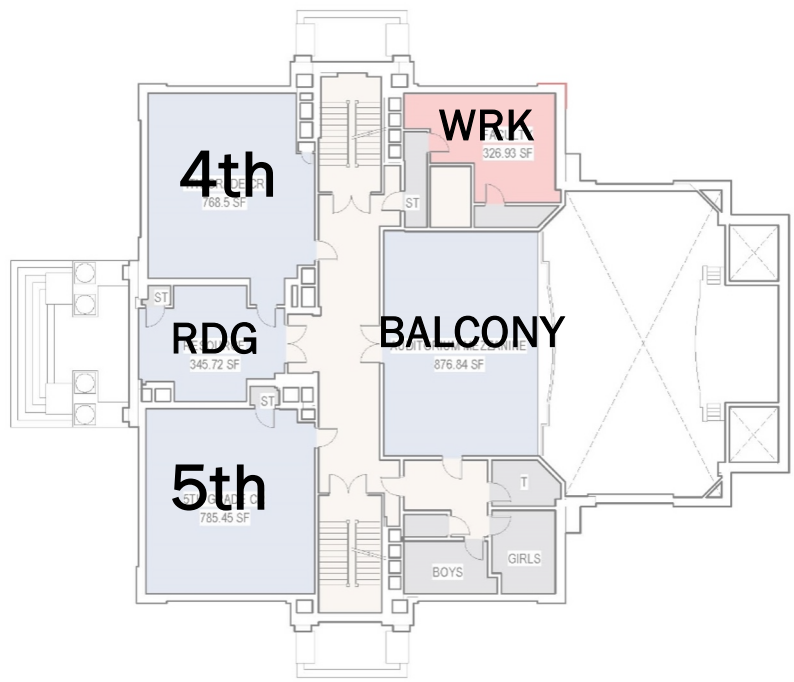
SECOND FLOOR
LEVEL



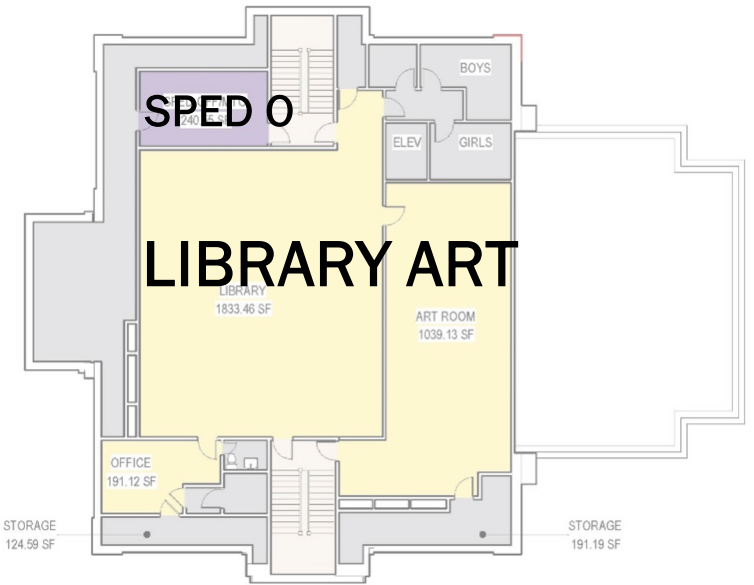
COLT SCHOOL
LOWER LEVEL



FIRST FLOOR
LEVEL



SECOND FLOOR
LEVEL



THIRD FLOOR LEVEL

Colt-Andrews Elementary School

PROJECTED PROGRAM (FY2028)

399 Students K-4 + 11 PK

20 CRs (4/Gr) +1 PK

Health in CRs, 0 Available

LEGEND

ADMINISTRATION

CTE / SC / ART /MUSIC

GENERAL EDUCATION

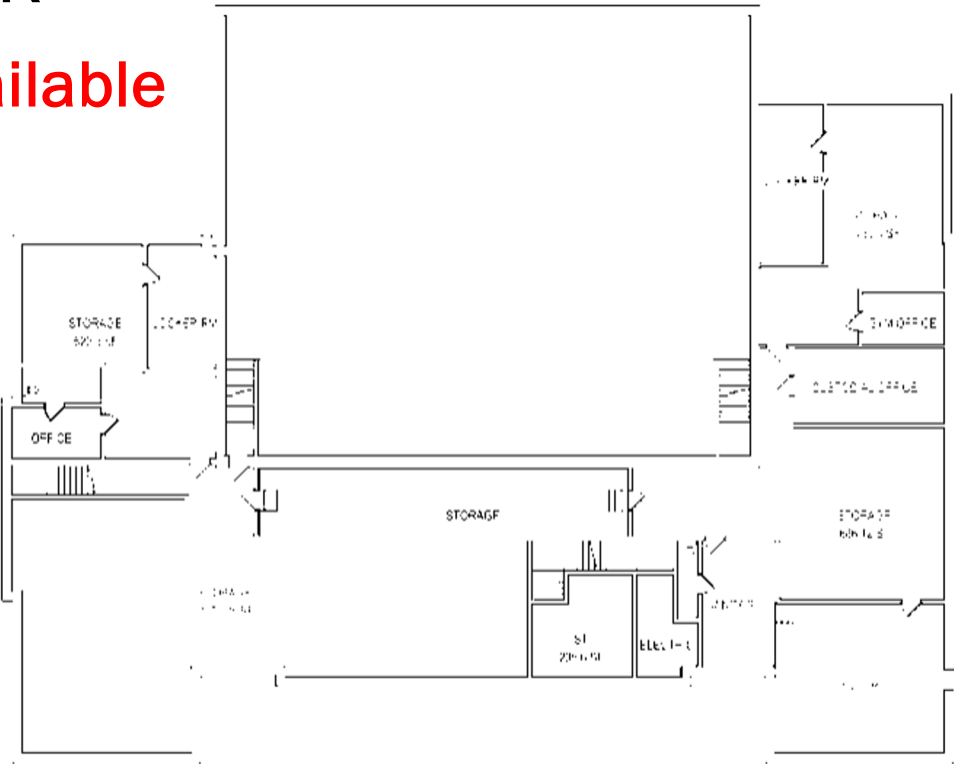
SPECIAL EDUCATION

GYM/CAF/AUD/SPECIAL

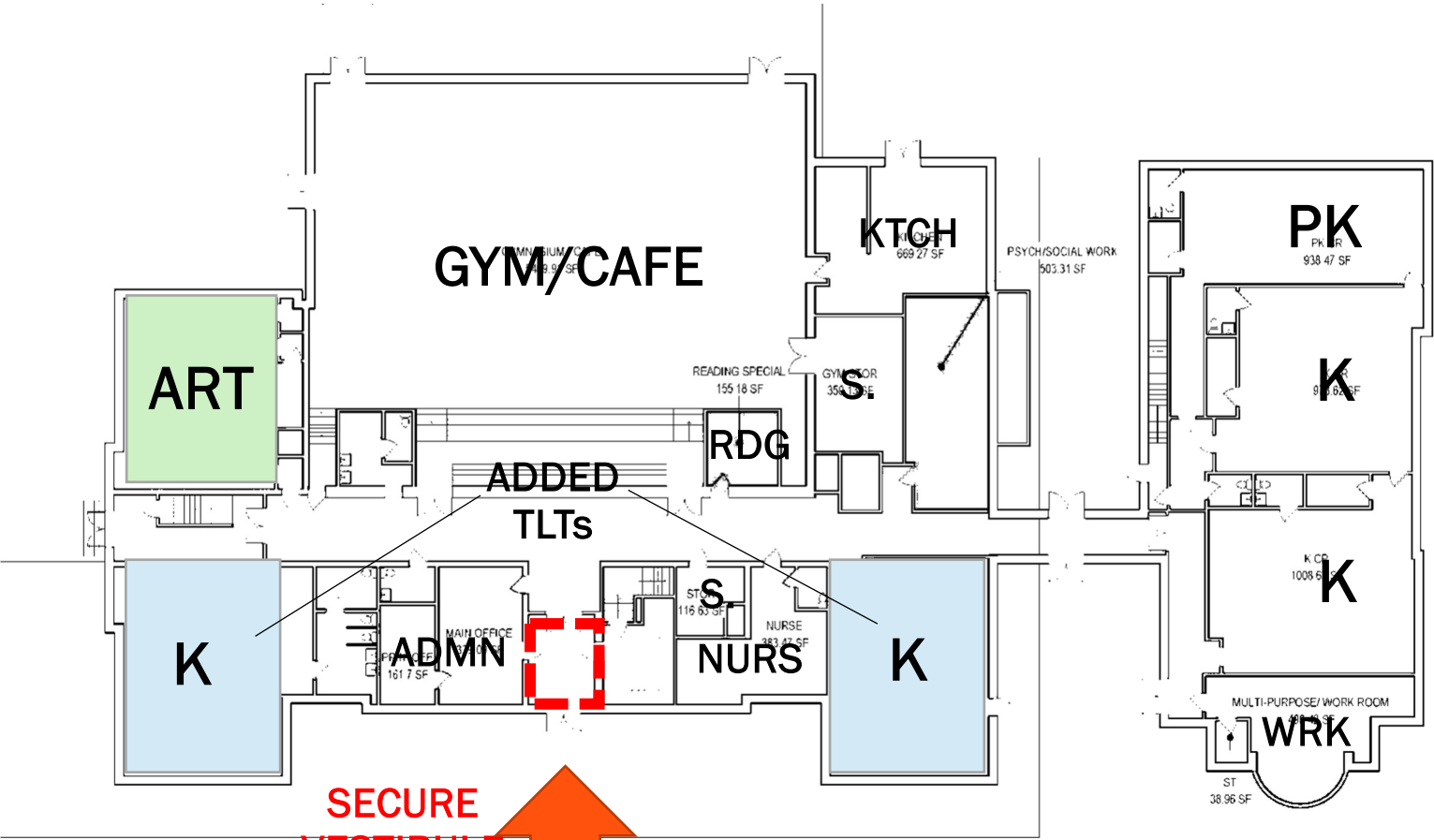
SPACES

UTILITY/SUPPORT

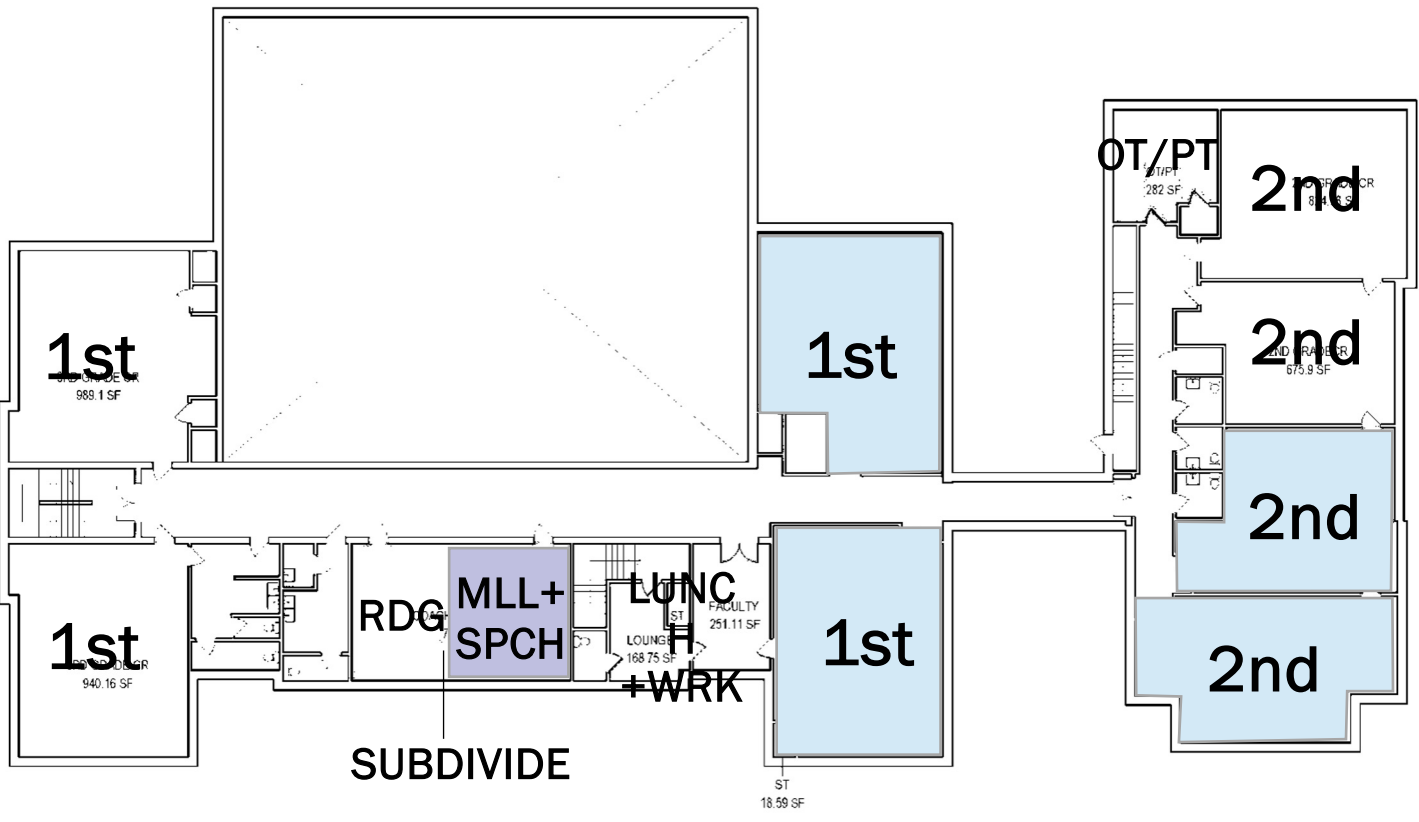
AVAILABLE ROOMS



ANDREWS SCHOOL
BASEMENT LEVEL



FIRST FLOOR
LEVEL

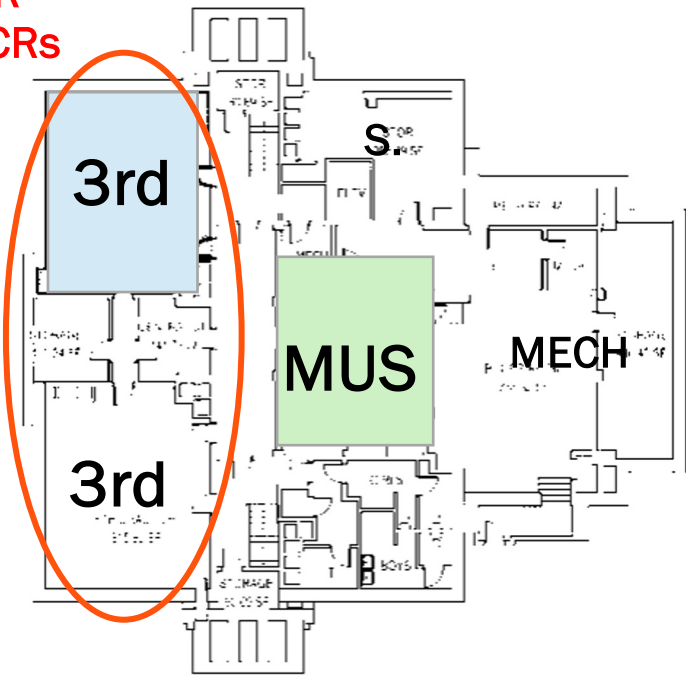


SECOND FLOOR
LEVEL

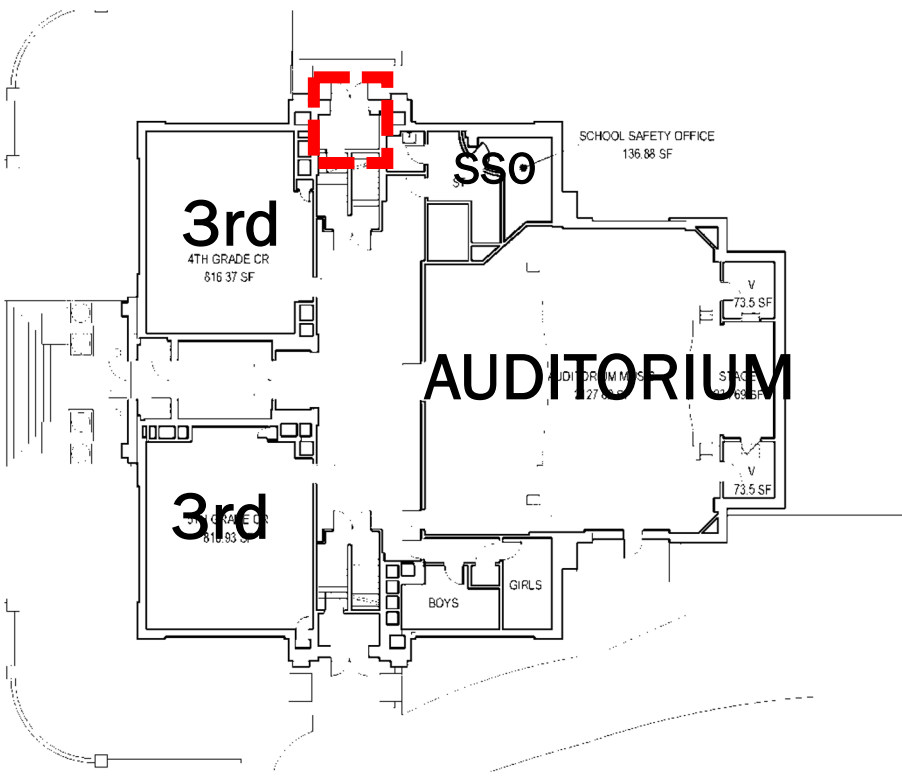
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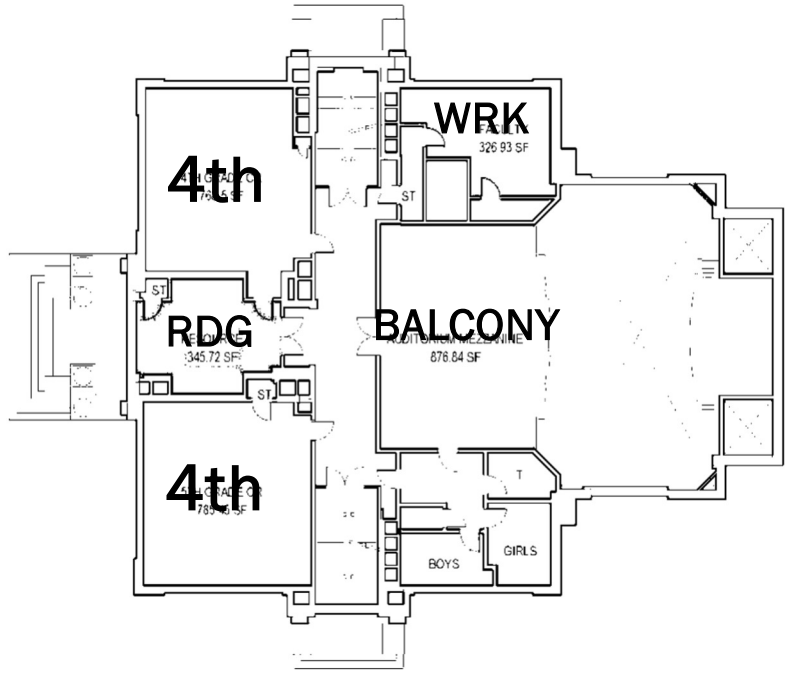
LOWER-
LEVEL CRs



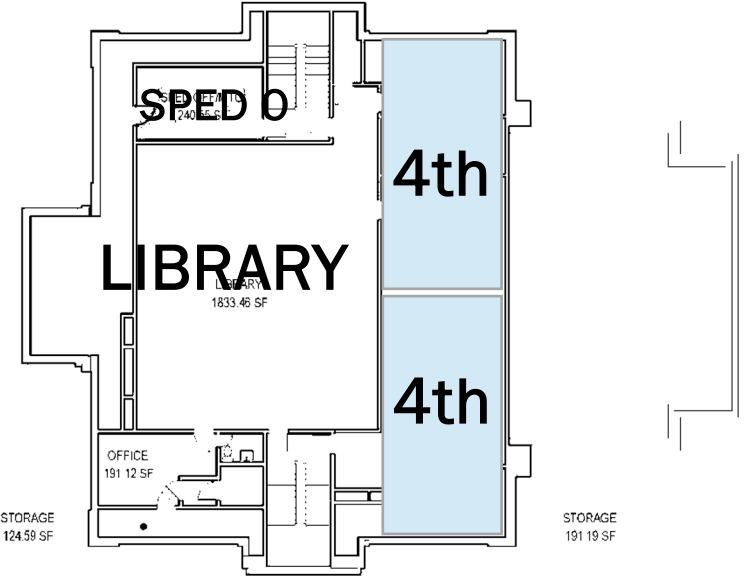
COLT SCHOOL
LOWER LEVEL



FIRST FLOOR
LEVEL



SECOND FLOOR
LEVEL



THIRD FLOOR LEVEL

Colt-Andrews Elementary School

LOWER LEVEL CLASSROOM VS UPPER LEVEL LIBRARY SPACE



Guiteras, Hugh-Cole & Rockwell

EXISTING PROGRAM (FY2023)

LEGEND

ADMINISTRATION

CTE / SC / ART / MUSIC

GENERAL EDUCATION

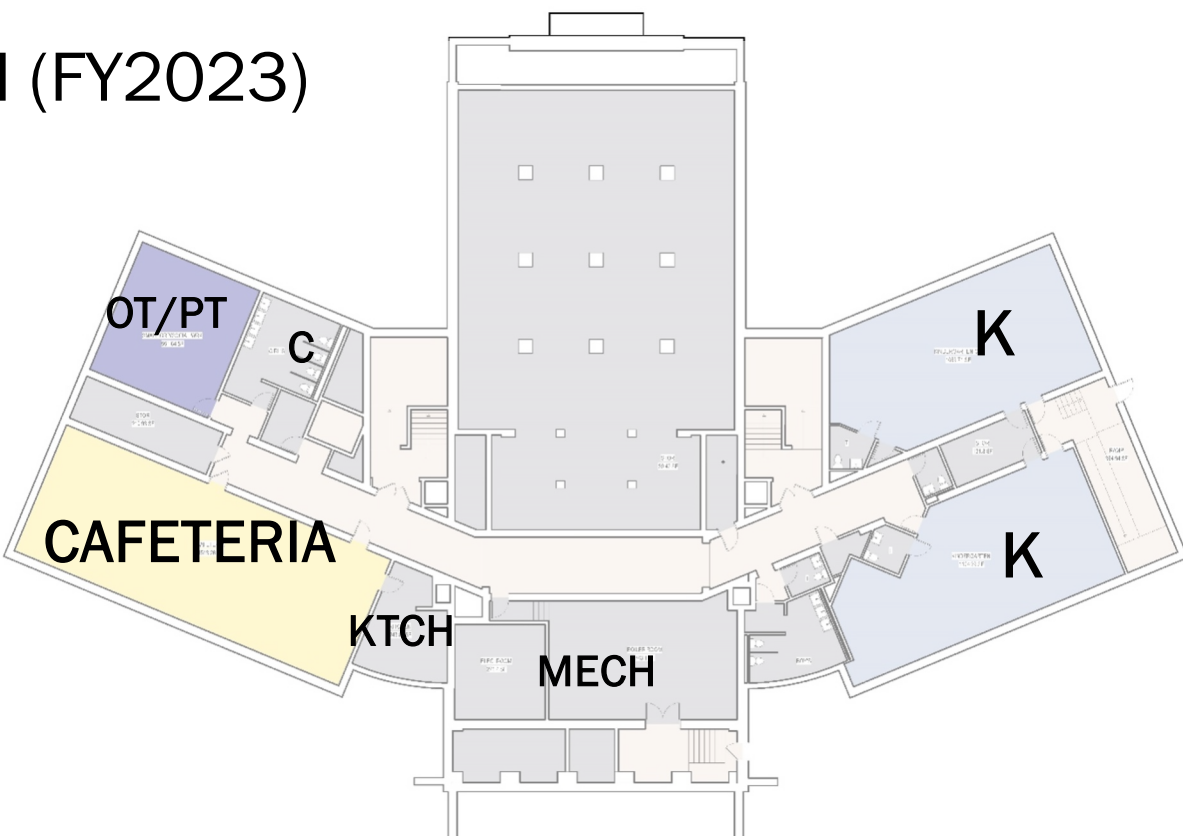
SPECIAL EDUCATION

GYM/CAF/AUD/SPECIAL

SPACES

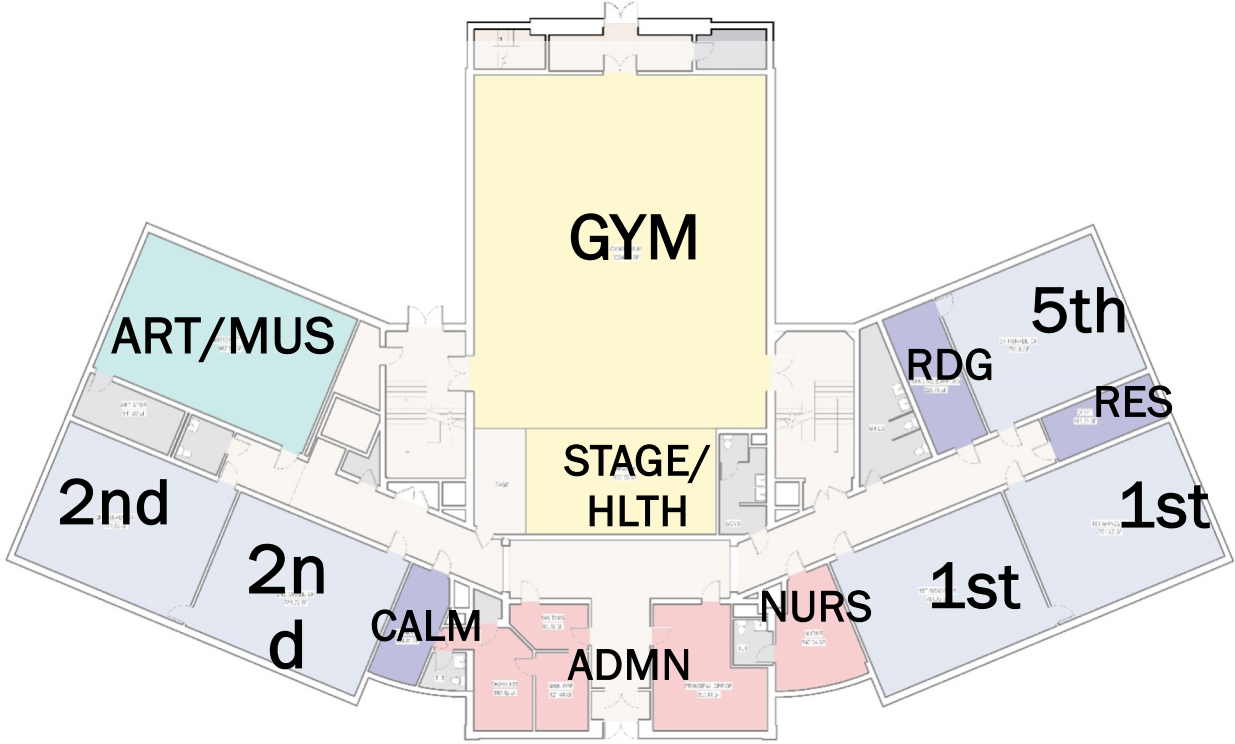
UTILITY/SUPPORT

AVAILABLE ROOMS

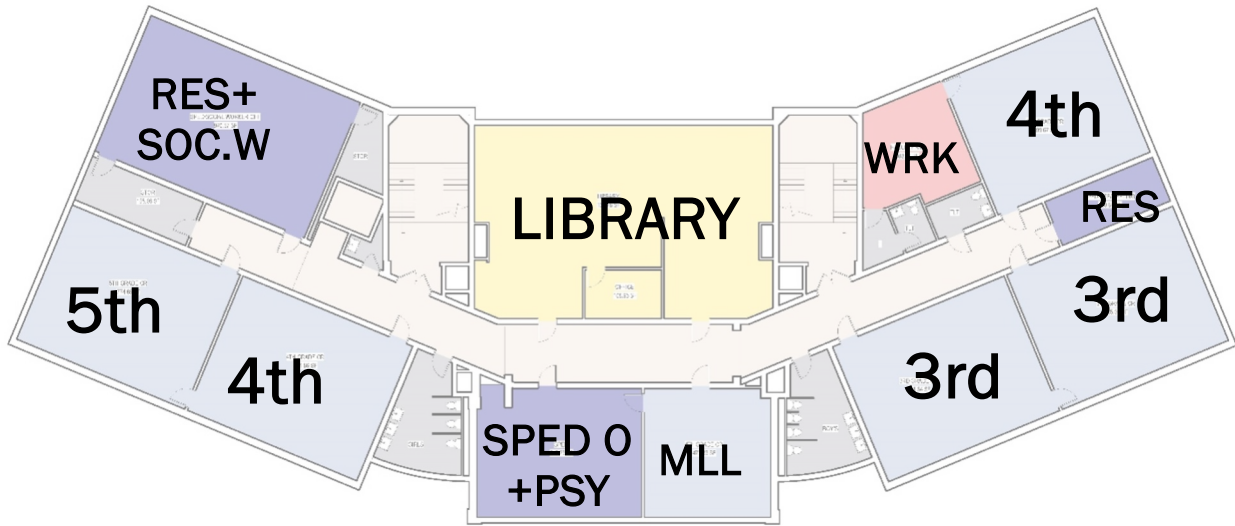


GUITERAS SCHOOL LOWER LEVEL

234 Students K-5
12 CRs (2/Gr)
0 CRs Available (Art/Music share)



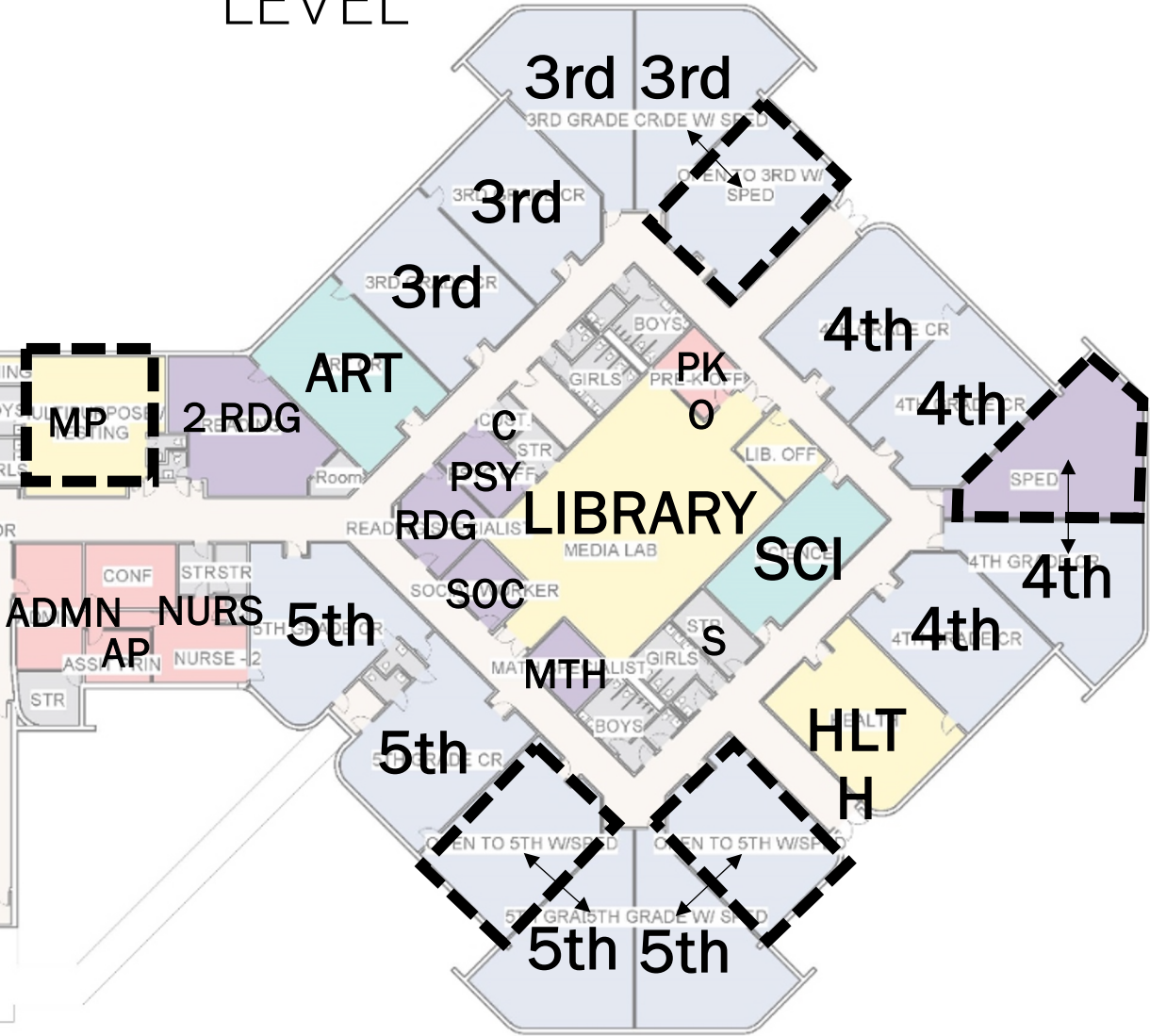
FIRST FLOOR LEVEL



SECOND FLOOR LEVEL



HUGH-COLE SCHOOL
470 Students K-5 + 40 PK
24 CRs (4/Gr) + 3 PK
5 CRs Available

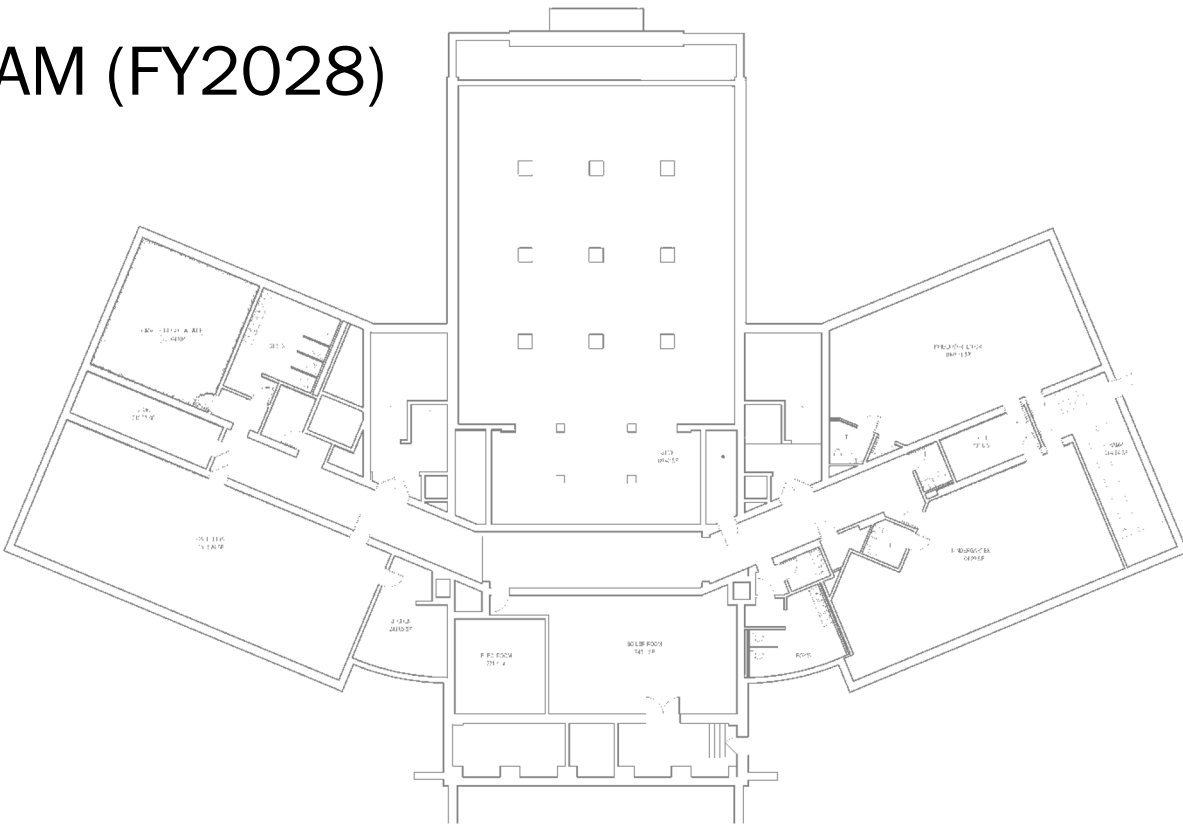


ROCKWELL SCHOOL
264 Students K-5
12 CRs (2/Gr)
1 Available (if Art/Music share)

Guiteras, Hugh-Cole & Rockwell

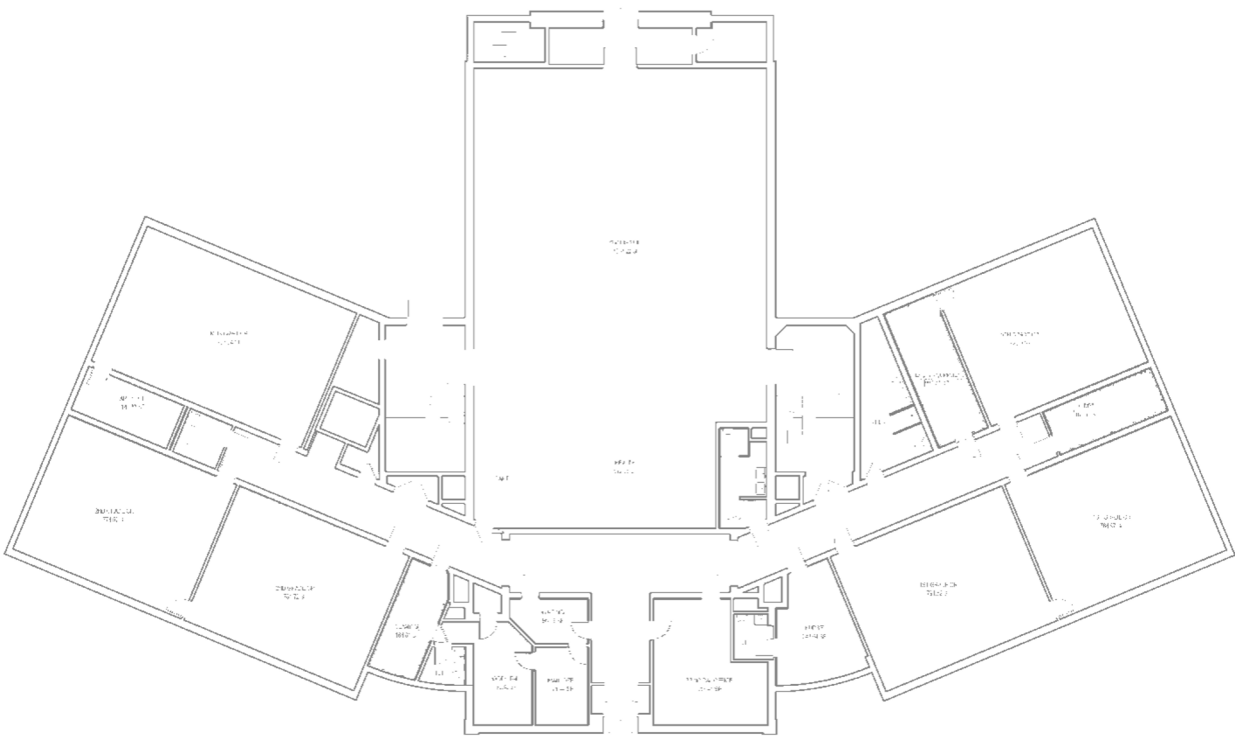
PROJECTED PROGRAM (FY2028)

- LEGEND
- ADMINISTRATION
 - CTE / SC / ART / MUSIC
 - GENERAL EDUCATION
 - SPECIAL EDUCATION
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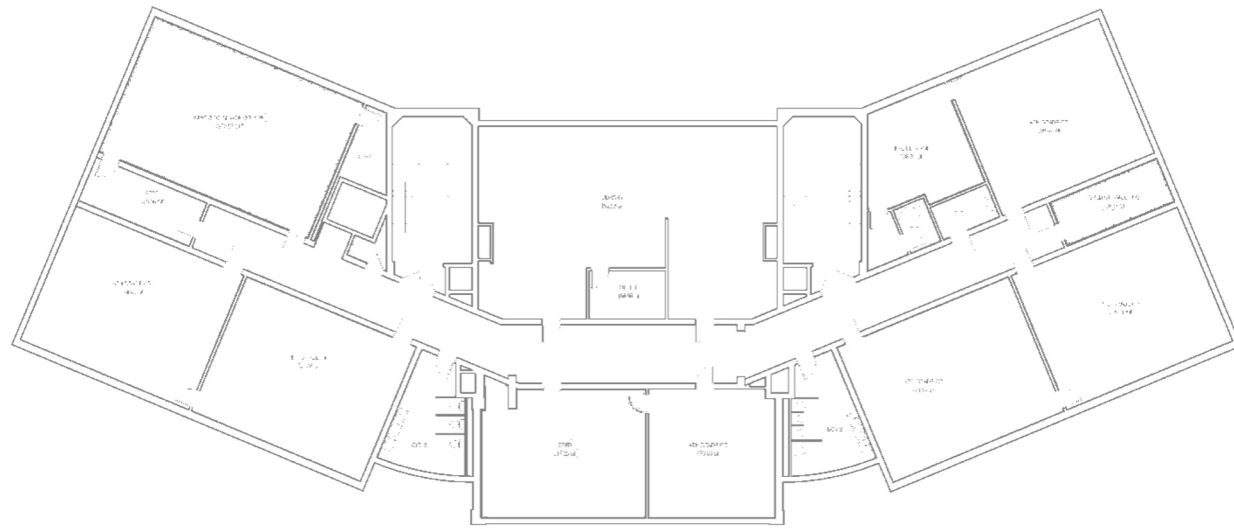


GUITERAS SCHOOL LOWER LEVEL

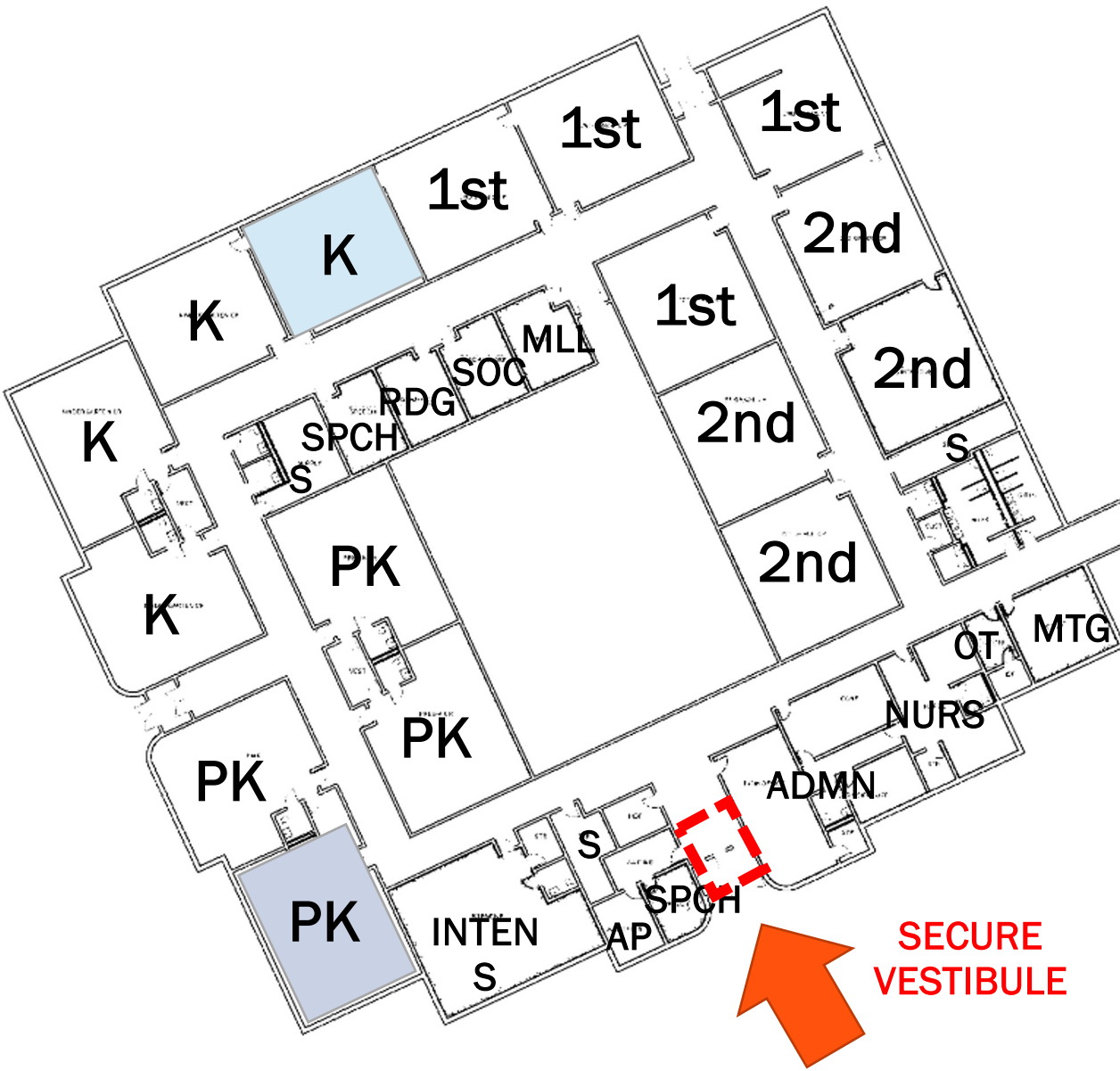
182 Students Redistributed to Hugh-Cole & Rockwell



FIRST FLOOR LEVEL

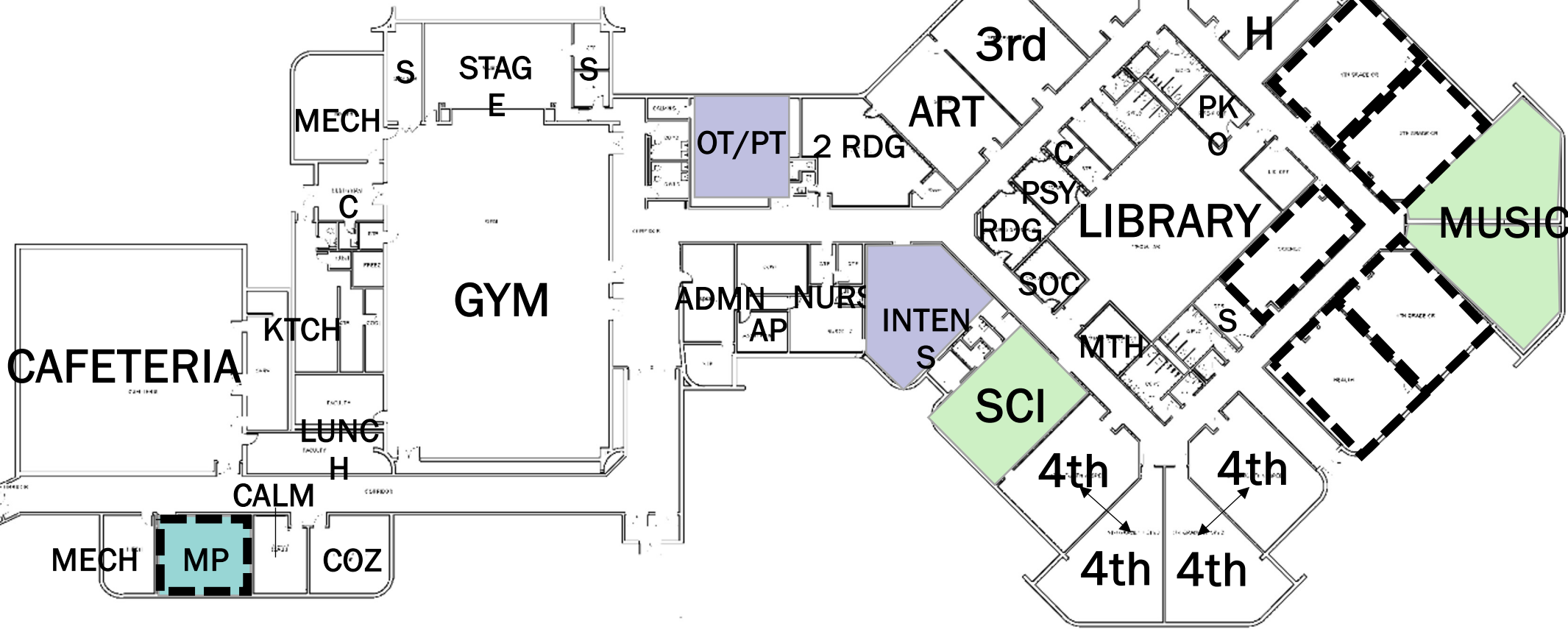


SECOND FLOOR LEVEL



HUGH-COLE SCHOOL
377 Students K-4 + 44 PK
20 CRs (4/Gr) + 4 PK

6 CRs Available (8 if music on stage)



ROCKWELL SCHOOL
199 Students K-4 + 1 PK
10 CRs (2/Gr) + 1 PK

0 Available (if sep. Art/Music)

Kickemuit Middle School

EXISTING PROGRAM (FY2023)

650 Students, Grades 6-8
24 CRs + 6 Sci (2.5
Tms/Gr)

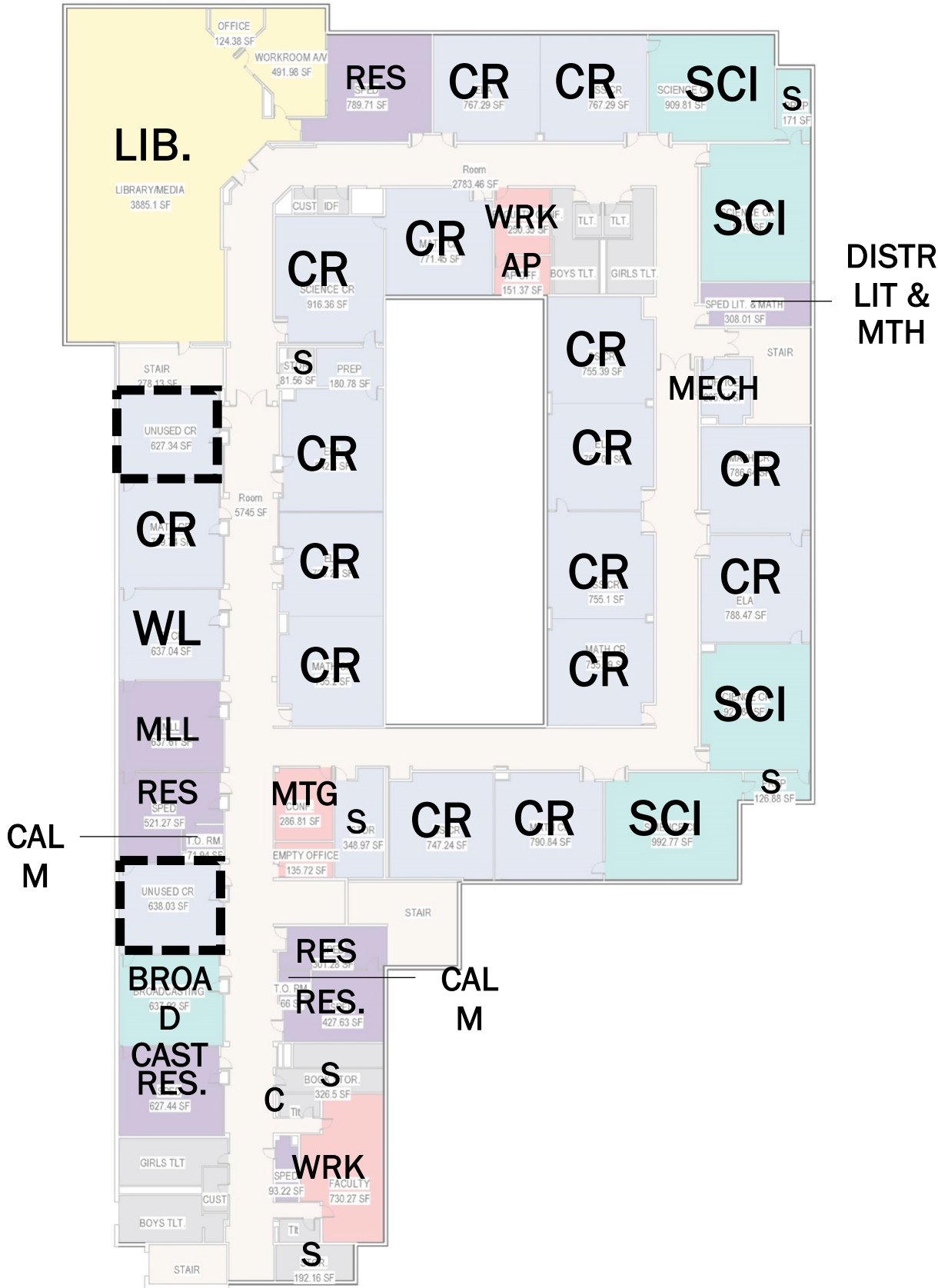
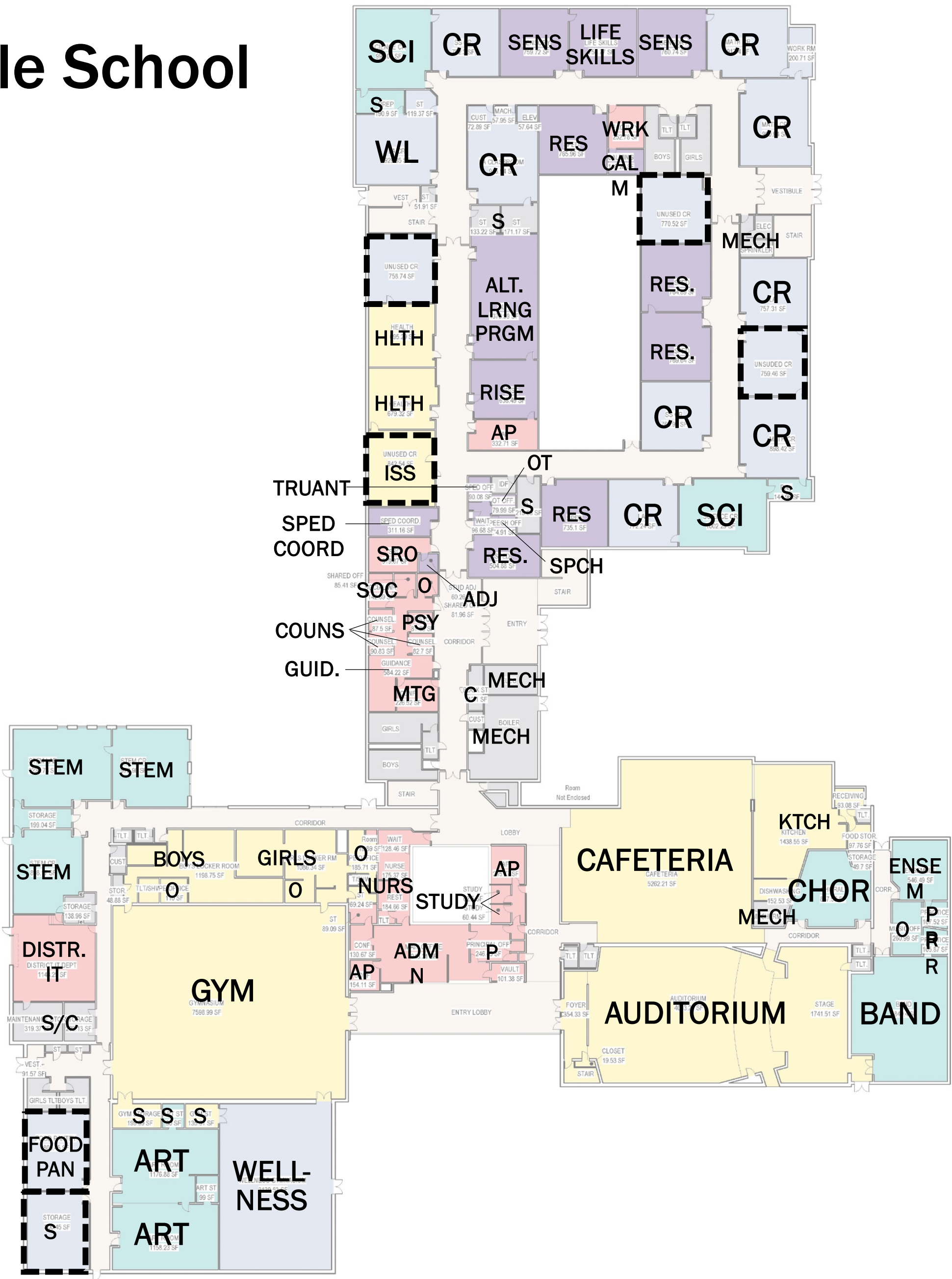
2 CRs Available

LEGEND

- ADMINISTRATION
- CTE / SC / ART /MUSIC
- GENERAL EDUCATION
- SPECIAL EDUCATION
- GYM/CAF/AUD/SPECIAL
- SPACES
- UTILITY/SUPPORT
- AVAILABLE ROOMS

ABBREVIATION LEGEND

- AP – Assist. Principal
- C – Custodial
- CR – Classroom
- COZ – After School Program
- ISS – In School Suspension
- KTCH – Kitchen
- MECH – Mechanical
- MLL – Multi-Lang Lnrs
- MTG – Meeting/Conf.
- MTH – Math Specialist
- O – Office
- PSY – Psychologist
- RDG – Reading
- RES – SPED Resource
- S – Storage
- SCI – Science Lab
- SENS – SPED Sensory Rm
- SOC – Social Worker
- SM – Small Group
- SPCH -Speech
- SSO – Safety Officer
- WL – World Language
- WRK – Teacher Work



PROJECTED PROGRAM (FY2028)

827 Students, Grades 5-8
24 CRs + 6 Sci (2.5
Tms/Gr)

2 CRs Avail (ISS + Pantry)

LEGEND

- ADMINISTRATION
- CTE / SC / ART /MUSIC
- GENERAL EDUCATION
- SPECIAL EDUCATION
- GYM/CAF/AUD/SPECIAL
- SPACES
- UTILITY/SUPPORT
- AVAILABLE ROOMS

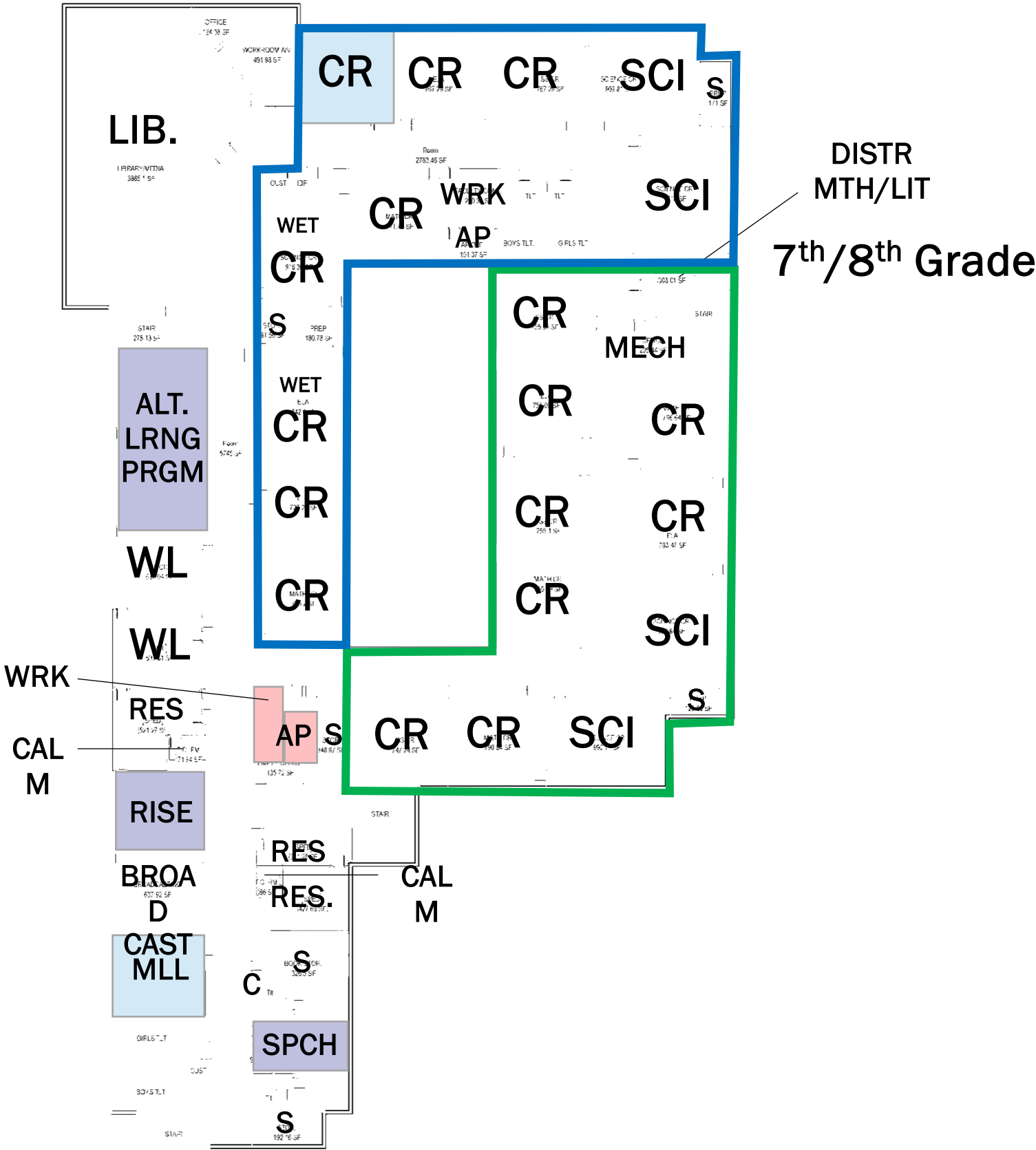
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PERKINS EAST



5th/6th Grade



7th/8th Grade



PMA Consultants

COMMUNITY OUTREACH

OUTREACH

Community

- ☐ Website Updates
- ☐ Bristol Concert Series
- ☐ Warren Concert Series
- ☐ Hope & Main Schoolyard Markets
- ☐ Community Night Out (8/16)
- ☐ Class of 2027 Welcoming (8/23)
- ☐ MHHS Tours & Community Forum (8/23)

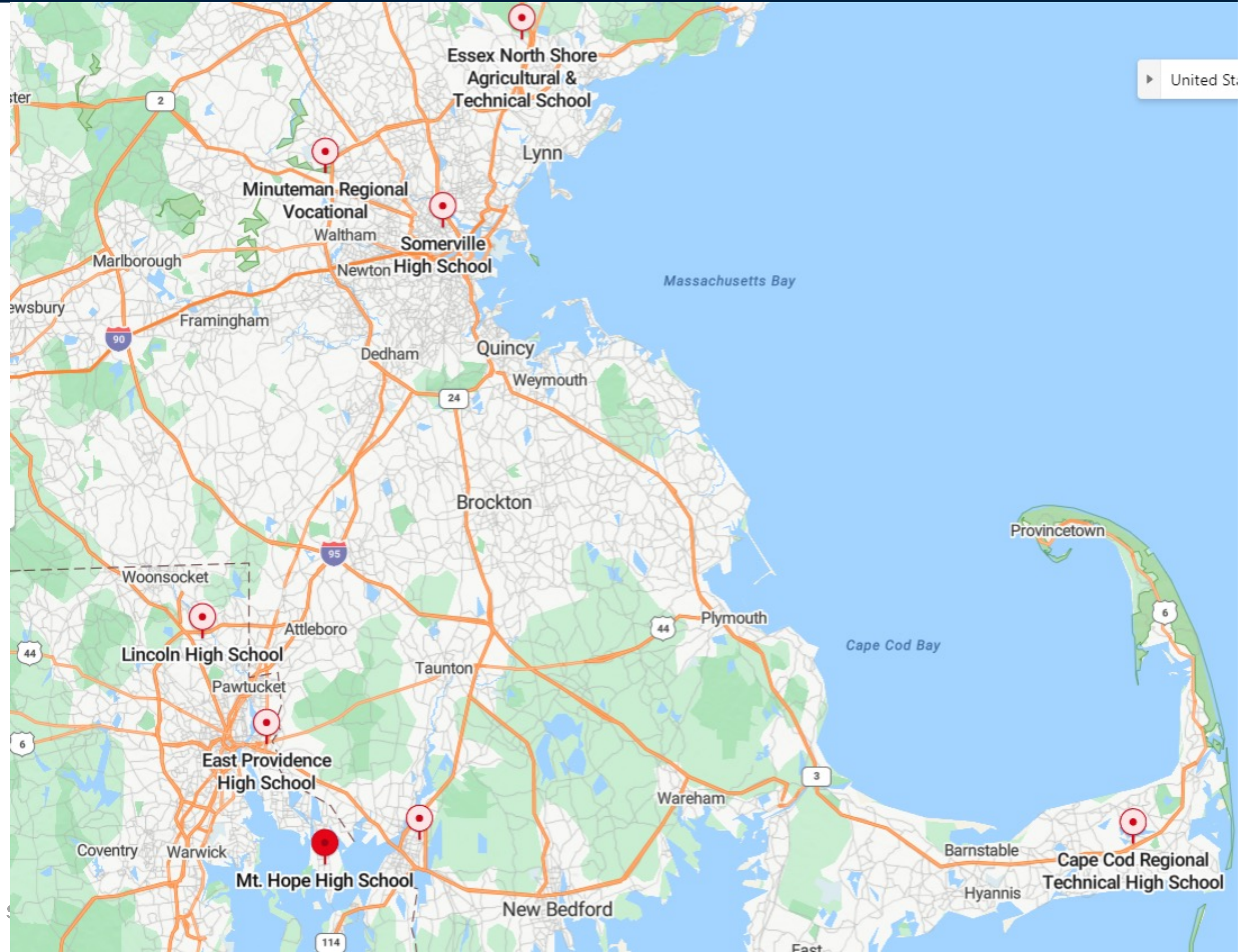
Other Public Meetings / Events

- ☐ School Committee Updates
- ☐ Building Committee Meetings
- ☐ Town Council Presentations (Bristol and Warren)
- ☐ Bristol Historic District Commission

BUILDING TOURS

Options:

- ☐ Somerville High School
(CTE w/ Construction)
- ☐ Essex Agricultural
(CTE w/ Construction)
- ☐ Cape Cod Tech
(CTE w/ Construction)
- ☐ Durfee HS
(CTE w/ Construction)
- ☐ Minuteman Tech
(CTE w/ Construction)
- ☐ East Providence HS
(CTE w/ Construction)
- ☐ Lincoln HS (add-reno)
(no CTE)





PMA Consultants

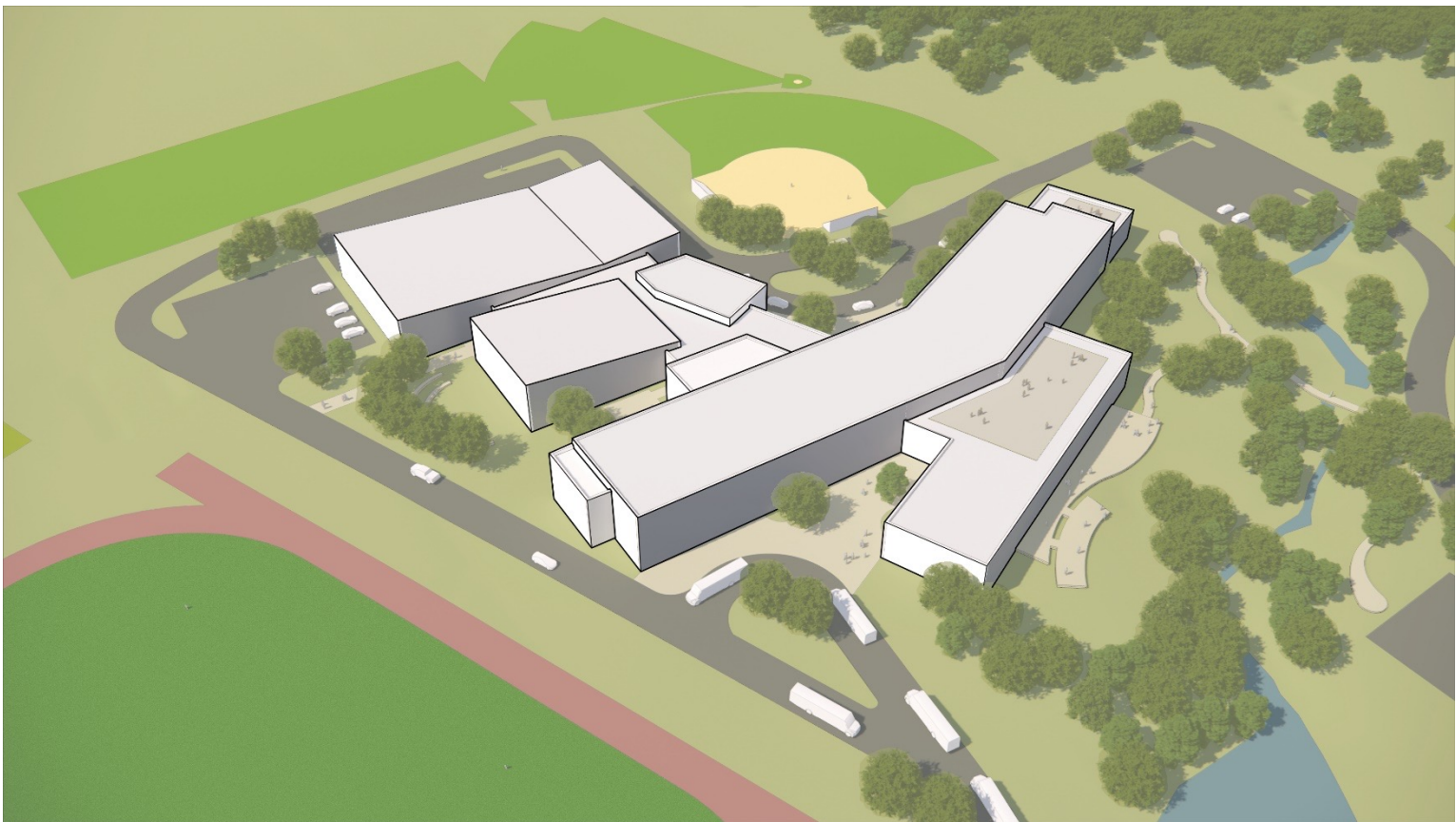
HS Design Updates

Options

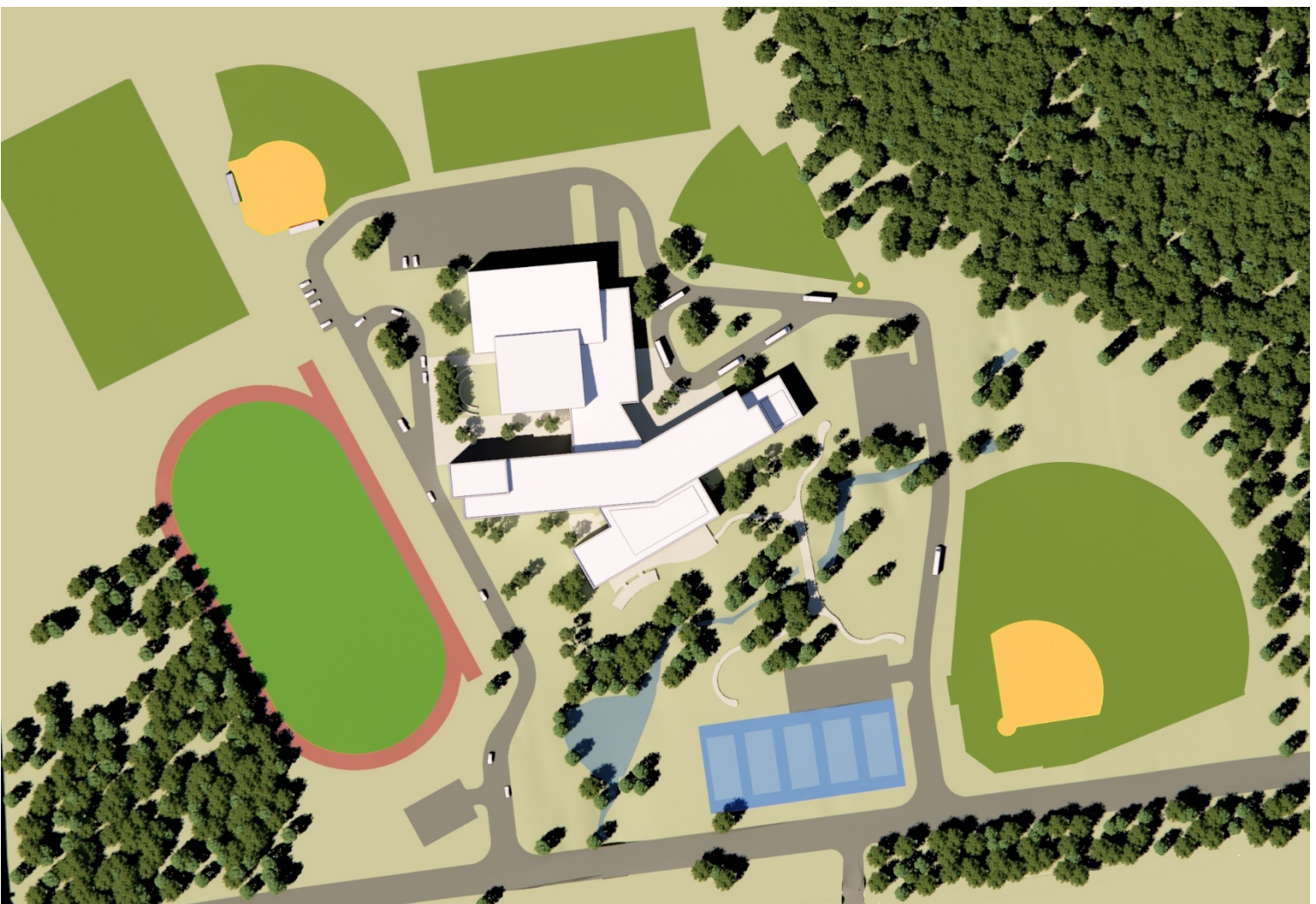
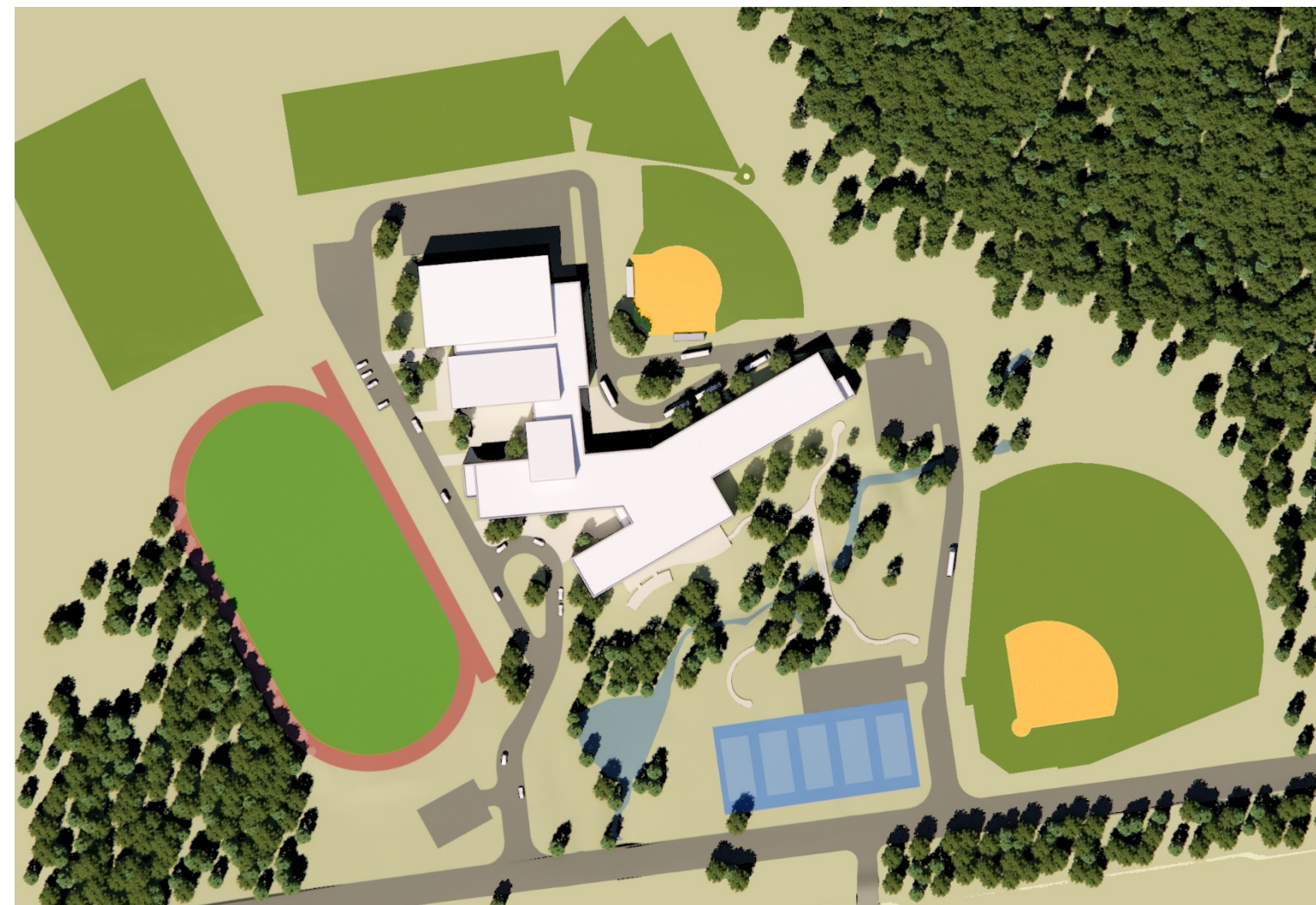
OPTION A



OPTION B

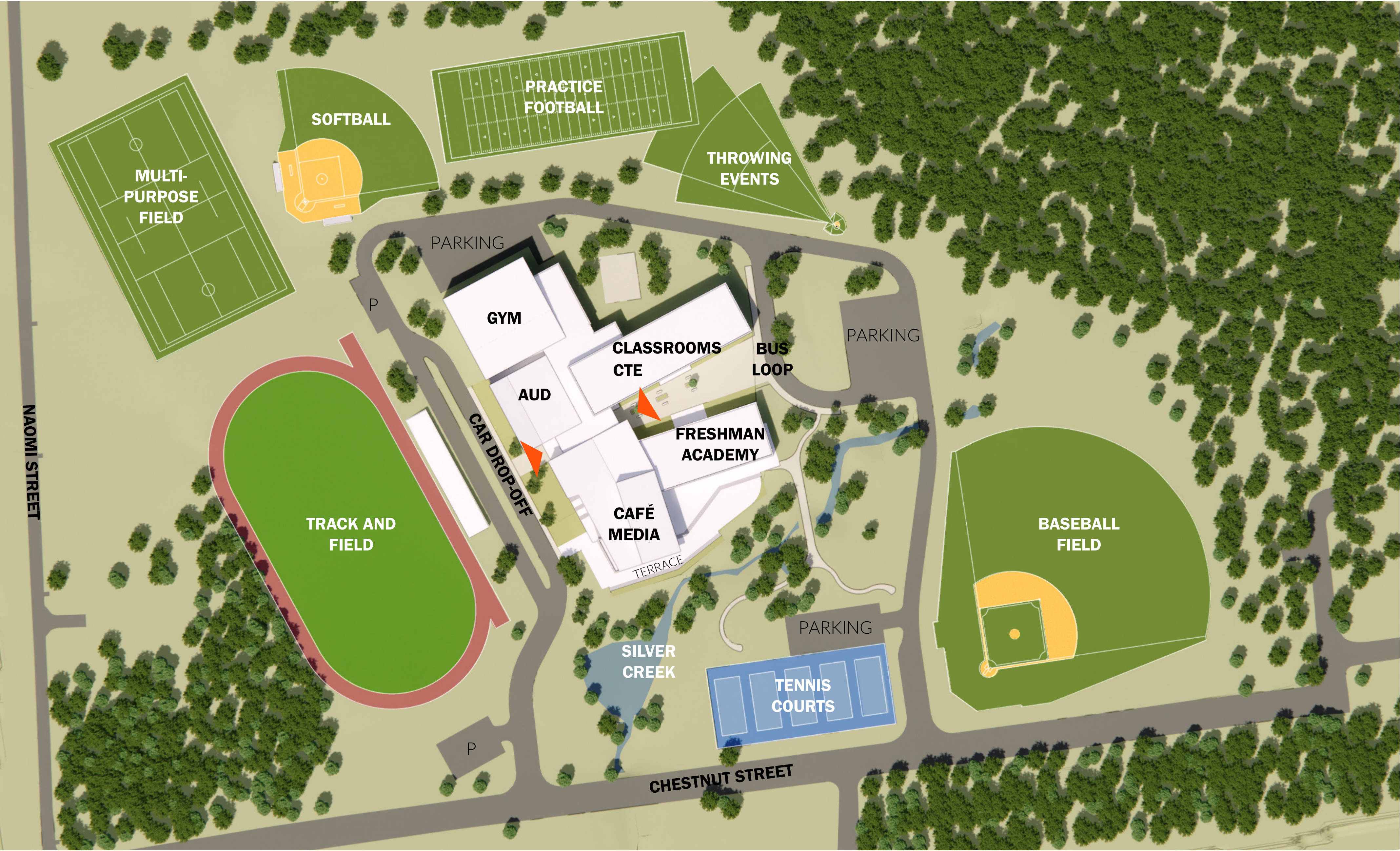


OPTION C



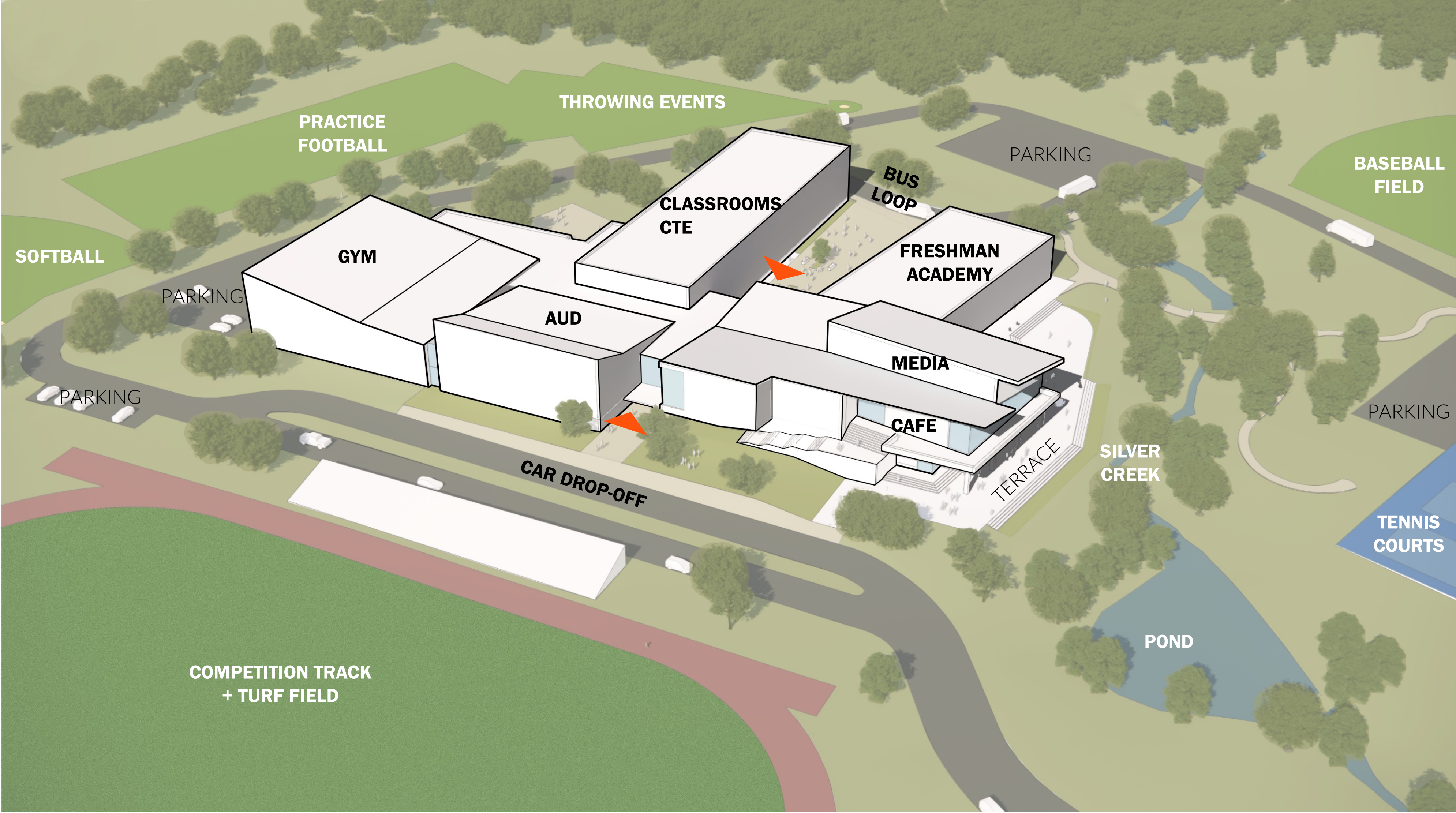
Site Plan

MOUNT HOPE HS



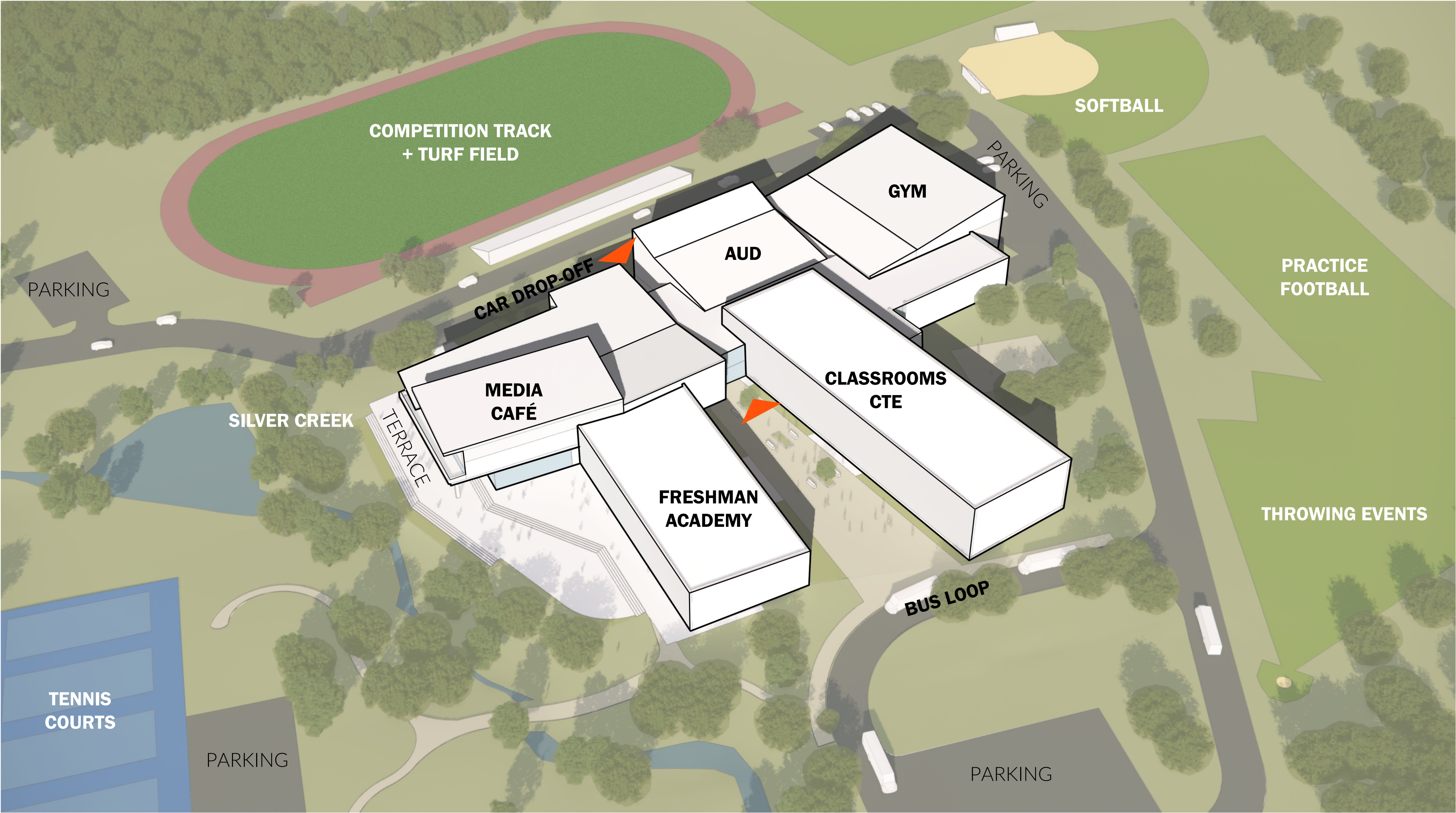
Main Entry Aerial

VIEW FROM WEST | CAR DROP-OFF



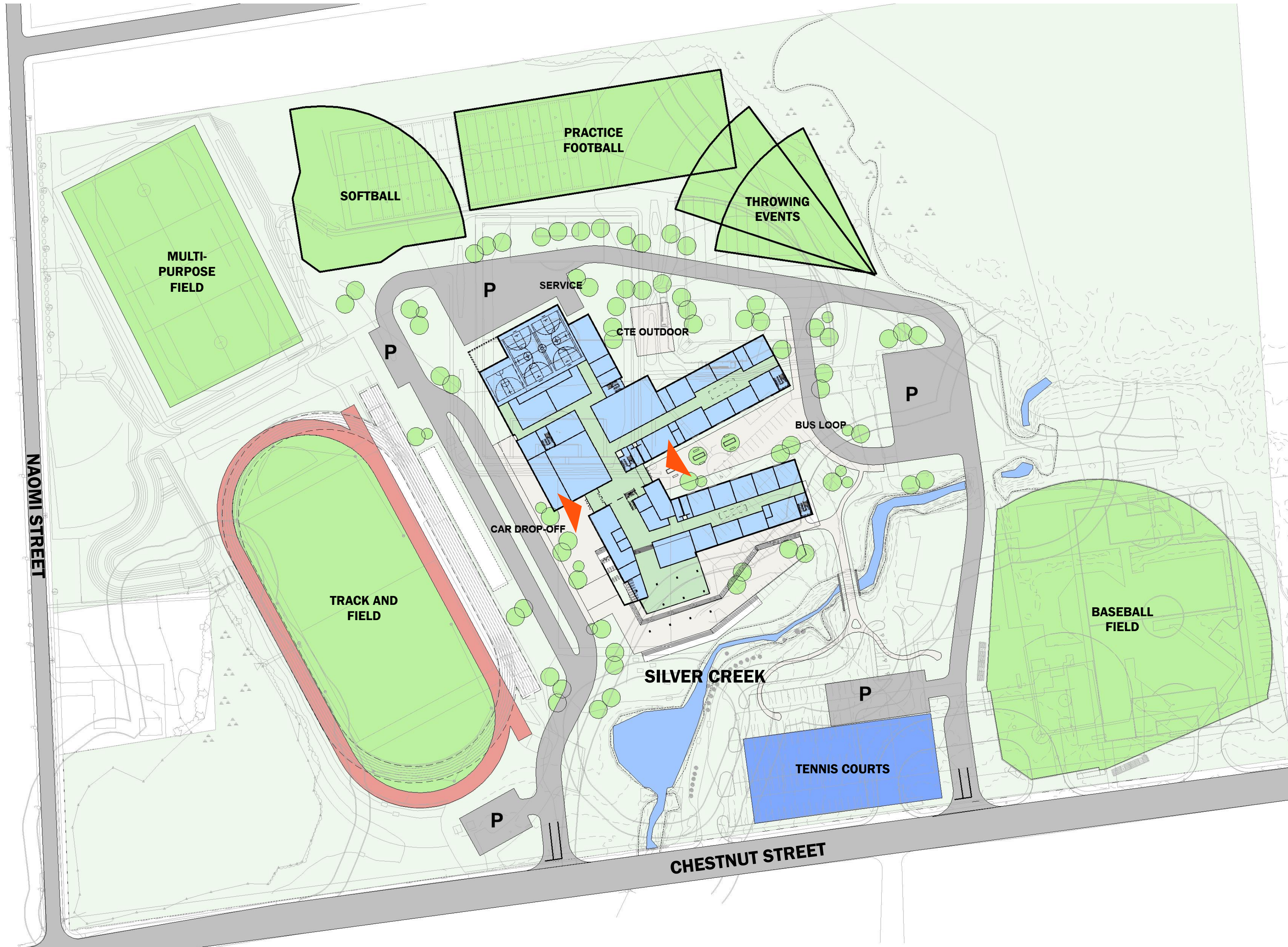
Courtyard Aerial

VIEW FROM EAST | BUS LOOP



Site & First Floor Plan

BLUEWAYS & GREENWAYS

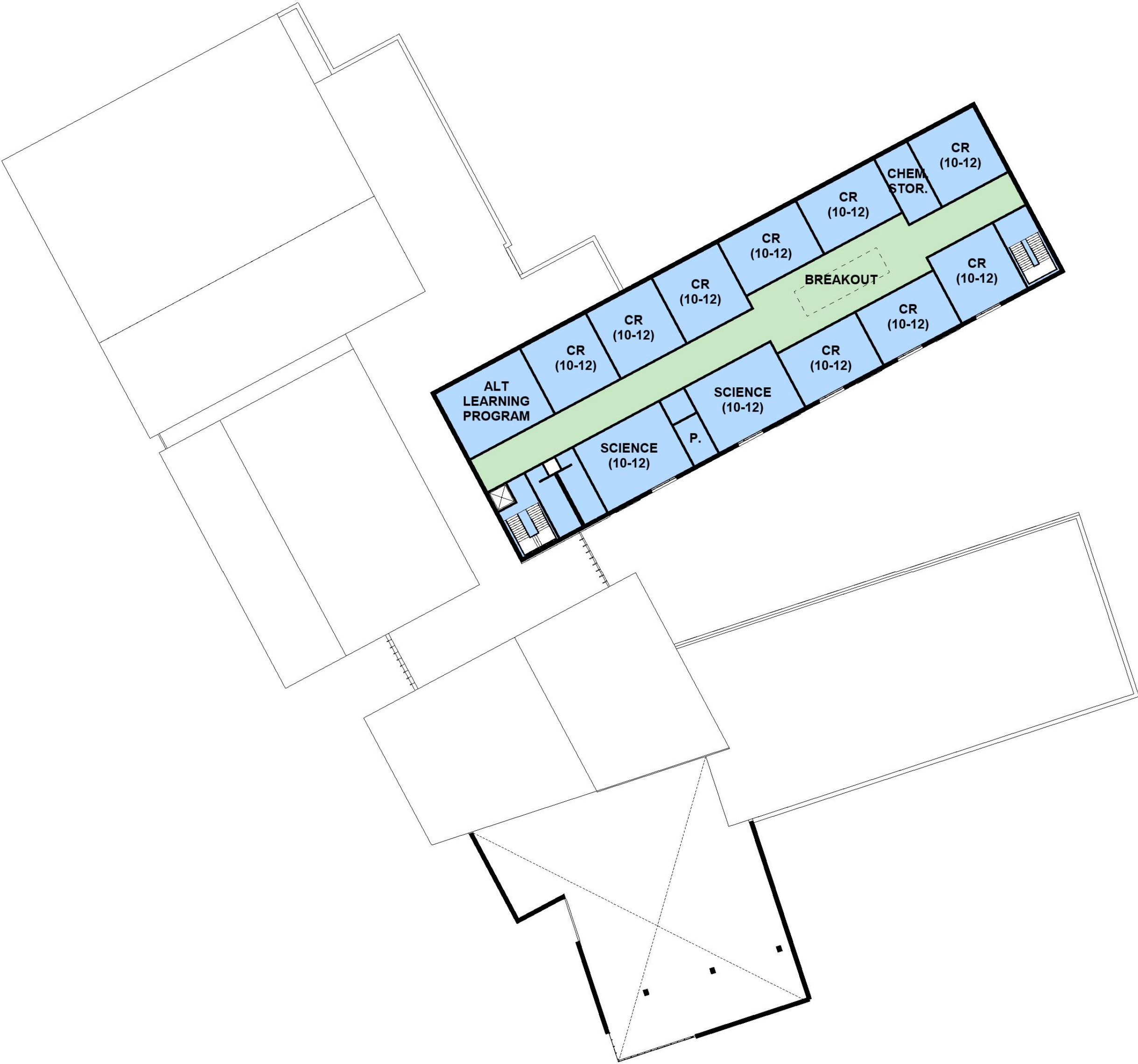


First Floor Plan





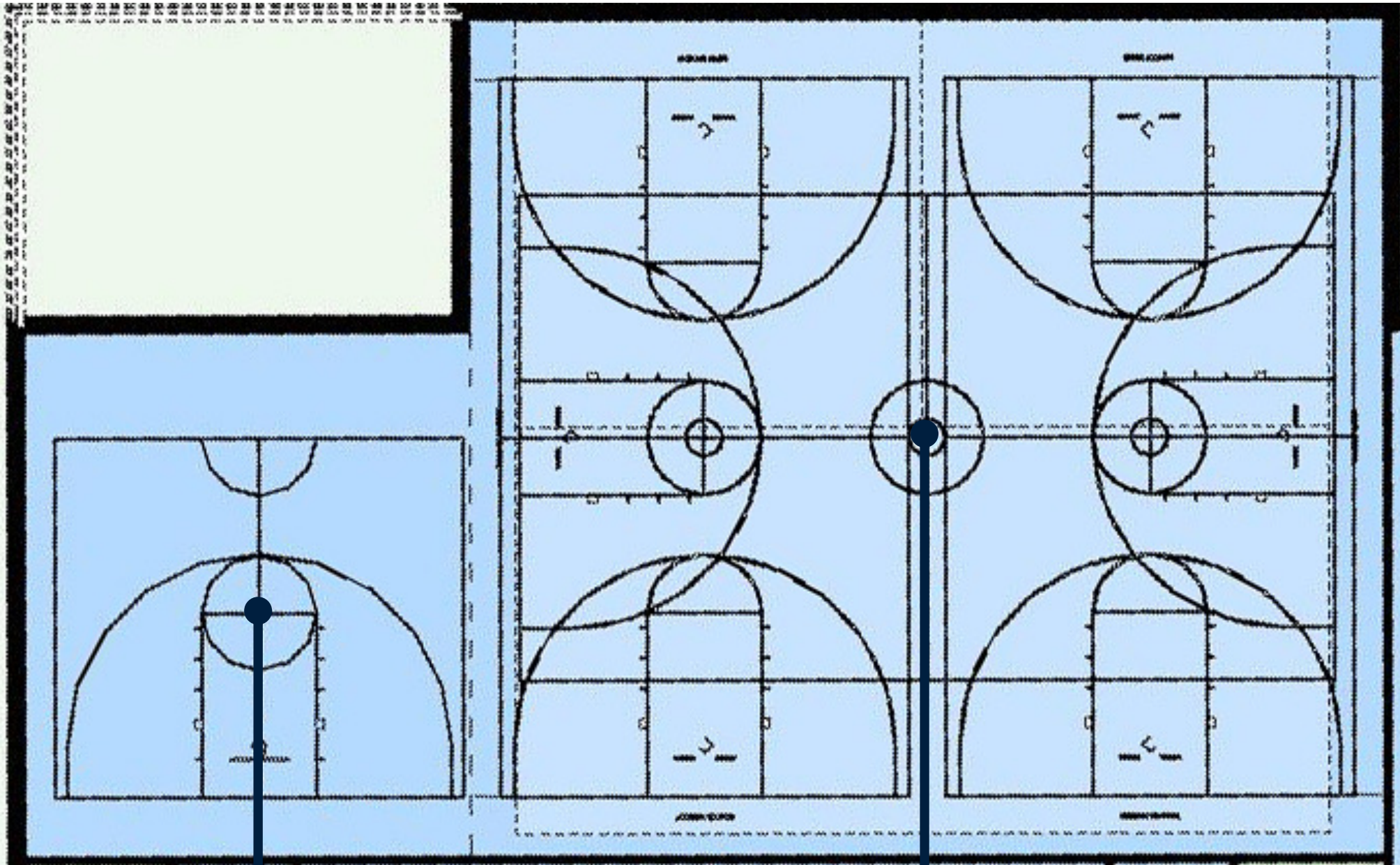
Third Floor Plan



Gym Study

GYM SIZED PER ENROLLMENT

10,630 SF

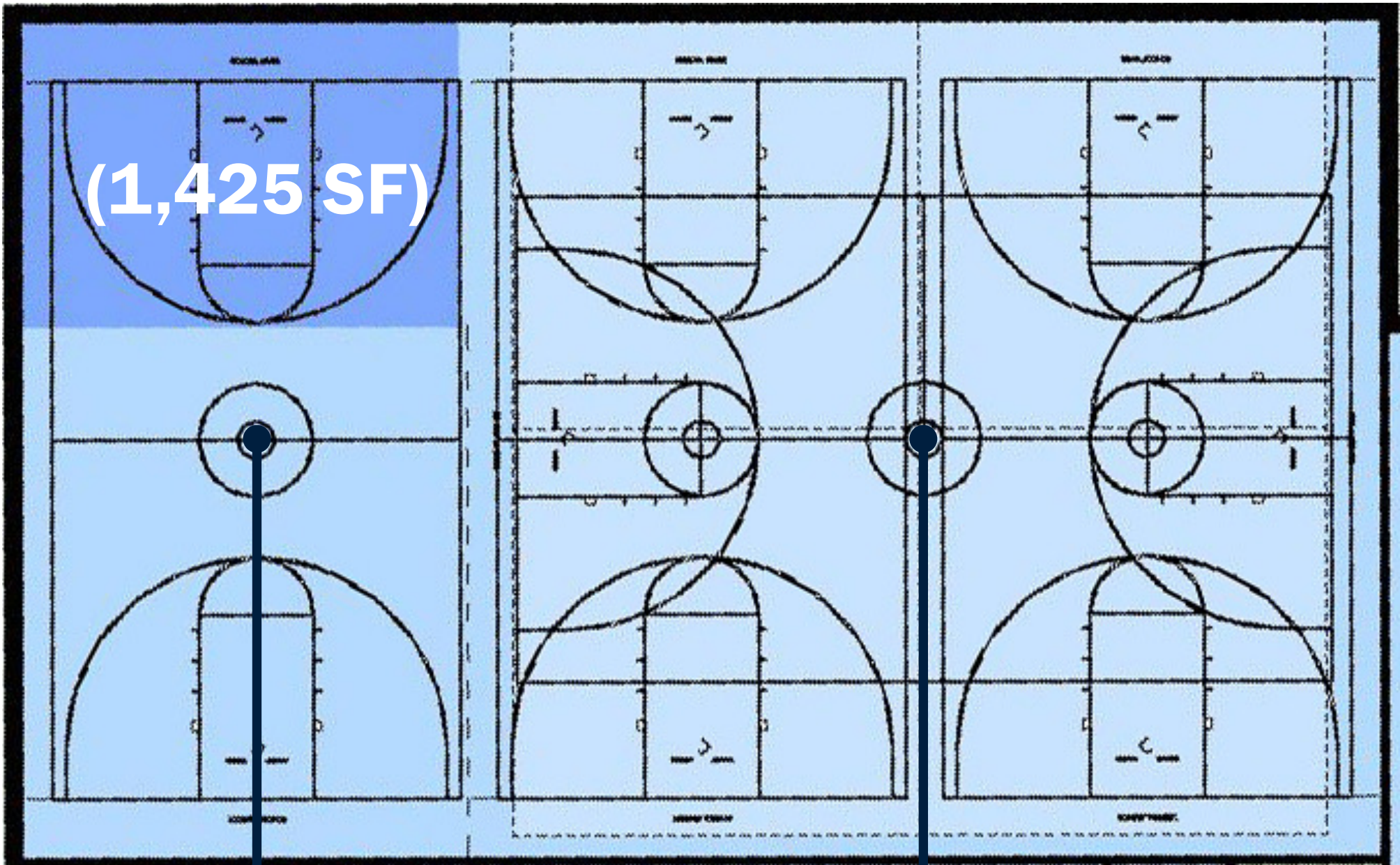


FITNESS
2,485 SF

GYM
8,145 SF

LARGER GYM

12,055 SF

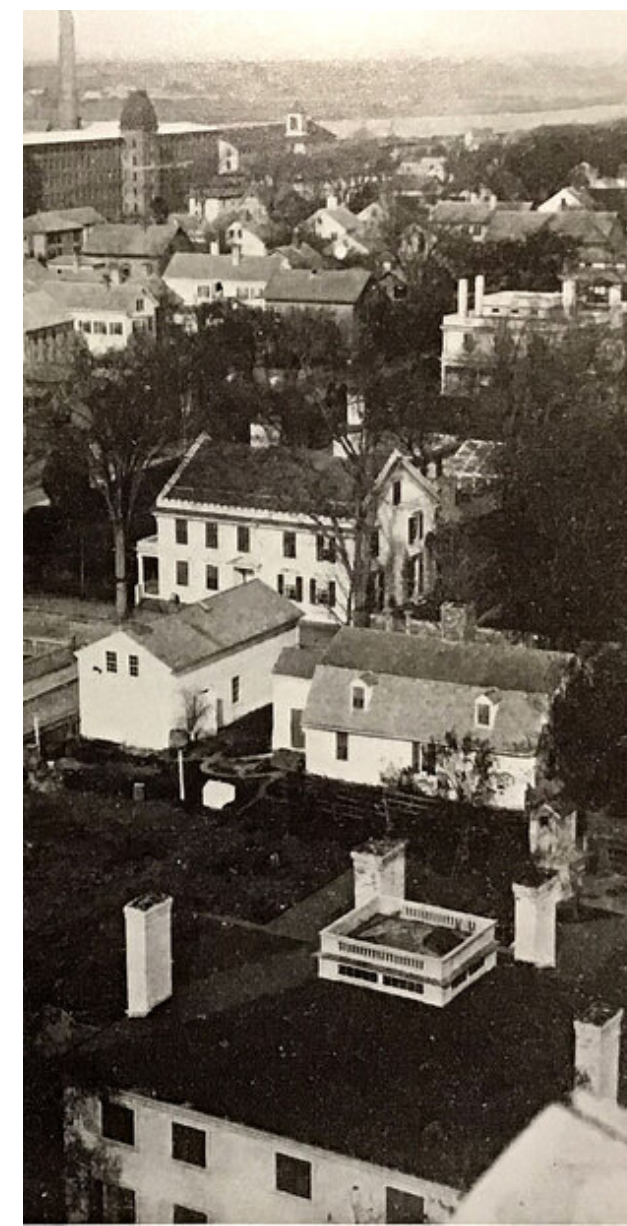


(1,425 SF)

FITNESS
3,910 SF

GYM
8,145 SF

Inspiration



Student Commons | Café & Media

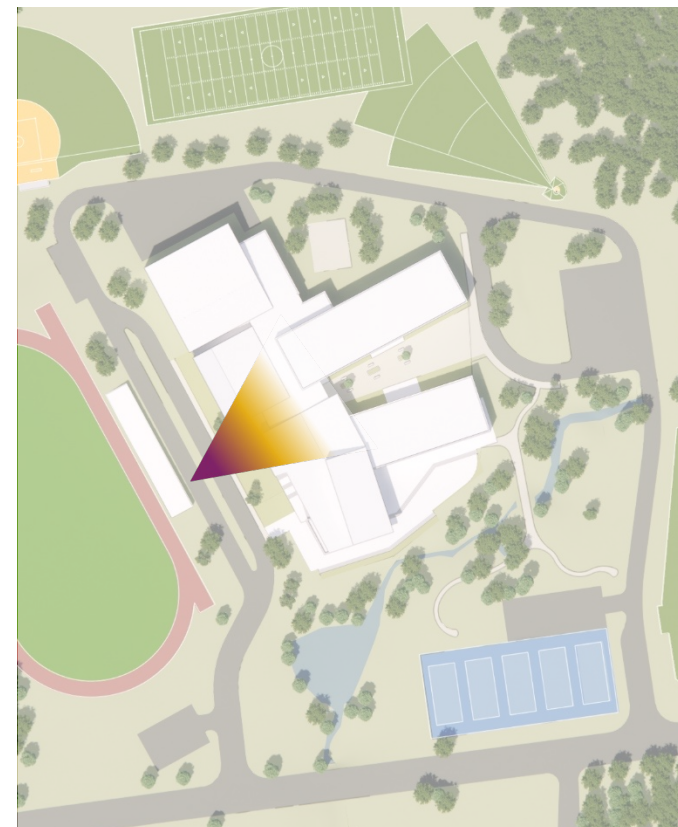
SILVER CREEK FACADE



Main Entry

WEST FAÇADE

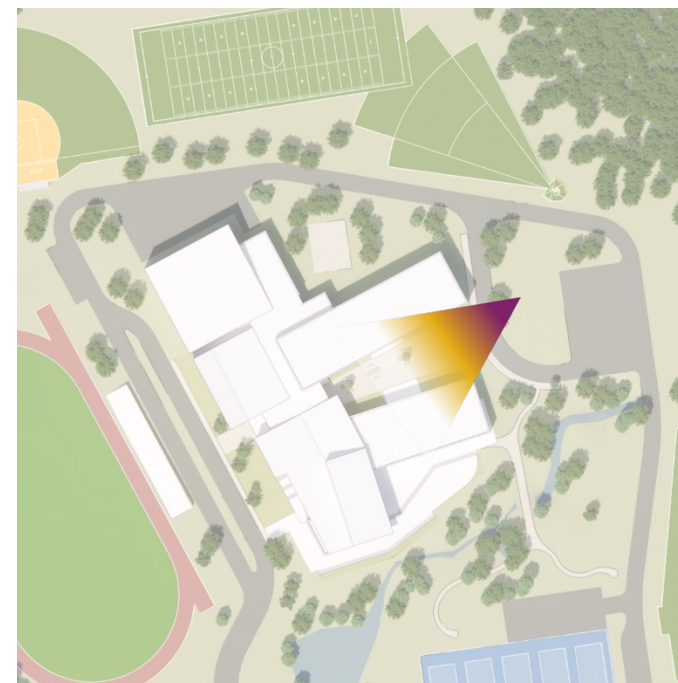
CAR DROP-OFF



Courtyard Entry

EAST FAÇADE

BUS LOOP





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NEXT STEPS

KEY DATES / NEXT STEPS

Key Dates

- 15Sep23 - RIDE Stage II Submission Deadline
- 18Sep23 - Board of Elections Approval of Referendum Question(s)
- 07Nov23 - Project Funding Authorization Vote
- 19Dec23 - RIDE Stage II Approval Target
- 30Dec23 - Construction Manager Award

Upcoming

- 17Aug23 - Geotechnical Borings @ MHHS
- 23Aug23 - Bristol Town Council Presentation (Bradford St Discussion)
- 23Aug23 - Community Forum & MHHS Tours (Class of 2027 Welcoming Night)
- 28Aug23 - School Committee Meeting
- 07Sep23 - Historic District Commission

TIMELINE





PMA Consultants

**PERKINS —
EASTMAN**



QUESTIONS? | THANK YOU!

- ✓ Bond Counsel Retained
- ✓ Letters of Support (Bristol Council, Warren Council, Joint FinCom)
- Referendum Question Finalized (IN PROCESS)
- Board of Canvassers Meeting Posted (48 hrs prior to mtg)
- Board of Canvassers Certification of Ballot (9/18/23 Deadline)
- Questions sent to Secretary of State for Final Approval (9/18/23 Deadline)
- Publication of Local Questions (per R.I. Gen. Laws §17-8-10)
- Project Funding Authorization Vote – **NOVEMBER 07, 2023**