



***March 21, 2016***

***Special Town Meeting 2016 - 3***

***Article 2***

***Appropriate for Middle Schools  
Additions and Remodeling***



# Agenda

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- **Value Engineering**
- **Peer Review**
- **Existing Conditions**
- **Proposed Site Plans**
- **Proposed Designs**
- **Schedule**
- **Appropriation**



# Value Engineering Savings

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## Clarke

- **Site**                    **\$21,700**    (granite curbing, utilities)
- **Building**            **\$535,900**    (elevator, 2 pipe HVAC loop, reduce scope of room renovations)
- **Finishes**            **\$190,145**    (tile, furniture, window treatments)

## Diamond

- **Site**                    **\$80,700**    (plantings)
- **Building**            **\$577,900**    (2 pipe HVAC loop, structure)
- **Finishes**            **\$492,330**    (tile, furniture, window treatments)

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**Total Savings    \$1,898,675**



# Peer Review Process

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**Review Criteria:** Comparable delivery of program, no delay to schedule

Two meetings, January 15 and January 22, attended by Peer Review consultants from Hill Associates with Superintendent of Schools Mary Czajkowski, Diamond Principal Anne Carothers, Clark Principal Anna Monaco, PBC Chair Jon Himmel, and DPF Director Pat Goddard. The team reviewed 21 options, and at completion of the process recommended staying with current design.

## **February 2, 2106**

Hill International Peer Review Executive Summary:

“This Peer Review finds that the project as designed achieves the goals established for enrollment capacity. The project as designed fulfills the educational requirements without indication of excessive design, while satisfying the educational needs, program adjacency and delivery of educational curriculum.”



# Growth Impact on Middle Schools

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- Since October of 2009, enrollment in middle school has increased by 160 students (11%)
- Current Middle School enrollment: 1646 students
- The average team size has increased from 83 to 89 students per team.
- A middle school “Team” consists of a math, science, English and social studies teacher all working with the same group of students.



# Growth Impact on Middle Schools

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- Team size has a direct impact on class size in the core subjects of math, English, social studies and science. The larger the team, the larger the class sizes.
- Due to the complexities of middle school team scheduling, leveled classes such as math and world language also affect class size in the core subjects.
- With a team of 100 students (as is currently the case in 8<sup>th</sup> grade at Clarke), class size can rise to 28+ students with math and world language leveling.



# Growth Impact on Middle Schools

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Increased enrollment has also led to the compression of the following spaces:

- Music
- Visual Arts
- Drama
- Engineering
- Special Education
- Physical Education
- Core Spaces (i.e. hallways, cafeteria, parking)



# LPS Enrollment Projection November 2015

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<i>Grades</i>	<i>Method</i>	<i>2016-17</i>	<i>2017-18</i>	<i>2018-19</i>	<i>2019-20</i>	<i>2020-21</i>
6-8	CSM	1723 ± 30	1753 ± 40	1779 ± 50	1785 ± 60	1854 ± 70

The Middle Schools Additions and Remodeling project provides sufficient additional middle school space for mid-point growth projection, September of 2019 ( The projected enrollment is a 20% increase from 2009.)

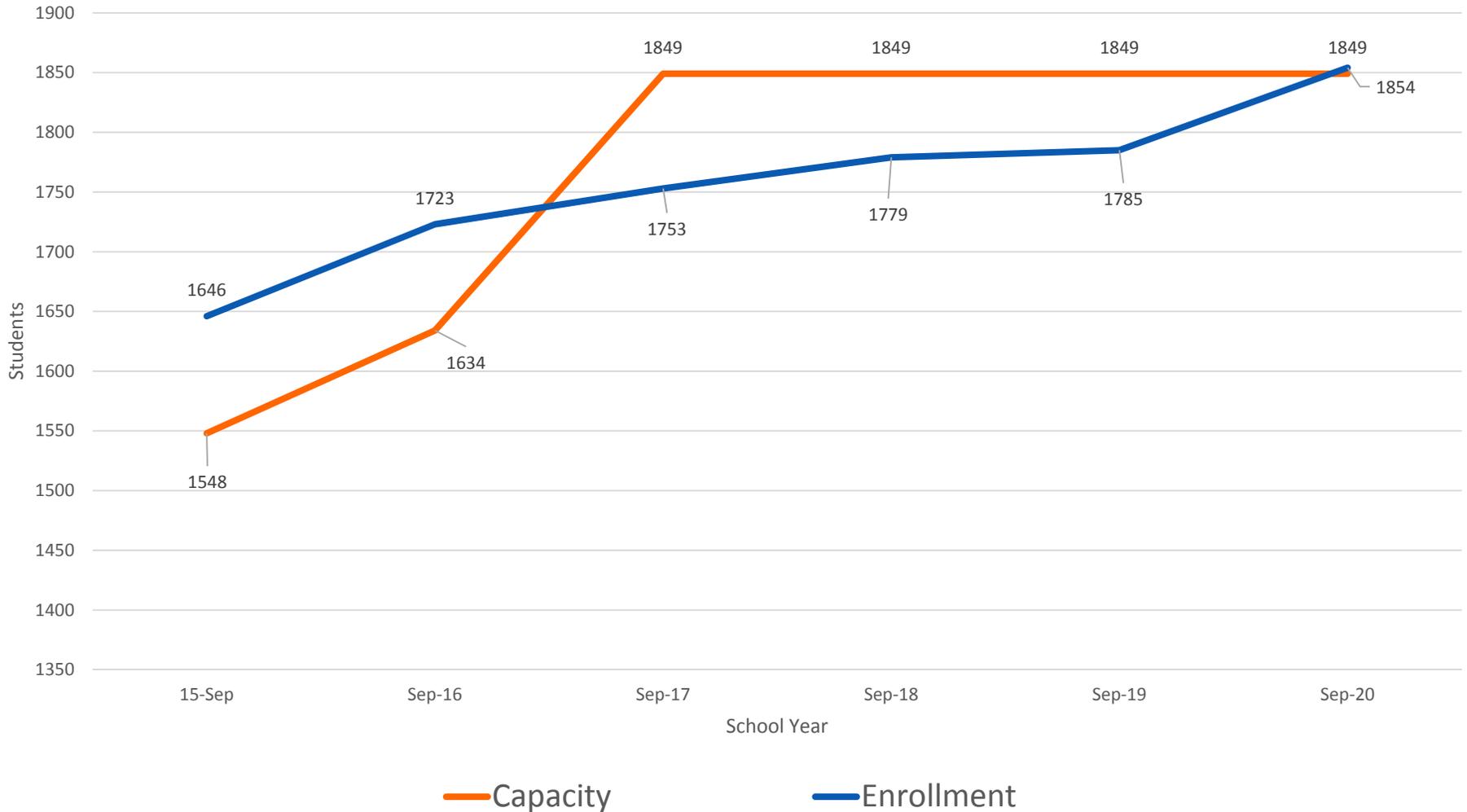
It reduces average team size from 89 students per team to 86 students per team.

Improvements include additional space for arts, music, drama, engineering, special education, core functions and site circulation for all modes of transportation.



# Middle School Recommendation

Middle School Enrollment and Capacity (@ 86 students/team)





# Clarke Dismissal



March 21, 2016



# Clarke Orchestra



March 21, 2016



# Clarke Drama





# Clarke Guitar in Math Classroom





# Clarke Partition Wall





# Diamond Dismissal

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# Diamond Orchestra



March 21, 2016



# Diamond Cafeteria



March 21, 2016



# Diamond Guitar in Math Classroom



March 21, 2016



# Diamond | Project Improvements

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- **Team Capacity** – 9 teams to 11 teams
- **General Ed CRs** – 31 CRs to 33 CRs
- **Science CRs** – 9 CRs to 12 CRs
- **Dedicated World Language CRs** – 5 CRs to 6 CRs
- **ELL** – 1 CR to 2 CRs
- **Art, Music, Drama, & Engineering** – 5 CRs to 8 CRs
- **SPED** – Improved quality / quantity
- **Teacher Planning** – Added Teacher Planning
- **Cafeteria** – Sized for growth
- **Buses & Cars** – Significant improvement / separation
- **HVAC** – Existing systems upgraded throughout



# Clarke | Project Improvements

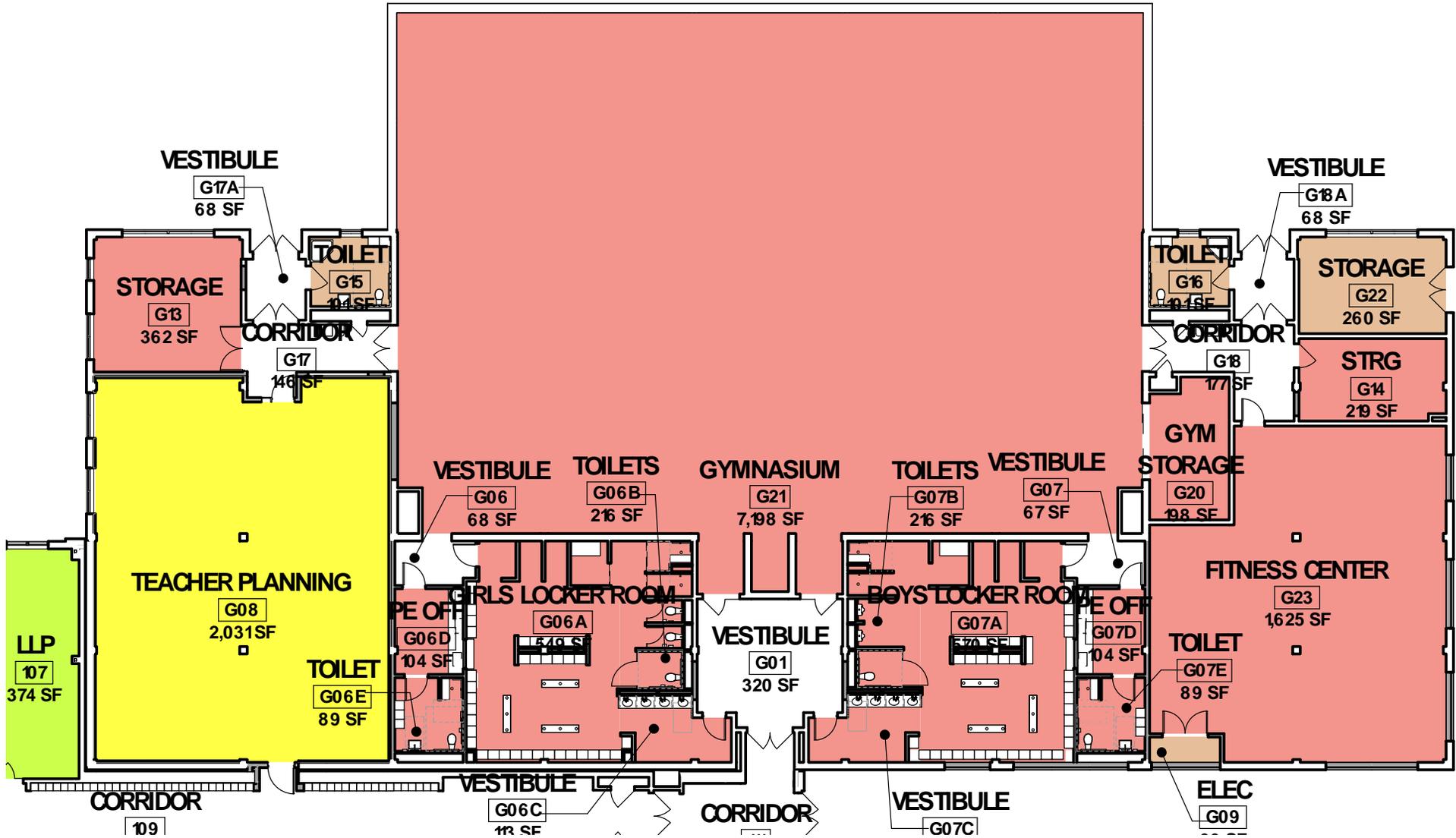
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- **Team Capacity** – 9 teams to 10.5 teams
- **General Ed CRs** – 26 CRs to 27 CRs
- **Science CRs** – 9 CRs to 11 CRs
- **Dedicated World Language CRs** – 5 CRs
- **ELL** – 1 CR to 2 CRs
- **Art, Music, Drama, & Engineering** – 5 CRs to 8 CRs
- **ILP** – 1 CR to 2 CRs
- **DLP** – 1 CR to 2 CRs
- **SPED** – Improved quality / quantity of space
- **Buses & Cars** – Significant improvement / separation





# Diamond Summer 2016 Priority





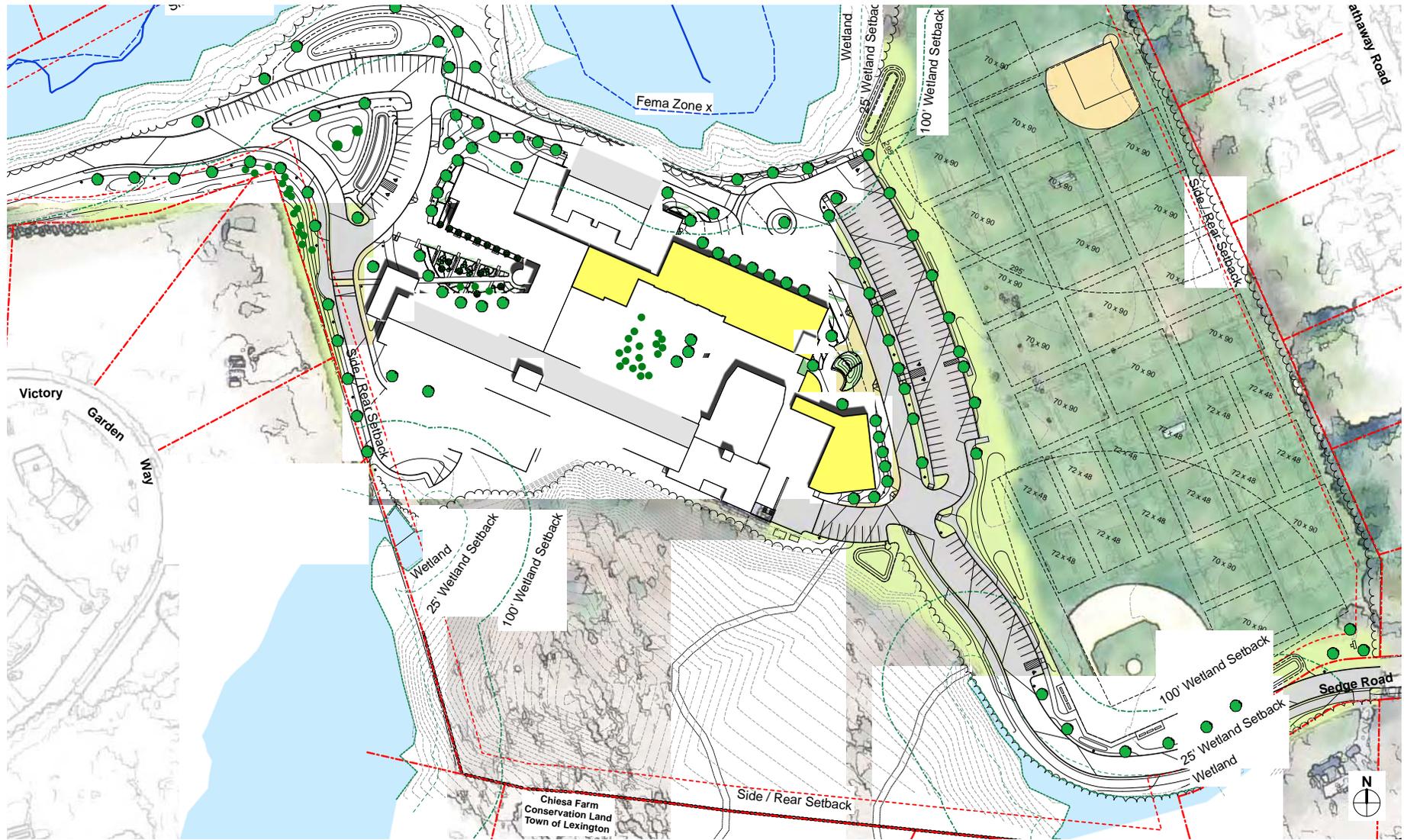
# Diamond Design

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# Diamond Site Plan





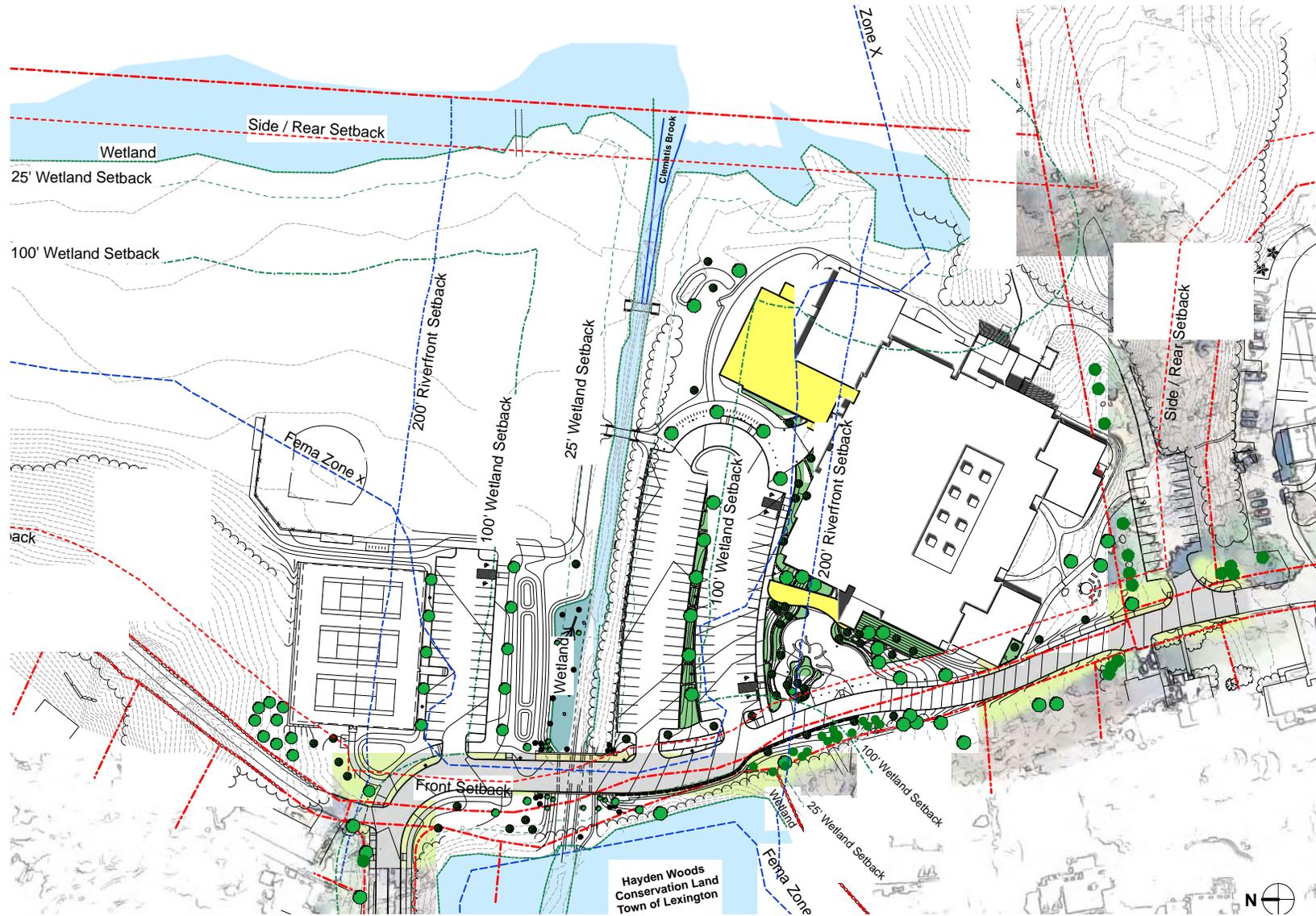
# Clarke Design

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# Clarke Site Plan





# Phased Schedule

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- 03/25/2016 Summer Priority Work Bids (1)\*
- 03/25/2016 Enabling Site and Structure Bid (2)
- 04/15/2016 Summer Priority Work Construction Contract (1)
- 05/13/2016 Enabling Site & Structure Construction Contract (2)
- 07/01/2016 Addition/Renovation Bid (3)
- 08/12/2016 Total Construction Contract (3)
- 08/15/2016 Summer Priority Work Complete (1)
- 08/15/2017 Classroom Additions Complete (3)
- 08/15/2018 Diamond Phased Work Complete (3)

\*(1) 2016 Prioritized Work (2) 2016 Summer Enabling Work (3) Total Scope



# Appropriation Request

	Clarke	Diamond	
<b>Total Project Cost</b>	<b>\$21,675,000</b>	<b>\$44,940,000</b>	<b>\$66,615,000</b>
<b>Appropriations:</b>			
March 23, 2015, STM #1, Article 2	\$ 994,942	\$ 1,472,811	
November 2, 2015, STM#1, Article 2	\$ 739,000	\$ 1,212,000	
March 21, 2016 STM 2016-3—Prioritized Scope	\$ 2,044,900	\$ 2,060,100	\$ 4,105,000
March 21, 2016 STM 2016-3—Completion of Scope	\$17,896,200	\$40,196,000	\$58,092,200
<b>Total</b>			<b>\$62,197,200</b>
	<b>\$21,675,042</b>	<b>\$44,940,911</b>	



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# BACK-UP



# Peer Review

## Diamond Middle School Summary of Alternative Design Options

Renovation Area	Description	Cost Savings Presented	Cost Savings for Options Accepted for Further Review (1/15/2016)	Cost Savings for Options Approved (1/22/2016)
A&B	Double Loaded Corridor	\$853,800	\$853,800	
A&B	Double Loaded Corridor- Guidance	\$1,107,370	\$1,107,370	Rejected (1/22/2016)
1	Teacher Planning/Lockers/TLP	\$1,093,100	Rejected (1/15/2016)	
2	New Kitchen and Servery	\$431,200	Rejected (1/15/2016)	
3	Expanded Music Rooms	\$367,500	Rejected (1/15/2016)	
4	Updated Art Rooms	\$594,150	\$594,150	Rejected (1/22/2016)
5	ILP Suite/Drama/Music Room	\$831,250	\$831,250	Rejected (1/22/2016)
6	Teacher Planning/Art Room	\$661,250	\$661,250	Rejected (1/22/2016)
7	TLP Suite/SPED Rooms	\$352,350	\$352,350	Rejected (1/22/2016)
8	Expanded Guidance Suite	\$407,980	\$407,980	Rejected (1/22/2016)
	<b>Total</b>	<b>\$4,129,950</b>	<b>\$3,100,550</b>	<b>\$0</b>

Note: All Cost Information is Based on Zone Cost Analysis Submitted by Bond on December 16, 2015.



# Peer Review

## Clarke Middle School Summary of Alternative Design Options

Option	Renovation Area	Description	Cost Savings Presented	Cost Savings for Options Accepted for Further Review (1/15/2016)	Cost Savings for Options Approved (1/22/2016)
1	1	Second Floor Lobby Renovation	\$66,000	Rejected (1/15/16)	
2a	2	Locker Room Renovation	\$132,100	Rejected (1/15/16)	
2b	2	Locker Room Renovation	\$482,100	\$482,100	Rejected (1/22/16)
3R1	3	Music Room Renovation	\$102,535	\$102,535	\$102,535
4a	4	Art Room Renovation	\$165,000	Rejected (1/15/16)	
4b	4	Art Room Renovation	\$115,000	\$115,000	\$115,000
5	5	Acid Waste Room Renovation	\$60,000	\$60,000	Rejected (1/22/16)
5aR1	5	Science Room Renovation	\$700,850	\$700,850	Rejected (1/22/16)
6	6	Second Floor Art Room Renovation	\$177,500	\$177,500	Rejected (1/22/16)
7 & 8	7&8	DLP Life Skills and Engineering Relocation	\$101,100	Rejected (1/15/16)	
9	9	Conference, Storage, and Office Relocation	\$446,125	Rejected (1/15/16)	
		<b>Total</b>	<b>\$2,548,310</b>	<b>\$1,637,985</b>	<b>\$217,535</b>

**Note: All Cost Information is Based on Zone Cost Analysis Submitted by Bond on December 16, 2015.**



# Enrollment Projections

## EWG projection December 2014

<i>Grade Group</i>	<i>Method</i>	<i>Enrollment in FY2020</i>	<i>Growth over FY 2014</i>
<b>Elementary (K-5)</b>	HDM	3188 +/- 267	260 +/- 267
<b>Middle School (6-8)</b>	CSM	1830 +/- 70	171 +/- 70
<b>High School (9-12)</b>	CSM	2290 +/- 120	269 +/- 120
<b>Total System</b>	HDM	7279 +/- 410	671 +/- 410

## LPS projection November 2015, and annually in November

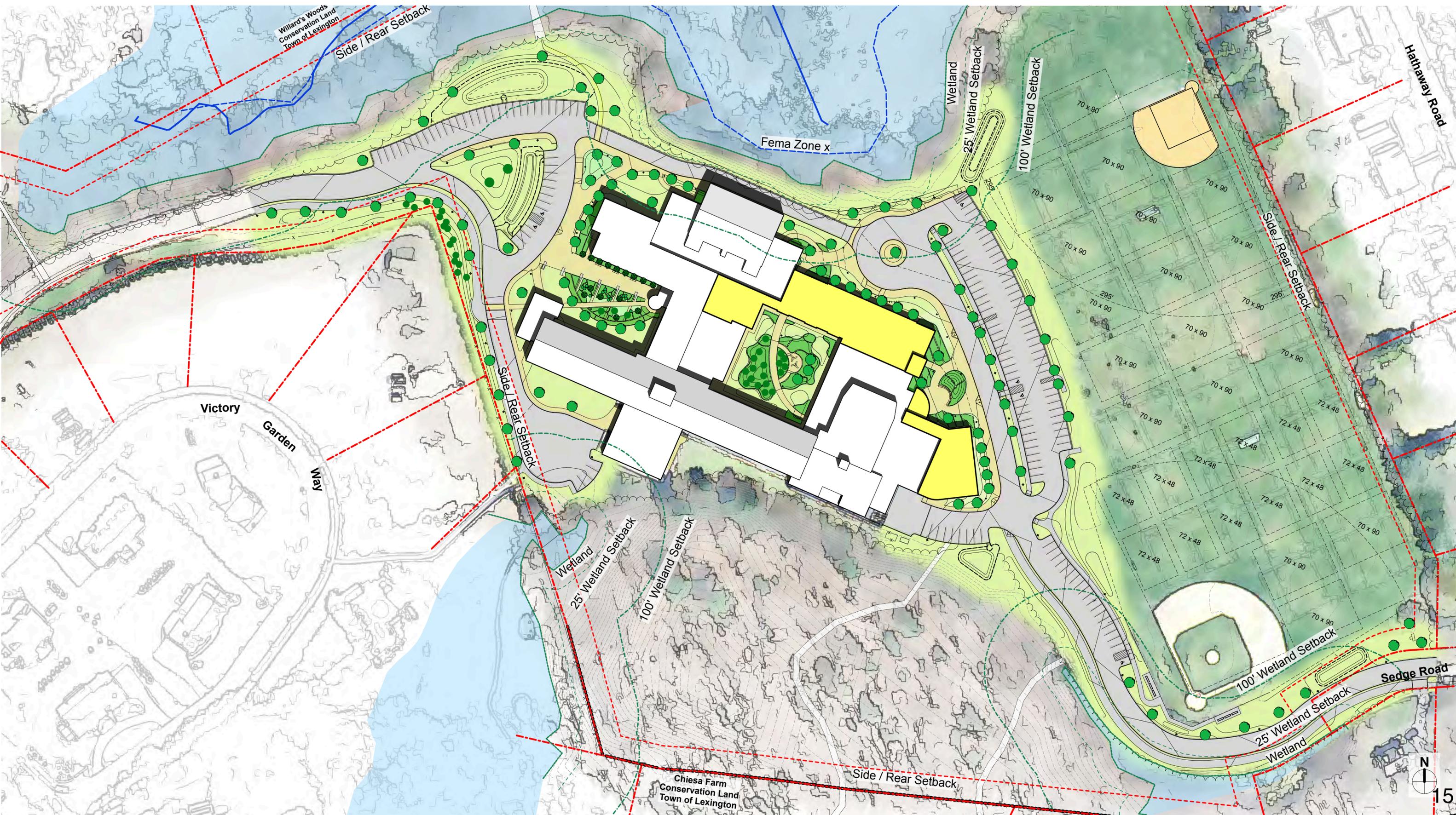
	<i>Method</i>	<i>2016-17</i>	<i>2017-18</i>	<i>2018-19</i>	<i>2019-20</i>
K -5	HDM	3113 ± 90	3169 ± 116	3246 ± 143	3296 ± 171
6-8	CSM	1723 ± 30	1753 ± 40	1779 ± 50	1785 ± 60
9-12	CSM	2179 ± 40	2177 ± 60	2205 ± 80	2273 ± 100

Elementary September 2019 projection +108

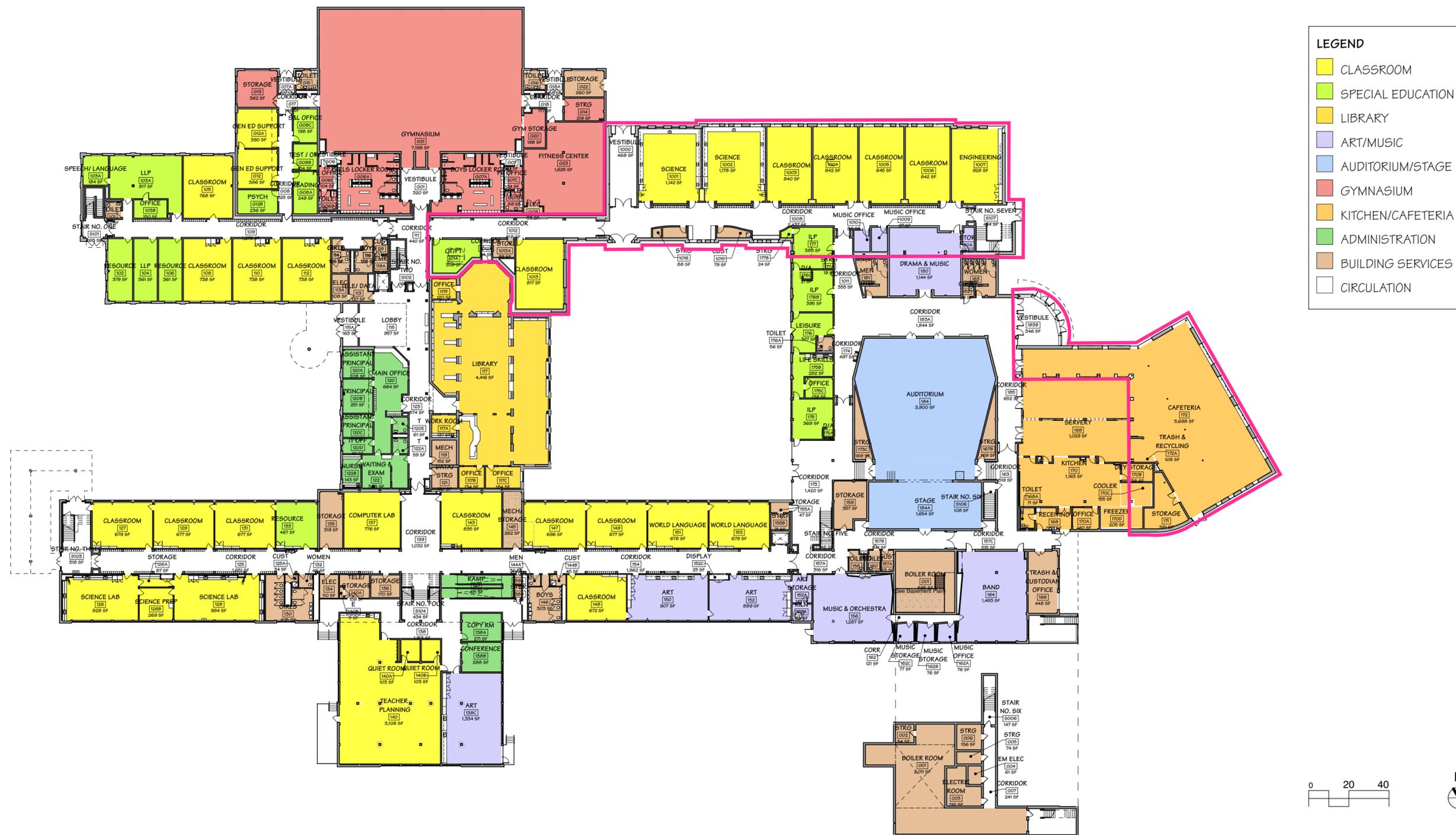
Middle School “ “ - 45

Lexington High School “ “ - 17

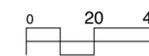
# Diamond | Proposed Site Plan



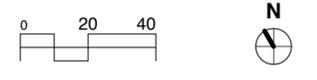
# Diamond | Proposed 1st Floor Plan



Basement Floor Plan



# Diamond | Proposed 2nd Floor Plan



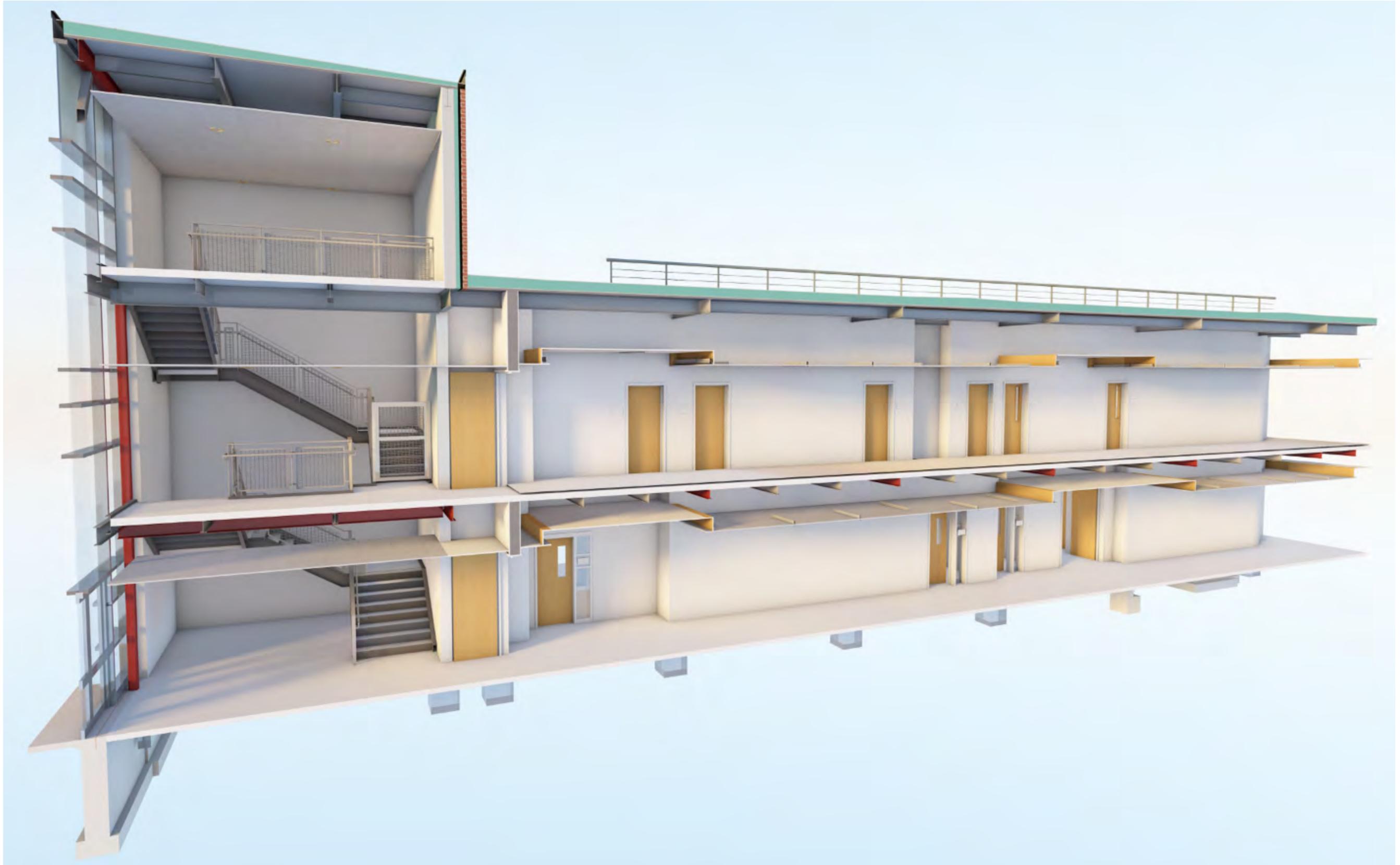
# Diamond | Proposed Design



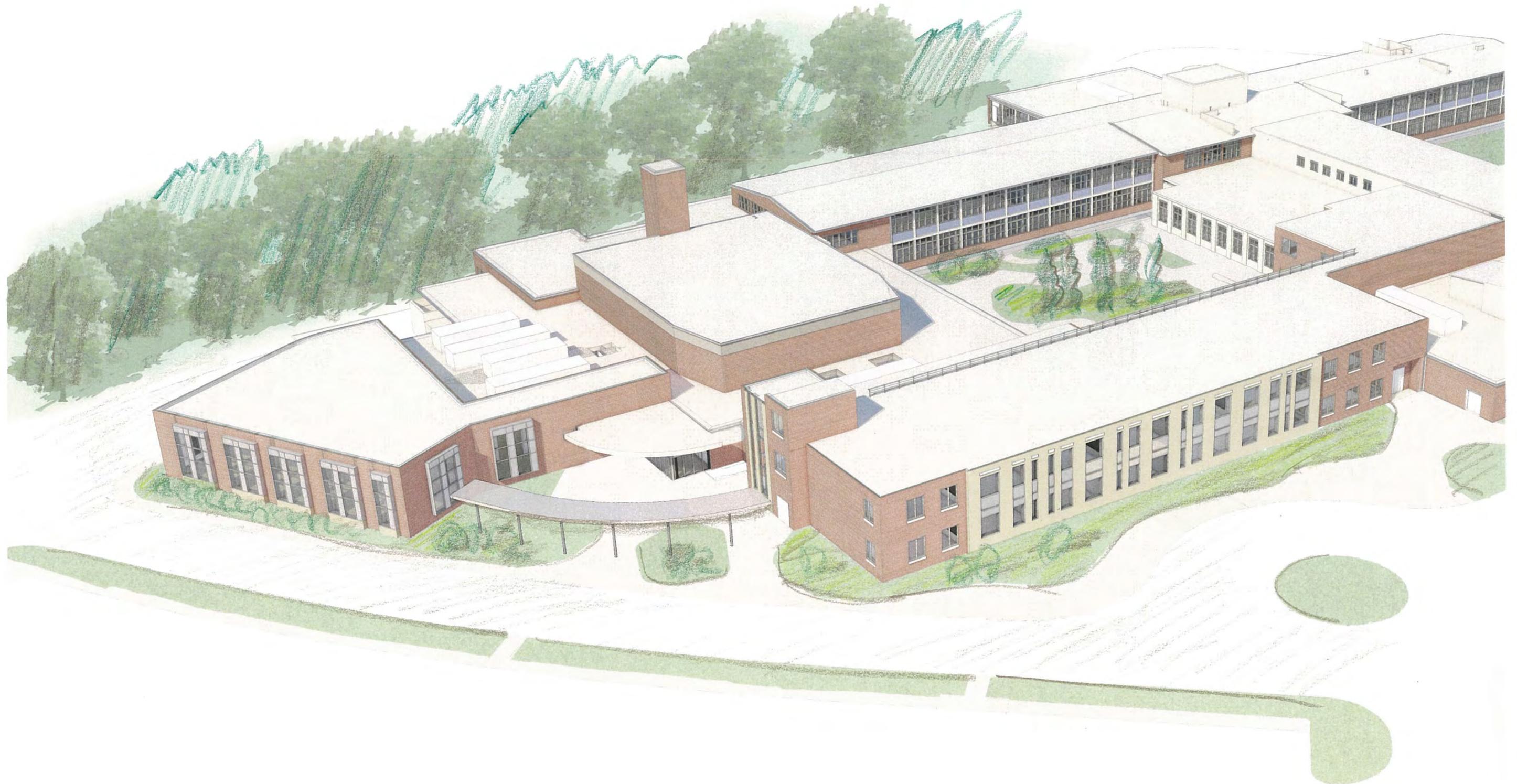
# Diamond | Proposed Design



# Diamond | Proposed Design



# Diamond | Previous Design

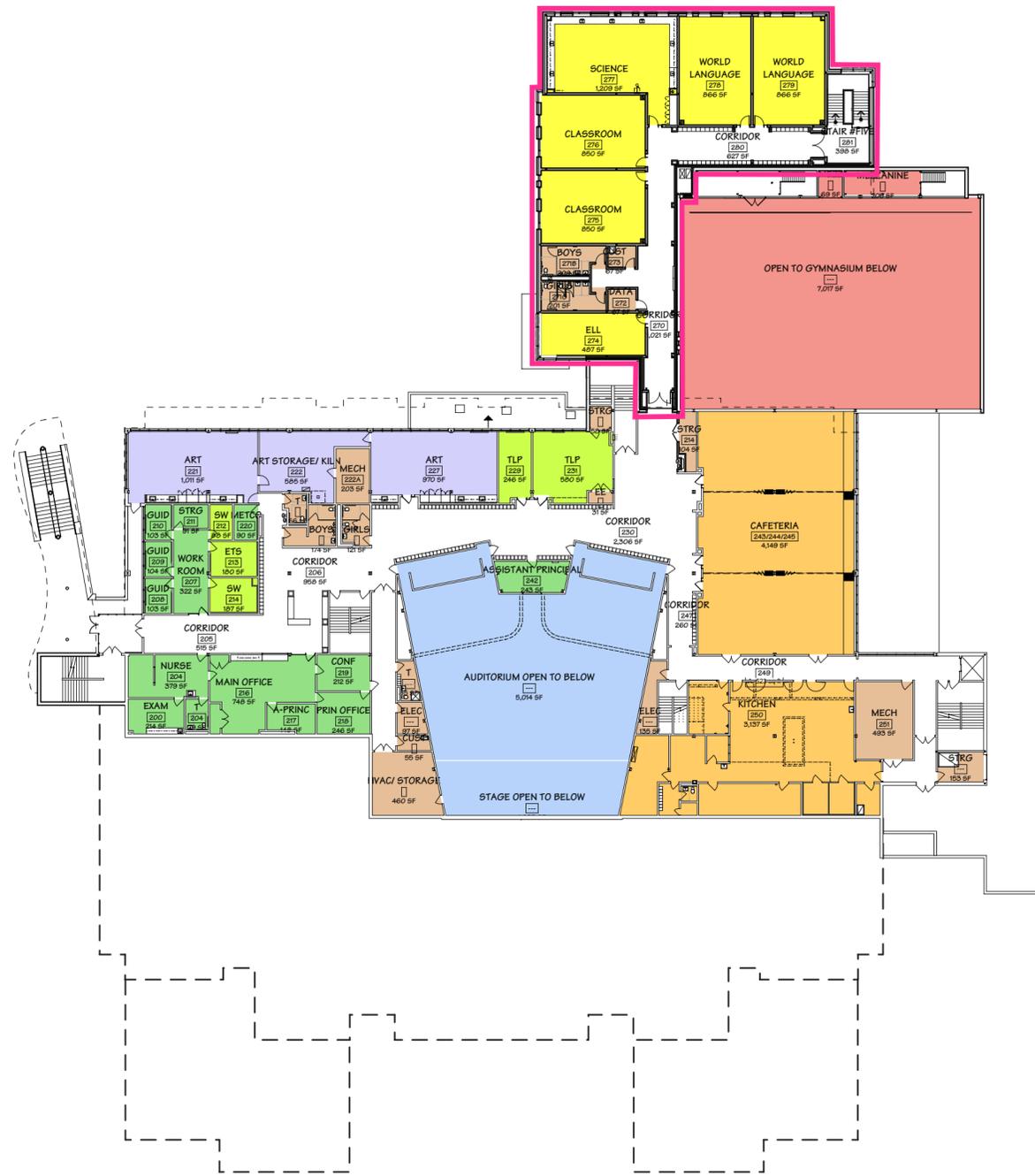


# Diamond | Previous Design

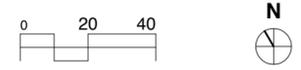




# Clarke | Proposed 2nd Floor Plan



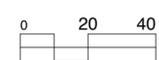
LEGEND	
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<span style="display:inline-block; width:15px; height:15px; background-color:lightgreen; border:1px solid black;"></span>	SPECIAL EDUCATION
<span style="display:inline-block; width:15px; height:15px; background-color:orange; border:1px solid black;"></span>	LIBRARY
<span style="display:inline-block; width:15px; height:15px; background-color:lightblue; border:1px solid black;"></span>	ART/MUSIC
<span style="display:inline-block; width:15px; height:15px; background-color:blue; border:1px solid black;"></span>	AUDITORIUM/STAGE
<span style="display:inline-block; width:15px; height:15px; background-color:red; border:1px solid black;"></span>	GYMNASIUM
<span style="display:inline-block; width:15px; height:15px; background-color:lightorange; border:1px solid black;"></span>	KITCHEN/CAFETERIA
<span style="display:inline-block; width:15px; height:15px; background-color:green; border:1px solid black;"></span>	ADMINISTRATION
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<span style="display:inline-block; width:15px; height:15px; border:1px solid black;"></span>	CIRCULATION



# Clarke | Proposed 3rd Floor Plan



LEGEND	
<span style="display:inline-block; width:15px; height:15px; background-color:yellow;"></span>	CLASSROOM
<span style="display:inline-block; width:15px; height:15px; background-color:lightgreen;"></span>	SPECIAL EDUCATION
<span style="display:inline-block; width:15px; height:15px; background-color:orange;"></span>	LIBRARY
<span style="display:inline-block; width:15px; height:15px; background-color:lightblue;"></span>	ART/MUSIC
<span style="display:inline-block; width:15px; height:15px; background-color:lightblue;"></span>	AUDITORIUM/STAGE
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<span style="display:inline-block; width:15px; height:15px; background-color:lightgreen;"></span>	ADMINISTRATION
<span style="display:inline-block; width:15px; height:15px; background-color:lightbrown;"></span>	BUILDING SERVICES
<span style="display:inline-block; width:15px; height:15px; border:1px solid black;"></span>	CIRCULATION



# Clarke | Proposed Design



# Clarke | Proposed Design



# Clarke | Proposed Design

