



The following report includes the assessments and recommendations for the Hudson School District's Pre-School through 8th Grade facilities as prepared during the winter of 2022-23.

The information included in this report was created by Lavallee Brensinger Architects in cooperation with The Hudson School District, its administrators, and the administrators at each of the Elementary and Middle Schools considered. This document reflects assessments of the existing schools created through tours of each facility, interviews with school principals, building programming (based on current curriculum), and NH State Education Standards.

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Project Goals

- This report shall seek to understand current space issues within the three Hudson Elementary Schools and Hudson Memorial School. It shall also recommend improvements to resolve any space issues encountered. To accomplish these goals, this project shall:
 1. Analyze all classroom spaces at four Hudson elementary schools and Hudson Memorial School.
 2. Provide an educational needs analysis for each school based on their current curriculum and operations.
 3. Understand the need for full size 900 square feet classroom spaces and which classrooms are currently undersized by NH Department of Education standards.
 4. Understand the need for Core Education Areas including art, physical education, music, library, and cafeteria areas at each building.
 5. Understand the need for Special Education and Intervention space at each building.
 6. Understand the need for professional/staff/faculty areas within each school.
 7. Understand the current space utilization at each school.
 8. Identify apparent interior environment issues affecting education areas such as acoustics, comfort (temperature), daylighting, and air quality.
 9. Identify possible areas to consider a school addition

Process

- In order to ensure an accurate assessment of the current education space needs, Lavallee Brensinger Architects pursued a specific approach:
 - Understood Educational Goals for the Hudson School District's primary schools
 - Understood population trends within Hudson for school planning
 - Interviewed current School Administrators to understand current and foreseeable needs and short-comings of existing facilities
 - Evaluated Existing Facilities in terms of educational goals and current and foreseeable needs
 - Identified facility needs and priorities

Resources

- Information for this report was gathered from several sources including the following:
 - Principals at all schools in this assessment
 - Head Custodian at all schools in this assessment
 - District Administration
 - Miscellaneous School Staff encountered during tours
 - Lance Whitehead, Lavallee Brensinger Architects
 - Chris Drobat, Lavallee Brensinger Architects
- Additionally, previous reports and data gathered by the school district were also considered. Reports and information included:
- NESDEC 2022-23 Enrollment Projection Report
 - Facilities Repair/Maintenance Annual Projections

Existing Assessment

Existing Building Condition

Library Street School was initially built in 1957 by the Parish of St. John the Evangelist Church. In 1962, the capacity of the school doubled, from eight to sixteen classrooms. In 1977, the Hudson School District bought the Library Street school and has been educating there since. The exterior envelope is in adequate condition, housing an interior environment which needs some attention. The HVAC system has not been updated to meet fresh air intake standards and creates a stuffy atmosphere. While continued maintenance has led to an extended life for the interior finishes, they are due for replacement in the near future. The lighting at Library Street School has not been updated to integrate LED technology. This both limits the energy efficiency of the building, but also leads to lower quality lighting for the students and teachers inside.

Existing Site

The existing parking is minimal, and could stand to be expanded up, but with limited space on site, it is not readily-prioritized at this time. Staff and families use the parking lot at the school district office, which is crucial to the smooth operation of the school. The shared ELC playground has required a secondary location for recess, which takes place in the west courtyard.

The front of the school could also use improved maintenance. The landscaping is sparse. While this is good for security, it does not create a good image for the school or accurately represent its value to the community. Intentional landscaping can solve both of these issues.

Student Safety

The shared ELC playground is not safely accessible from the school. As this is accessed several times, every other day, this should be a top priority for the school. The students currently walk in the street to access the playground.

Acoustics and Daylighting

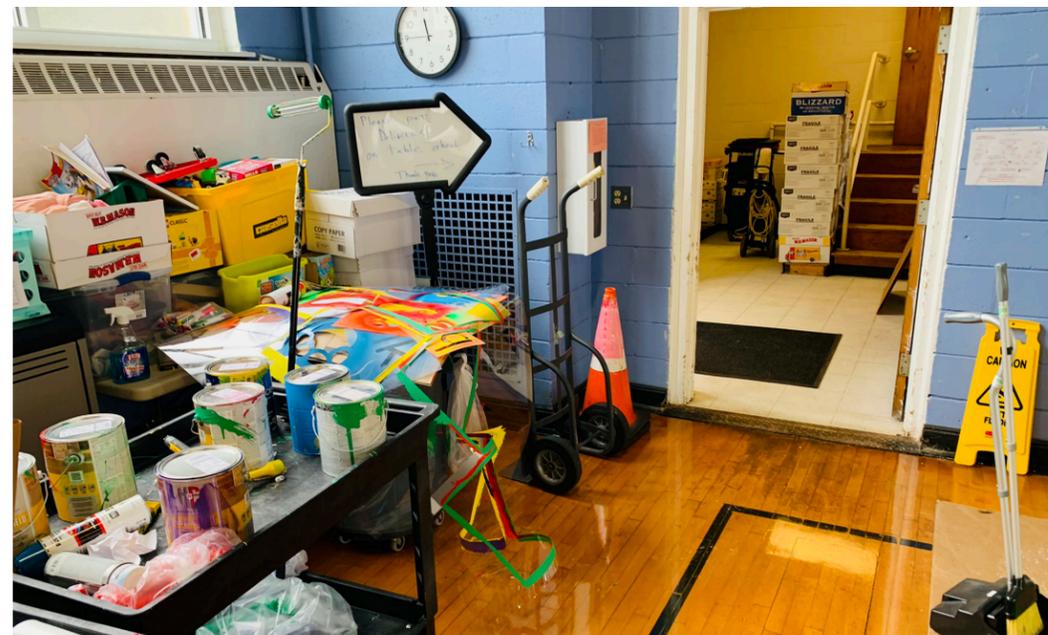
The gym/cafeteria would benefit from an acoustic-centric update, as there is a long reverberation time due to lack of absorptive surfaces along the walls. In contrast the daylighting throughout the building is excellent.

Programming / Space Needs

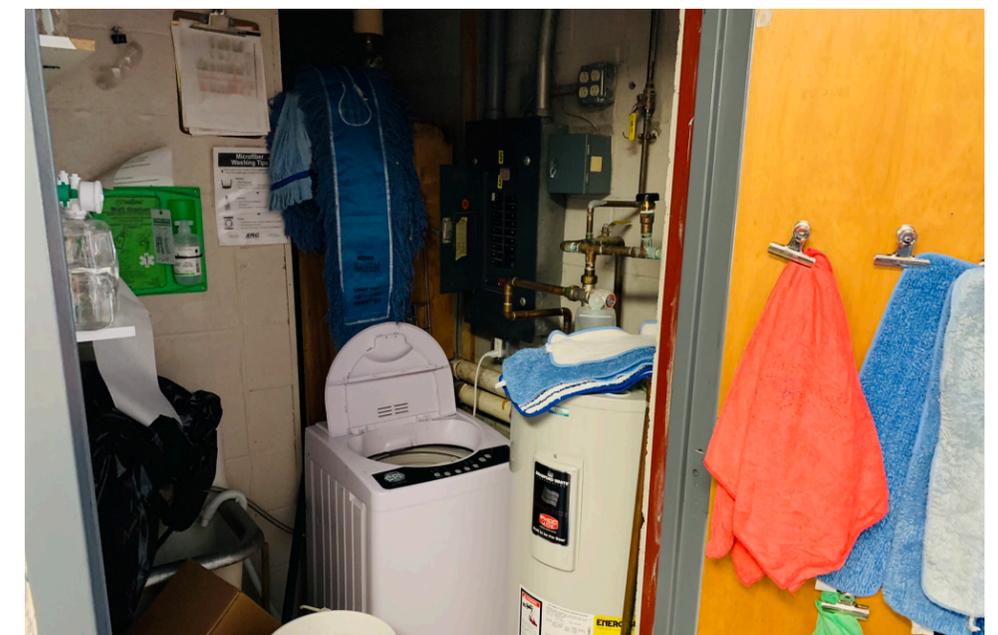
Overview of Space Needs

The Library Street school is lacking core areas. The school is currently lacking the following spaces:

- Mens' Restrooms (There are currently none in the building)
- 10+ Intervention spaces
- 5+ Special Ed spaces
- Specialty Classrooms (Art + Music)
- Work Room
- Conference Room
- Occupational Therapist Room
- Student In-class restrooms
- Storage for building maintenance
- Storage for faculty/staff supplies
- Maintenance Workroom
- Library



Lack of storage should be addressed for general school supplies, maintenance equipment, and supplies.



A utility closet is performing more than its expected function. While the space has been used inventively to keep the school clean, an upgrade will make this an easier task.



PHOTO 1: TYPICAL CLASSROOM SPACE

INTERIOR FINISH: ACT ceilings discolored, sagging, & generally nearing the end of their intended service life throughout the building.
RECOMMENDATION: Replace acoustic ceilings throughout.

INTERIOR FINISH: Flooring materials are well-maintained, but are becoming increasingly worn and dated.
RECOMMENDATION: Replace flooring finishes with low-maintenance & durable flooring option.

ACCESSIBILITY: Casework is worn, and many sink locations lack knee clearance or required faucet controls for ADA compliance.
RECOMMENDATION: Replace casework throughout building with ADA compliant sinks & faucet controls.

MECHANICAL: Some areas observed to have portable or window AC units.
RECOMMENDATION: Building heating, ventilation, and air conditioning should be evaluated to ensure student spaces have proper climate control. Window AC units should ultimately be removed.

PROGRAM: Gymnasium is undersized.
RECOMMENDATION: Renovate & provide additional gymnasium space.

ACOUSTICS: Gymnasium finishes are often hard surfaces with lots of long reverberation, making this space more difficult to use when occupied by large student bodies.
RECOMMENDATION: The introduction of sound-absorptive materials including acoustic wall and/or ceiling panels to help reduce reverberation time. An acoustic engineer could be hired to make specific recommendations for this space.

PROGRAM: Gymnasium is being used as administrative space.
RECOMMENDATION: Additional administrative space required.

ELECTRICAL: Artificial lighting throughout the building is fluorescent.
RECOMMENDATION: Replace fluorescent lighting fixtures throughout with energy-efficient LED lighting.

PROGRAM: Kindergarten rooms lack dedicated toilet room, and are undersized.
RECOMMENDATION: Renovation required to provide DOE recommended toilet room & recommended room square footage.

HAZARDOUS MATERIALS: Previous (abandoned-in-place) boiler with asbestos-containing insulation was observed in the boiler room. While the unit is labeled and does not pose a danger to anyone in the building, this should be abated or removed by the appropriate personnel.
RECOMMENDATION: Remove asbestos containing materials.

ACCESSIBILITY: Single-user toilet rooms are too small for required ADA turning clearances and door clearances. Rooms also lack appropriate accessories (including grab bars) or accessories are mounted at improper heights.
RECOMMENDATION: Many of these spaces are simply too small to accommodate the required turning clearances. As such, complete renovation & expansion of these rooms is required for full ADA compliance.

PROGRAM: Special education spaces are often undersized and under equipped. It should be noted that buildings of this era often lack appropriately sized & located special education space.
RECOMMENDATION: Special education/intervention areas should be carefully located and distributed throughout the building to serve the greatest number of students. Spaces should generally be larger, and include sinks or washrooms as required.



PHOTO 4: PREVIOUS BOILER W/ ASBESTOS WARNING

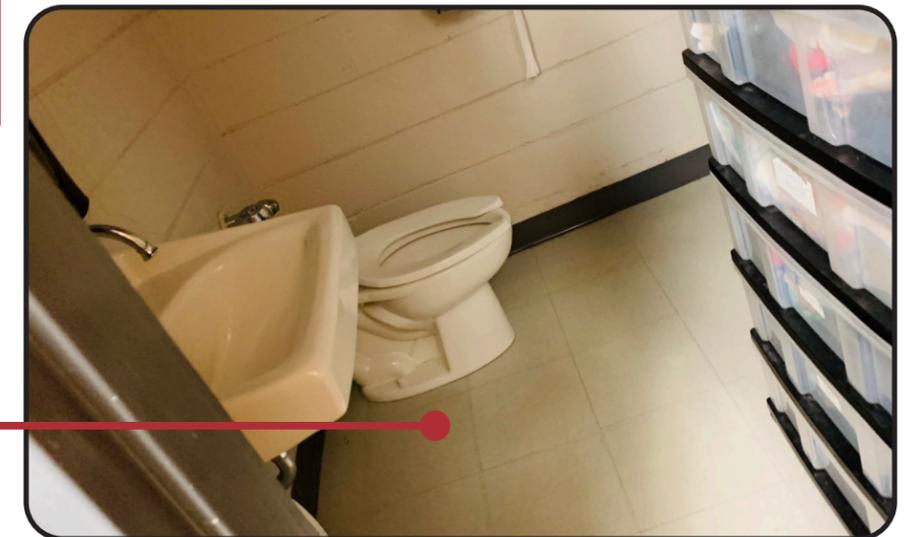


PHOTO 5: TYPICAL SINGLE-USER TOILET ROOM

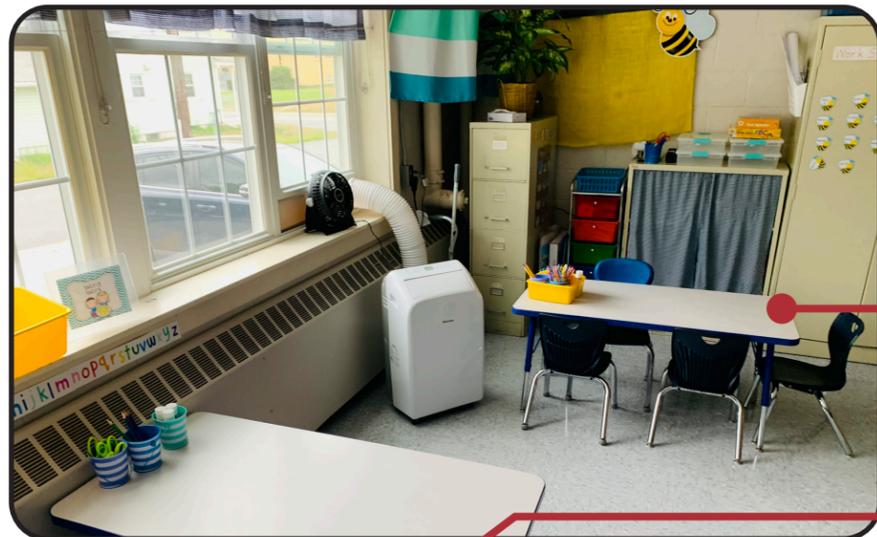


PHOTO 2: NURSE ROOM



PHOTO 3: GYMNASIUM / TEMP ADMINISTRATIVE SPACE



PHOTO 6: SPECIAL EDUCATION / INTERVENTION IN CORRIDOR

Order of Magnitude Costs

These Order of Magnitude costs are based on preliminary construction estimates and include hard construction costs for the building and site. Hard construction costs for the building can be defined as the cost of the physical building from the foundation upwards including all permanent building systems. "Soft Costs" can also have significant effects on the total amount of a project's cost. Soft costs include a wide array of items which all contribute to a total school bond required to construct or renovate a building. These costs include (but are not limited to): engineering and design fees, legal and administrative fees, furnishing and equipment not part of the building systems, utility connection charges, and permitting fees. Soft costs can vary greatly from school to school depending on local requirements and also on the amount of furnishings and equipment suitable for re-use in a new or rehabilitated school. In general, these costs can range from 20-30% of construction costs. Also note that these order of magnitude costs are based on current year (2023) values. Given the extremely volatile market, we cannot forecast the construction inflation for the coming years with any degree of certainty. We hope that these very preliminary order of magnitude costs help you understand overall budget and potential tax impacts as you consider options for phasing and implementation of your facility upgrades. As stated above, these costs are preliminary order of magnitude values. As the solutions for each phase of the master plan are further defined and developed, construction values will be re-visited & developed into a true estimate relating to the scope and size of the selected capital improvements.

School	Category	Proposed Improvement	Priority*	Opinion of Construction Costs		
	Nancy Maguire – School Principal	Bill Treadwell – Head Custodian				
	Facilities/Maintenance/Repair	Replace ceiling finishes	C	\$450,000 Entire building		
	Facilities/Maintenance/Repair	Replace flooring finishes	C	\$390,000 Entire building		
	Facilities/Maintenance/Repair & Accessibility	Replace casework	B	\$60,000 All classrooms & support spaces. Provide sinks where required.		
	Mechanical	Further Study needed for mechanical improvement recommendation.	B	TBD Issues with heating, cooling, and ventilation observed. Building should be assessed on a holistic level.		
	Program/Acoustics	Provide acoustic upgrades in Gymnasium	C	\$20,000		
	Electrical	Long term, provide LED light fixtures	D	\$300,000 Entire Building		
	Accessibility	Provide / renovate single-user toilet rooms off Kindergarten classrooms, and multi-user bathrooms.	B	\$240,000 Would include moving partitions as needed.		
	Safety	Remove asbestos materials	A	\$50,000 Need further study to identify full scope of abatement		
	Safety	Site improvements related to sidewalk use	B	\$20,000 Regrade and resurface sidewalk along School Street		
Built/Renovated/Expanded	1957/1962	Facilities/Maintenance/Repair	Replace/repair failing exterior stair	A	\$4,000	
Gross Square Feet	30,017	Capacity/Space Needs	East courtyard 3,500 SF addition	See Options	\$1,400,000	Accommodates program needs of the whole building
Educational Capacity	~160	Capacity/Space Needs	West courtyard 8,000 SF addition	See Options	\$3,300,000	Accommodates program needs of the whole building
Current Enrollment	198					
					\$6,234,000	

Enrollment Projections By Grade*																					
School Year	Birth Year	Births*		PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12	Comments
2022-23	2017	217		92	194	212	231	170	195	232	236	235	221	249	256	265	264	<20	2960	3052	Current Year
2023-24	2018	244		93	204	252	215	234	172	198	235	235	235	227	247	248	272	<20	2974	3067	
2024-25	2019	235		94	197	265	256	218	237	174	201	234	235	241	225	239	255	<20	2977	3071	
2025-26	2020	204		95	171	256	269	260	221	240	177	200	234	241	239	218	246	<20	2972	3067	
2026-27	2021	227		96	190	222	260	273	263	224	244	176	200	240	239	231	224	<20	2986	3082	
2027-28	2022	225	(est.)	97	189	247	226	264	276	267	227	243	176	205	238	231	237	<20	3026	3123	
2028-29	2023	227	(est.)	98	190	246	251	229	267	280	271	226	243	180	203	230	237	<20	3053	3151	
2029-30	2024	224	(est.)	99	187	247	250	255	232	271	284	270	226	249	178	197	236	<20	3082	3181	
2030-31	2025	221	(est.)	100	185	243	251	254	258	235	275	283	270	232	247	172	202	<20	3107	3207	
2031-32	2026	225	(est.)	101	188	241	247	255	257	262	239	274	283	277	230	239	177	<20	3169	3270	
2032-33	2027	225	(est.)	102	188	244	245	251	258	261	266	238	274	290	275	223	246	<20	3259	3361	

Library Street School

Projected Enrollment Data provide by NESDEC for Hudson School District
 ■ Current year
 ■ Based on children already born
 ■ Based on estimated births
 *Actual Pre-K numbers are higher than NESDEC Report estimated

Summary of Program Spaces – Library Street School				
Rooms	Current Spaces	Required Spaces Based on Population		
		Existing 194 Students 2022-2023	Highest Year 204 Students 2023-2024	10-Year 188 Students 2032-2033
Classrooms	11	14	15	14
Computer Lab	0	0	0	0
Art Classrooms	0	0	0	0
Music Rooms	0	0	0	0
Library / MC	0	0	0	0
Gym	0	0	0	0
@ 90% Utilization		15.3/class	15.1/class	14.8/class

Library Street School

Programming / Space Needs Calculations

Kindergarten (Library Street)

Education Program Areas									
Current Year Population (2022-2023)									
Course/Subject	# Students	Max Students/ Teaching Space	Utilization (90%)	# of Sections	Offered	# Spaces Required	Number of Appropriately sized spaces in existing building (or size of existing space)	Required additional spaces	Notes
Kindergarten	194	16	0.90	13.47	Full Day	14	11	3	
Total Enrollment	194					14		3	
2022-2023 Enrollment	194								
Difference from Current Enrollment	0								

Expected Maximum Population Year (2023-2024)									
Kindergarten	204	16	0.90	14.17	Full Day	15	11	4	
Total Enrollment	204					15		4	
2022-2023 Enrollment	194								
Difference from Current Enrollment	10								

Expected 10-Year Population (2032-2033)									
Kindergarten	188	16	0.90	13.06	Full Day	14	11	3	
Total Enrollment	188					14		3	
2022-2023 Enrollment	194								
Difference from Current Enrollment	-6								

Core Program Areas									
Expected Maximum Population Year (2023-2024) 204 Students									
Space	Student Access Per week (periods)	# of Students Served	# of Classes/wk	Calculated SF of Space (Per Standards)	Periods per week Offered	# Spaces Required	Number of Appropriately sized spaces in existing building (or size of existing space)	Required additional spaces	Notes
Art	1	204	14		30	1	0	1	
Music	1	204	14		30	1	0	1	
Physical Education	1	204	14		30	1	1	0	
Media Center / Library	1	204	14	816	30	1	0	816	Net Square Feet
Cafeteria	4	204	13	1530	15	1	3555	-2025	Net Square Feet
Special Education Student Areas*	1	31	15		15	2	2	0	
Intervention / Small Group Areas*	5	50	100		15	7	2	5	2 classrooms being overutilized. An intervention suite is recommended.
Professional Areas								0	1 Language, 1 Guidance, 1 Testing, 1 Waiting, 1 Conference, 1 Counselor

* Estimated as a percent of student population

Dept of Ed allowable:	Age Group	Enrollment	SF/Pupil	Utilization	Total Building (NSF)
For New Construction	Grade 1	204	120	0.90	27,200
					27,200

Total Allowable by NH DOE standards for new construction

Existing Analysis / Capacity

Max Projected Enrollment (2023-2024)	204			
Current Building Size (gsf)	28,500			
Estimated Building Capacity Based solely on size of building	214			
Based on Average NH School Construction of 120sf/student for Grades 1-5 and 150sf/student in K @ 90% Utilization				
# Classrooms*	Max Seats/ Classroom**	Utilization (90%)	Utilized Seats	Theoretical Student Capacity
11	16	0.9	158.4	158

Projected Utilization / Capacity

*** Standard 8 period day, allowing for no specials during first and last periods.

Core Capacity	Size of Area (sf)	Appropriately Sized?	Seats/persons	Utilization (90%)	Periods per week Offered***	Theoretical Student Capacity
Art	400	N	16	0.9	30	432
Music	400	N	16	0.9	30	432
Media Center	0	N	Calculated @ Students x .10 x 40 sf			0
Gymnasium	3373	Y	31	0.9	15	414
Cafeteria	3373	Y	187	0.9	10	337.3

Currently in a shared room with Music and OT.
Currently in a shared room with Art and OT.
Currently in storage in gym
25%+ of gym is being utilized as storage
Cafeteria is same space as gymnasium

Existing Property Map



Early Learning Center - Library Street School

Existing Assessment

All classrooms are lacking washrooms, as recommended by NH DOE.

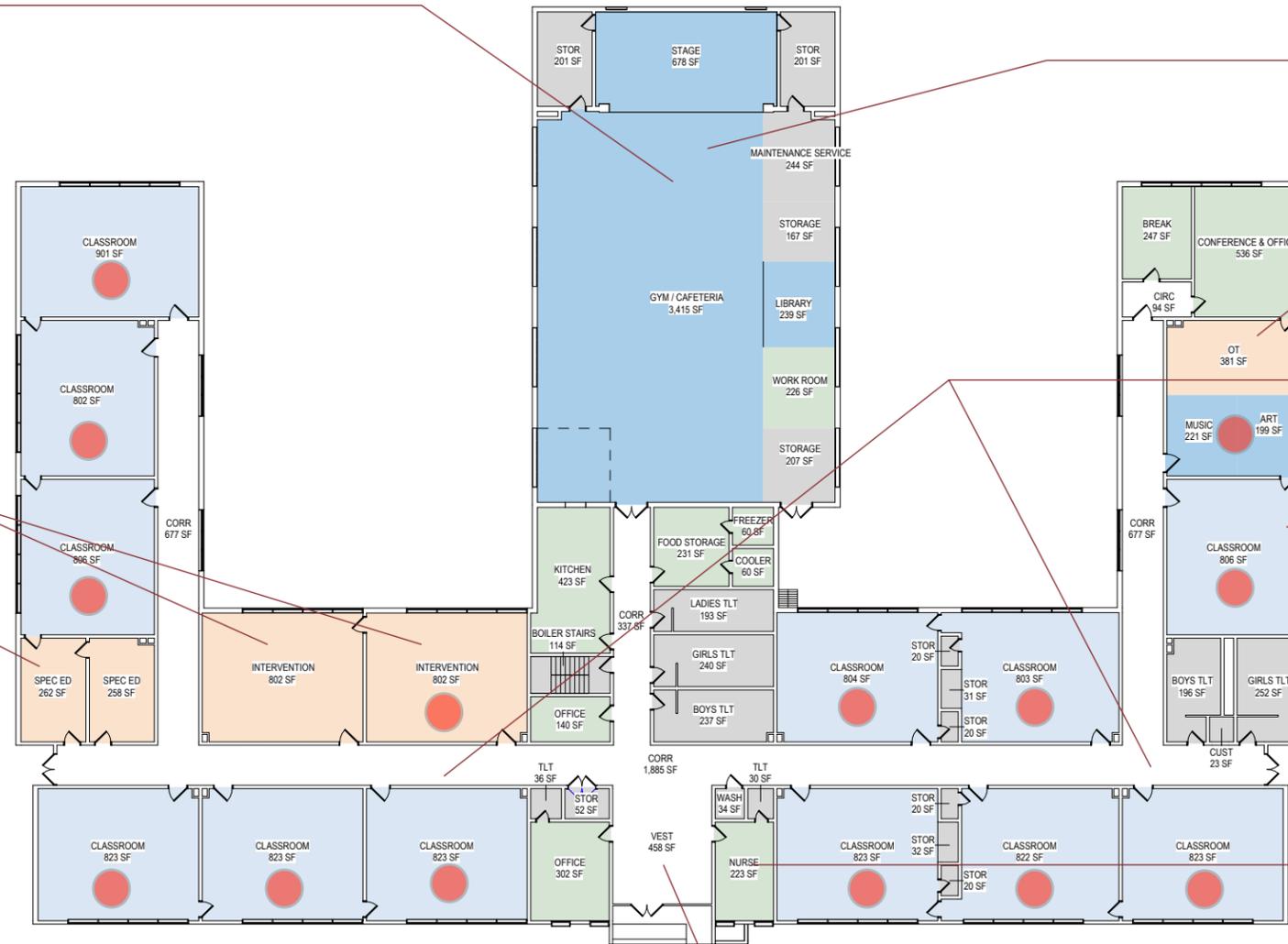
It is recommended that school gyms minimum dimensions be 70'x100' (7,000sf). The current gym size is 60'x80' (4,800sf).

With a majority of surfaces in the gym being hard, the space would benefit from the addition of acoustic panels between the window.

These rooms are currently shared by 10 interventionist, each with varying environmental factors to consider.

A sink in special-ed areas is recommended. These rooms lack any source of natural light.

Undersized Classroom
 Note: These classrooms cannot feasibly be expanded to 1000sf standards. To meet NH DOE standards of 50sf per student, each of these classrooms should be limited to 16 students



Due to inadequate space elsewhere, gym is being utilized as a gym, cafeteria, non-functioning library, performance area, storage, teacher work room, and maintenance work room.

Lacking dedicated OT Room

Due to lack of appropriate spaces, the hallways are unsafely packed with intervention areas. This is a serious fire safety hazard.

Lacking dedicated Art+Music Room

Lack of Mens bathroom requires male staff to utilize spaces in Nurse and Office space, which is already overutilized

The vestibule has recently been updated for security enhancements, which are functioning well.

- CIRCULATION
- CLASSROOMS
- SPECIAL EDUCATION / INTERVENTION
- SPECIALTY CLASSROOMS
- STAFF / FACILITY
- SUPPORT

Library Street School

Hudson School District | 22-037-00

FIRST FLOOR PLAN

SCALE: 1/32" = 1'-0"



08/24/22

LAVALLEE BRENSINGER ARCHITECTS

Early Learning Center - Library Street School

Recommended Improvements



Regrading and surfacing of sidewalk along School Street will provide safer access to shared playground.

Conversion of parking lot to vegetated interior courtyard and an 8,000sf building addition.

These additions can adequately accommodate all of the kindergarten's current needs and bring in a half day pre-k program

*Addition to buildings will reduce the natural light in the gymnasium, but will allow the school to serve the students better overall.

Minimal visibility for cars entering/exiting parking lot. The addition of a traffic mirror provides a simple fix.

Exterior stairs in need of repair

Early Learning Center - Library Street School

Proposed Addition



- CIRCULATION
- CLASSROOMS
- SPECIAL EDUCATION / INTERVENTION
- SPECIALTY CLASSROOMS
- STAFF / FACILITY
- SUPPORT

With the two additions, marked in red, the Library Street School would be able to properly run the kindergarten and pre-k programs for the school district.

The addition in the west playground space would add four full-sized classrooms, extra storage space, as well as room for special-ed, and a maintenance work room. With this program moved into the addition, the rest of the school would be freed up to give everyone enough space.

The addition in the eastern parking lot would adequately house the needs of the pre-school program, including the students not accounted for in the NES-DEC Estimate. As about 100 students are expected to attend pre-k each year in the next decade, with a half day program, just three rooms are adequate.

The downsides of these additions would be to remove the library street outdoor play space. Luckily, as H.O. Smith receives a new playground, the shared playground will be fully available to the Library Street students.

The eastern courtyard being filled in for pre-k does remove the majority of parking from the site. Securing close, off-site parking will be a requirement for this option to be feasible. It was mentioned by faculty that parking may be available at St. John's Evangelical, as a potential avenue.

While these options will greatly reduce the amount of natural light in the gym, the school will function more smoothly in every other aspect.

If parking is not able to be secured off-site, it is recommended to forgo filling the eastern courtyard and pursue an alternate arrangement for the pre-k classes.

Library Street School

Hudson School District | 22-037-00

FLOOR PLAN

SCALE: 1/32" = 1'-0"



08/24/22

LAVALLEE BRENSINGER ARCHITECTS

Existing Assessment

Existing Building Condition

The H.O. Smith School, which was named after the son of one of the founding members of the Hudson School Board, first opened its doors in 1939. In the 80+ years since, the school has had several renovations to meet the changing needs of the school over the years. Today, H.O. Smith is run solely as a first grade school. The exterior envelope, of both the original building and the additions, appear to be in good shape initially, but closer inspection indicates otherwise. The interior environment has been well-maintained over the years though a persistent issue has been worsening. The basement level of the expansion seems to be inadequately waterproofed. This issue allows moisture to migrate from the soil to the interior of the space, causing the vinyl tile to delaminate and a damp environment in the hallway as well as the intervention room. Lighting has been updated to LED bulbs and ballasts, but energy efficient fixtures are recommended. While the interior finishes range from vintage to modern, and have been well-maintained overall, replacing the vintage material is recommended. Vinyl tile flooring is degrading in several locations and should be upgraded to match renovated corridors. The elevator on-site is functional, but a patchwork of functionality at best. A separate assessment would help better understand the problem and needs.

Existing Site

Parking is adequate for faculty and staff, though student drop-off/pick-up leaves something to be desired. Faculty noted this twice-daily cycle is far from ideal, but does minimize traffic blocked on local roads. While this doesn't seem to cause a big disruption in the traffic pattern, it is recommended to be addressed.

The School will be receiving a new playground on the field behind the building. Staff noted that once the student traffic in this area increases, it will be important to pave the uneven path to the new playground. There are currently roots and tree stumps presenting a hazard.

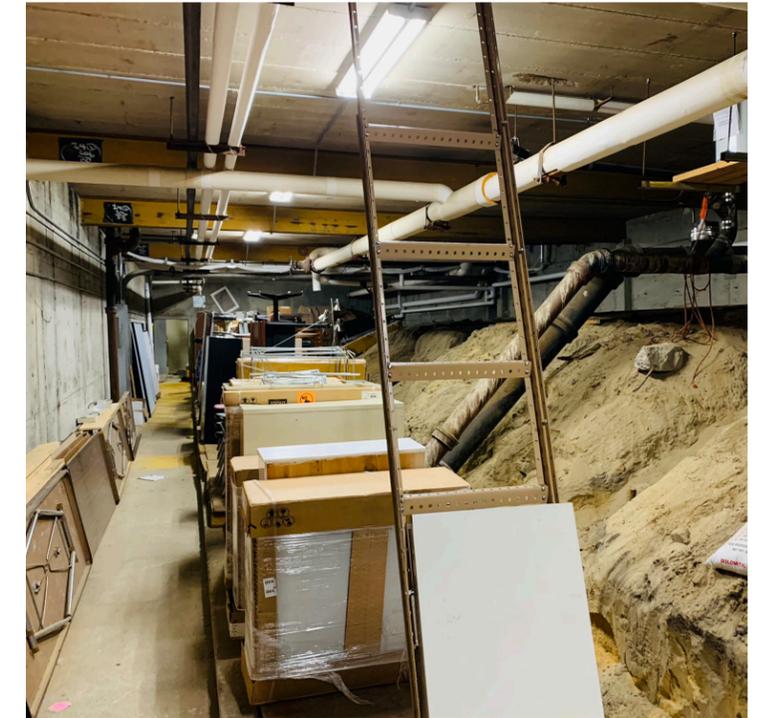
Student Safety

Staff noted that due to the non-conventional drop-off/pick-up configuration, students typically cross the lawn perpendicular to the available path. This occurs in all but the worst conditions and a new path should be added to reflect the school's current use.

Acoustics and Daylighting

Classroom daylighting is adequate, though could benefit from the addition of acoustic wall panels to minimize presence of unintentional classroom sounds.

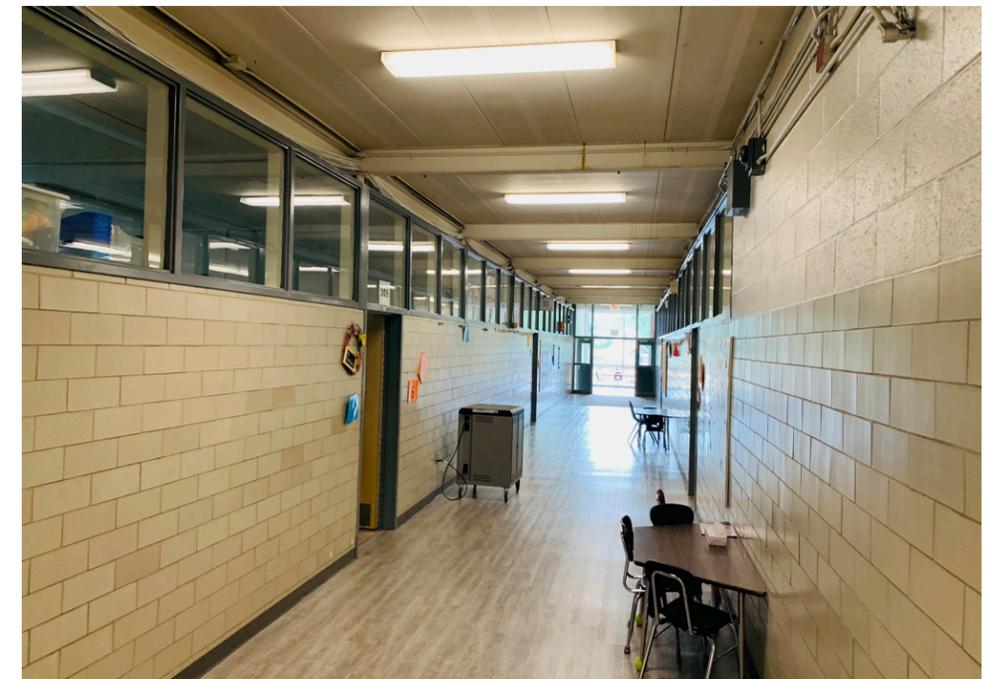
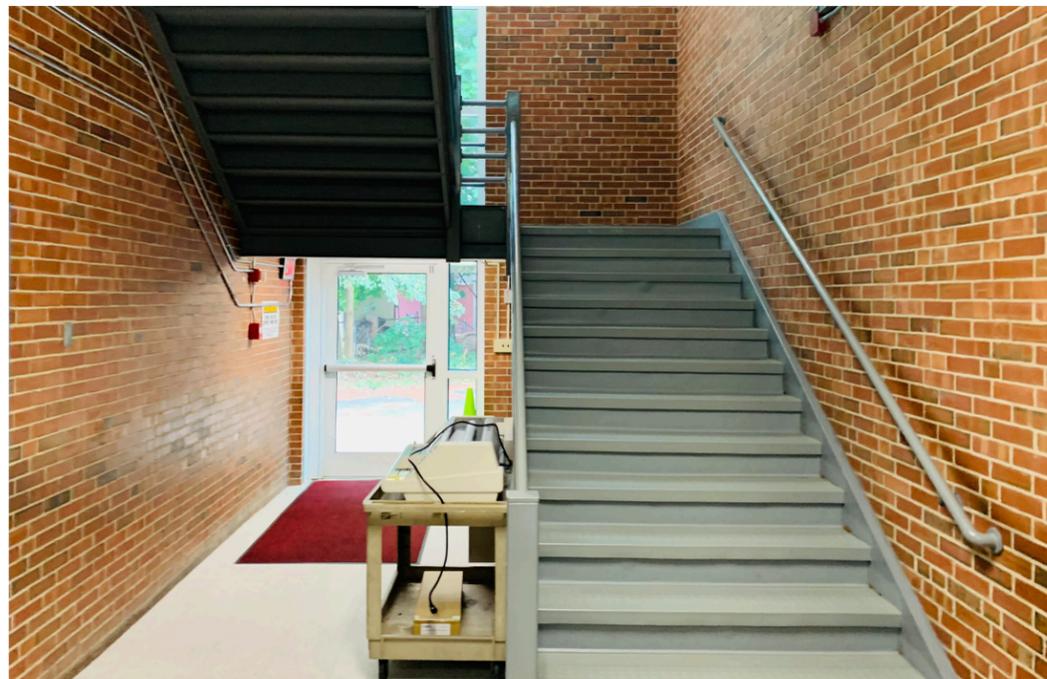
Daylighting in the majority of the school is excellent with high ceilings and large windows throughout (characteristic of historic schools). The exception is the cafeteria space, which has low ceilings with very limited natural lighting.



Programming / Space Need

Overview of Space Needs

- Visitor Parking with signage
- Expanded faculty parking
- Elevator upgrade
- Intervention spaces
- Special Ed spaces
- Pre-School classrooms



The latest edition of NFPA 101 requires all classrooms intended for use by first grade or younger to be at ground level. The classroom on the second floor of this building do not meet that requirement

While these student pods are minimally intrusive, they do not provide a suitable environment for students learning or testing.

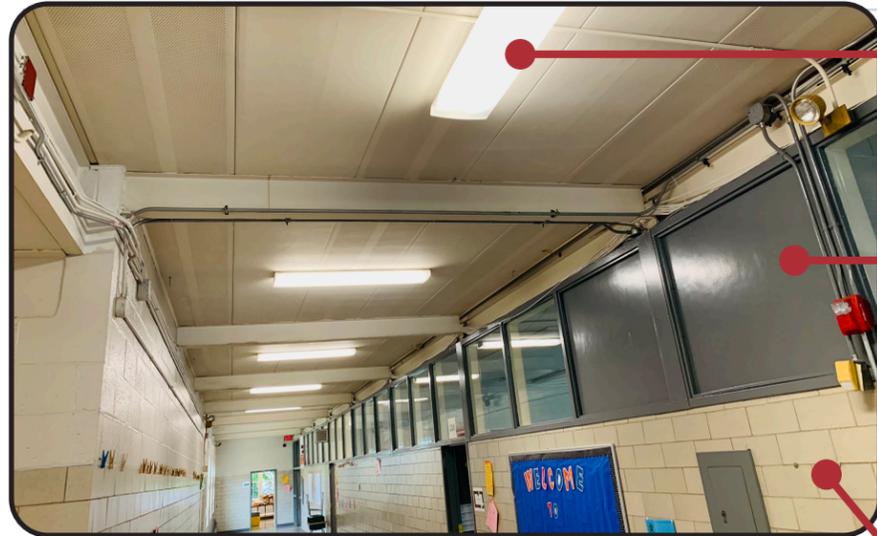


PHOTO 1: CORRIDOR SPACE USED AS AN EXTENSION OF THE CLASSROOM

INTERIOR FINISH: ACT ceilings discolored, sagging, & generally at the end of their useful service life throughout the building. Older VCT flooring throughout is cracking & bubbling. Finishes in general are dated and in need of replacement.
RECOMMENDATION: Replace all interior finishes, providing a complete interior renovation.

PROGRAM: Corridor spaces are being used as breakout / intervention spaces. In general, these spaces are not appropriate for student learning
RECOMMENDATION: Provide additional space to alleviate space constraints.

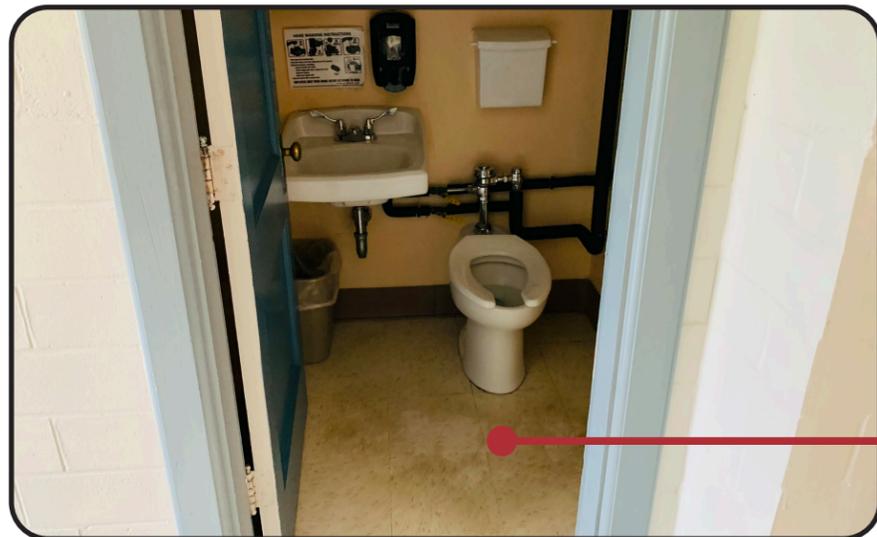


PHOTO 2: SINGLE-USER TOILET ROOM

ACCESSIBILITY: Single-user toilet rooms are too small for required ADA turning clearances and door clearances. Rooms also lack appropriate accessories (including grab bars) or accessories are mounted at improper heights (including mirrors & soap dispensers).
RECOMMENDATION: Many of these spaces are simply too small to accommodate the required turning clearances. As such, complete renovation & expansion of these rooms is required for full ADA compliance.



PHOTO 3: ART CLASSROOM

ACCESSIBILITY: Casework is worn, and many sink locations lack knee clearance or required faucet controls for ADA compliance.
RECOMMENDATION: Replace casework throughout building with ADA compliant sinks & faucet controls.

ELECTRICAL: Bulbs & ballasts of the building's artificial lighting have been replaced with LED technology, but IECC code does not recognize compliance for the bulb; only for the whole fixture.
RECOMMENDATION: Future replacement should include the whole light fixture, not just the bulb and ballast.

PROGRAM: Gymnasium is undersized.
RECOMMENDATION: Renovate & provide additional gymnasium space.

MECHANICAL: Classroom unit ventilators are loud, and increasingly require more maintenance.
RECOMMENDATION: Remove unit ventilators and completely renovate of mechanical system. Energy-efficient options such as a VRF system and DOAS should be proposed / designed by a licensed mechanical engineer.

PROGRAM: First grade classrooms are undersized. Additionally, NFPA guidelines require that spaces used by first grade & younger egress at grade.
RECOMMENDATION: Complete renovation required to provide DOE recommended square footage, or the number of students per room should be reduced. Student spaces on the second floor should be moved to ground level to comply with NFPA requirements.

MECHANICAL: The boiler system, and mechanical equipment have been replaced about eight years ago.
RECOMMENDATION: Mechanical equipment should be studied more closely to ensure it is still operating at expected efficiency.



PHOTO 4: GYMNASIUM



PHOTO 5: CLASSROOM SPACE

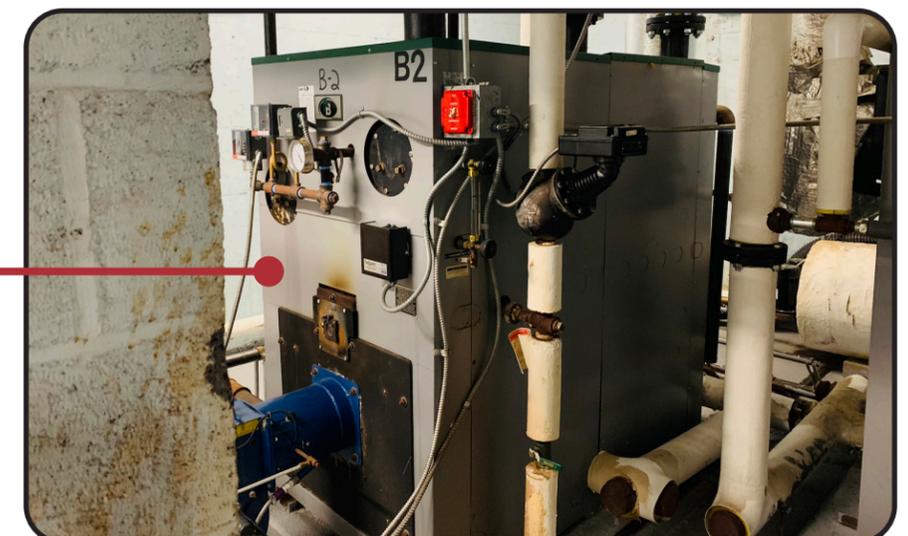


PHOTO 6: MECHANICAL EQUIPMENT IN THE BOILER ROOM

Order of Magnitude Costs

These Order of Magnitude costs are based on preliminary construction estimates and include hard construction costs for the building and site. Hard construction costs for the building can be defined as the cost of the physical building from the foundation upwards including all permanent building systems. "Soft Costs" can also have significant effects on the total amount of a project's cost. Soft costs include a wide array of items which all contribute to a total school bond required to construct or renovate a building. These costs include (but are not limited to): engineering and design fees, legal and administrative fees, furnishing and equipment not part of the building systems, utility connection charges, and permitting fees. Soft costs can vary greatly from school to school depending on local requirements and also on the amount of furnishings and equipment suitable for re-use in a new or rehabilitated school. In general, these costs can range from 20-30% of construction costs. Also note that these order of magnitude costs are based on current year (2023) values. Given the extremely volatile market, we cannot forecast the construction inflation for the coming years with any degree of certainty. We hope that these very preliminary order of magnitude costs help you understand overall budget and potential tax impacts as you consider options for phasing and implementation of your facility upgrades. As stated above, these costs are preliminary order of magnitude values. As the solutions for each phase of the master plan are further defined and developed, construction values will be re-visited & developed into a more detailed estimate relating to the scope and size of the selected capital improvements.

School	Category	Proposed Improvement	Priority*	Opinion of Construction Costs
Early Learning Center - H.O. Smith School	Mary-Ellen Labrie - School Principal	Bill Treadwell – Head Custodian		
	Facilities/Maintenance/Repair	Replace ceiling finishes	C	\$870,000 Entire building
	Facilities/Maintenance/Repair	Replace flooring finishes	C	\$755,000 Entire building
	Accessibility	Renovate single-user & multi-user toilet rooms. Also provide additional single-user toilet rooms as needed.	B	\$200,000 Would include moving partitions as needed.
	Facilities/Maintenance/Repair & Accessibility	Replace casework	C	\$116,000 All classrooms & support spaces. Provide sinks where required.
	Electrical	Long term, provide LED light fixtures	D	\$580,000 Entire Building
	Mechanical	Further Study needed for mechanical improvement recommendation.	B	TBD Issues with heating, cooling, and ventilation observed. Building should be assessed on a holistic level.
	Accessibility	Address elevator/lift issues	A	\$10,000
	Safety/Security	Door Hardware	B	\$7,500 Repair/upgrade all exterior doors
	Facilities/Maintenance/Repair	Waterproof basement	A	\$20,000 Allowance Only. Further study required to assess scope.
	Program/Acoustics	Provide acoustic upgrades in Gymnasium	C	\$30,000 Upgrades for rooms throughout building as needed.
Built/Renovated/Expanded	1939/1950s			
Gross Square Feet	57,932	Site	Improve site circulation for improved parent & bus drop-off sequences.	B \$100,000 Allowance only - further refinement needed with site concept.
Educational Capacity	~250	Capacity/Space Needs	Total of 8,000 SF addition	See Options \$3,300,000 Accommodates program needs of the whole building
Current Enrollment	212			
				\$5,988,500

Enrollment Projections By Grade*																					
School Year	Birth Year	Births*		PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12	Comments
2022-23	2017	217		92	194	212	231	170	195	232	236	235	221	249	256	265	264	<20	2960	3052	Current Year
2023-24	2018	244		93	204	252	215	234	172	198	235	235	235	227	247	248	272	<20	2974	3067	
2024-25	2019	235		94	197	265	256	218	237	174	201	234	235	241	225	239	255	<20	2977	3071	
2025-26	2020	204		95	171	256	269	260	221	240	177	200	234	241	239	218	246	<20	2972	3067	
2026-27	2021	227		96	190	222	260	273	263	224	244	176	200	240	239	231	224	<20	2986	3082	
2027-28	2022	225	(est.)	97	189	247	226	264	276	267	227	243	176	205	238	231	237	<20	3026	3123	
2028-29	2023	227	(est.)	98	190	246	251	229	267	280	271	226	243	180	203	230	237	<20	3053	3151	
2029-30	2024	224	(est.)	99	187	247	250	255	232	271	284	270	226	249	178	197	236	<20	3082	3181	
2030-31	2025	221	(est.)	100	185	243	251	254	258	235	275	283	270	232	247	172	202	<20	3107	3207	
2031-32	2026	225	(est.)	101	188	241	247	255	257	262	239	274	283	277	230	239	177	<20	3169	3270	
2032-33	2027	225	(est.)	102	188	244	245	251	258	261	266	238	274	290	275	223	246	<20	3259	3361	

Dr. H.O. Smith School

Projected Enrollment Data provide by NESDEC for Hudson School District
 Current year
 Based on children already born
 Based on estimated births
 * Noted Actual Pre-K numbers vary from NESDEC Report

Summary of Program Spaces – Dr. H.O. Smith School				
Rooms	Current Spaces	Required Spaces Based on Population		
		Existing 2022-2023	Highest Year 2023-2024	10-Year 2032-2033
Classrooms	14	14	17	16
Computer Lab	0	0	0	0
Art Classrooms	1	1	1	1
Music Rooms	1	1	1	1
Library / MC	1	1	1	1
Gym	1	1	1	1
@ 90% Utilization		16.8/class	17.3/class	16.9/class

IMPORTANT NFPA 101: LIFE SAFETY CODE

15.2 Means of Egress Requirements

15.2.1 General

15.2.1.1 Means of egress shall be in accordance with Chapter 7 and Section 15.2.

15.2.1.2 Rooms normally occupied by preschool, kindergarten, or first-grade students shall be located on a level of exit discharge, unless otherwise permitted by 15.2.1.4.

15.2.1.3 Rooms normally occupied by second-grade students shall not be located more than one story above a level of exit discharge, unless otherwise permitted by 15.2.1.4.

15.2.1.4 Rooms or areas located on floor levels other than as specified in 15.2.1.2 and 15.2.1.3 shall be permitted to be used where provided with independent means of egress dedicated for use by the preschool, kindergarten, first-grade, or second-grade students.

Programming / Space Needs Calculations

1st Grade (Dr. H.O. Smith)

Education Program Areas									
Current Year Population (2022-2023)									
Course/Subject	# Students	Max Students/ Teaching Space	Utilization (90%)	# of Sections	Offered	# Spaces Required	Number of Appropriately sized spaces in existing building (or size of existing space)	Required additional spaces	Notes
1st Grade	212	18	0.90	13.09	Full Day	14	14	0	
Total Enrollment	212					14		0	
2022-2023 Enrollment	212								
Difference from Current Enrollment	0								

Expected Maximum Population Year (2024-2025)									
1st Grade	265	18	0.90	16.36	Full Day	17	14	3	
Total Enrollment	265					17		3	
2022-2023 Enrollment	212								
Difference from Current Enrollment	53								

Expected 10-Year Population (2032-2033)									
1st Grade	244	18	0.90	15.06	Full Day	16	14	2	
Total Enrollment	244					16		2	
2022-2023 Enrollment	212								
Difference from Current Enrollment	32								

Core Program Areas									
Expected Maximum Population Year (2024-2025) 265 Students									
Space	Student Access Per week (periods)	# of Students Served	# of Classes/wk	Calculated SF of Space (Per Standards)	Periods per week Offered	# Spaces Required	Number of Appropriately sized spaces in existing building (or size of existing space)	Required additional spaces	Notes
Art	1	265	15		30	1	1	0	
Music	1	265	15		30	1	1	0	
Physical Education	1	265	15		30	1	1	0	
Media Center / Library	1	265	15	1060	30	1	1342	-282	Net Square Feet
Cafeteria	4	265	15	1988	15	1	2550	-563	Net Square Feet
Special Education Student Areas*	1	30	15		30	1	1	0	
Intervention / Small Group Areas*	5	40	30		30	1	1	0	
Professional Areas								0	1 Language, 1 Guidance, 1 Testing, 1 Waiting, 1 Conference, 1 Counselor

* Estimated as a percent of student population

Dept of Ed allowable:	Age Group	Enrollment	SF/Pupil	Utilization	Total Building (NSF)
For New Construction	Grade 1	265	120	0.90	35,333
					35,333

Total Allowable by NH DOE standards for new construction

Existing Analysis / Capacity

Max Projected Enrollment (2024-2025)	265
Current Building Size (gsf)	48,641
Estimated Building Capacity Based solely on size of building	365 Students
Based on Average NH School Construction of 120sf/student for Grades 1-5 and 150sf/student in K @ 90% Utilization	
Education Areas Capacity	227
Projected Utilization / Capacity	116.84%

*** Standard 8 period day, allowing for no specials during first and last periods.

Core Capacity	Size of Area (sf)	Appropriately Sized?	Seats/persons	Utilization (90%)	Periods per week Offered***	Theoretical Student Capacity
Art	692	N	22	0.9	30	594
Music	703	N	22	0.9	30	594
Media Center	1342	Y	Calculated @ Students x .10 x 40 sf			336
Gymnasium	3555	Y	32	0.9	15	436
Cafeteria	2550	Y	142	0.9	15	382.5

Existing Property Map



Early Learning Center - H.O. Smith School

Existing Assessment - Main Level

Special Ed room is overly humid for the majority of the year due to unsealed building envelope. This is currently a comfort issue, but it will continue to have a negative impact on building structure if left unaddressed.

VCT flooring at several locations display wear and tear, including chipping and bubbling, though it is being repaired as necessary.

Cafeteria is well-lit with artificial lighting, but low on natural light.

Cafeteria ceiling vibrates raucously during lunch period while gym is in session upstairs.

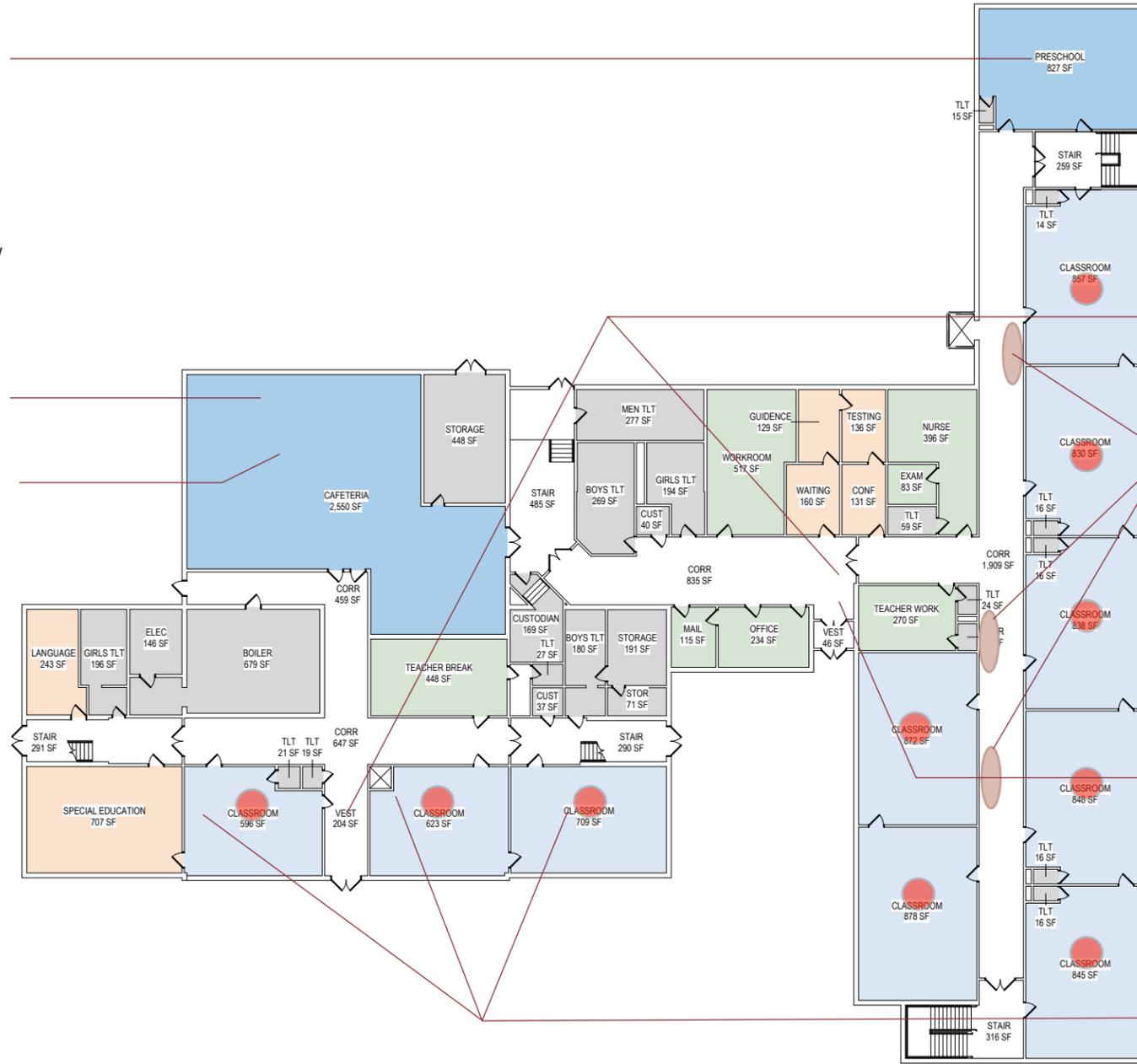
Undersized Classroom
 Note: These classrooms cannot feasibly be expanded to 900sf standards. To meet NH DOE standards of 36sf per student, the average classroom should be limited to about 23 students

Main entrance (and all secondary entrances) to the building are well secured.

Intervention areas retain adequate egress, but provide poor environment for student activities.

While the building does technically comply with the NFPA requirement of children in grades 1 or younger to be able to exit at grade in the event of a fire, seven of the ten classrooms cannot realistically be expected to use the same distant exit safely rather than the nearby stairs.

Classrooms on ground floor of original building have hard ceiling. Addition of acoustic panels would benefit the acoustic quality of the spaces.



- CIRCULATION
- CLASSROOMS
- SPECIAL EDUCATION / INTERVENTION
- SPECIALTY CLASSROOMS
- STAFF / FACILITY
- SUPPORT

H.O. Smith School

Hudson School District | 22-037-00

FIRST FLOOR PLAN

SCALE: 1/32" = 1'-0"



08/26/22

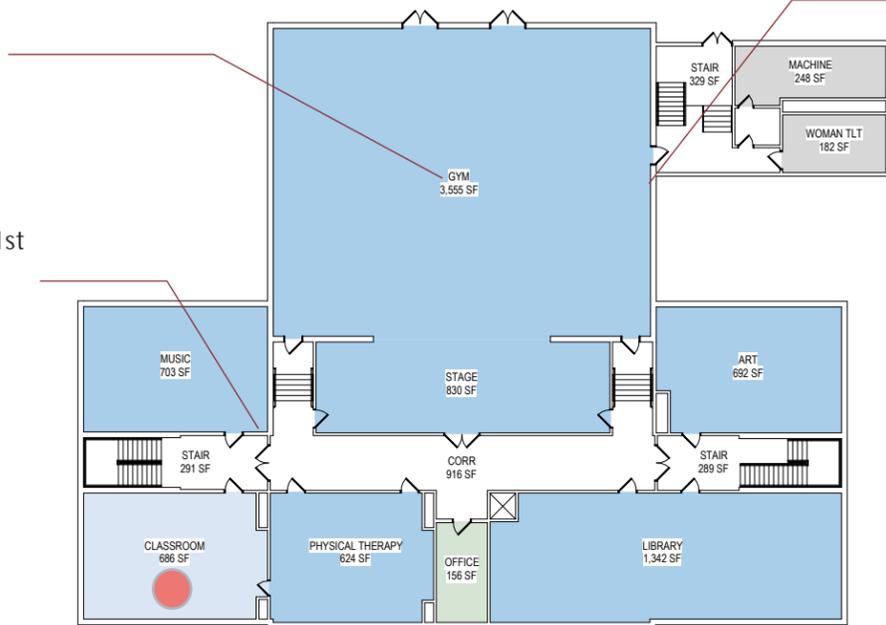
LAVALLEE BRENSINGER ARCHITECTS

Early Learning Center - H.O. Smith School

Existing Assessment - Level 2 and Basement

Gym is well-equipped with respect to acoustic preparation.

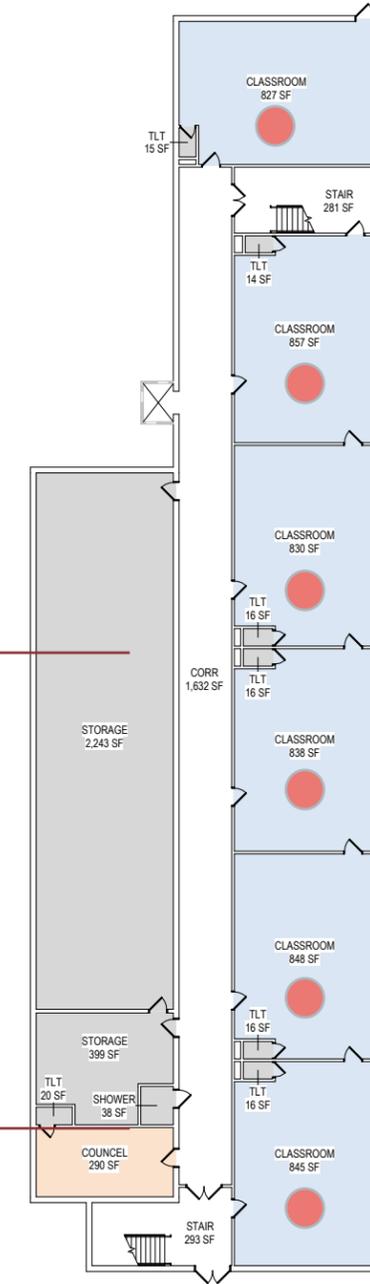
Per NH DOE recommendation, classrooms for Pre-K through 1st grade must be on a floor with direct access to ground level.



It is recommended that school gyms minimum dimensions be 70'x100' (7,000sf). The current gym size is 54'x66' (3,555sf), just over half of what is planned for by current standards. As this is not feasible through minor renovations, this is not a priority at this time.

Area has exposed earth along length of storage. Allows for moisture penetration past the building envelope, and will lead to degradation of building components.

Area has humidity issues due to mechanical systems venting into space.



Undersized Classroom
 Note: These classrooms cannot feasibly be expanded to 900sf standards. To meet NH DOE standards of 36sf per student, the average classroom should be limited to about 23 students

- CIRCULATION
- CLASSROOMS
- SPECIAL EDUCATION / INTERVENTION
- SPECIALTY CLASSROOMS
- STAFF / FACILITY
- SUPPORT

H.O. Smith School

Early Learning Center - H.O. Smith School

Recommended Improvements



Early Learning Center - H.O. Smith School

Proposed Addition - Main Level



The possible addition indicated below would provide Dr. H.O. Smith with another 5 classrooms, an intervention space, a special-ed room, as well as some added storage.

Beyond the interior space the addition would provide, this would provide an excellent opportunity for a covered walkway to the bus drop-off/pick-up, better protecting students from the elements.

The drawbacks of this option are minimal. The land this addition is located on is currently the asphalt play area for outdoor recess. Fortunately, there will still be an adequate amount of paved play area, which currently are marked for tennis and basketball. With some cosmetic updates, the school can have ample indoor and outdoor space.

- CIRCULATION
- CLASSROOMS
- SPECIAL EDUCATION / INTERVENTION
- SPECIALTY CLASSROOMS
- STAFF / FACILITY
- SUPPORT

H.O. Smith School

Hudson School District | 22-037-00

FIRST FLOOR PLAN

SCALE: 1/32" = 1'-0"

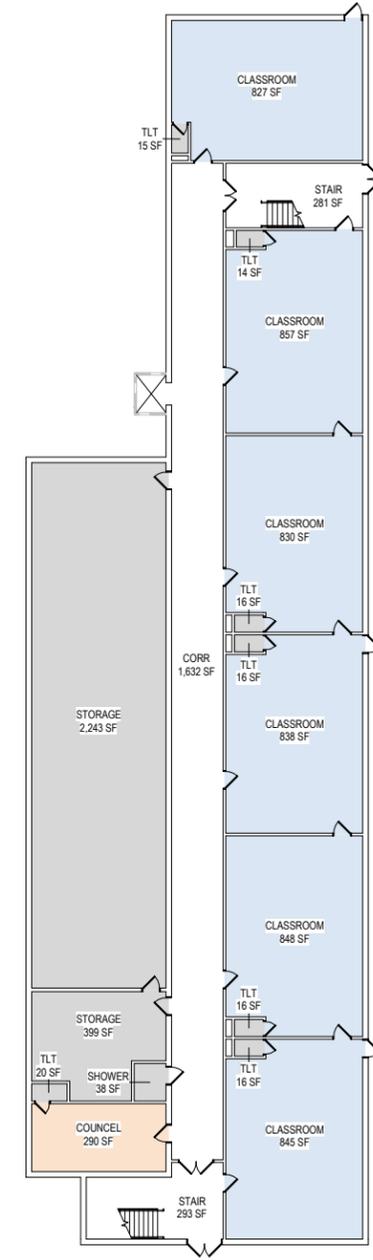
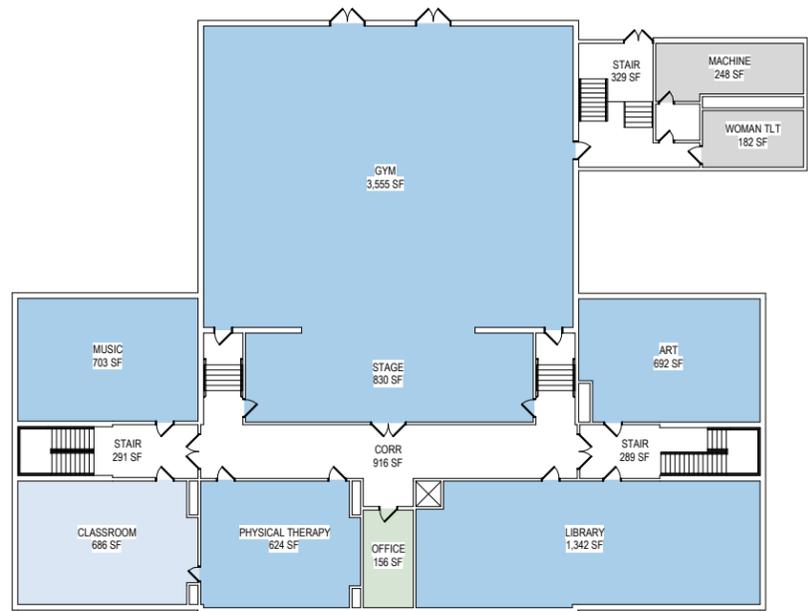


08/26/22

LAVALLEE BRENSINGER ARCHITECTS

Early Learning Center - H.O. Smith School

Proposed Additions - Level 2 and Basement



Serious consideration was given to the idea of housing the pre-k students in H.O. Smith as well.

If the addition were made to be two stories, there would be plenty of space and facilities to make this feasible.

The reason this option was not pursued is that children in 1st grade and younger must be able to exit at ground level in the event of a fire.

While this second level would be contiguous with the main level, where several classrooms are already located, those classrooms have been grandfathered in. In designing a new space for young students, close access to exiting the building must be a top priority.

As such, no addition can be recommended in the school that is not directly at ground level.

- CIRCULATION
- CLASSROOMS
- SPECIAL EDUCATION / INTERVENTION
- SPECIALTY CLASSROOMS
- STAFF / FACILITY
- SUPPORT

H.O. Smith School

Hudson School District | 22-037-00

2ND FLOOR & BASEMENT PLAN

SCALE: 1/32" = 1'-0"



08/26/22

LAVALLEE BRENSINGER ARCHITECTS

Existing Assessment

Existing Building Condition

Hills Garrison Elementary is the newest addition to the Hudson School District. Built in 2001, the exterior envelope is in excellent condition, providing a good interior environment as well. No comfort issues were reported by staff or observation on the premises. The flooring, walls, and ceiling all seem to be in good condition with regular maintenance being performed. Interior daylighting is adequate in the classrooms and exceptional where skylighting is present. Lighting throughout the facility have been updated with LED bulbs and ballast, though this is an improvement over florescent, it does not provide maximum energy efficiency. Humidity and ventilation seemed to be in good order during the site visit.

The portable facility in the back of the building is estimated to be over 20 years old. It is holding up well considering its age, though the heat pump is beginning to fail.

Existing Site

The current parking volume and organization have proven to be adequate over the past 20 years. There is ample area for snow storage in the winter, allowing all parking to remain available year round. The flow of student drop-off and pick-up both function well, allowing for uninterrupted traffic patterns around the school. The portable facilities located in the back of the school should be removed as this space will be required for a building expansion in the coming years. The shipping container on premises should also be scheduled for removal once a permanent structure can be designed to accommodate the storage needs.

Student Safety

Despite well-marked crosswalks, having playgrounds and athletic facilities located across the main vehicle circulation is not recommended, especially as this is the path for parents, busses, as well as delivery vehicles. Until gates can be installed, it is recommended that the maintenance staff deploy cones before recess times to prevent unsupervised vehicle traffic.

Acoustics and Daylighting

Classroom acoustics are good throughout campus. Special acoustic attention was given to larger, double height spaces such as the atrium-corridor and gymnasium. An excellently lit atrium space and clerestory windows along the corridor set the tone for a healthy building for student to learn in.

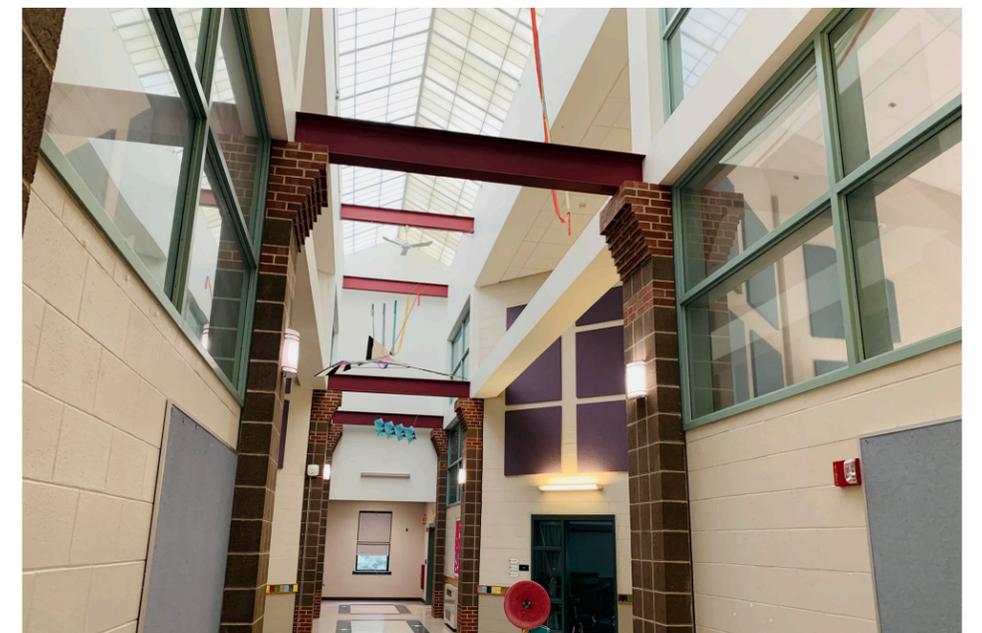
Programming / Space Needs

Overview of Space Needs

- Additional private intervention spaces
- Expansion to accommodate some of the 200+ students expected over the next decade



Portable classroom out back is deteriorating, but is currently utilized by the Pathways Program. This will need to be removed to make way for a future building addition.



The third grade hallway is lit exceptionally well due to the incorporation of skylights in the original design.



PHOTO 1: SITE PORTABLE

INTERIOR FINISHES: Some stepped cracking was observed in interior CMU partitions.
RECOMMENDATION: These conditions should be assessed on a case-by-case basis by a structural engineer, however oftentimes these cracks are cosmetic in nature and can be repaired by infilling & refinishing.



PHOTO 4: CLASSROOM LIGHTING

ELECTRICAL: Bulbs & ballasts of the building's artificial lighting have been replaced with LED technology, but IECC code does not recognize compliance for the bulb; only for the whole fixture.
RECOMMENDATION: Future replacement should include the whole light fixture, not just the bulb and ballast.



PHOTO 2: GYMNASIUM STAGE

CODE: A drop-off exceeding 30" between surfaces is required to have fall protection, per the International Building Code. The Gymnasium stage exceeds this.
RECOMMENDATION: This common condition is in many cases grandfathered in as an existing condition - as fixing it is often not a practical solution. However, final authority on this issue lies with the AHJ who would need to review the condition and make a recommendation.

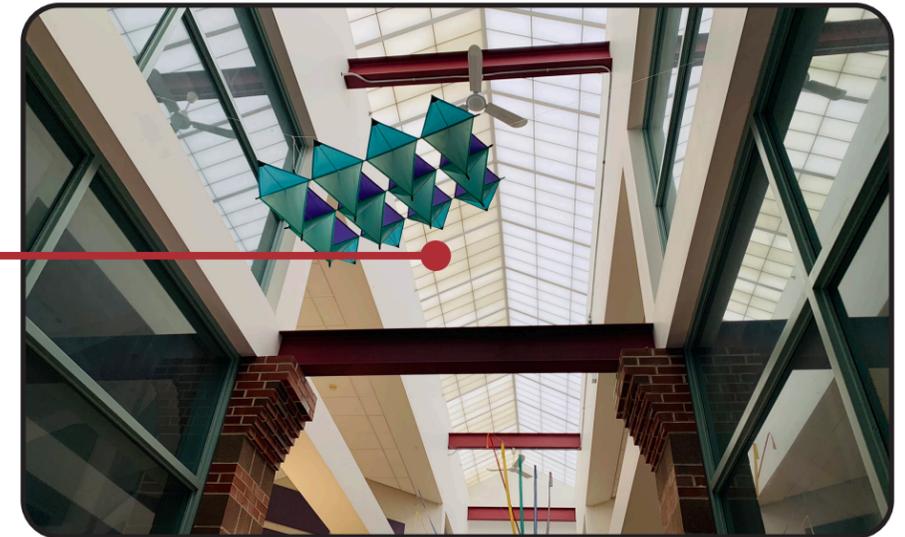


PHOTO 5: CIRCULATION / ATRIUM SPACE

EXTERIOR FINISH: Kalwall skylight panels are discolored, particularly on one side.
RECOMMENDATION: Remove and replace panels with new Kalwall or glass, as applicable. This is a cosmetic issue, as staff had not reported any leaks or other issues with these units.



PHOTO 3: ENTRANCE CANOPY

EXTERIOR FINISH: The wood underside of the entry canopy is discolored. Closer inspection warranted to determine if there are any areas of deterioration that need replacement.
RECOMMENDATION: Inspect finish, particularly at material changes and near roof transitions. Otherwise, the wood may simply be refinished & protected to improve appearance and increase durability.

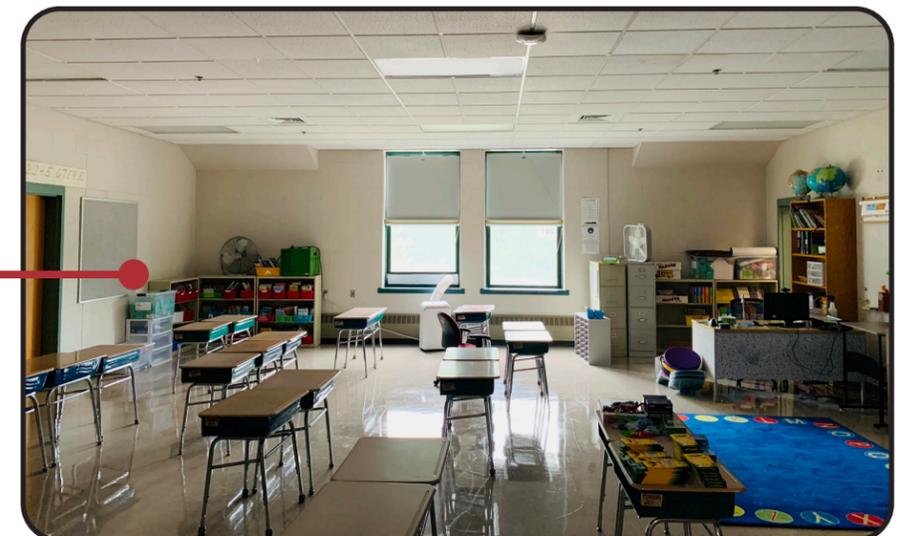


PHOTO 6: TYPICAL CLASSROOM SPACE

PROGRAM: Classrooms are slightly undersized.
RECOMMENDATION: As increasing the square footage of these rooms would be impractical, the number of students per classroom should be limited to allow recommended sf/pupil.

Order of Magnitude Costs

These Order of Magnitude costs are based on preliminary construction estimates and include hard construction costs for the building and site. Hard construction costs for the building can be defined as the cost of the physical building from the foundation upwards including all permanent building systems. "Soft Costs" can also have significant effects on the total amount of a project's cost. Soft costs include a wide array of items which all contribute to a total school bond required to construct or renovate a building. These costs include (but are not limited to): engineering and design fees, legal and administrative fees, furnishing and equipment not part of the building systems, utility connection charges, and permitting fees. Soft costs can vary greatly from school to school depending on local requirements and also on the amount of furnishings and equipment suitable for re-use in a new or rehabilitated school. In general, these costs can range from 20-30% of construction costs. Also note that these order of magnitude costs are based on current year (2023) values. Given the extremely volatile market, we cannot forecast the construction inflation for the coming years with any degree of certainty. We hope that these very preliminary order of magnitude costs help you understand overall budget and potential tax impacts as you consider options for phasing and implementation of your facility upgrades. As stated above, these costs are preliminary order of magnitude values. As the solutions for each phase of the master plan are further defined and developed, construction values will be re-visited & developed into a more detailed estimate relating to the scope and size of the selected capital improvements.

School	Category	Proposed Improvement	Priority*	Opinion of Construction Costs
Hills Garrison Elementary School	William McCarthy – School Principal	Jeffrey Viger – Head Custodian		
	Facilities/Maintenance/Repair	Repair & infill CMU partition cracking	D	\$2,000 Cosmetic repairs
	Facilities/Maintenance/Repair	Refinish underside of wood canopy	D	\$5,000 Refinish & protect wood finish. Repairs as necessary.
	Electrical	Long term, provide LED light fixtures	D	\$776,000 Entire Building
	Facilities/Maintenance/Repair	Replace skylight Kalwall panels	D	\$12,000 Cost varies depending on material
	Facilities/Maintenance/Repair	Replace ceiling finishes	C	\$500 Replace damaged/stained tiles on an as-needed basis
	Facilities/Maintenance/Repair	Further Study needed for mechanical improvement recommendation.	A	TBD Miscalibrated; wasting energy
	Capacity/Space Needs	Total of 12,800 SF addition	See Options	\$10,300,000 Accommodates program needs of the whole building
Built/Renovated/Expanded	2001			
Gross Square Feet	77,624			
Educational Capacity	~400			
Current Enrollment	385			
				\$11,095,500

Enrollment Projections By Grade*																					
School Year	Birth Year	Births*		PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12	Comments
2022-23	2017	217		92	194	212	231	170	195	232	236	235	221	249	256	265	264	<20	2960	3052	Current Year
2023-24	2018	244		93	204	252	215	234	172	198	235	235	235	227	247	248	272	<20	2974	3067	
2024-25	2019	235		94	197	265	256	218	237	174	201	234	235	241	225	239	255	<20	2977	3071	
2025-26	2020	204		95	171	256	269	260	221	240	177	200	234	241	239	218	246	<20	2972	3067	
2026-27	2021	227		96	190	222	260	273	263	224	244	176	200	240	239	231	224	<20	2986	3082	
2027-28	2022	225	(est.)	97	189	247	226	264	276	267	227	243	176	205	238	231	237	<20	3026	3123	
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2031-32	2026	225	(est.)	101	188	241	247	255	257	262	239	274	283	277	230	239	177	<20	3169	3270	
2032-33	2027	225	(est.)	102	188	244	245	251	258	261	266	238	274	290	275	223	246	<20	3259	3361	

Hills Garrison Elementary School & Nottingham West Elementary School

Projected Enrollment Data provide by NESDEC for Hudson School District
 ■ Current year
 ■ Based on children already born
 ■ Based on estimated births
 * Noted Actual Pre-K numbers vary from NESDEC Report

Hills Garrison Elementary School 42% +/- of Population
 Nottingham West Elementary School 58% +/- of Population

Summary of Program Spaces – Hills Garrison Elementary School				
Rooms	Current Spaces	Required Spaces Based on Population		
		Existing 344 Students 2022-2023	Highest Year 434 Students 2027-2028	10-Year 426 Students 2032-2033
Classrooms	18	18	22	22
Computer Lab	2	2	0	0
Art Classrooms	1	1	1	1
Music Rooms	1	1	1	1
Library / MC	1	1	1	1
Gym	1	1	1	1
@ 90% Utilization		19.1/class	18.9/class	19.4/class

Summary of Program Spaces – Nottingham West Elementary School				
Rooms	Current Spaces	Required Spaces Based on Population		
		Existing 475 Students 2022-2023	Highest Year 599 Students 2027-202	10-Year 589 Students 2032-2033
Classrooms	24(+4 PK)	25	29	29
Computer Lab	0	0	0	0
Art Classrooms	1	1	1 (2)	1 (2)
Music Rooms	1	1	1 (2)	1 (2)
Library / MC	1	1	1	1
Gym	1	1	1	1
@ 90% Utilization		19.8/class	20/class	19.6/class

Note: Converting Computer Labs to classrooms and using existing portable classrooms, will still be short rooms.

Note: Converting removing PreK, will still be short rooms.



Programming / Space Needs Calculations

2nd-5th Grade (Hills Garrison & Nottingham West)									
Education Program Areas									
Current Year Population (2022-2023)									
Course/Subject	# Students	Max Students/ Teaching Space	Utilization (90%)	# of Sections	Offered	# Spaces Required	Number of Appropriately sized spaces in existing building (or size of existing space)	Required additional spaces	Notes
2nd Grade	231	23	0.90	11.16	Full Day	12	10	2	
3rd Grade	170	23	0.90	8.21	Full Day	9	10	-1	
4th Grade	195	23	0.90	9.42	Full Day	10	11	-1	
5th Grade	232	23	0.90	11.21	Full Day	12	11	1	
Total Enrollment	828					43		2	
2022-2023 Enrollment	828								
Difference from Current Enrollment	0								

Expected Maximum Population Year (2027-2028)									
2nd Grade	226	23	0.90	10.92	Full Day	11	10	1	
3rd Grade	264	23	0.90	12.75	Full Day	13	10	3	
4th Grade	276	23	0.90	13.33	Full Day	14	11	3	
5th Grade	267	23	0.90	12.90	Full Day	13	11	2	
Total Enrollment	1033					51		9	
2022-2023 Enrollment	828								
Difference from Current Enrollment	205								

Expected 10-Year Population (2032-2033)									
2nd Grade	245	23	0.90	11.84	Full Day	12	10	2	
3rd Grade	251	23	0.90	12.13	Full Day	13	10	3	
4th Grade	258	23	0.90	12.46	Full Day	13	11	2	
5th Grade	261	23	0.90	12.61	Full Day	13	11	2	
Total Enrollment	1015					51		9	
2022-2023 Enrollment	828								
Difference from Current Enrollment	187								

Core Program Areas									
Expected Maximum Population Year (2027-2028) 1033 Students									
Space	Student Access Per week (periods)	# of Students Served	# of Classes/wk	Calculated SF of Space (Per Standards)	Periods per week Offered	# Spaces Required	Number of Appropriately sized spaces in existing building (or size of existing space)	Required additional spaces	Notes
Art	1	1033	15		30	2	2	0	
Music	1	1033	15		30	2	2	0	
Physical Education	1	1033	15		30	2	2	0	
Media Center / Library	1	1033	15	4132	30	2	4650	-518	Net Square Feet
Cafeteria	4	1033	15	7748	15	2	7100	648	Net Square Feet
Special Education Student Areas*	1	207	104		30	4	2	2	
Intervention / Small Group Areas*	5	207	30		30	4	2	2	
Professional Areas								0	1 Language, 1 Guidance, 1 Testing, 1 Waiting, 1 Conference, 1 Counselor

* Estimated as a percent of student population

Dept of Ed allowable:	Age Group	Enrollment	SF/Pupil	Utilization	Total Building (NSF)
For New Construction	Grade 1	1033	120	0.90	137,733
					137,733

Total Allowable by NH DOE standards for new construction

Existing Analysis / Capacity					
Max Projected Enrollment (2027-2028)					1033
Current Building Size Combined (gsf)					161,700
Estimated Building Capacity Based solely on size of building	Based on Average NH School Construction of 120sf/student for Grades 1-5 and 150sf/student in K @ 90% Utilization				1,213
	# Classrooms*	Max Seats/ Classroom	Utilization (90%)	Utilized Seats	Theoretical Student Capacity
Education Areas Capacity	42	23	0.9	869.4	869
Projected Utilization / Capacity					118.82%

*** Standard 8 period day, allowing for no specials during first and last periods.

Core Capacity	Size of Area (sf)	Appropriately Sized?	Seats/persons	Utilization (90%)	Periods per week Offered***	Theoretical Student Capacity
Art	2300	Y	63	0.9	30	1701
Music	2300	Y	63	0.9	30	1701
Media Center	4660	Y	Calculated @ Students x .10 x 40 sf			1165
Gymnasium	10290	Y	94	0.9	15	1263
Cafeteria	7100	Y	394	0.9	15	1065

Hills Garrison Elementary School

Existing Property Map



Hills Garrison Elementary School

Existing Assessment - Main Level

Shipping container by loading dock is functional, but exposes needs that have changed since the school was designed

Courtyard feature provides abundant natural light in what would otherwise be the dark center of the building.

Well-secured entrance vestibule with lines of sight from main office.

Undersized Classroom
 Note: These classrooms cannot feasibly be expanded to 900sf standards. To meet NH DOE standards of 36sf per student, the average classroom should be limited to about 23 students

Portable building located behind school should be removed once building expansion is planned.

While previous water damage issue has been fixed, some damaged ceilings remain.

- CIRCULATION
- CLASSROOMS
- SPECIAL EDUCATION / INTERVENTION
- SPECIALTY CLASSROOMS
- STAFF / FACILITY
- SUPPORT



Hills Garrison School

Hudson School District | 22-037-00

FIRST FLOOR PLAN

SCALE: 1/32" = 1'-0"



08/23/22

LAVALLEE BRENSINGER ARCHITECTS

Hills Garrison Elementary School

Existing Assessment - Level 2



Undersized Classroom
 Note: These classrooms cannot feasibly be expanded to 900sf standards. To meet NH DOE standards of 36sf per student, the average classroom should be limited to about 23 students

Well-designed group-learning space

Remarkably well-lit corridor due to presence of skylights

- CIRCULATION
- CLASSROOMS
- SPECIAL EDUCATION / INTERVENTION
- SPECIALTY CLASSROOMS
- STAFF / FACILITY
- SUPPORT

Hills Garrison School

Hills Garrison Elementary School

Proposed Addition



The proposed addition occupies the land behind the existing building, but still within the drive loop around the building. The building was initially designed to accommodate an expansion in this location.

This two floor expansion could provide up to 25,000 square feet of added space to the school to accommodate the expected influx of students in the coming decade.

Currently, Nottingham West and Hills Garrison are both at capacity, if not slightly over. Based on recommendations by the state, it's possible to roughly estimate the square footage required by each student. This number, 150/sf per student, helps estimate how large of an addition will be required to house these students.

We can approximate that an addition of this size will comfortably accommodate over 150 students. Given the district is expecting to have an increase in 200 through the course of the next decade, this addition could handle the majority of that influx. Smaller scale additions at Nottingham West can accommodate the remaining students.

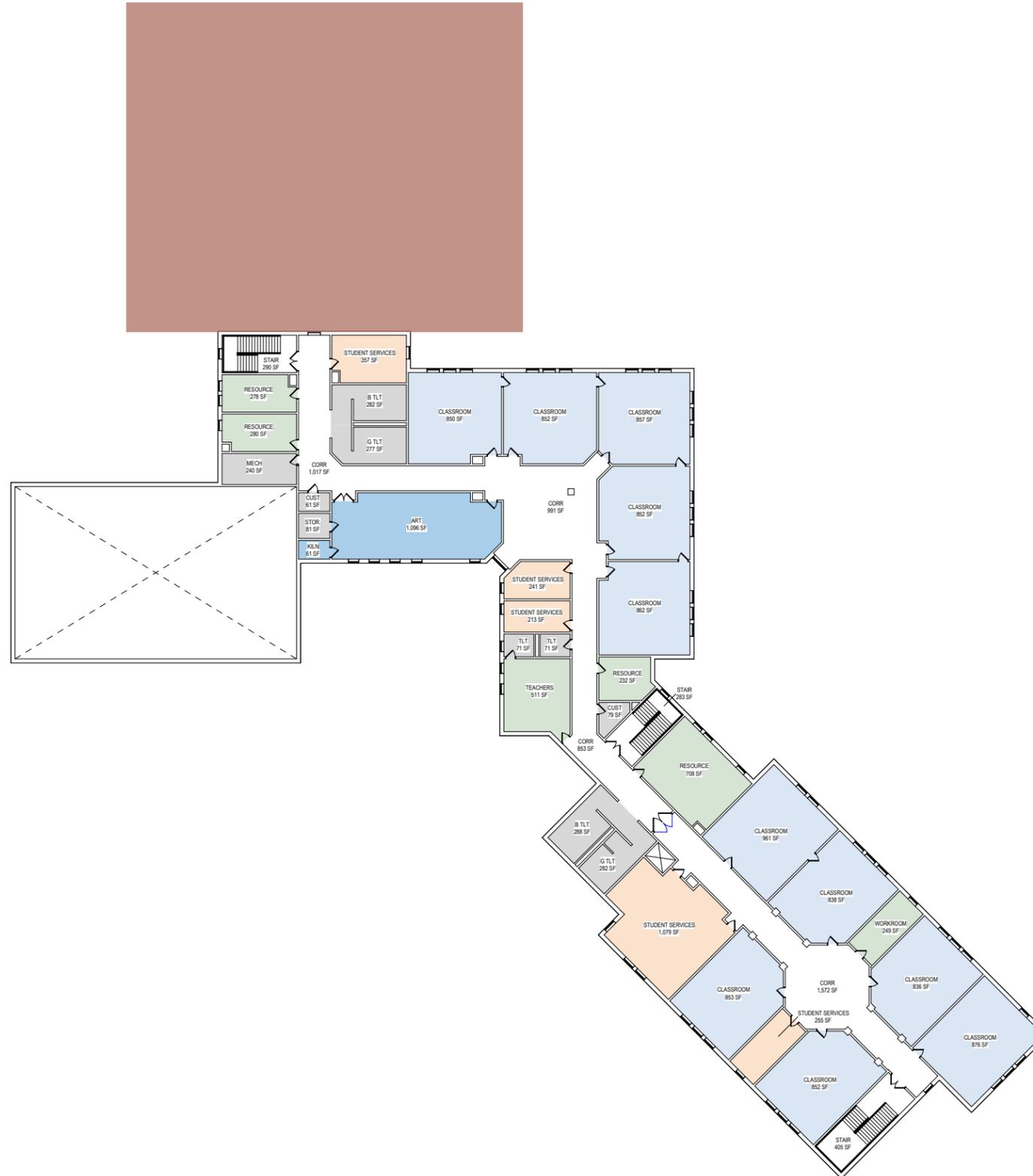


- CIRCULATION
- CLASSROOMS
- SPECIAL EDUCATION / INTERVENTION
- SPECIALTY CLASSROOMS
- STAFF / FACILITY
- SUPPORT



Hills Garrison Elementary School

Proposed Plan - Level 2



- CIRCULATION
- CLASSROOMS
- SPECIAL EDUCATION / INTERVENTION
- SPECIALTY CLASSROOMS
- STAFF / FACILITY
- SUPPORT

Hills Garrison School

Hudson School District | 22-037-00

SECOND FLOOR PLAN

SCALE: 1/32" = 1'-0"



08/23/22

LAVALLEE BRENSINGER ARCHITECTS

Existing Assessment

Existing Building Condition

Nottingham West Elementary was completed in the fall of 1989 as an 800 pupil school. Adjusted for today's more spacious standards, the school can accommodate 724 students.

The exterior envelope seems to be in good condition on preliminary inspection, but interior observations indicate otherwise. As shown in the lower right-hand corner photo, ceiling tiles in several areas of the building show signs of water damage. The initial supposition was that the ceiling damage occurred before the new roof was installed. From speaking with faculty and staff, the roof still leaks in several places, even with a new roof. The roof is certainly under warranty and correction of this issue is already underway. Otherwise, the interior environment is in good condition. No comfort issues were noted and while the interior finishes have been well-maintained, a finishes upgrade would provide students with healthier materials and a more contemporary learning environment. As with the other facilities, light bulbs have been updated to LED, but the fixtures themselves are not very efficient.

Existing Site

On-site parking is plentiful with adequate green space along the perimeter for snow storage in the winter. The drop-off/pick-up flow for buses functions well, but the parent pick up often back up traffic onto Pelham road.

As noted at other schools, playground facilities would ideally not be across a drive way, but staff deploys safety cones before recess each day to prevent unsupervised access.

Student Safety

Student safety is good order at Nottingham West. Along with the recently upgraded main entrance access point, the protected courtyard provides excellent security for faculty and students while enjoying the fresh air.

Acoustics and Daylighting

In addition to the fresh air, the courtyard provides excellent levels of natural light into the classrooms and corridors throughout the building. Acoustics throughout the building were also good, though the daylighting in the cafeteria and gym was non-existent.

Programming / Space Needs

Overview of Space Needs

- Expansion to increase student capacity by 100+
- Integrate portable structure into building.
- Added intervention areas
- Added areas for pre-school class growth



The interior courtyard shown above provides much needed natural light and fresh air to the student body without sacrificing security.



Water damaged ceiling tiles were noted in several locations throughout the school. This may be indicative of a leaking roof. Further assessment is required.

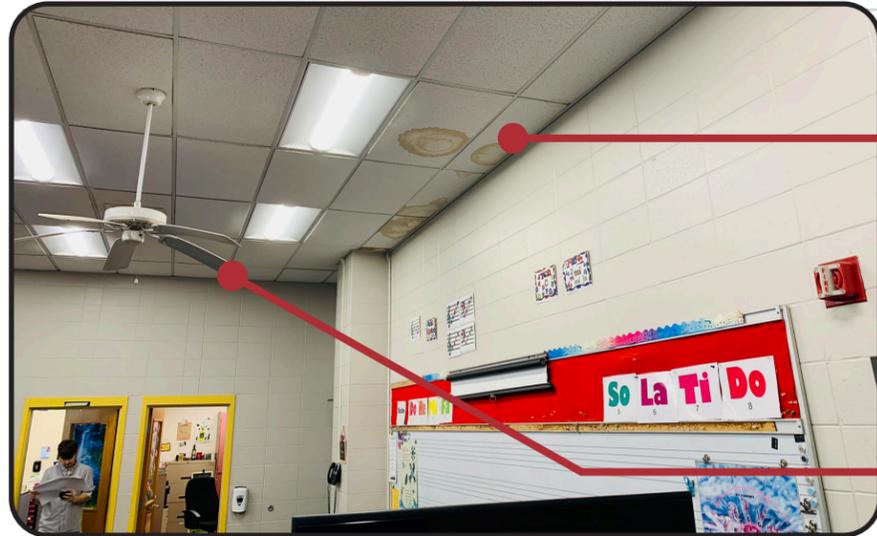


PHOTO 1: MUSIC CLASSROOM WITH CEILING TILE DAMAGE

INTERIOR FINISH: ACT ceilings in numerous locations were observed to be stained as a result of water damage from above. In general, ACT ceilings throughout are aging, sagging, and discolored.
RECOMMENDATION: Once the leak in the roof has been fixed completely, a thorough sweep and replacement of all damaged ceiling panels should be undertaken.

HVAC: Residential ceiling fans observed in some locations.
RECOMMENDATION: The HVAC system should be studied to provide a more permanent, commercial solution to air movement / stratification appropriate to a school setting.

ELECTRICAL: Bulbs & ballasts of the building's artificial lighting have been replaced with LED technology, but IECC code does not recognize compliance for the bulb; only for the whole fixture.
RECOMMENDATION: Future replacement should include the whole light fixture, not just the bulb and ballast.

FIRE ALARM: The fire alarm system should be reviewed to ensure it is not past its service life a
RECOMMENDATION: Existing fire alarm system and control panel should be assessed and replaced with an addressable fire alarm system.



PHOTO 4: CORRIDOR

ACCESSIBILITY: The drinking fountain in the corridor may be considered a protruding object in a circulation space, as the bottom of the leading edge is greater than 27" above the floor.
RECOMMENDATION: Best practice is to locate drinking fountain fixtures in wall niches or outside of circulation paths. Another location should be identified and the unit moved. Alternatively, cane detection could be added to each side.



PHOTO 5: DRINKING FOUNTAIN IN CIRCULATION SPACE

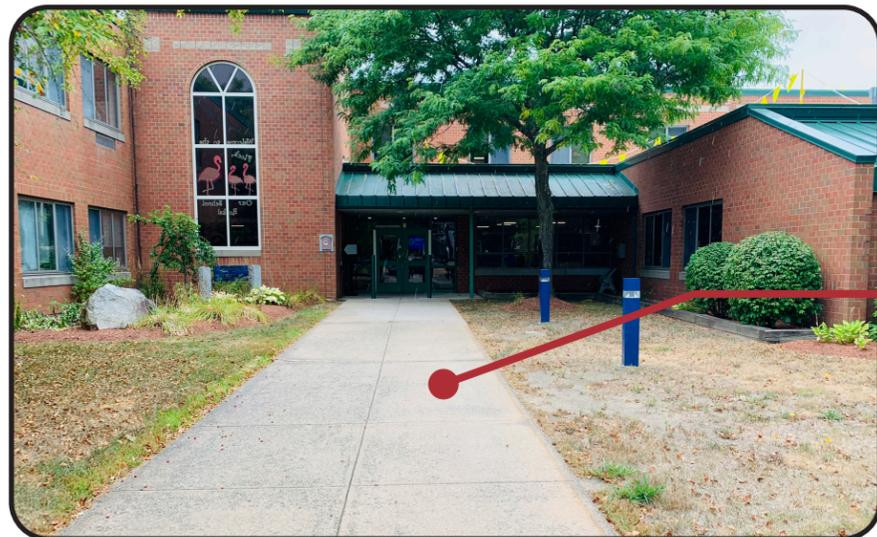


PHOTO 2: BUILDING ENTRY WALKWAY

SITE: Facilities staff noted issues with cracking in the concrete walkways around the building.
RECOMMENDATION: Provide stamped asphalt walkways in areas of heavy cracking.

CODE: Stairs are required to have both compliant handrails and guardrails. The stair shown lacks handrails on the guardrail side of the stair run. The guardrail itself is non-compliant, as a 4" sphere can pass between balusters. In addition to the code issue, the finishes in stair circulation areas have surpassed their useful service life.
RECOMMENDATION: Remove existing guardrails and handrails, and replace with fully-compliant ones. Provide new finishes.

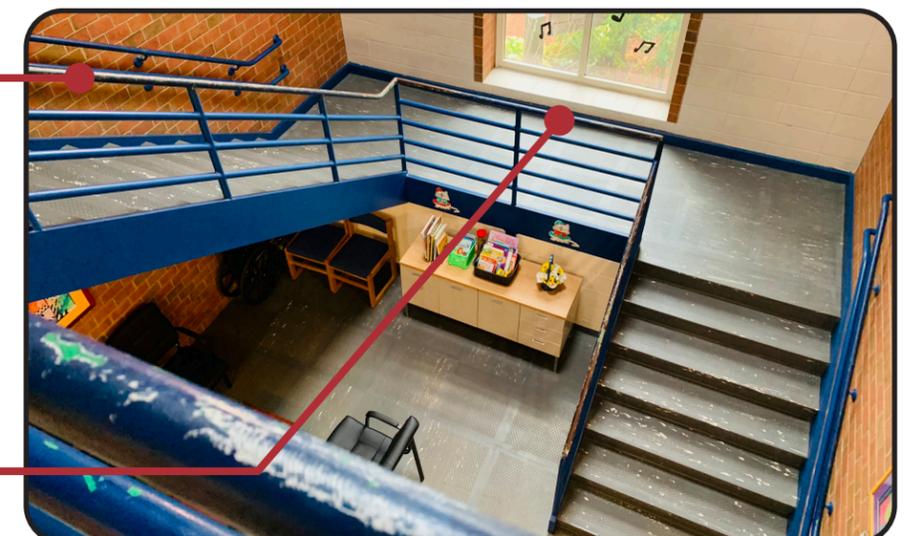


PHOTO 6: STAIRWAY

MECHANICAL: Classroom unit ventilators are loud, and increasingly require more maintenance.
RECOMMENDATION: Remove unit ventilators and completely renovate of mechanical system. Energy-efficient options such as a VRF system and DOAS should be proposed / designed by a licensed mechanical engineer.

INTERIOR FINISHES: Casework is worn, and finishes in general have reached the end of their useful service life.
RECOMMENDATION: Replace casework throughout building, and replace flooring & wall finishes as needed.

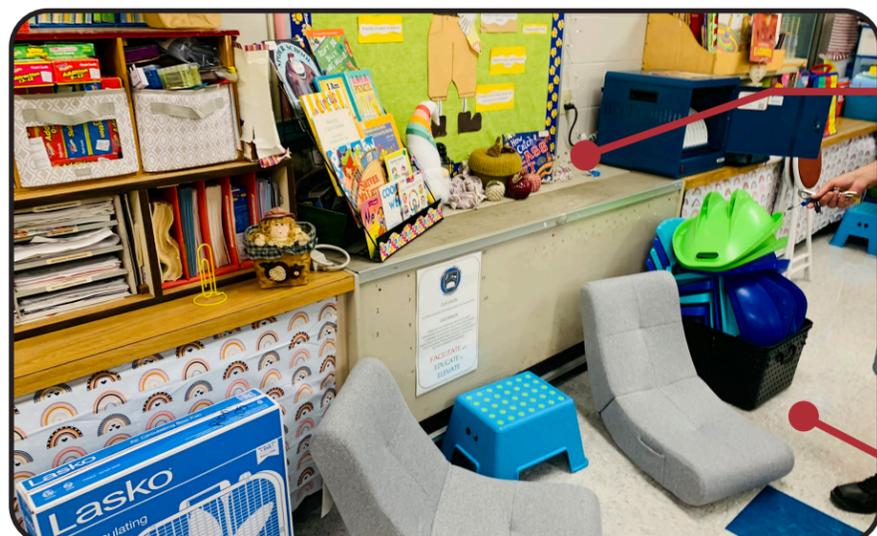


PHOTO 3: CLASSROOM UNIT VENTILATOR

Order of Magnitude Costs

These Order of Magnitude costs are based on preliminary construction estimates and include hard construction costs for the building and site. Hard construction costs for the building can be defined as the cost of the physical building from the foundation upwards including all permanent building systems. "Soft Costs" can also have significant effects on the total amount of a project's cost. Soft costs include a wide array of items which all contribute to a total school bond required to construct or renovate a building. These costs include (but are not limited to): engineering and design fees, legal and administrative fees, furnishing and equipment not part of the building systems, utility connection charges, and permitting fees. Soft costs can vary greatly from school to school depending on local requirements and also on the amount of furnishings and equipment suitable for re-use in a new or rehabilitated school. In general, these costs can range from 20-30% of construction costs. Also note that these order of magnitude costs are based on current year (2023) values. Given the extremely volatile market, we cannot forecast the construction inflation for the coming years with any degree of certainty. We hope that these very preliminary order of magnitude costs help you understand overall budget and potential tax impacts as you consider options for phasing and implementation of your facility upgrades. As stated above, these costs are preliminary order of magnitude values. As the solutions for each phase of the master plan are further defined and developed, construction values will be re-visited & developed into a more detailed estimate relating to the scope and size of the selected capital improvements.

School	Category	Proposed Improvement	Priority*	Opinion of Construction Costs	
Nottingham West Elementary School	Scott Baker – School Principal	Barry Currier – Head Custodian			
	Facilities/Maintenance/Repair	Replace ceiling finishes	C	\$1,260,000 Entire building. Further investigation needed into cause of ceiling staining.	
	Mechanical	Further Study needed for mechanical improvement recommendation. Unit ventilators, ceiling fans, & boilers	B	TBD Issues with heating, cooling, and ventilation observed. Building should be assessed on a holistic level.	
	Site	Improve sidewalk materials, replace with stamped asphalt	C	\$15,000 Allowance only - further refinement needed with site concept & scope.	
	Facilities/Maintenance/Repair & Accessibility	Replace casework	C	\$168,000 All classrooms & support spaces. Provide sinks where required.	
	Facilities/Maintenance/Repair	Replace flooring finishes	C	\$1,000,000 Entire building	
	Electrical	Long term, provide LED light fixtures	D	\$700,000 Entire Building	
	Safety	Replace existing fire alarm system with addressable system.	A	TBD Full scope of work and selected system varies	
	Accessibility	Re-locate fixture, or add cane detection	B	\$500 Review options.	
	Accessibility	Remove handrails & guardrails, replace with fully compliant handrails & guardrails.	B	\$5,000	
	Built/Renovated/Expanded	1989	Mechanical	Further Study needed for mechanical improvement recommendation.	B
Gross Square Feet	83,883	Capacity/Space Needs	Total of 11,200 SF addition	See Options	\$4,500,000 Accommodates program needs of the whole building
Educational Capacity	~575				
Current Enrollment	562				
				\$7,648,500	

Enrollment Projections By Grade*																					
School Year	Birth Year	Births*		PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12	Comments
2022-23	2017	217		92	194	212	231	170	195	232	236	235	221	249	256	265	264	<20	2960	3052	Current Year
2023-24	2018	244		93	204	252	215	234	172	198	235	235	235	227	247	248	272	<20	2974	3067	
2024-25	2019	235		94	197	265	256	218	237	174	201	234	235	241	225	239	255	<20	2977	3071	
2025-26	2020	204		95	171	256	269	260	221	240	177	200	234	241	239	218	246	<20	2972	3067	
2026-27	2021	227		96	190	222	260	273	263	224	244	176	200	240	239	231	224	<20	2986	3082	
2027-28	2022	225	(est.)	97	189	247	226	264	276	267	227	243	176	205	238	231	237	<20	3026	3123	
2028-29	2023	227	(est.)	98	190	246	251	229	267	280	271	226	243	180	203	230	237	<20	3053	3151	
2029-30	2024	224	(est.)	99	187	247	250	255	232	271	284	270	226	249	178	197	236	<20	3082	3181	
2030-31	2025	221	(est.)	100	185	243	251	254	258	235	275	283	270	232	247	172	202	<20	3107	3207	
2031-32	2026	225	(est.)	101	188	241	247	255	257	262	239	274	283	277	230	239	177	<20	3169	3270	
2032-33	2027	225	(est.)	102	188	244	245	251	258	261	266	238	274	290	275	223	246	<20	3259	3361	

Nottingham West Elementary School
 *Estimates are 27 students below current enrollment

Projected Enrollment Data provide by NESDEC for Hudson School District
 Current year
 Based on children already born
 Based on estimated births
 * Noted Actual Pre-K numbers vary from NESDEC Report

Summary of Program Spaces – Pre-K HALF DAY Program				
	Current Spaces	Required Spaces Based on Population		
		Existing 119 Students 2022-2023	Highest Year 129 Students 2032-2033	10-Year 129 Students 2032-2033
Classrooms	4	5	5	5
Computer Lab	0	0	0	0
Art Classrooms	0	0	0	0
Music Rooms	0	0	0	0
Library / MC	0	0	0	0
Gym	1	1	1	1
@ 90% Utilization		14.9/class	12.9/class	12.9/class

Note Pre-K Program is half day. Both AM /PM programs assume equal enrollment, as a best-case scenario. Recommended limits for Pre-k students per room is 16. 90% utilization puts the target at 14 students per class.

Pre-K Program

Programming / Space Needs Calculations

Pre-K (Nottingham West)

Education Program Areas

Current Year Population (2022-2023)

Course/Subject	# Students	Max Students/ Teaching Space	Utilization (90%)	# of Sections	Offered	# Spaces Required	Number of Appropriately sized spaces in existing building (or size of existing space)	Required additional spaces	Notes
Pre-Kindergarten	119	16	0.90	8.26	Half Day	5	4	1	
Total Enrollment	119					5		1	
2022-2023 Enrollment	119								
Difference from Current Enrollment	0								

Expected Maximum Population Year (2032-2033)

Pre-Kindergarten	129	16	0.90	8.96	Half Day	5	4	1	
Total Enrollment	129					5		1	
2022-2023 Enrollment	119								
Difference from Current Enrollment	10								

NESDEC data adjusted based on current enrollment

Expected 10-Year Population (2032-2033)

Pre-Kindergarten	129	16	0.90	8.96	Half Day	5	4	1	
Total Enrollment	129					5		1	
2022-2023 Enrollment	119								
Difference from Current Enrollment	10								

Core Program Areas

Expected Maximum Population Year (2032-2033) 129Students

Space	Student Access Per week (periods)	# of Students Served	# of Classes/wk	Calculated SF of Space (Per Standards)	Periods per week Offered	# Spaces Required	Number of Appropriately sized spaces in existing building (or size of existing space)	Required additional spaces	Notes
Art	0	129	0		30	1	1	0	
Music	0	129	0		30	1	1	0	
Physical Education	0	129	0		30	1	1	0	
Media Center / Library	1	129	5	516	30	1	2369	-1853	Net Square Feet (utilized by grades 2-5 to appropriate capacity)
Cafeteria	5	129	13	968	15	1	3573	-2606	Net Square Feet (utilized by grades 2-5 to appropriate capacity)
Special Education Student Areas*	1	19	10		15	1	1	0	
Intervention / Small Group Areas*	5	5	8		15	1	1	0	

* Estimated as a percent of student population

Dept of Ed allowable:

Dept of Ed allowable:	Age Group	Enrollment	SF/Pupil	Utilization	Total Building (NSF)
For New Construction	Pre-k	129	120	0.90	17,200
					17,200

Total Allowable by NH DOE standards for new construction

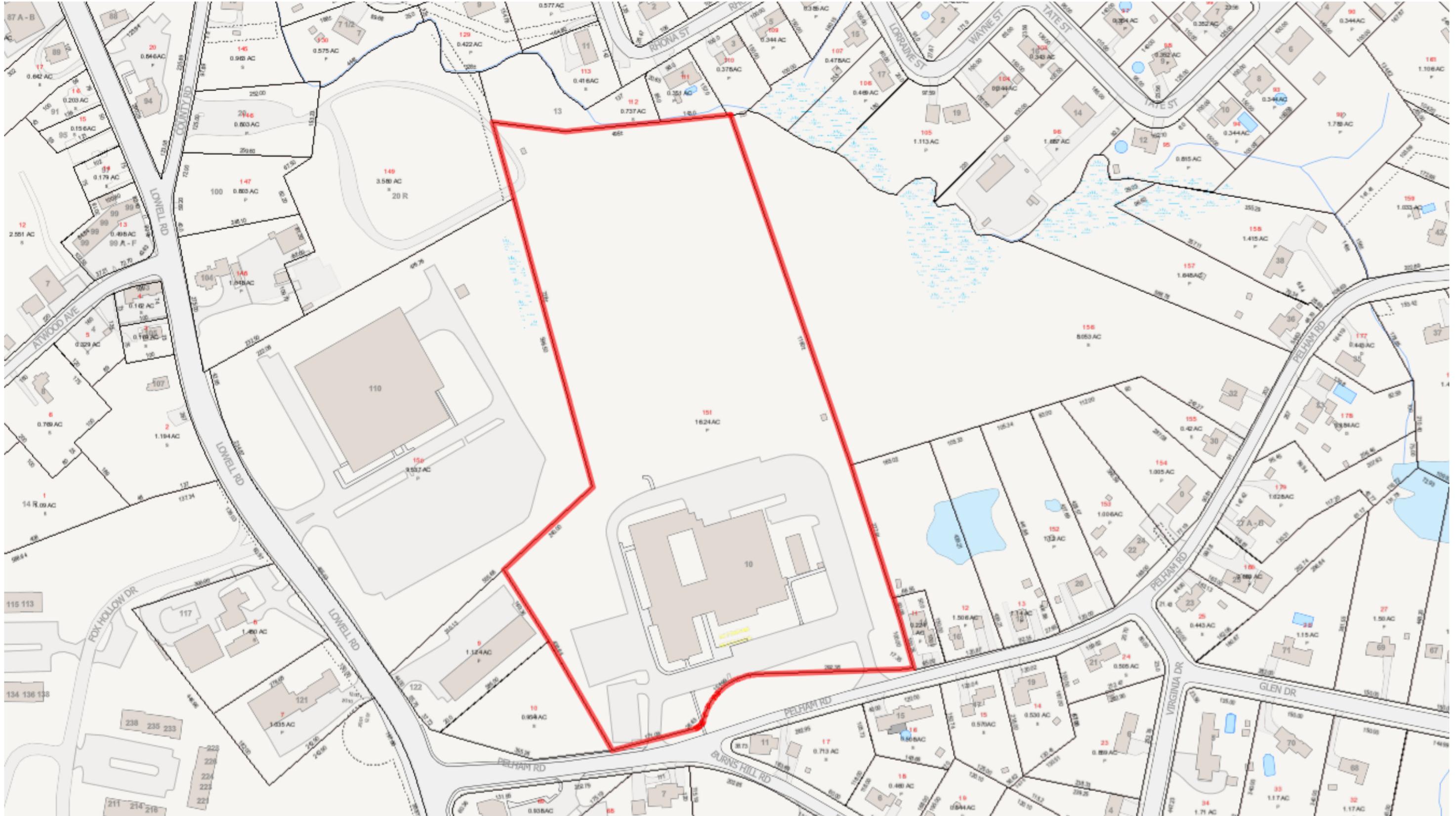
Existing Analysis / Capacity

Max Projected Enrollment (2032-2033)		129
Current Building Size (gsf)		28,500
Estimated Building Capacity Based solely on size of building	Based on Average NH School Construction of 120sf/student for Grades 1-5 and 150sf/student in K @ 90% Utilization	214 Students
	# Classrooms**	Theoretical Student Capacity
Education Areas Capacity	8	115
	Max Seats/ Classroom	
	16	
	Utilization (90%)	
	0.9	
	Utilized Seats	
	115.2	
Projected Utilization / Capacity		111.98%

**4 classrooms with morning and afternoon sessions

*** Standard 8 period day, allowing for no specials during first and last periods.

Existing Property Map



Nottingham West Elementary School

Existing Assessment - Main Level



Undersized Classroom
 Note: These classrooms cannot feasibly be expanded to 900sf standards. To meet NH DOE standards of 36sf per student, the average classroom should be limited to about 23 students

Robust dedication of space to Special Education.

Ceiling panels with notable water damage

No daylight access in gym or cafeteria

Vestibule is secure, but main office does not have any line of sight to visitors as they enter.

Nottingham West Elementary School

Hudson School District | 22-037-00

FIRST FLOOR PLAN

Undersized Classroom
 Note: These classrooms cannot feasibly be expanded to 900sf standards. To meet NH DOE standards of 36sf per student, the average classroom should be limited to about 23 students

Well-laid out and equipped staff/facility areas.



- CIRCULATION
- CLASSROOMS
- SPECIAL EDUCATION / INTERVENTION
- SPECIALTY CLASSROOMS
- STAFF / FACILITY
- SUPPORT



Nottingham West Elementary School

Proposed Addition - Main Level



- CIRCULATION
- CLASSROOMS
- SPECIAL EDUCATION / INTERVENTION
- SPECIALTY CLASSROOMS
- STAFF / FACILITY
- SUPPORT

This proposed addition to the Nottingham West Elementary school, is approximately 8,000sf on the ground level only, and was anticipated in the original design of the building.

This amount of space can accommodate about 66 students, which is right in line with the district having appropriately prepared facilities to handle the expected boom in grades 2-5 in the coming decade.

If, as was mentioned in the Dr. H.O. Smith section of the assessment, the school district opts to move pre-k to Library Street, it is possible that no addition may be needed, as pre-k rooms will be available.

This would depending on a more refined plan at Hills Garrison to know the extent of classrooms and associated support spaces.

Nottingham West Elementary School



Nottingham West Elementary School

Proposed Addition - Level 2



- CIRCULATION
- CLASSROOMS
- SPECIAL EDUCATION / INTERVENTION
- SPECIALTY CLASSROOMS
- STAFF / FACILITY
- SUPPORT

Nottingham West Elementary School



Existing Assessment

Existing Building Condition

Hudson Memorial, which was opened for use in 1967, didn't make it three school years before opting for a 20-classroom addition. Another addition about 20 years ago allowed it to assume the footprint we see today, with a capacity of more than 1000 students. Most significant in the district, the capacity provides 17% more seats than are anticipated to be filled at any point in the next decade.

With respect to the building itself, the interior and exterior are in good condition. The student body could benefit from a gym renovation, though it does currently meet its required function. Some minor issues related to flooring at doorways was observed throughout the building, but this is an easily remedied issue.

Notable issues with the HVAC system were noted by faculty and staff, who produced a list of 25+ classrooms with heating issues. The district has been working on the issue for some time, but it's proven to be a persistent problem.

Faculty also noted a drain in the first floor janitor closet which projects water due to a high water table after heavy rain, flooding the adjacent hallway.

Existing Site

On site parking is adequate to accommodate faculty and staff as well as visitors. Ample green space along the perimeter of paved areas provides sufficient snow storage.

Half of the outdoor athletic area is very well maintained as a result of the Hudson Youth football program, as evidenced in the photo to the right, while the rest of the area is adequate. The topography eliminates visibility of the outfield from home plate, though no district games are played here and is not a pressing issue.

Student drop-off/pick-up functions smoothly as well and causes minimal traffic back ups for the community. Bus access on site is well planned out, though the thru-road nature of this lane is a cause for concern and is recommended to be adjusted to reflect the semi-public nature of its use.

Student Safety

Safety at HMS are up to present standards with a secured vestibule to monitor visitors to the building. At the curve of Memorial Drive, heading to Thorning road, the shoulder is about 2' below the level of the road. Faculty noted this height disparity has damaged many cars over the years.

Acoustics and Daylighting

Classroom acoustics are good, thanks to the acoustic panel ceiling, typical in nearly all classrooms in the school district at this point. Similarly, daylighting is good throughout the classrooms, thanks to the central courtyard.

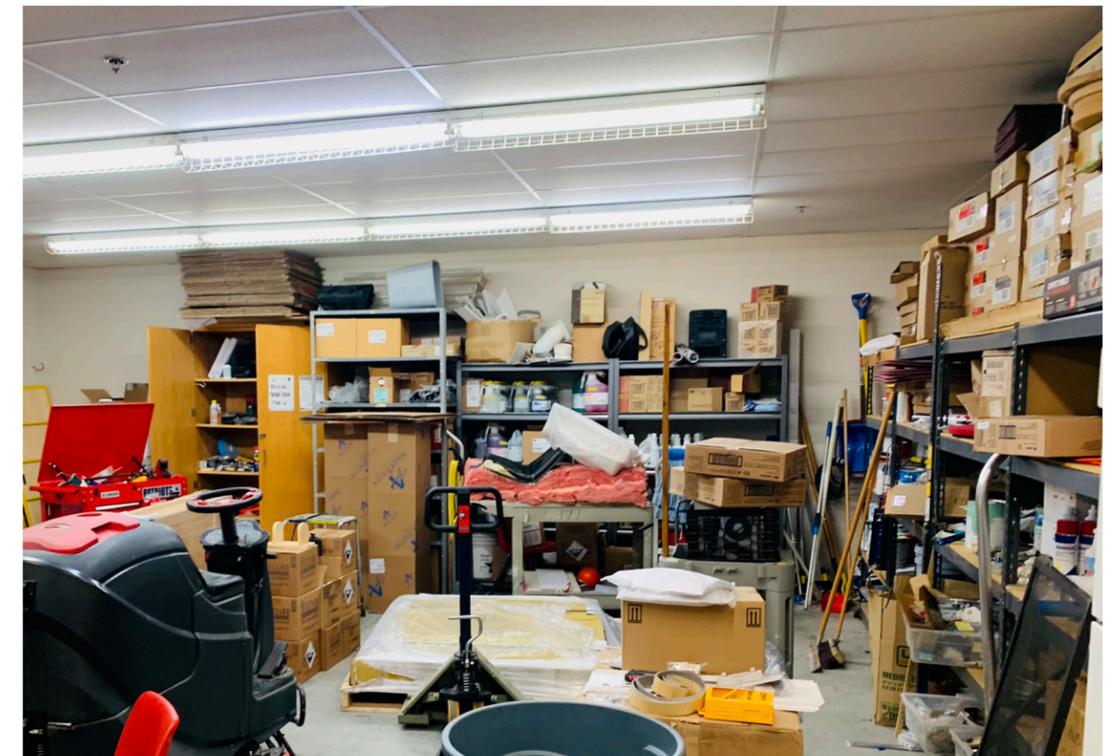
Programming / Space Needs

Overview of Space Needs

- With an excess of space available, there are no space needs at this time



Spacious and well-equipped woodshop.



HMS has ample storage throughout campus. While many storage areas were crowded, this is more likely a function of organization. Purging excess in some cases may be beneficial.



PHOTO 1: GYMNASIUM

INTERIOR FINISH: Gymnasium flooring, bleachers, ceiling, and many interior finish materials are meeting their expected life expectancy.
RECOMMENDATION: Gymnasium should undergo renovation, providing refinished wood flooring, new striping, new bleachers, new or refinished stage materials, and refinished wall and ceiling materials. Special attention should also be paid to providing additional acoustic control with sound-absorptive acoustic panels.

CODE: Handrails at stair locations are not the correct height. Handrails must be between 34" & 38" above top of stair nosing.

RECOMMENDATION: Existing handrails should be removed, and the height should be adjusted to meet the requirement above.

INTERIOR FINISHES: Stair tread finishes are worn, and lack a contrasting nosing strip at each leading edge of tread nosings.

RECOMMENDATION: Replace all stair finishes, and ensure tread nosings have a stripe of a visually contrasting color.



PHOTO 4: STAIRWAY / EGRESS EXIT



PHOTO 2: EXTERIOR EGRESS DOOR

DOORS: Many of the exterior doors have surpassed their useful service life. In the example photo, the vertical rod device on the right side has failed completely, the threshold and bottom of door seals have failed, and parts of the door and door frame have rusted out entirely.

RECOMMENDATION: Replace door frame, door, and hardware at all locations that are failing. These entry / egress points should be evaluated in the scope of a larger security plan for the overall building.

ACCESSIBILITY: Some toilet room / shower areas, although intended to be ADA accessible, lack certain accessibility features. In the photo, the toilet paper dispenser is located at the incorrect height & location, and the horizontal grab bars are configured incorrectly and the vertical bar is missing.

RECOMMENDATION: On a case by case basis, ADA infractions should be addressed to ensure full ADA compliance. In some rooms, complete renovation / reconfiguration may be required.



PHOTO 5: TOILET ROOM



PHOTO 3: CLASSROOM UNIT VENTILATOR

MECHANICAL: Classroom unit ventilators are loud, and increasingly require more maintenance. Facilities staff indicated that climate control throughout the building is problematic.
RECOMMENDATION: Remove unit ventilators and completely renovate of mechanical system. Energy-efficient options such as a VRF system and DOAS should be proposed / designed by a licensed mechanical engineer. Also recommend further study of mechanical controls system.

ELECTRICAL: Bulbs & ballasts of the building's artificial lighting have been replaced with LED technology, but IECC code does not recognize compliance for the bulb; only for the whole fixture.
RECOMMENDATION: Future replacement should include the whole light fixture, not just the bulb and ballast.

INTERIOR FINISHES: Though well-maintained, finishes throughout the building including those pictured in the classroom photos, are nearing the end of their useful service life. ACT ceilings in areas have discolored, millwork and laminate materials are worn, and VCT floors are beginning to discolor and split at seams.

RECOMMENDATION: Replace all interior finishes where materials are no longer functioning as intended, or failing.



PHOTO 6: TYPICAL CLASSROOM

Order of Magnitude Costs

These Order of Magnitude costs are based on preliminary construction estimates and include hard construction costs for the building and site. Hard construction costs for the building can be defined as the cost of the physical building from the foundation upwards including all permanent building systems. "Soft Costs" can also have significant effects on the total amount of a project's cost. Soft costs include a wide array of items which all contribute to a total school bond required to construct or renovate a building. These costs include (but are not limited to): engineering and design fees, legal and administrative fees, furnishing and equipment not part of the building systems, utility connection charges, and permitting fees. Soft costs can vary greatly from school to school depending on local requirements and also on the amount of furnishings and equipment suitable for re-use in a new or rehabilitated school. In general, these costs can range from 20-30% of construction costs. Also note that these order of magnitude costs are based on current year (2023) values. Given the extremely volatile market, we cannot forecast the construction inflation for the coming years with any degree of certainty. We hope that these very preliminary order of magnitude costs help you understand overall budget and potential tax impacts as you consider options for phasing and implementation of your facility upgrades. As stated above, these costs are preliminary order of magnitude values. As the solutions for each phase of the master plan are further defined and developed, construction values will be re-visited & developed into a more detailed estimate relating to the scope and size of the selected capital improvements.

School	Category	Proposed Improvement	Priority*	Opinion of Construction Costs		
Hudson Memorial School	Keith Bowen – School Principal	Angel Borrero – Head Custodian				
	Facilities/Maintenance/Repair	Replace all gymnasium finishes. Provide new bleachers and new court striping. Provide new acoustic panels throughout.	C	\$820,000		
	Facilities/Maintenance/Repair	Replace all exterior doors.	A	\$82,000	All exterior doors	
	Mechanical	Further Study needed for mechanical improvement recommendation.	B	TBD	Issues with heating, cooling, and ventilation observed. Building should be assessed on a holistic level.	
	Electrical	Long term, provide LED light fixtures	D	\$1,200,000	Entire Building	
	Accessibility	Remove handrails & replace with fully compliant handrails.	B	\$10,000		
	Facilities/Maintenance/Repair	Replace ceiling finishes	D	\$2,200,000	Entire building	
	Facilities/Maintenance/Repair	Replace flooring finishes	D	\$1,908,000	Entire building	
	Facilities/Maintenance/Repair & Accessibility	Replace casework	C	\$300,000	All classrooms & support spaces. Provide sinks where required.	
	Accessibility	Renovate single-user & multi-user toilet rooms, as well as locker rooms	B	\$200,000	Would include moving partitions as needed.	
	Facilities/Maintenance/Repair	Repair plumbing issue in janitor closet	A	\$2,000	Allowance - further investigation needed into cause of issue.	
Built/Renovated/Expanded	1967/1969/2001					
Gross Square Feet	146,750	Site	Repair areas of asphalt	C	\$15,000	Allowance only - further refinement needed with site concept & scope.
Educational Capacity	1075	Capacity/Space Needs	Total of 13,100 SF addition	See Options	\$5,400,000	Accommodates program needs of the whole building
Current Enrollment	692					
				\$12,137,000		

Enrollment Projections By Grade*																					
School Year	Birth Year	Births*		PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12	Comments
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Hudson Memorial School 

Projected Enrollment Data provide by NESDEC for Hudson School District
 Current year
 Based on children already born
 Based on estimated births
 * Noted Actual Pre-K numbers vary from NESDEC Report

Summary of Program Spaces – Hudson Memorial School				
Rooms	Current Spaces	Required Spaces Based on Population		
		Existing 705 Students 2022-2023	Highest Year 828 Students 2030-2031	10-Year 778 Students 2032-2033
Classrooms	52	35	42	39
Computer Lab	1	0	0	0
Art Classrooms	1	1	1	1
Music Rooms	2	2	2	2
Library / MC	1	1	1	1
Gym	2	2	2	2
@ 90% Utilization		20.1/class	21.9/class	22.1/class

Programming / Space Needs Calculations

6th-8th Grade (Hudson Memorial)

Education Program Areas

Current Year Population (2022-2023)

Course/Subject	# Students	Max Students/ Teaching Space	Utilization (90%)	# of Sections	Offered	# Spaces Required	Number of Appropriately sized spaces in existing building (or size of existing space)	Required additional spaces	Notes
6th Grade	236	23	0.90	11.40	Full Day	12	17	-5	
7th Grade	235	23	0.90	11.35	Full Day	12	17	-5	
8th Grade	221	23	0.90	10.68	Full Day	11	17	-6	
Total Enrollment	692					35		-16	
2022-2023 Enrollment	692								
Difference from Current Enrollment	0								

Expected Maximum Population Year (2030-2031)

6th Grade	275	23	0.90	13.29	Full Day	14	17	-3	
7th Grade	283	23	0.90	13.67	Full Day	14	17	-3	
8th Grade	270	23	0.90	13.04	Full Day	14	17	-3	
Total Enrollment	828					42		-9	
2022-2023 Enrollment	692								
Difference from Current Enrollment	136								

Expected 10-Year Population (2032-2033)

6th Grade	266	23	0.90	12.85	Full Day	13	17	-4	
7th Grade	238	23	0.90	11.50	Full Day	12	17	-5	
8th Grade	274	23	0.90	13.24	Full Day	14	17	-3	
Total Enrollment	778					39		-12	
2022-2023 Enrollment	692								
Difference from Current Enrollment	86								

Core Program Areas

Expected Maximum Population Year (2030-2031) 828 Students

Space	Student Access Per week (periods)	# of Students Served	# of Classes/wk	Calculated SF of Space (Per Standards)	Periods per week Offered	# Spaces Required	Number of Appropriately sized spaces in existing building (or size of existing space)	Required additional spaces	Notes
Art	1	828	15		30	2	1	1	
Music	1	828	15		30	2	2	0	
Physical Education	1	828	15		30	2	2	0	
Media Center / Library	1	828	15	3312	30	1	4614	-1302	Net Square Feet
Cafeteria	4	828	15	6210	15	1	7100	-890	Net Square Feet
Special Education Student Areas*	1	166	83		30	6	6	0	
Intervention / Small Group Areas*	5	166	30		30	5	5	0	
Professional Areas								0	

* Estimated as a percent of student population

Dept of Ed allowable:	Age Group	Enrollment	SF/Pupil	Utilization	Total Building (NSF)
For New Construction	Grades 6-8	828	120	0.90	110,400
					110,400

Total Allowable by NH DOE standards for new construction

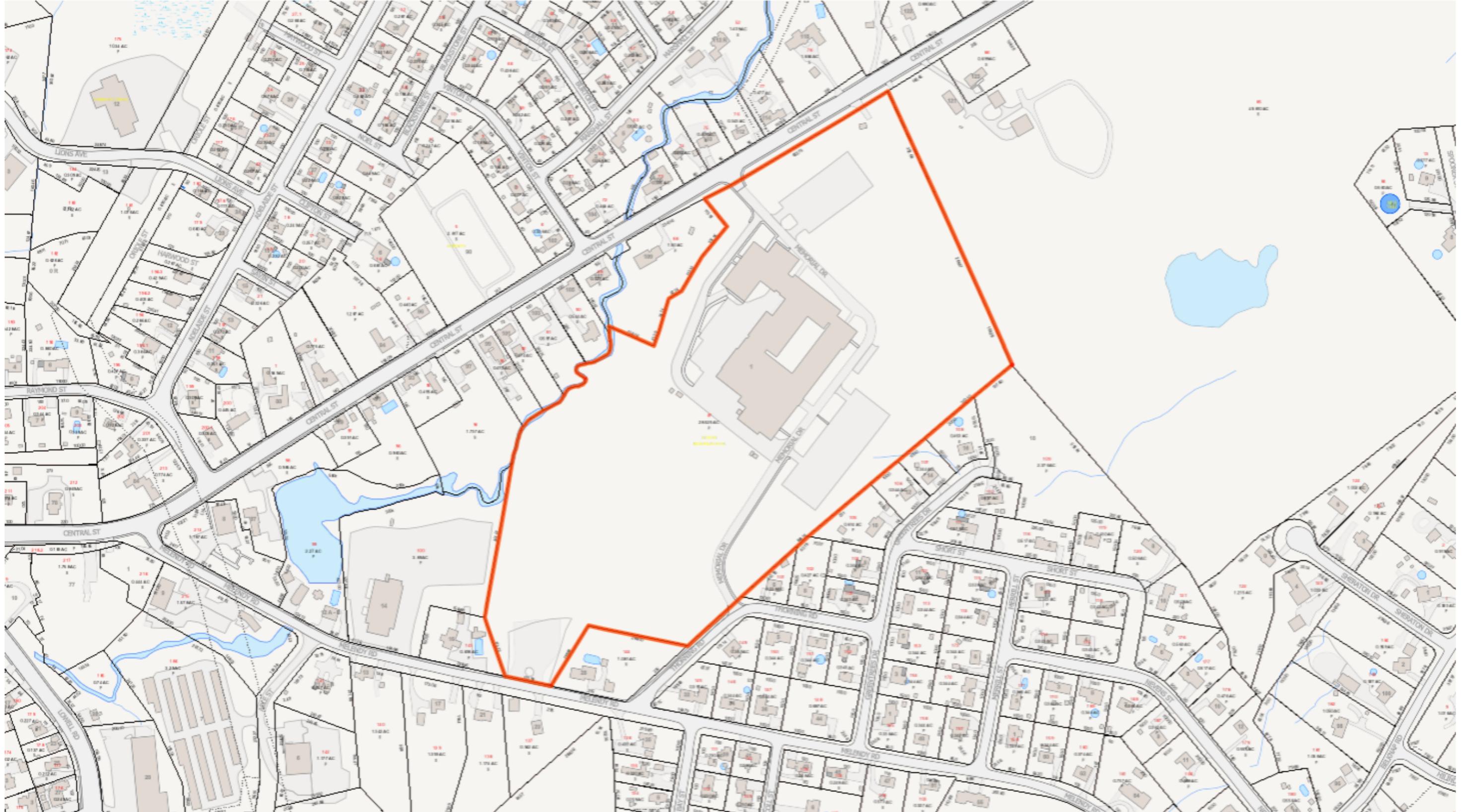
Existing Analysis / Capacity

Max Projected Enrollment (2030-2031)	828
Current Building Size (gsf)	111,440
Estimated Building Capacity Based solely on size of building	836 Students
Based on Average NH School Construction of 120sf/student for Grades 1-5 and 150sf/student in K @ 90% Utilization	
Education Areas Capacity	1056
# Classrooms*	51
Max Seats/ Classroom	23
Utilization (90%)	0.9
Utilized Seats	1055.7
Theoretical Student Capacity	1056
Projected Utilization / Capacity	78.43%

*** Standard 8 period day, allowing for no specials during first and last periods.

Core Capacity	Size of Area (sf)	Appropriately Sized?	Seats/persons	Utilization (90%)	Periods per week Offered***	Theoretical Student Capacity
Art	1380	Y	38	0.9	30	1026
Music	3200	Y	88	0.9	30	2376
Media Center	4610	Y	Calculated @ Students x .10 x 40 sf			1153
Gymnasium	10350	Y	94	0.9	15	1270
Cafeteria	4260	Y	237	0.9	15	639

Existing Property Map



Existing Assessment - Main Level

Undersized Classroom
 Note: These classrooms cannot feasibly be expanded to 900sf standards. To meet NH DOE standards of 36sf per student, the average classroom should be limited to about 23 students

Reception area has difficulty accessing front door when required, a minor renovation in this area will improve the flow of visitors.



Existing Assessment - Main Level Annex

● Undersized Classroom

Note: These classrooms cannot feasibly be expanded to 900sf standards. To meet NH DOE standards of 36sf per student, the average classroom should be limited to about 23 students

HVAC issues throughout the building should be assessed to understand the source of non-dependable climate control



- CIRCULATION
- CLASSROOMS
- SPECIAL EDUCATION / INTERVENTION
- SPECIALTY CLASSROOMS
- STAFF / FACILITY
- SUPPORT

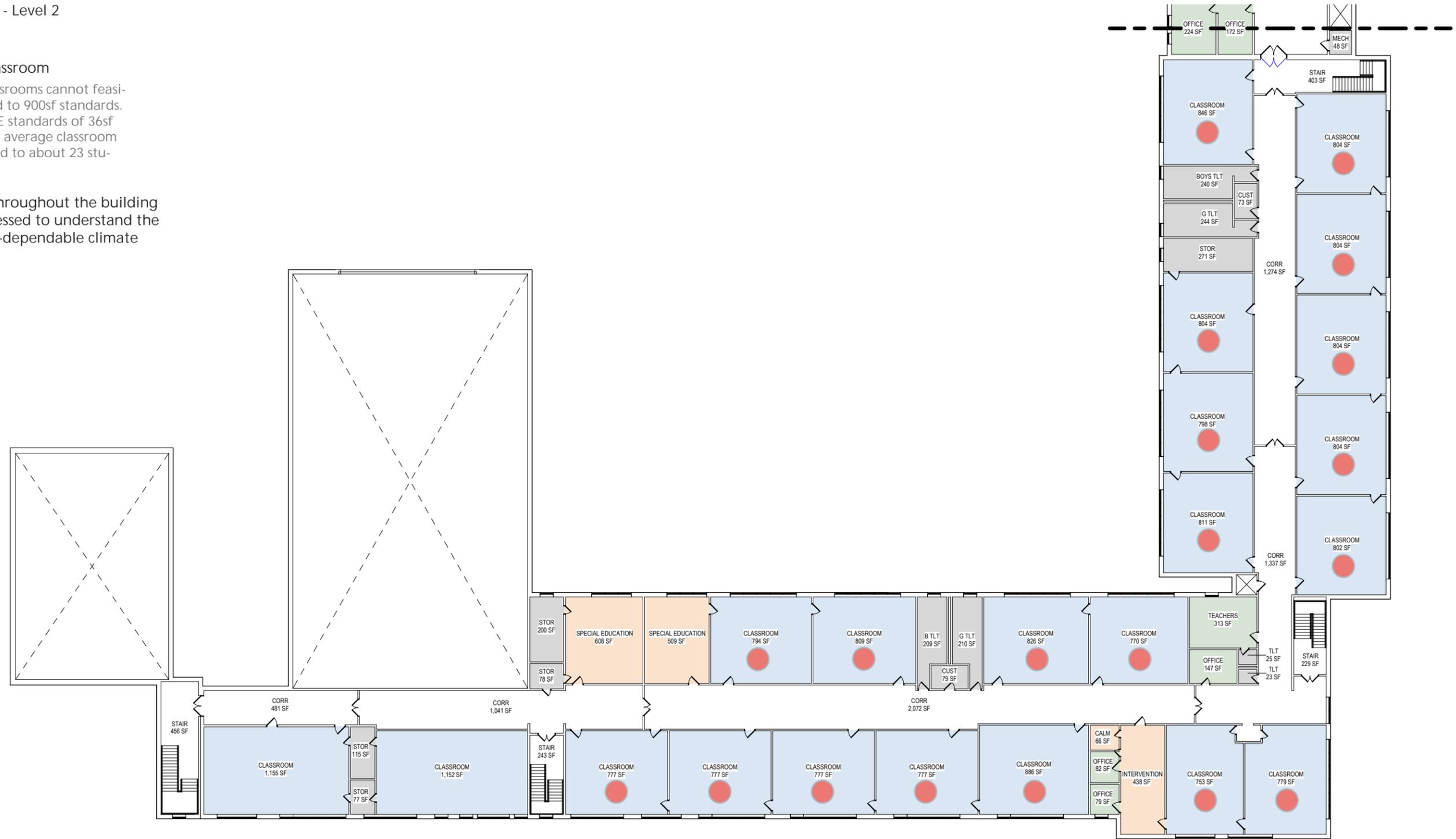


Existing Assessment - Level 2

● Undersized Classroom

Note: These classrooms cannot feasibly be expanded to 900sf standards. To meet NH DOE standards of 36sf per student, the average classroom should be limited to about 23 students

HVAC issues throughout the building should be assessed to understand the source of non-dependable climate control



- CIRCULATION
- CLASSROOMS
- SPECIAL EDUCATION / INTERVENTION
- SPECIALTY CLASSROOMS
- STAFF / FACILITY
- SUPPORT



Existing Assessment - Level 2 Annex

● Undersized Classroom

Note: These classrooms cannot feasibly be expanded to 900sf standards. To meet NH DOE standards of 36sf per student, the average classroom should be limited to about 23 students

HVAC issues throughout the building should be assessed to understand the source of non-dependable climate control



- CIRCULATION
- CLASSROOMS
- SPECIAL EDUCATION / INTERVENTION
- SPECIALTY CLASSROOMS
- STAFF / FACILITY
- SUPPORT



Recommended Improvements



Overall, the faculty and staff at Hudson Memorial reported that they are satisfied with their facilities, in terms of space and operation, with the notable exception of the HVAC issues.

Assess and repair back flow issue in custodian closet.

Minor asphalt repair would benefit drop-off/pick-up traffic

Repair shoulder along road curve

Improvements recommended to incorporate into district update (All A & B priorities)

ELC - Library Street School

ELC - Dr. H.O. Smith

Nottingham West Elementary

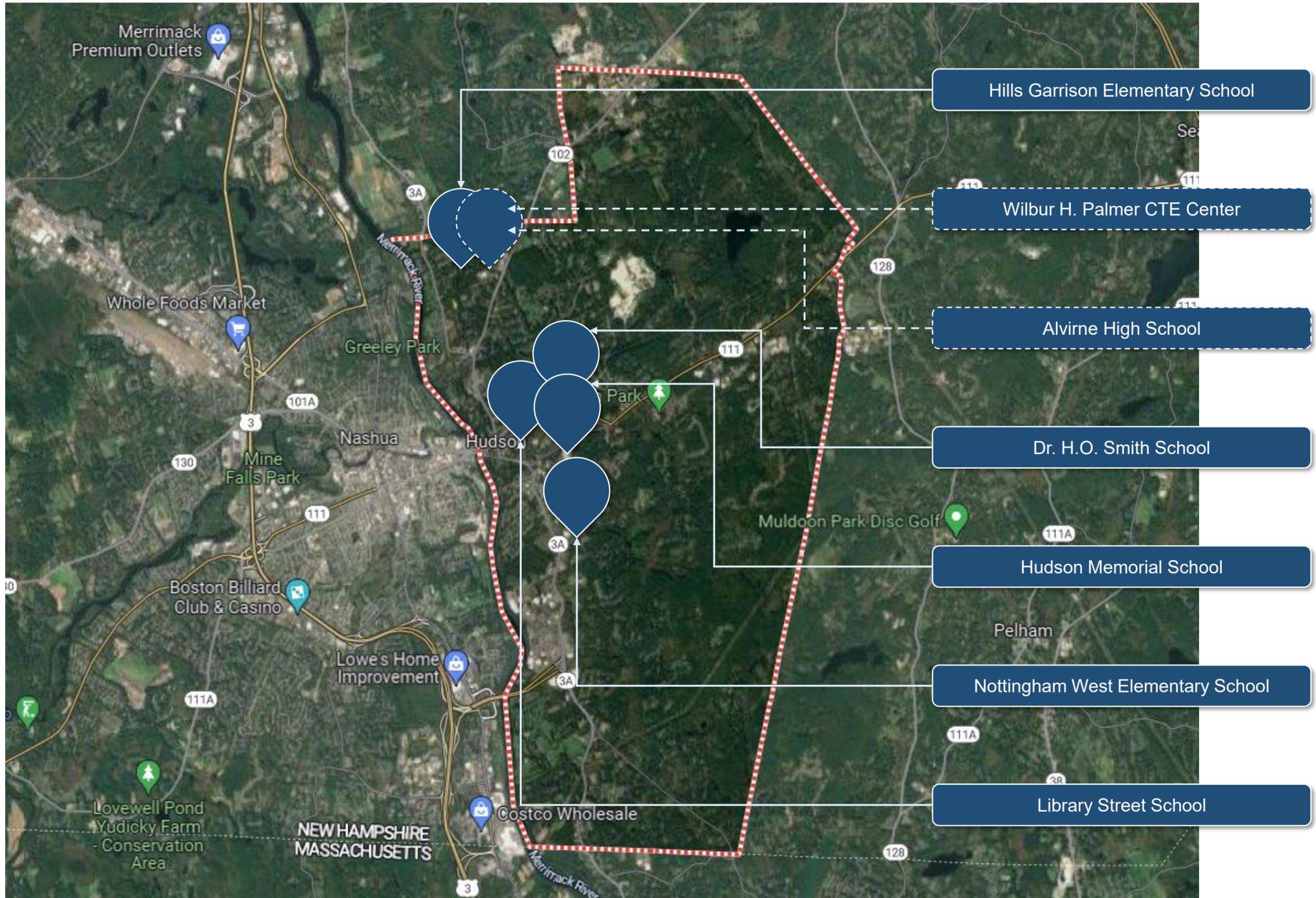
Hudson Memorial

Remove asbestos materials	A	\$50,000
Replace/repair failing exterior stair	A	\$4,000
Replace casework	B	\$60,000
Provide / renovate single-user toilet rooms off Kindergarten classrooms, and multi-user bathrooms.	B	\$240,000
Site improvements related to sidewalk use	B	\$20,000
Address elevator/lift issues	A	\$10,000
Renovate single-user & multi-user toilet rooms. Also provide additional single-user toilet rooms as needed.	B	\$200,000
Door Hardware	B	\$7,500
Waterproof basement	A	\$20,000
Improve site circulation for improved parent & bus drop-off sequences.	B	\$100,000
Replace existing fire alarm system with addressable system.	A	TBD
Re-locate fixture, or add cane detection	B	\$500
Remove handrails & guardrails, replace with fully compliant handrails & guardrails.	B	\$5,000
Replace all exterior doors.	A	\$82,000
Repair plumbing issue in janitor closet	A	\$2,000
Remove handrails & replace with fully compliant handrails.	B	\$10,000
Renovate single-user & multi-user toilet rooms, as well as locker rooms	B	\$200,000
Total A & B Priority Items*		\$1,011,000

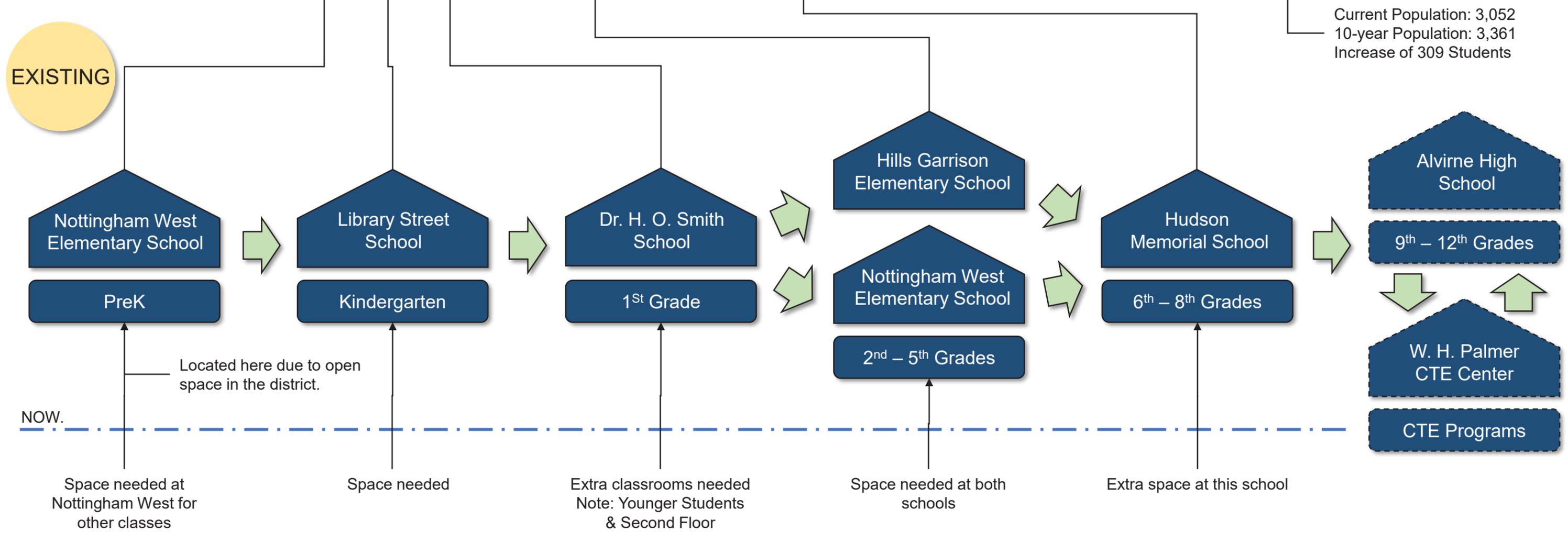
*excluding mechanical assessment and updates recommended at all schools

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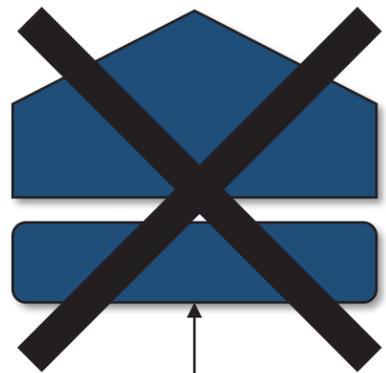
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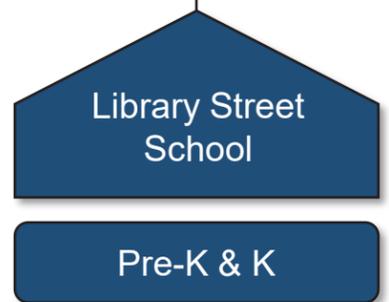
Enrollment projections

Enrollment Projections By Grade*																					
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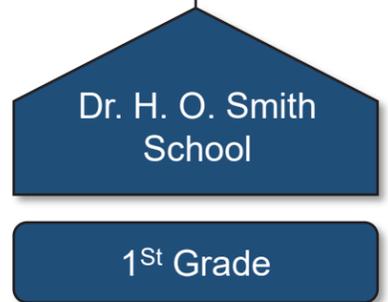
OPTION A



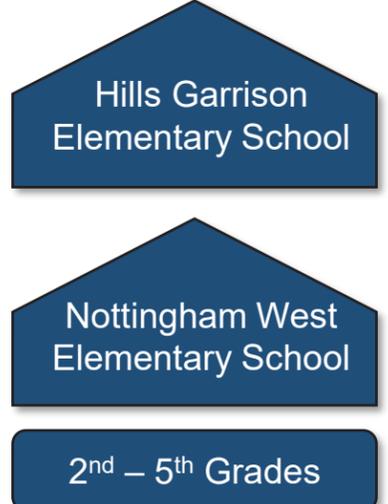
2032-2033+
One less stop in the HSD educational journey



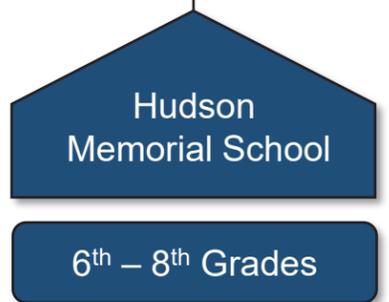
Reno & major additions needed



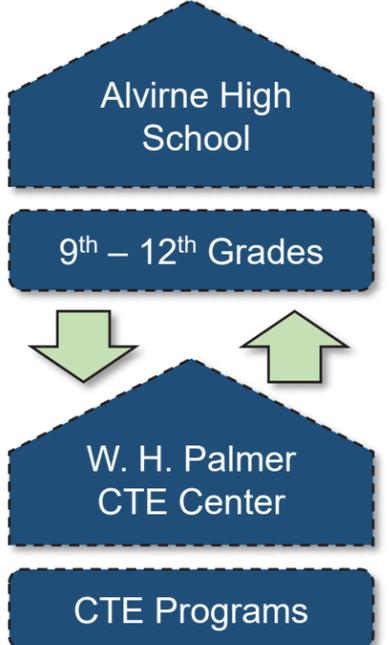
Minor addition needed



Move Pre-K to other location. Use portable classrooms and reno/additions needed.



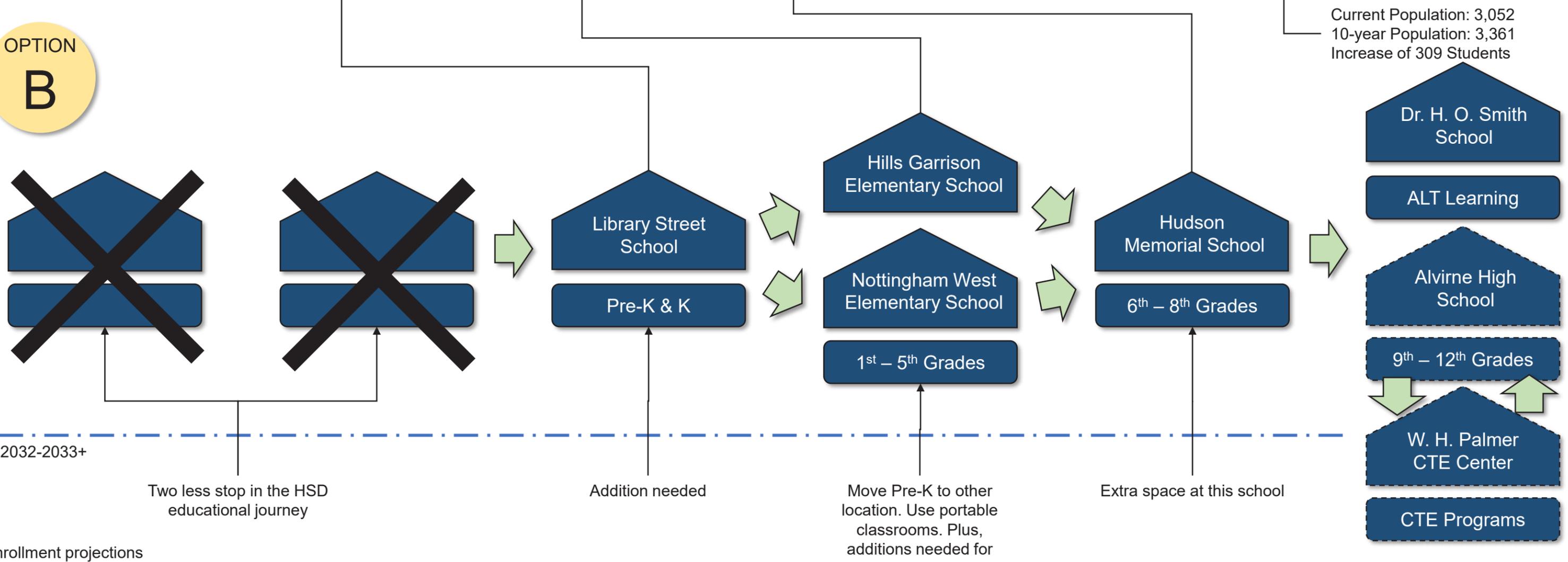
Extra space at this school



Current Population: 3,052
10-year Population: 3,361
Increase of 309 Students

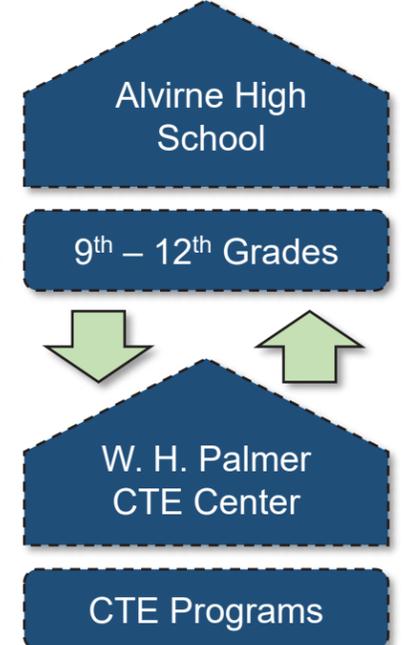
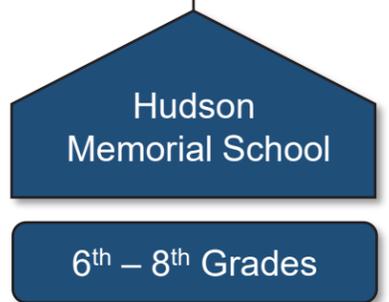
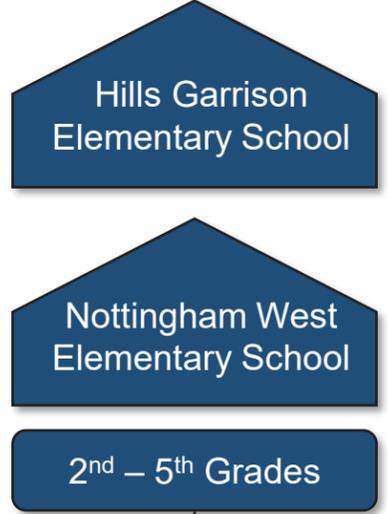
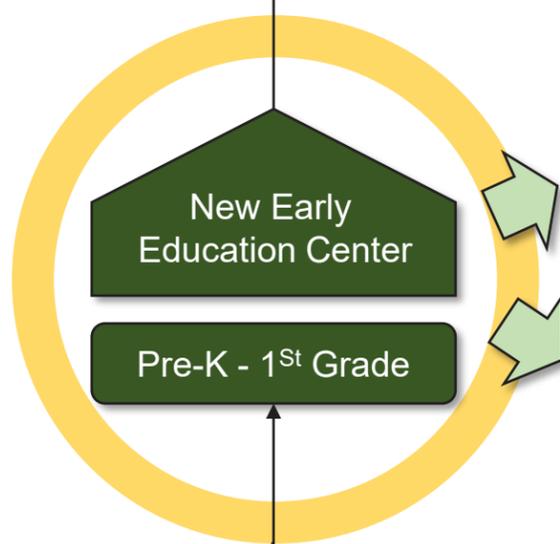
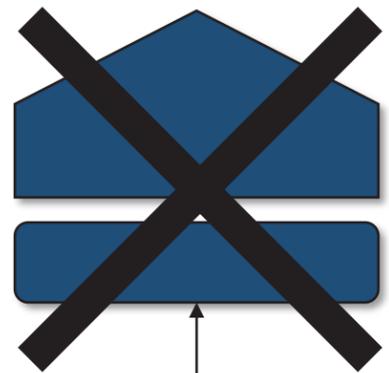
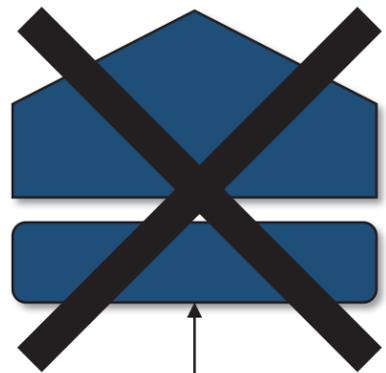
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OPTION B



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2032-33	2027	225	(est.)	102	188	244	245	251	258	261	266	238	274	290	275	223	246	<20	3259	3361	

OPTION C



Current Population: 3,052
10-year Population: 3,361
Increase of 309 Students

2032-2033+

Two less stops in the Hudson educational journey

New building designed to meet the needs of the younger students.

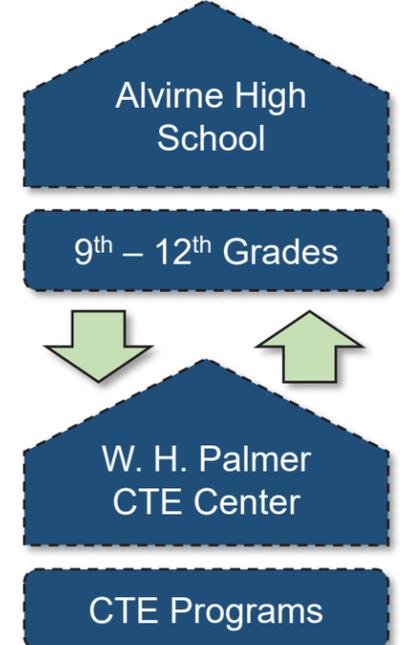
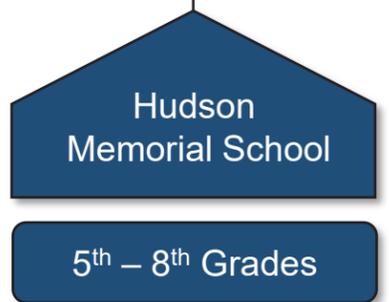
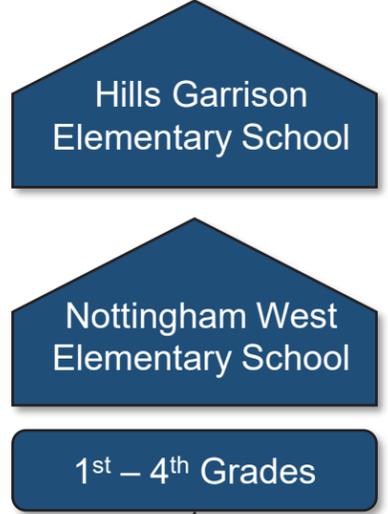
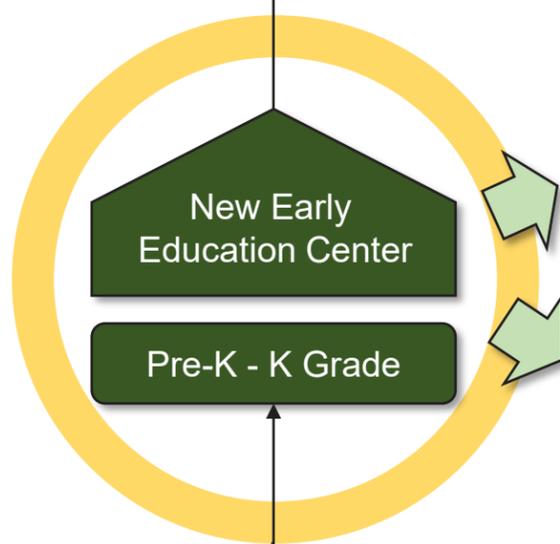
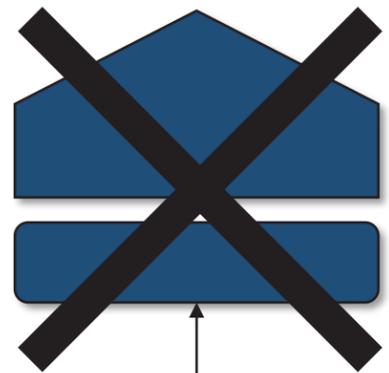
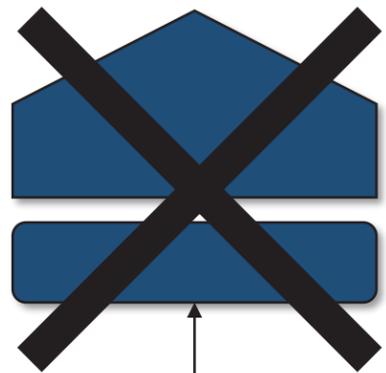
Move Pre-K to other location. Use portable classrooms and reno/additions needed.

Extra space at this school

Enrollment projections

Enrollment Projections By Grade*																					
School Year	Birth Year	Births*		PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12	Comments
2022-23	2017	217		92	194	212	231	170	195	232	236	235	221	249	256	265	264	<20	2960	3052	Current Year
2023-24	2018	244		93	204	252	215	234	172	198	235	235	235	227	247	248	272	<20	2974	3067	
2024-25	2019	235		94	197	265	256	218	237	174	201	234	235	241	225	239	255	<20	2977	3071	
2025-26	2020	204		95	171	256	269	260	221	240	177	200	234	241	239	218	246	<20	2972	3067	
2026-27	2021	227		96	190	222	260	273	263	224	244	176	200	240	239	231	224	<20	2986	3082	
2027-28	2022	225	(est.)	97	189	247	226	264	276	267	227	243	176	205	238	231	237	<20	3026	3123	
2028-29	2023	227	(est.)	98	190	246	251	229	267	280	271	226	243	180	203	230	237	<20	3053	3151	
2029-30	2024	224	(est.)	99	187	247	250	255	232	271	284	270	226	249	178	197	236	<20	3082	3181	
2030-31	2025	221	(est.)	100	185	243	251	254	258	235	275	283	270	232	247	172	202	<20	3107	3207	
2031-32	2026	225	(est.)	101	188	241	247	255	257	262	239	274	283	277	230	239	177	<20	3169	3270	
2032-33	2027	225	(est.)	102	188	244	245	251	258	261	266	238	274	290	275	223	246	<20	3259	3361	

OPTION D



Current Population: 3,052
10-year Population: 3,361
Increase of 309 Students

2032-2033+

Two less stops in the Hudson educational journey

New building designed to meet the needs of the younger students.

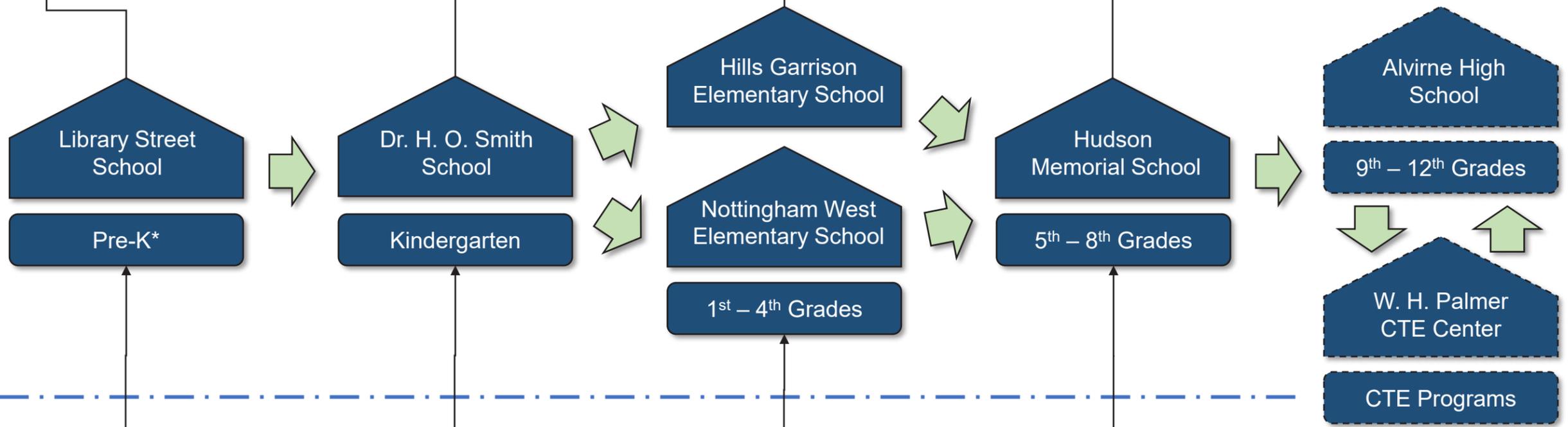
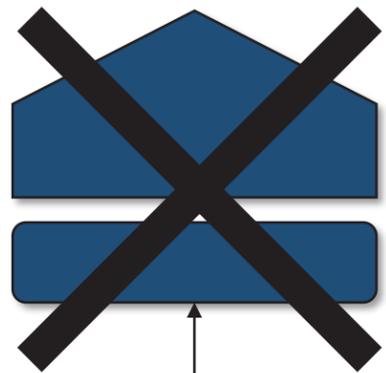
Move Pre-K to other location. Use portable classrooms and reno/additions needed.

School appears to be large enough to house 5th grade as well. Minor renovations needed.

Enrollment projections

Enrollment Projections By Grade*																					
School Year	Birth Year	Births*		PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12	Comments
2022-23	2017	217		92	194	212	231	170	195	232	236	235	221	249	256	265	264	<20	2960	3052	Current Year
2023-24	2018	244		93	204	252	215	234	172	198	235	235	235	227	247	248	272	<20	2974	3067	
2024-25	2019	235		94	197	265	256	218	237	174	201	234	235	241	225	239	255	<20	2977	3071	
2025-26	2020	204		95	171	256	269	260	221	240	177	200	234	241	239	218	246	<20	2972	3067	
2026-27	2021	227		96	190	222	260	273	263	224	244	176	200	240	239	231	224	<20	2986	3082	
2027-28	2022	225	(est.)	97	189	247	226	264	276	267	227	243	176	205	238	231	237	<20	3026	3123	
2028-29	2023	227	(est.)	98	190	246	251	229	267	280	271	226	243	180	203	230	237	<20	3053	3151	
2029-30	2024	224	(est.)	99	187	247	250	255	232	271	284	270	226	249	178	197	236	<20	3082	3181	
2030-31	2025	221	(est.)	100	185	243	251	254	258	235	275	283	270	232	247	172	202	<20	3107	3207	
2031-32	2026	225	(est.)	101	188	241	247	255	257	262	239	274	283	277	230	239	177	<20	3169	3270	
2032-33	2027	225	(est.)	102	188	244	245	251	258	261	266	238	274	290	275	223	246	<20	3259	3361	

OPTION E



Current Population: 3,052
10-year Population: 3,361
Increase of 309 Students

2032-2033+.
One Less stop in the Hudson educational journey
Enrollment projections

Additional space in building for other programs and growth.

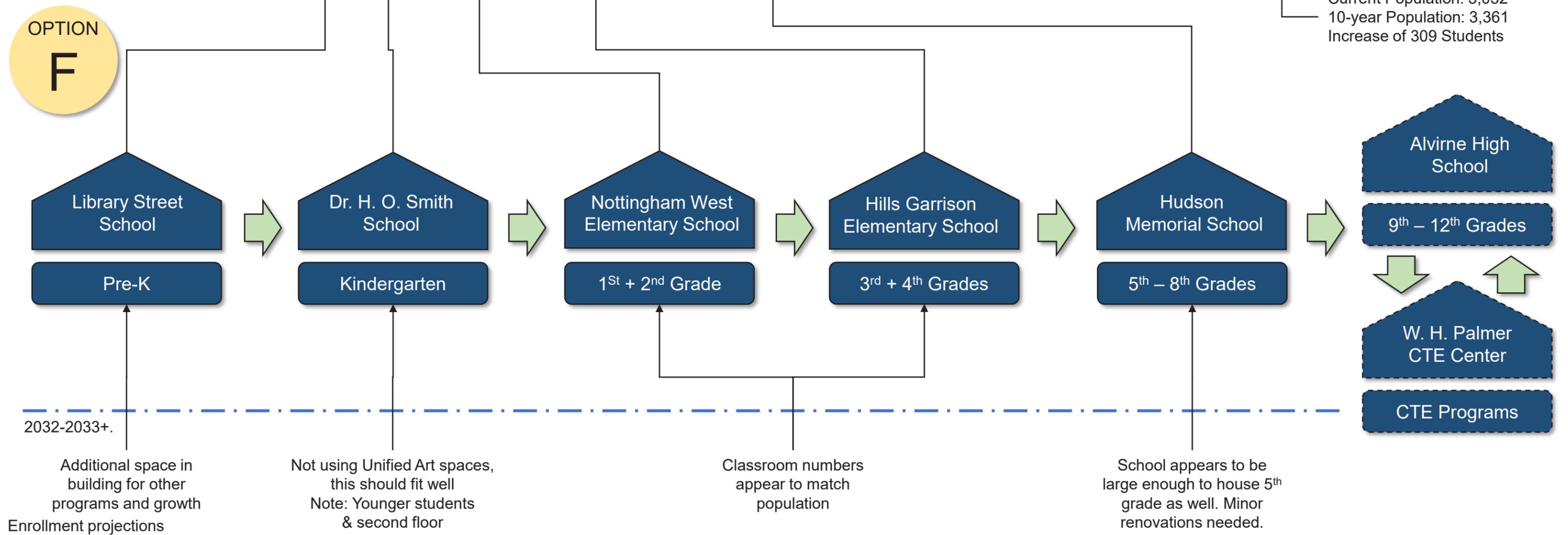
Not using Unified Art spaces, this should fit well
Note: Younger students & second floor.

1st Grade is 22 students less than 5th Grade. Both schools could be renovated to house 1st-4th Grades

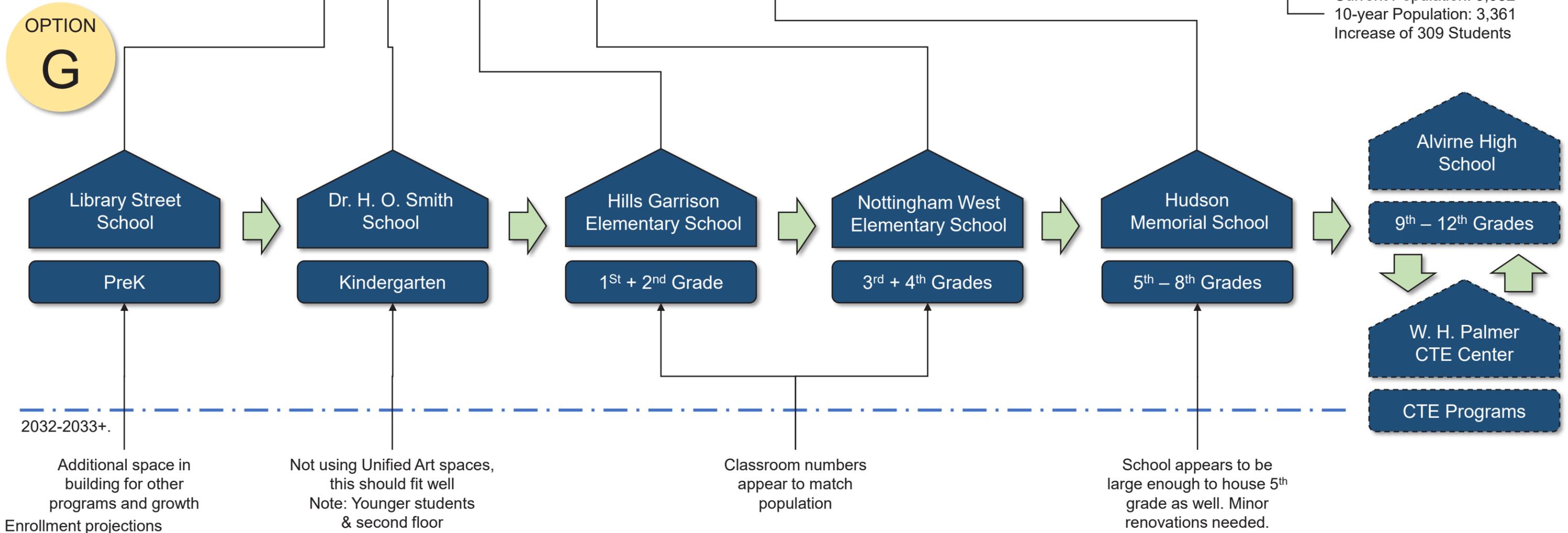
School appears to be large enough to house 5th grade as well. Minor renovations needed.

Enrollment Projections By Grade*																					
School Year	Birth Year	Births*		PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12	Comments
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2025-26	2020	204		95	171	256	269	260	221	240	177	200	234	241	239	218	246	<20	2972	3067	
2026-27	2021	227		96	190	222	260	273	263	224	244	176	200	240	239	231	224	<20	2986	3082	
2027-28	2022	225	(est.)	97	189	247	226	264	276	267	227	243	176	205	238	231	237	<20	3026	3123	
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2032-33	2027	225	(est.)	102	188	244	245	251	258	261	266	238	274	290	275	223	246	<20	3259	3361	

Current Population: 3,052
 10-year Population: 3,361
 Increase of 309 Students



Enrollment Projections By Grade*																					
School Year	Birth Year	Births*		PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12	Comments
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2032-33	2027	225	(est.)	102	188	244	245	251	258	261	266	238	274	290	275	223	246	<20	3259	3361	



Order of Magnitude Opinion of Cost by Option

Note: All options show a two-story addition at HGS to accommodate influx of students. Another possibility would be two, one-story additions at HGS and NWS for more even distribution. Option B would still require both additions to accommodate grades 1-5.

		School			
Option A	11,500 SF additions	LSS	\$4,700,000	Accommodates the influx of students expected over the next decade and brings pre-k to Early Learning Center	
	8,000 SF addition	HOS	\$3,300,000		
	25,000 SF addition	HGS	\$10,300,000		
	Option A Total Opinion of Cost				\$18,300,000
Option B	11,500 SF additions	LSS	\$4,700,000	Accommodates the influx of students expected over the next decade, repurposes Dr. H.O. Smith as alternate learning center (high school), and integrates 1st grade with 2nd through 5th grades.	
	Renovation for new program	HOS	TBD		
	11,000 SF addition	NWS	\$4,500,000		
	25,000 SF addition	HGS	\$10,300,000		
	Option B Total Opinion of Cost				\$19,500,000
Option C	New 100,000 SF Early Learning Center (574 student capacity, 144sf/pupil (avg), +30sf/pupil for special ed/intervention)	ELC	\$41,200,000	Accommodates the influx of students expected over the next decade, adds a state of the art Early Learning Center facility, and eliminates two transitions in the Hudson educational journey	
	Cost of land acquisition	ELC	TBD		
	25,000 SF addition	HGS	\$10,300,000		
	Option C Total Opinion of Cost				\$51,500,000
Option D	New 54,000 SF Early Learning Center (317 student capacity, 140sf/pupil (avg), +30sf/pupil for special ed/intervention)	ELC	\$22,200,000	Accommodates the influx of students expected over the next decade, adds a state of the art Early Learning Center facility for pre-k and k, moves 1st to HGS and NWS, moves 5th to HMS, and eliminates two transitions in the Hudson educational journey	
	Cost of land acquisition	ELC	TBD		
	25,000 SF addition	HGS	\$10,300,000		
	Option D Total Opinion of Cost				\$32,500,000
Option E	Renovation for adjusted program	LSS	TBD	Accommodates the influx of students expected over the next decade, repurposes Library Street as Pre-k, Dr. H.O. Smith as Kindergarten, and integrates 1st grade with 2nd through 4th grades, which shifting 5th to the Hudson Memorial.	
	Renovation for adjusted program	HOS	TBD		
	25,000 SF addition	HGS	\$10,300,000		
	Renovation for adjusted program	HMS	TBD		
	Option E Total Opinion of Cost				\$10,300,000
Option F & G	Renovation for adjusted program	LSS	TBD	Accommodates the influx of students expected over the next decade, repurposes Library Street as Pre-k, Dr. H.O. Smith as Kindergarten, dedicates one elementary to 1st & 2nd, and the other to 3rd & 4th, while shifting 5th to the Hudson Memorial. These options keeps the cohort together through the entire Hudson educational journey.	
	Renovation for adjusted program	HOS	TBD		
	25,000 SF addition + adjusted program	HGS	\$10,300,000		
	Renovation for adjusted program	HMS	TBD		
	Option F & G Total Opinion of Cost				\$10,300,000

Order of Magnitude Costs

These Order of Magnitude costs are based on preliminary construction estimates and include hard construction costs for the building and site. Hard construction costs for the building can be defined as the cost of the physical building from the foundation upwards including all permanent building systems. "Soft Costs" can also have significant effects on the total amount of a project's cost. Soft costs include a wide array of items which all contribute to a total school bond required to construct or renovate a building. These costs include (but are not limited to): engineering and design fees, legal and administrative fees, furnishing and equipment not part of the building systems, utility connection charges, and permitting fees. Soft costs can vary greatly from school to school depending on local requirements and also on the amount of furnishings and equipment suitable for re-use in a new or rehabilitated school. In general, these costs can range from 20-30% of construction costs. Also note that these order of magnitude costs are based on current year (2023) values. Given the extremely volatile market, we cannot forecast the construction inflation for the coming years with any degree of certainty. We hope that these very preliminary order of magnitude costs help you understand overall budget and potential tax impacts as you consider options for phasing and implementation of your facility upgrades. As stated above, these costs are preliminary order of magnitude values. As the solutions for each phase of the master plan are further defined and developed, construction values will be re-visited & developed into a more detailed estimate relating to the scope and size of the selected capital improvements.

APPENDICES

NESDEC 2022-23 Hudson Enrollment Projection Report

Facilities Repair/Maintenance Annual Projections



**SAU #81
Hudson, NH**

2022-23 Enrollment Projection Report

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Enrollment Summary

The global pandemic continues to influence our nation's public health and economic stability in unpredictable ways. As such, it is still too early to identify many of the factors that could impact school enrollments. Over the past school year, we have seen fluctuations in the real estate market and job trends, which have impacted student attendance patterns. Moreover, during the past school year, we have seen how school enrollment patterns can differ substantially from one district to another, with some districts losing students while others experience an influx of students.

We are pleased to send you this report displaying the past, present, and projected enrollments for the District. These ten-year projections are designed to provide the District with yearly, up-to-date enrollment information that can be used by boards and administrators for effective planning and allocation of resources. Included in this report are graphs representing historical and projected grade-by-grade enrollments, as well as historical and projected enrollments in grade combinations. We have received the figures given to us by the District, and we assume that the method of collecting the enrollment data has been consistent from year to year.

Enrollment projections are more reliable in Years #1-4 in the future and less reliable in the "out-years." Projections six to ten years out may serve as a guide to future enrollments and are useful for planning purposes. In light of this, NESDEC has added a "Second Semester Refresher" enrollment projection at no cost to affiliates. (For more information please refer to the Reliability and Use of This Document section)

This is the first projection for SAU #81, Hudson NH. Next fall, we can determine the accuracy of NESDEC's projection.

Births decreased by 21 from a previous ten-year average of 246 to a projected average of 225. In most districts, enrollments in Grades 1-8 are very stable environments. However, there have been increases in 5 of the 8 most recent years, leading to a net increase averaging 8 students per year.

As a note, it might be beneficial for the District to continue monitoring Choiced-Out/Charter/Magnet students for potential return to the District, as in 2022, 283 K-12 students were reported.

Over the next three years, K-1 enrollments are projected to increase by 21 students, Grades 2-5 enrollments are projected to increase by 162 students, Grades 6-8 enrollments are projected to decrease by 81 students, and Grades 9-12 enrollments are projected to decrease by 90 students, as students move through the grades.

Historical Enrollment

School District: SAU #81 - Hudson, NH

12/5/2022

Historical Enrollment By Grade																			
Birth Year	Births*	School Year	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12
2007	293	2012-13	57	209	259	291	281	281	301	319	293	326	337	346	357	362	0	3962	4019
2008	271	2013-14	76	187	264	267	278	278	265	303	324	297	371	351	316	355	0	3856	3932
2009	260	2014-15	88	137	236	260	275	271	277	251	300	323	295	356	337	311	0	3629	3717
2010	253	2015-16	78	164	202	249	268	275	278	271	259	297	344	300	333	326	0	3566	3644
2011	244	2016-17	78	141	233	203	249	272	278	275	267	255	326	336	287	318	0	3440	3518
2012	229	2017-18	91	155	211	229	213	252	263	278	272	273	281	321	314	273	0	3335	3426
2013	221	2018-19	99	135	225	223	233	220	250	258	278	267	265	266	301	311	0	3232	3331
2014	230	2019-20	103	111	192	229	223	233	224	245	250	279	278	267	263	298	0	3092	3195
2015	239	2020-21	56	178	161	189	219	220	226	219	250	241	275	274	261	281	0	2994	3050
2016	221	2021-22	69	193	217	161	194	222	226	235	217	246	256	272	261	271	0	2971	3040
2017	217	2022-23	92	194	212	231	170	195	232	236	235	221	249	256	265	264	<20	2960	3052

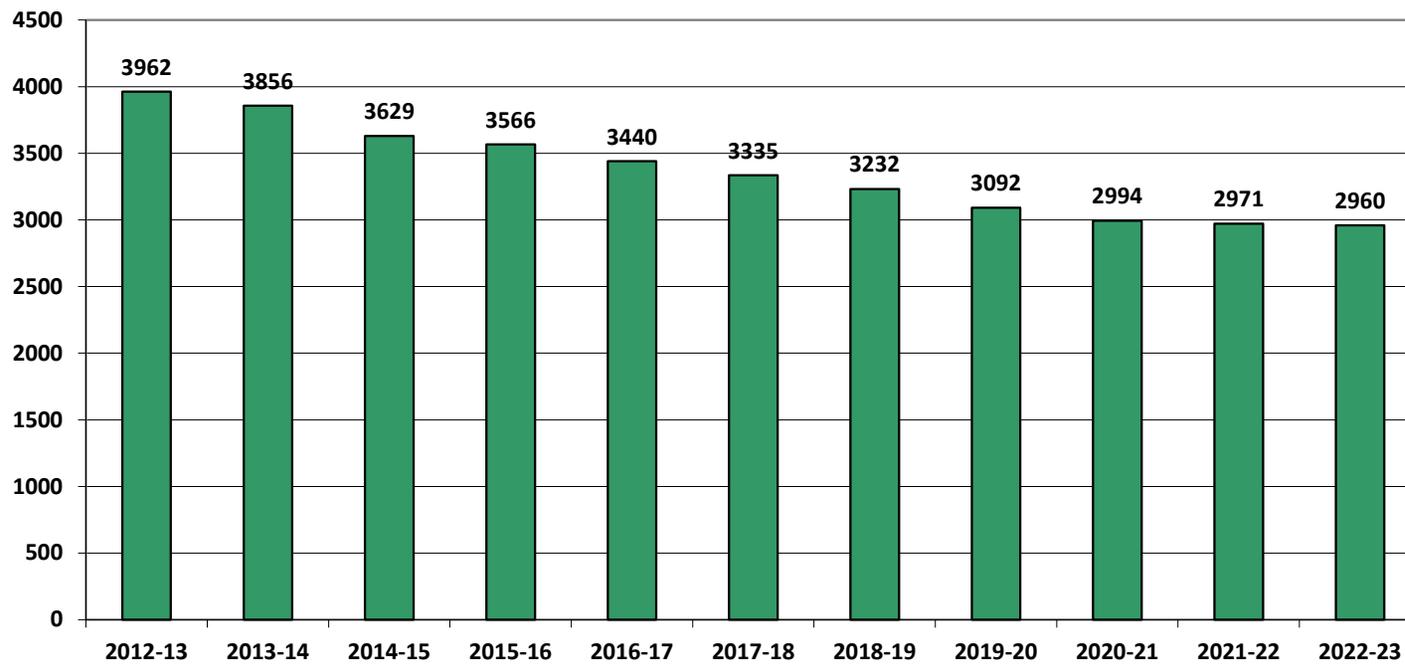
*Birth data provided by Public Health Vital Records Departments in each state.

Historical Enrollment in Grade Combinations									
Year	PK-5	K-5	K-1	PK-1	2-5	6-8	7-8	6-12	9-12
2012-13	1679	1622	468	525	1154	938	619	2340	1402
2013-14	1615	1539	451	527	1088	924	621	2317	1393
2014-15	1544	1456	373	461	1083	874	623	2173	1299
2015-16	1514	1436	366	444	1070	827	556	2130	1303
2016-17	1454	1376	374	452	1002	797	522	2064	1267
2017-18	1414	1323	366	457	957	823	545	2012	1189
2018-19	1385	1286	360	459	926	803	545	1946	1143
2019-20	1315	1212	303	406	909	774	529	1880	1106
2020-21	1249	1193	339	395	854	710	491	1801	1091
2021-22	1282	1213	410	479	803	698	463	1758	1060
2022-23	1326	1234	406	498	828	692	456	1726	1034

Historical Percentage Changes			
Year	K-12	Diff.	%
2012-13	3962	0	0.0%
2013-14	3856	-106	-2.7%
2014-15	3629	-227	-5.9%
2015-16	3566	-63	-1.7%
2016-17	3440	-126	-3.5%
2017-18	3335	-105	-3.1%
2018-19	3232	-103	-3.1%
2019-20	3092	-140	-4.3%
2020-21	2994	-98	-3.2%
2021-22	2971	-23	-0.8%
2022-23	2960	-11	-0.4%
Change		-1002	-25.3%

Historical Enrollment

K-12, School Years 2012-13 to 2022-23



Projected Enrollment

School District: SAU #81 - Hudson, NH

12/5/2022

Enrollment Projections by Grade*																				
Birth Year	Births*		School Year	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12
2017	217		2022-23	92	194	212	231	170	195	232	236	235	221	249	256	265	264	<20	2960	3052
2018	244		2023-24	93	204	252	215	234	172	198	235	235	235	227	247	248	272	<20	2974	3067
2019	235		2024-25	94	197	265	256	218	237	174	201	234	235	241	225	239	255	<20	2977	3071
2020	204		2025-26	95	171	256	269	260	221	240	177	200	234	241	239	218	246	<20	2972	3067
2021	227		2026-27	96	190	222	260	273	263	224	244	176	200	240	239	231	224	<20	2986	3082
2022	225	(est.)	2027-28	97	189	247	226	264	276	267	227	243	176	205	238	231	237	<20	3026	3123
2023	227	(est.)	2028-29	98	190	246	251	229	267	280	271	226	243	180	203	230	237	<20	3053	3151
2024	224	(est.)	2029-30	99	187	247	250	255	232	271	284	270	226	249	178	197	236	<20	3082	3181
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2027	225	(est.)	2032-33	102	188	244	245	251	258	261	266	238	274	290	275	223	246	<20	3259	3361

Note: Ungraded students (UNGR) often are high school students whose anticipated years of graduation are unknown, or students with special needs - UNGR not included in Grade Combinations for 7-12, 9-12, etc.

Based on an estimate of births

Based on children already born

Based on students already enrolled

*Birth data provided by Public Health Vital Records Departments in each state.

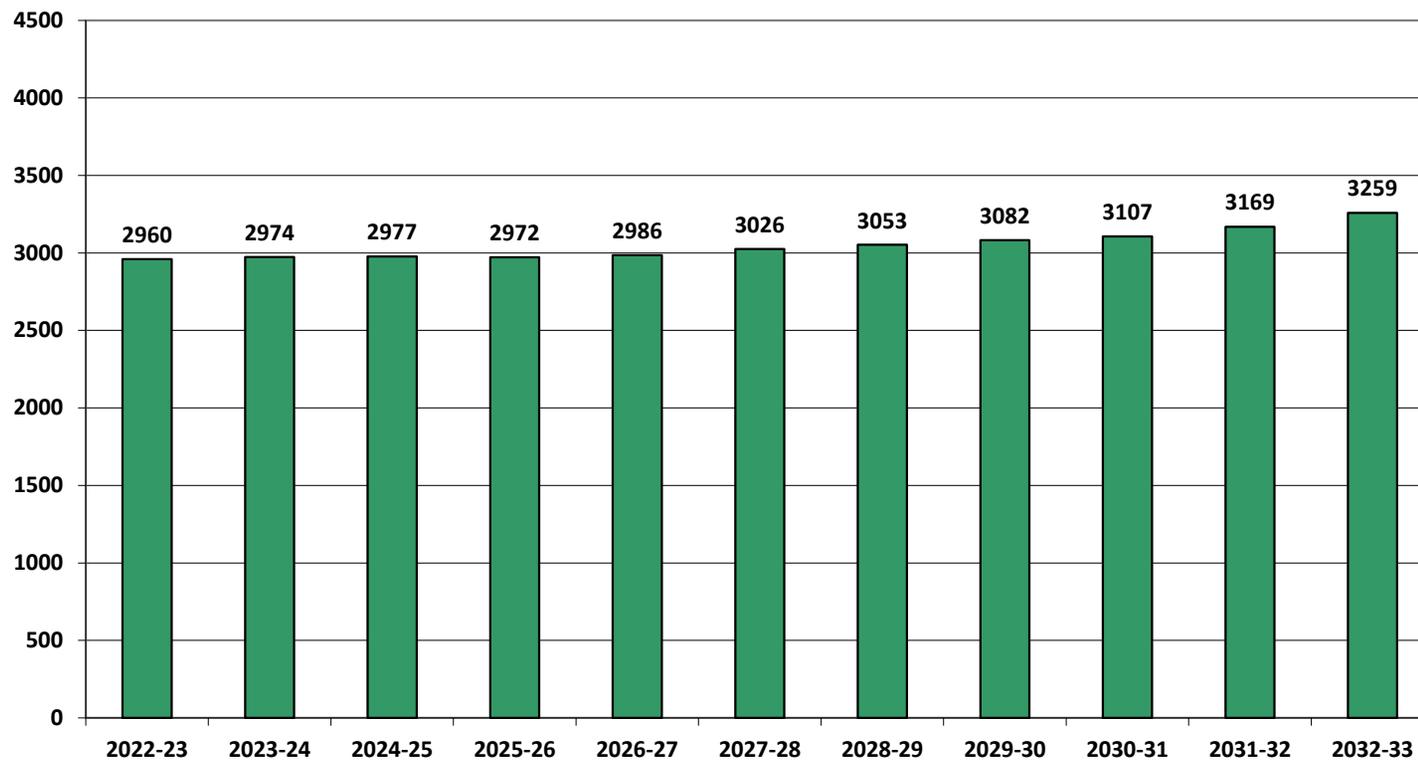
Projected Enrollment in Grade Combinations*									
Year	PK-5	K-5	K-1	PK-1	2-5	6-8	7-8	6-12	9-12
2022-23	1326	1234	406	498	828	692	456	1726	1034
2023-24	1368	1275	456	549	819	705	470	1699	994
2024-25	1441	1347	462	556	885	670	469	1630	960
2025-26	1512	1417	427	522	990	611	434	1555	944
2026-27	1528	1432	412	508	1020	620	376	1554	934
2027-28	1566	1469	436	533	1033	646	419	1557	911
2028-29	1561	1463	436	534	1027	740	469	1590	850
2029-30	1541	1442	434	533	1008	780	496	1640	860
2030-31	1526	1426	428	528	998	828	553	1681	853
2031-32	1551	1450	429	530	1021	796	557	1719	923
2032-33	1549	1447	432	534	1015	778	512	1812	1034

Projected Percentage Changes			
Year	K-12	Diff.	%
2022-23	2960	0	0.0%
2023-24	2974	14	0.5%
2024-25	2977	3	0.1%
2025-26	2972	-5	-0.2%
2026-27	2986	14	0.5%
2027-28	3026	40	1.3%
2028-29	3053	27	0.9%
2029-30	3082	29	0.9%
2030-31	3107	25	0.8%
2031-32	3169	62	2.0%
2032-33	3259	90	2.8%
Change		299	10.1%

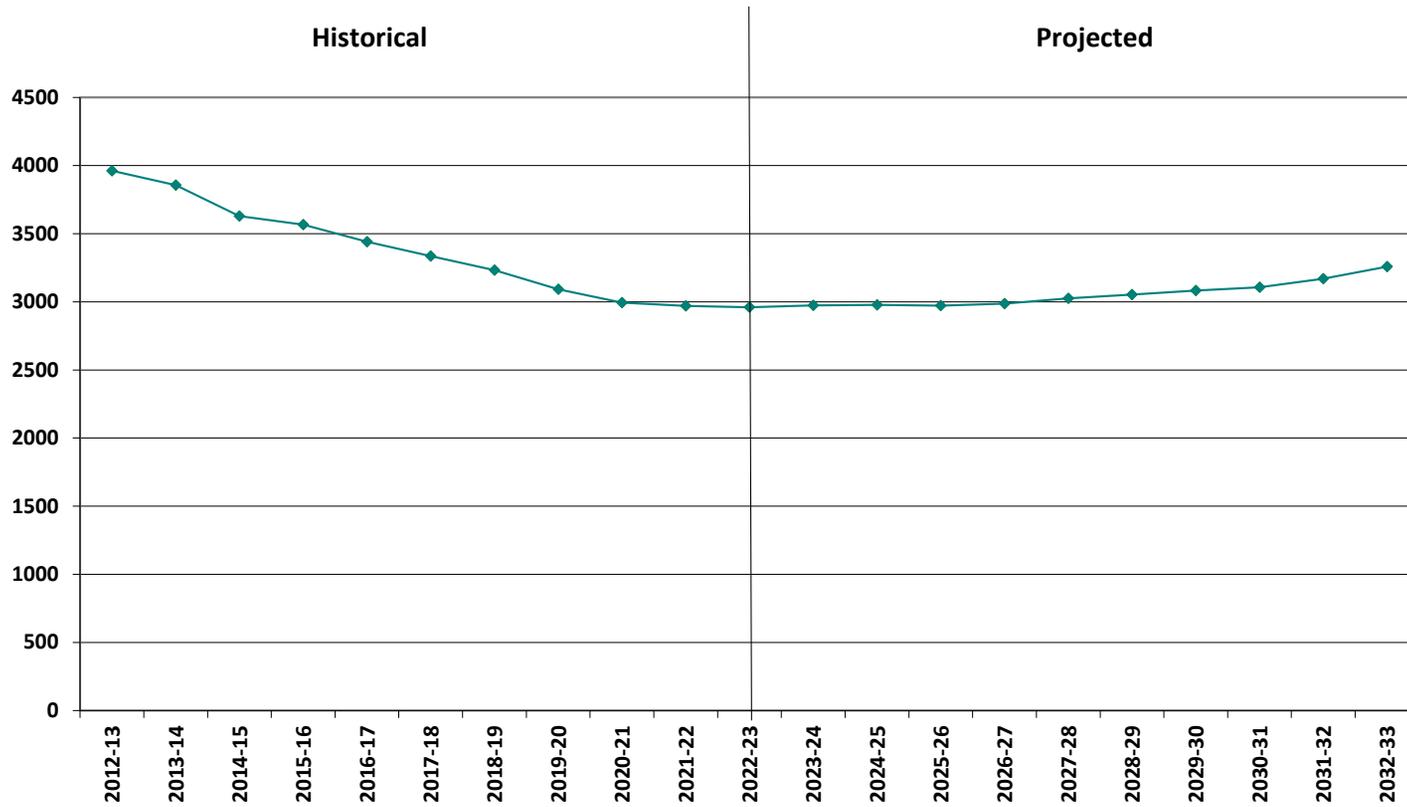
*Projections should be updated annually to reflect changes in in/out-migration of families, real estate sales, residential construction, births, and similar factors.

Projected Enrollment

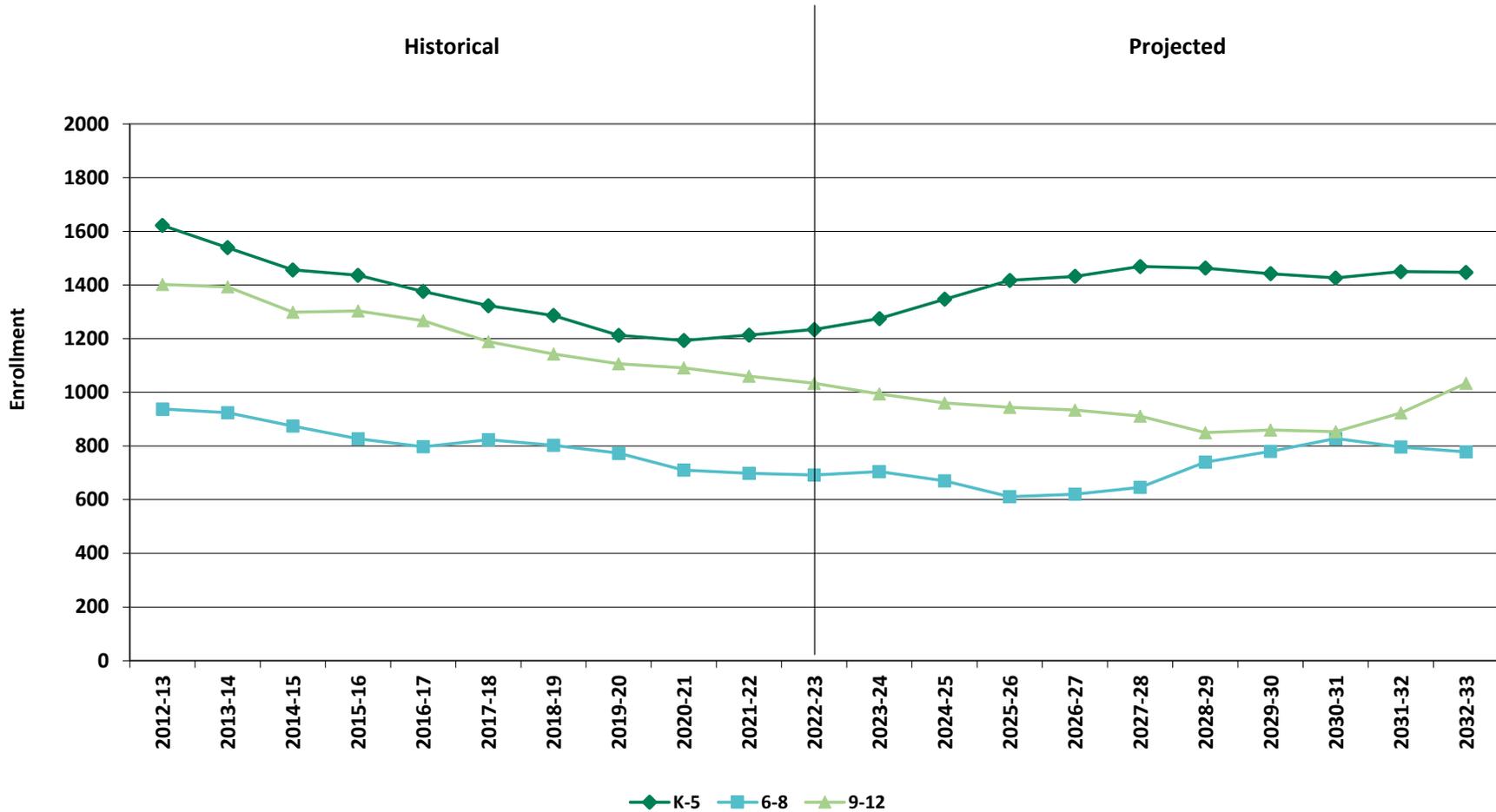
K-12, School Years 2022-23 to 2032-33



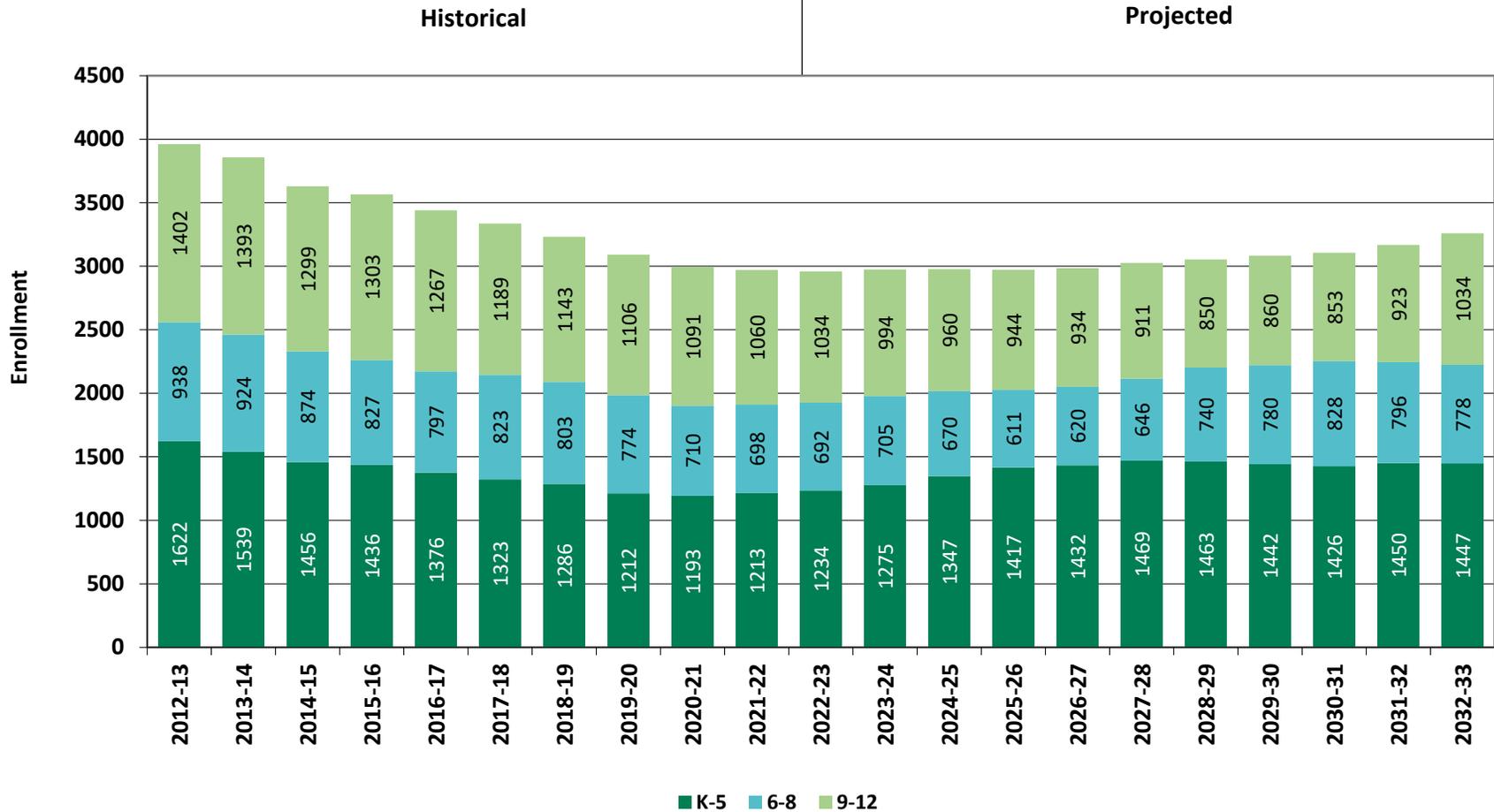
Historical & Projected Enrollment



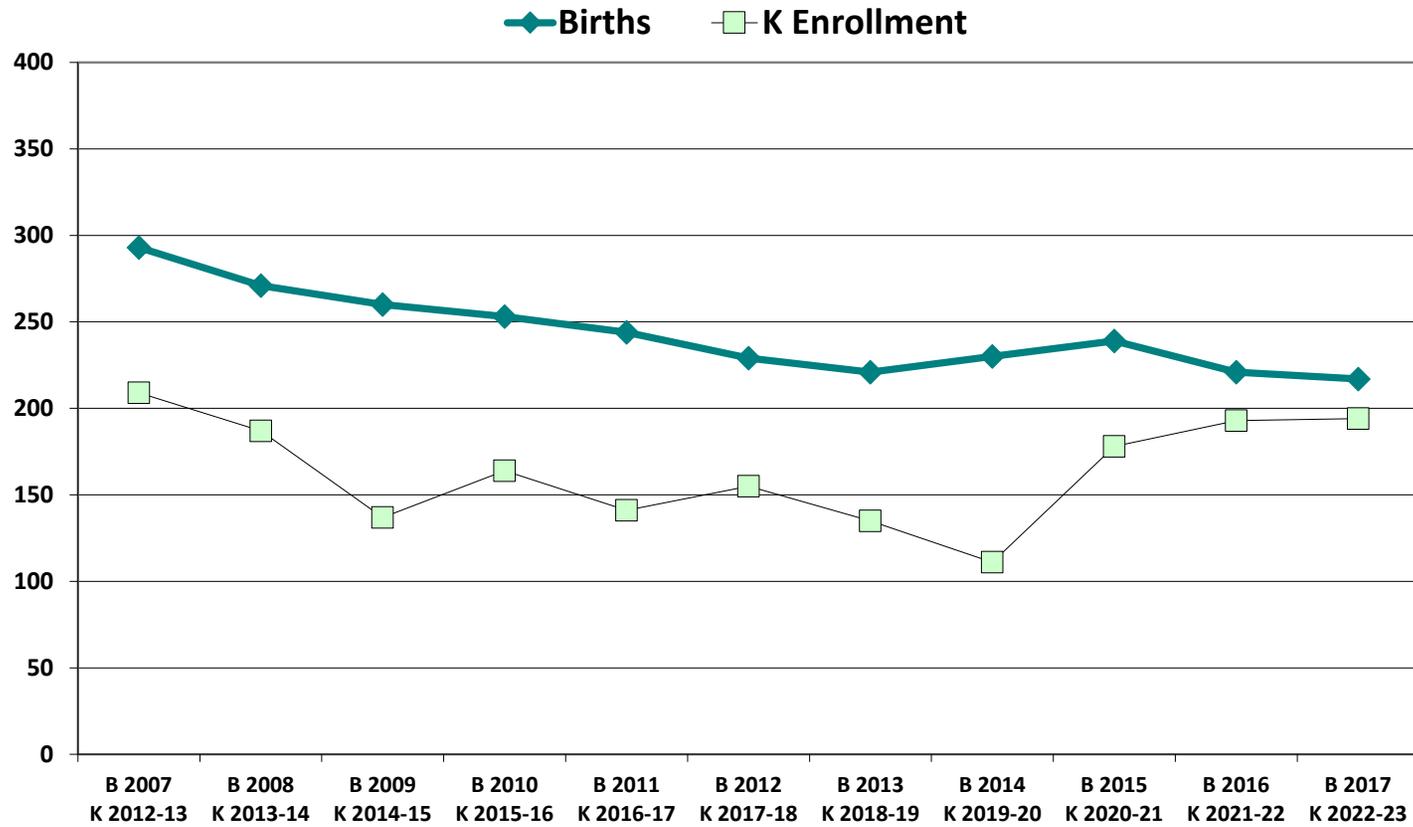
Historical & Projected Enrollments in Grade Combinations



Historical & Projected Enrollments in Grade Combinations



Birth-to-Kindergarten Relationship



Additional Information

Building Permits Issued (Source: HUD)		
Year	Single-Family	Multi-Units
2012	34	0
2018	34	2
2019	29	19
2020	38	4
2021	57	4
2022	40 to date	0 to date

Enrollment History*		
Year	Career-Tech 9-12 Total	Non-Public K-12 Total
2012-13	n/a	n/a
2018-19	n/a	n/a
2019-20	n/a	n/a
2020-21	n/a	n/a
2021-22	n/a	n/a
2022-23	n/a	n/a

Residents in Non-Public Independent and Parochial Schools (General Education)*														
Oct. 1 Enrollment	K	1	2	3	4	5	6	7	8	9	10	11	12	K-12 TOTAL
	n/a													

K-12 Home-Schooled Students*	
2022	<20

K-12 Residents in Charter or Magnet Schools, or Choiced-out*	
2022	283

K-12 Special Education Outplaced Students*	
2022	<20

K-12 Tuitioned-In, Choiced-In, & Other Non-Residents*	
2022	<20

*The above data were provided by the District, with the exception of building permit data (provided by HUD).

"n/a" signifies that information was not provided by District.

New England's PK-12 Enrollment Trends

From 2020 to 2030, the US Department of Education anticipates changes in PK-12 enrollment of -2.4% in the South, -6.5% in the West, -3.8% in the Midwest, -6.2% in the Northeast, and a total of -4.3% nationwide.

State	Fall 2020 PK - 12	Fall 2030 Projected	PK-12 Decline	% Change 2020-2030
CT	509,058	475,600	-33,458	-6.6%
ME	172,455	161,800	-10,655	-6.2%
MA	921,712	879,900	-41,812	-4.5%
NH	169,027	144,600	-24,427	-14.5%
RI	139,184	130,200	-8,984	-6.5%
VT	82,401	74,600	-7,801	-9.5%

Source: U.S. Department of Education, National Center for Education Statistics, *Enrollment In Public Schools fall 1990 to fall 2030* , Table 203.20, March 2022.

Although most New England Districts are seeing a decline in the number of births, NESDEC's experience indicates that the impact on enrollment varies from District to District. Almost half of New England Districts have been growing in PK-12 enrollment, and a similar number are declining (often in rural areas), with the other Districts remaining stable.

Reliability and Use of this Document

PROJECTION METHODOLOGY

Cohort component (survival) technique is a frequently used method of preparing enrollment forecasts. NESDEC uses this method, but modifies it in order to move away from forecasts that are wholly computer- or formula-driven. Such modification permits the incorporation of important, current district-specific information into the generation of enrollment forecasts (such as in/out-migration of students, resident births, HUD-reported building permits, etc.). Percentages are calculated from the historical enrollment data to determine a reliable percentage of increase or decrease in enrollment between any two grades. For example, if 100 students enrolled in Grade 1 in 2018-19 increased to 104 students in Grade 2 in 2019-20, the percentage of survival would be 104%, or a ratio of 1.04. Ratios are calculated between each pair of grades or years in school over several recent years.

After study and analysis of the historical ratios, and based upon a reasonable set of assumptions regarding births, migration rates, retention rates, etc., ratios most indicative of future growth patterns are determined for each pair of grades. The ratios thus selected are applied to the present enrollment statistics to project into future years. The ratios are the key factors in the reliability of the projections, assuming validity of the data at the starting point.

RELIABILITY OF ENROLLMENT PROJECTIONS

Projections can serve as useful guides to school administrators for educational planning. Enrollment projections are more reliable in Years #1-4 in the future and less reliable in the "out-years." Projections six to ten years out may serve as a guide to future enrollments and are useful for planning purposes, but they should be viewed as subject to change given the likelihood of potential shifts in underlying assumptions/trends, such as student migration, births as they relate to Kindergarten enrollment, and other factors.

Projections that are based upon **the children who already are in the district** (the current K-12 population only) will be the most reliable. The second level of reliability will be for those children already **born into the community but not yet old enough to be in school**. The least reliable category is the group for which an estimate must be made **to predict the number of births**, thereby adding additional uncertainty. See these three multi-colored groupings on the "Projected Enrollment" tab.

Annual updates allow for early identification of recent changes in historical trends. When the actual enrollment in a grade is significantly different (higher or lower) from the projected number, it is important (yet difficult) to determine whether this is a one-year aberration or whether a new trend may have begun. **In light of this possibility, NESDEC urges all school districts to have updated enrollment forecasts developed by NESDEC each October.** This service is available at no cost to affiliated school districts.

USING THIS INFORMATION ELECTRONICALLY

If you would like to extract the information contained in this report for your own documents or presentations, you can use screenshots, which can be inserted into PowerPoint slides, Word documents, etc. Because screenshots create graphics, the image is not editable. Please feel free to contact us if you need assistance in this matter, by phone (508-481-9444) or by email (ep@nesdec.org).

Facilities Repair/Maintenance Annual Projections



Hudson School District SAU#81

Building	Project Title	EUL (years)	FY23	FY24	FY25	FY26	FY27
AHS	Parking Lot-Paving	30	\$0	\$0	\$0	\$0	\$0
AHS	Parking Lot-Fill & Sealcoat	n/a	\$0	\$25,000	\$0	\$0	\$0
AHS	Fence/Guardrail Replacement	n/a	\$0	\$0	\$2,500	\$0	\$2,500
AHS	Sidewalk Repairs	30	\$0	\$0	\$0	\$0	\$0
AHS	Tennis Court Renovation	30	\$0	\$0	\$0	\$0	\$0
AHS	Retaining Wall Maintenance	n/a	\$0	\$0	\$0	\$5,000	\$0
AHS	Fencing Repairs	20	\$0	\$0	\$0	\$2,000	\$0
AHS	Parking Lot Lighting Replacement	20	\$0	\$0	\$0	\$0	\$0
AHS	General Repairs-Annual 2% Increase	n/a	\$79,400.00	\$80,988.00	\$82,607.76	\$84,259.92	\$85,945.11
AHS	Ceiling tile replacement-annual 1% Increase	n/a	\$1,300.00	\$1,313.00	\$1,326.13	\$1,339.39	\$1,352.79
AHS	HVAC Classroom Filter Replacement-Annual 1% increase	n/a	\$2,400.00	\$2,424.00	\$2,448.24	\$2,472.72	\$2,497.45
AHS	Air Quality Testing-Annual	n/a	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
AHS	Flooring Replacement	20	\$0.00	\$0.00	\$0	\$0	\$0
AHS	Classroom Lighting Replacement	20	\$0.00	\$0.00	\$0	\$0	\$0
AHS	Classroom Ceiling Tile Replacement	15	\$0.00	\$0.00	\$0	\$0	\$0
AHS	Restroom Fixture Renovation	15	\$0	\$0	\$0	\$0	\$0
AHS	Science Lab Renovations	20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AHS	Building A/C Replacement	20	\$0.00	\$115,000.00	\$0.00	\$0.00	\$0.00
AHS	Lift Rental Allowance-Annual	n/a	\$0	\$0	\$0	\$0	\$0
AHS	Annual Painting	n/a	\$6,200.00	\$6,262.00	\$6,324.62	\$6,387.87	\$6,451.74
AHS	Roof Replacement	25	\$0	\$0	\$0	\$0	\$0
AHS	Boiler Routine Maintenance-Annual 1.5% Inc.	n/a	\$21,445.00	\$21,766.68	\$22,093.18	\$22,424.57	\$22,760.94
AHS	Boiler Replacement	30	\$0	\$0	\$0	\$0	\$0
AHS	Repair & Maintenance Contracts-Annual 2% Inc.	n/a	\$30,612.00	\$31,224.24	\$31,848.72	\$32,485.70	\$33,135.41
AHS	HVAC PM Program-Annual 3 % Inc.	n/a	\$21,000.00	\$21,630.00	\$22,278.90	\$22,947.27	\$23,635.69
AHS	DDC Control Maintenance/Service-Annual 1% Inc.	n/a	\$8,000.00	\$8,080.00	\$8,160.80	\$8,242.41	\$8,324.83
AHS	DDC Control Replacement	15	\$0	\$0	\$50,000	\$0	\$0
AHS	Domestic Hot Water Pump Replacement	20	\$0	\$0	\$0	\$0	\$0
AHS	Heating Pump Replacement	20	\$0	\$0	\$0	\$0	\$0
AHS	Domestic Hot Water Tank Replacement	20	\$0	\$0	\$0	\$0	\$0
AHS	Classroom Cabinet Heater Replacement	30	\$0	\$0	\$30,000	\$30,000	\$0
AHS	Building Exhaust Fan Replacement	20	\$0	\$0	\$0	\$30,000	\$0
AHS	Emergency Generator Replacement	35	\$0	\$0	\$0	\$0	\$0
AHS	Fire Alarm Panel Replacement	25	\$0	\$0	\$30,000	\$0	\$0
AHS	Public Address System Replacement	20	\$0	\$0	\$10,000	\$0	\$0
AHS	Elevator Upgrades	20	\$0	\$5,000	\$0	\$0	\$0

Facilities Repair/Maintenance Annual Projections



Hudson School District SAU#81

Building	Project Title	EUL (years)	FY23	FY24	FY25	FY26	FY27
AHS	Exterior Door Replacement	20	\$0	\$0	\$0	\$0	\$0
AHS	Overhead Door Replacement	20	\$0	\$6,000	\$6,000	\$0	\$0
AHS	Window Replacement	35	\$0	\$0	\$0	\$0	\$0
AHS	Water Cooler Replacement	15	\$0	\$0	\$0	\$0	\$20,000
AHS	Football Field Renovation	25	\$0	\$0	\$0	\$0	\$0
AHS	General Field Renovations	n/a	\$0	\$20,000	\$0	\$20,000	\$0
AHS	Landscaping/Grounds Maintenance-annual 3% Inc.	n/a	\$41,440.00	\$42,683.20	\$43,963.70	\$45,282.61	\$46,641.09
AHS	Bleacher Replacement	20	\$0	\$0	\$0	\$0	\$0
AHS	Gymnasium Floor replacement	20	\$0	\$0	\$0	\$0	\$0
AHS	Gymnasium Door replacement	15	\$35,000	\$0	\$0	\$0	\$0
AHS	Custodial Small Equipment Replacement-Annual	n/a	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
AHS	Custodial Equipment/Machine Replacements	10	\$0	\$0	\$0	\$20,000	\$20,000
Alvirne Sub-Total			\$249,797	\$390,371	\$352,552	\$335,842	\$276,245

Building	Project Title	EUL (years)	FY23	FY24	FY25	FY26	FY27
HMS	Parking Lot-Paving	30	\$0	\$0	\$0	\$0	\$0
HMS	Parking Lot-Fill & Sealcoat	n/a	\$0	\$0	\$0	\$25,000	\$0
HMS	Sidewalk Repairs	30	\$0	\$0	\$10,000	\$0	\$0
HMS	Fencing Repairs	20	\$0	\$0	\$0	\$2,000	\$0
HMS	Parking Lot Lighting Replacement	20	\$0	\$0	\$0	\$0	\$0
HMS	General Repairs-Annual 2% Increase	n/a	\$53,400.00	\$54,468.00	\$55,557.36	\$56,668.51	\$57,801.88
HMS	Ceiling tile replacement-annual 1% Increase	n/a	\$800.00	\$808.00	\$816.08	\$824.24	\$832.48
HMS	HVAC Classroom Filter Replacement-Annual 1% increase	n/a	\$1,600.00	\$1,616.00	\$1,632.16	\$1,648.48	\$1,664.97
HMS	Air Quality Testing-Annual	n/a	\$0	\$1,000	\$1,000	\$1,000	\$1,000
HMS	Flooring Replacement	20	\$0.00	\$0.00	\$0.00	\$0	\$0
HMS	Classroom Lighting Replacement	20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
HMS	Restroom Fixture Renovation	15	\$0	\$0	\$6,000	\$6,000	\$6,000
HMS	Science Lab Renovations	20	\$0.00	\$0.00	\$80,000.00	\$80,000.00	\$80,000.00
HMS	Building A/C Replacement	20	\$0.00	\$10,000.00	\$80,000.00	\$80,000.00	\$80,000.00
HMS	Annual Painting	n/a	\$6,600.00	\$1,600.00	\$1,616.00	\$1,632.16	\$1,648.48
HMS	Roof Replacement	25	\$0	\$0	\$0	\$0	\$0
HMS	Boiler Routine Maintenance-Annual 1.5% Inc.	n/a	\$7,487.00	\$7,599.31	\$7,713.29	\$7,828.99	\$7,946.43
HMS	Boiler Replacement	30	\$0	\$0	\$0	\$0	\$0
HMS	Repair & Maintenance Contracts-Annual 2% Inc.	n/a	\$15,780.00	\$16,095.60	\$16,417.51	\$16,745.86	\$17,080.78

Facilities Repair/Maintenance Annual Projections



Hudson School District SAU#81

Building	Project Title	EUL (years)	FY23	FY24	FY25	FY26	FY27
HMS	HVAC PM Program-Annual 3 % Inc.	n/a	\$6,640.00	\$6,839.20	\$7,044.38	\$7,255.71	\$7,473.38
HMS	DDC Control Maintenance/Service-Annual 1% Inc.	n/a	\$3,000.00	\$3,030.00	\$3,060.30	\$3,090.90	\$3,121.81
HMS	DDC Control Replacement	15	\$0	\$0	\$50,000	\$0	\$0
HMS	Domestic Hot Water Pump Replacement	20	\$0	\$0	\$0	\$0	\$0
HMS	Heating Pump Replacement	20	\$0	\$0	\$0	\$0	\$0
HMS	Domestic Hot Water Tank Replacement	20	\$0	\$0	\$0	\$0	\$0
HMS	Classroom Cabinet Heater Replacement	30	\$0	\$0	\$0	\$0	\$0
HMS	Building Exhaust Fan Replacement	20	\$0	\$0	\$0	\$0	\$0
HMS	Emergency Generator Replacement	35	\$0	\$0	\$0	\$0	\$0
HMS	Fire Alarm Panel Replacement	25	\$0	\$0	\$0	\$0	\$25,000
HMS	Public Address System Replacement	20	\$0	\$0	\$0	\$0	\$0
HMS	Elevator Upgrades	20	\$0	\$5,000	\$0	\$0	\$0
HMS	Exterior Door Replacement	20	\$0	\$0	\$0	\$20,000	\$20,000
HMS	Window Replacement	35	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000
HMS	Window Shade Replacement	10	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
HMS	Water Cooler Replacement	15	\$0	\$0	\$0	\$0	\$0
HMS	Football/Soccer Field Renovation	25	\$0	\$0	\$0	\$0	\$300,000
HMS	Landscaping/Grounds Maintenance-annual 3% Inc.	n/a	\$18,300.00	\$18,849.00	\$19,414.47	\$19,996.90	\$20,596.81
HMS	Bleacher Replacement	30	\$0	\$0	\$0	\$0	\$60,000
HMS	Gymnasium Floor replacement	30	\$0	\$0	\$0	\$0	\$125,000
HMS	Gymnasium Curtain replacement	15	\$18,000	\$0	\$0	\$0	\$0
HMS	Locker Room Renovations	20	\$35,000	\$0	\$0	\$0	\$0
HMS	Multi-Purpose Room Floor Replacement	25	\$0	\$0	\$0	\$0	\$0
HMS	Custodial Small Equipment Replacement-Annual	n/a	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
HMS	Custodial Equipment/Machine Replacements	10	\$0	\$0	\$0	\$20,000	\$20,000
Hudson Memorial Sub-Total			\$241,107	\$201,405	\$414,772	\$424,192	\$909,667

Building	Project Title	EUL (years)	FY23	FY24	FY25	FY26	FY27
HGS	Parking Lot-Paving	30	\$0	\$0	\$0	\$0	\$0
HGS	Parking Lot-Fill & Sealcoat	n/a	\$0	\$0	\$0	\$0	\$25,000
HGS	Fence/Guardrail Replacement	n/a	\$0	\$0	\$2,500	\$0	\$2,500
HGS	Sidewalk Repairs	30	\$0	\$0	\$0	\$0	\$0
HGS	Fencing Repairs	20	\$0	\$0	\$0	\$2,000	\$0
HGS	Parking Lot Lighting Replacement	20	\$0	\$0	\$0	\$0	\$0

Facilities Repair/Maintenance Annual Projections



Hudson School District SAU#81

Building	Project Title	EUL (years)	FY23	FY24	FY25	FY26	FY27
HGS	General Repairs-Annual 2% Increase	n/a	\$29,820.00	\$30,416.40	\$31,024.73	\$31,645.22	\$32,278.13
HGS	Ceiling tile replacement-annual 1% Increase	n/a	\$500.00	\$505.00	\$510.05	\$515.15	\$520.30
HGS	HVAC Classroom Filter Replacement-Annual 1% increase	n/a	\$525.00	\$530.25	\$535.55	\$540.91	\$546.32
HGS	Air Quality Testing-Annual	n/a	\$0	\$1,000	\$1,000	\$1,000	\$1,000
HGS	Flooring Replacement	20	\$0.00	\$0.00	\$0	\$0	\$0
HGS	Classroom Lighting Replacement	20	\$0.00	\$0.00	\$0	\$0	\$14,000
HGS	Restroom Fixture Renovation	15	\$0	\$0	\$0	\$0	\$0
HGS	Camera Maintenance/Replacement	10	\$8,000	\$0	\$0	\$0	\$0
HGS	Building A/C Replacement	20	\$15,200.00	\$0.00	\$0.00	\$0.00	\$0.00
HGS	Annual Painting	n/a	\$800.00	\$808.00	\$816.08	\$824.24	\$832.48
HGS	Roof Replacement	25	\$0	\$0	\$0	\$0	\$0
HGS	Boiler Routine Maintenance-Annual 1.5% Inc.	n/a	\$6,967.00	\$7,071.51	\$7,177.58	\$7,285.24	\$7,394.52
HGS	Boiler Replacement	30	\$0	\$0	\$0	\$0	\$0
HGS	Repair & Maintenance Contracts-Annual 2% Inc.	n/a	\$13,785.00	\$14,060.70	\$14,341.91	\$14,628.75	\$14,921.33
HGS	HVAC PM Program-Annual 3 % Inc.	n/a	\$3,850.00	\$3,965.50	\$4,084.47	\$4,207.00	\$4,333.21
HGS	DDC Control Maintenance/Service-Annual 1% Inc.	n/a	\$3,000.00	\$3,030.00	\$3,060.30	\$3,090.90	\$3,121.81
HGS	DDC Control Replacement	15	\$0	\$0	\$50,000	\$0	\$0
HGS	Domestic Hot Water Pump Replacement	20	\$0	\$0	\$0	\$0	\$0
HGS	Heating Pump Replacement	20	\$0	\$0	\$0	\$0	\$0
HGS	Domestic Hot Water Tank Replacement	20	\$0	\$0	\$0	\$0	\$0
HGS	Classroom Cabinet Heater Replacement	30	\$0	\$0	\$0	\$0	\$0
HGS	Building Exhaust Fan Replacement	20	\$0	\$0	\$0	\$0	\$0
HGS	Emergency Generator Replacement	35	\$0	\$0	\$0	\$0	\$0
HGS	Fire Alarm Panel Replacement	25	\$0	\$0	\$0	\$0	\$0
HGS	Public Address System Replacement	20	\$0	\$0	\$0	\$0	\$0
HGS	Elevator Upgrades	20	\$0	\$5,000	\$0	\$0	\$0
HGS	Exterior Door Replacement	20	\$0	\$0	\$0	\$0	\$0
HGS	Overhead Door Replacement	25	\$0	\$0	\$0	\$0	\$6,000
HGS	Window Replacement	35	\$0	\$0	\$0	\$0	\$0
HGS	Window Ballast Replacement	n/a	\$5,200	\$5,200	\$5,200	\$5,200	\$5,200
HGS	Water Cooler Replacement	15	\$0	\$0	\$0	\$0	\$15,000
HGS	General Field Renovations	n/a	\$0	\$0	\$0	\$0	\$0
HGS	Landscaping/Grounds Maintenance-annual 3% Inc.	n/a	\$15,225.00	\$15,681.75	\$16,152.20	\$16,636.77	\$17,135.87
HGS	Portable Ramp Repairs	15	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
HGS	Bleacher Replacement	30	\$0	\$0	\$0	\$0	\$0

Facilities Repair/Maintenance Annual Projections



Hudson School District SAU#81

Building	Project Title	EUL (years)	FY23	FY24	FY25	FY26	FY27
HGS	Gymnasium Floor replacement	30	\$0	\$0	\$0	\$0	\$0
HGS	Custodial Small Equipment Replacement-Annual	n/a	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
HGS	Custodial Equipment/Machine Replacements	10	\$0	\$0	\$0	\$20,000	\$20,000
Hills Garrison Sub-Total			\$104,872	\$89,269	\$138,403	\$109,574	\$171,784

Building	Project Title	EUL (years)	FY23	FY24	FY25	FY26	FY27
NWS	Parking Lot-Paving	30	\$0	\$0	\$0	\$0	\$0
NWS	Parking Lot-Fill & Sealcoat	n/a	\$0	\$20,000	\$0	\$0	\$0
NWS	Fence/Guardrail Replacement	n/a	\$0	\$0	\$2,500	\$0	\$2,500
NWS	Sidewalk Repairs	30	\$0	\$20,000	\$0	\$0	\$0
NWS	Parking Lot Lighting Replacement	20	\$0	\$0	\$0	\$0	\$0
NWS	General Repairs-Annual 2% Increase	n/a	\$29,880.00	\$30,477.60	\$31,087.15	\$31,708.90	\$32,343.07
NWS	Ceiling tile replacement-annual 1% Increase	n/a	\$500.00	\$505.00	\$510.05	\$515.15	\$520.30
NWS	HVAC Classroom Filter Replacement-Annual 1% increase	n/a	\$1,650.00	\$1,666.50	\$1,683.17	\$1,700.00	\$1,717.00
NWS	Air Quality Testing-Annual	n/a	\$0	\$1,000	\$1,000	\$1,000	\$1,000
NWS	Flooring Replacement	20	\$0.00	\$0.00	\$0	\$0	\$0
NWS	Classroom Lighting Replacement	20	\$0.00	\$0.00	\$0	\$0	\$0
NWS	Restroom Fixture Renovation	15	\$0	\$6,000	\$6,000	\$0	\$0
NWS	Classroom Vanity Replacement	20	\$34,500	\$0	\$0	\$0	\$0
NWS	Camera Maintenance/Replacement	10	\$8,000	\$0	\$0	\$0	\$0
NWS	Building A/C Replacement	20	\$46,000.00	\$0.00	\$0.00	\$0.00	\$0.00
NWS	Annual Painting	n/a	\$1,450.00	\$1,464.50	\$1,479.15	\$1,493.94	\$1,508.88
NWS	Roof Replacement	25	\$525,000	\$0	\$0	\$0	\$0
NWS	Boiler Routine Maintenance-Annual 1.5% Inc.	n/a	\$7,917.00	\$8,035.76	\$8,156.29	\$8,278.64	\$8,402.82
NWS	Boiler Replacement	30	\$0	\$0	\$0	\$0	\$0
NWS	Repair & Maintenance Contracts-Annual 2% Inc.	n/a	\$11,520.00	\$11,750.40	\$11,985.41	\$12,225.12	\$12,469.62
NWS	HVAC PM Program-Annual 3 % Inc.	n/a	\$3,840.00	\$3,955.20	\$4,073.86	\$4,196.07	\$4,321.95
NWS	DDC Control Maintenance/Service-Annual 1% Inc.	n/a	\$3,000.00	\$3,030.00	\$3,060.30	\$3,090.90	\$3,121.81
NWS	DDC Control Replacement	15	\$0	\$0	\$50,000	\$0	\$0
NWS	Domestic Hot Water Pump Replacement	20	\$0	\$0	\$0	\$0	\$0
NWS	Heating Pump Replacement	20	\$0	\$0	\$0	\$0	\$0
NWS	Domestic Hot Water Tank Replacement	20	\$0	\$0	\$30,000	\$0	\$0
NWS	Classroom Cabinet Heater Replacement	30	\$0	\$0	\$0	\$0	\$0
NWS	Building Exhaust Fan Replacement	20	\$0	\$0	\$0	\$0	\$0

Facilities Repair/Maintenance Annual Projections



Hudson School District SAU#81

Building	Project Title	EUL (years)	FY23	FY24	FY25	FY26	FY27
NWS	Fire Alarm Panel Replacement	25	\$0	\$0	\$0	\$0	\$0
NWS	Public Address System Replacement	20	\$0	\$0	\$0	\$0	\$10,000
NWS	Elevator Upgrades	20	\$0	\$5,000	\$0	\$0	\$0
NWS	Exterior Door Replacement	20	\$0	\$0	\$0	\$0	\$0
NWS	Window Replacement	35	\$0	\$0	\$0	\$0	\$50,000
NWS	Water Cooler Replacement	15	\$0	\$0	\$0	\$0	\$0
NWS	General Field Renovations	n/a	\$0	\$0	\$0	\$0	\$0
NWS	Portable Ramp Repairs	15	\$0	\$0	\$0	\$0	\$0
NWS	Landscaping/Grounds Maintenance-annual 3% Inc.	n/a	\$12,800.00	\$13,184.00	\$13,579.52	\$13,986.91	\$14,406.51
NWS	Bleacher Replacement	30	\$0	\$0	\$0	\$120,000	\$0
NWS	Gymnasium Floor replacement	30	\$0	\$0	\$0	\$130,000	\$0
NWS	Custodial Small Equipment Replacement-Annual	n/a	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
NWS	Custodial Equipment/Machine Replacements	10	\$0	\$0	\$0	\$20,000	\$20,000
Nottingham West Sub-Total			\$688,057	\$128,069	\$167,115	\$350,196	\$164,312

Building	Project Title	EUL (years)	FY23	FY24	FY25	FY26	FY27
LSS	Parking Lot-Paving	30	\$0	\$0	\$0	\$0	\$0
LSS	Parking Lot-Fill & Sealcoat	n/a	\$0	\$20,000	\$0	\$0	\$0
LSS	Sidewalk Repairs	30	\$0	\$0	\$0	\$0	\$0
LSS	Parking Lot Lighting Replacement	20	\$0	\$0	\$0	\$0	\$0
LSS	General Repairs-Annual 2% Increase	n/a	\$18,100.00	\$18,462.00	\$18,831.24	\$19,207.86	\$19,592.02
LSS	Ceiling tile replacement-annual 1% Increase	n/a	\$400.00	\$404.00	\$408.04	\$412.12	\$416.24
LSS	HVAC Classroom Filter Replacement-Annual 1% increase	n/a	\$220.00	\$222.20	\$224.42	\$226.67	\$228.93
LSS	Air Quality Testing-Annual	n/a	\$0	\$1,000	\$1,000	\$1,000	\$1,000
LSS	Flooring Replacement	20	\$0.00	\$20,000.00	\$0	\$0	\$0
LSS	Classroom Lighting Replacement	20	\$0.00	\$0.00	\$0	\$0	\$0
LSS	Restroom Fixture Renovation	15	\$0	\$6,000	\$6,000	\$0	\$0
LSS	Building A/C Replacement	20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
LSS	Annual Painting	n/a	\$800.00	\$808.00	\$816.08	\$824.24	\$832.48
LSS	Roof Replacement	25	\$0	\$325,000	\$0	\$0	\$0
LSS	Boiler Routine Maintenance-Annual 1.5% Inc.	n/a	\$3,217.00	\$3,265.26	\$3,314.23	\$3,363.95	\$3,414.41
LSS	Boiler Replacement	30	\$0	\$0	\$0	\$0	\$0
LSS	Repair & Maintenance Contracts-Annual 2% Inc.	n/a	\$4,584.00	\$4,675.68	\$4,769.19	\$4,864.58	\$4,961.87
LSS	HVAC PM Program-Annual 3 % Inc.	n/a	\$1,145.00	\$1,179.35	\$1,214.73	\$1,251.17	\$1,288.71

Facilities Repair/Maintenance Annual Projections



Hudson School District SAU#81

Building	Project Title	EUL (years)	FY23	FY24	FY25	FY26	FY27
LSS	DDC Control Maintenance/Service-Annual 1% Inc.	n/a	\$2,000.00	\$2,020.00	\$2,040.20	\$2,060.60	\$2,081.21
LSS	DDC Control Replacement	15	\$0	\$0	\$30,000	\$0	\$0
LSS	Domestic Hot Water Pump Replacement	20	\$0	\$0	\$0	\$0	\$0
LSS	Heating Pump Replacement	20	\$0	\$0	\$0	\$0	\$0
LSS	Domestic Hot Water Tank Replacement	20	\$0	\$0	\$0	\$0	\$0
LSS	Classroom Cabinet Heater Replacement	30	\$0	\$0	\$0	\$0	\$0
LSS	Building Exhaust Fan Replacement	20	\$30,000	\$0	\$0	\$0	\$0
LSS	Fire Alarm Panel Replacement	25	\$0	\$0	\$25,000	\$0	\$0
LSS	Public Address System Replacement	20	\$0	\$0	\$0	\$0	\$0
LSS	Exterior Door Replacement	20	\$0	\$0	\$0	\$0	\$0
LSS	Window Replacement	35	\$0	\$0	\$0	\$0	\$0
LSS	Water Cooler Replacement	15	\$0	\$0	\$0	\$0	\$20,000
LSS	Landscaping/Grounds Maintenance-annual 3% Inc.	n/a	\$7,600.00	\$7,828.00	\$8,062.84	\$8,304.73	\$8,553.87
LSS	Gymnasium Floor replacement	20	\$0	\$0	\$0	\$0	\$0
LSS	Custodial Small Equipment Replacement-Annual	n/a	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
LSS	Custodial Equipment/Machine Replacements	10	\$0	\$0	\$0	\$20,000	\$20,000

Library Street Sub-Total	\$70,066	\$412,864	\$103,681	\$63,516	\$84,370
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Building	Project Title	EUL (years)	FY23	FY24	FY25	FY26	FY27
HOS	Parking Lot-Paving	30	\$0	\$0	\$0	\$0	\$0
HOS	Parking Lot-Fill & Sealcoat	n/a	\$0	\$0	\$0	\$20,000	\$0
HOS	Sidewalk Repairs	30	\$0	\$0	\$0	\$10,000	\$0
HOS	Retaining Wall Maintenance	n/a	\$0	\$0	\$0	\$5,000	\$0
HOS	Fencing Repairs	20	\$0	\$0	\$0	\$2,000	\$0
HOS	Parking Lot Lighting Replacement	20	\$0	\$0	\$0	\$0	\$0
HOS	General Repairs-Annual 2% Increase	n/a	\$27,000.00	\$27,540.00	\$28,090.80	\$28,652.62	\$29,225.67
HOS	Ceiling tile replacement-annual 1% Increase	n/a	\$400.00	\$404.00	\$408.04	\$412.12	\$416.24
HOS	HVAC Classroom Filter Replacement-Annual 1% increase	n/a	\$600.00	\$606.00	\$612.06	\$618.18	\$624.36
HOS	Air Quality Testing-Annual	n/a	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
HOS	Flooring Replacement	20	\$0.00	\$0.00	\$0	\$0	\$0
HOS	Classroom Lighting Replacement	20	\$0.00	\$0.00	\$0	\$0	\$0
HOS	Restroom Fixture Renovation	15	\$0	\$0	\$6,000	\$6,000	\$6,000
HOS	Building A/C Replacement	20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
HOS	Annual Painting	n/a	\$1,000.00	\$1,010.00	\$1,020.10	\$1,030.30	\$1,040.60

Facilities Repair/Maintenance Annual Projections



Hudson School District SAU#81

Building	Project Title	EUL (years)	FY23	FY24	FY25	FY26	FY27
HOS	Roof Replacement	25	\$0	\$0	\$325,000	\$0	\$0
HOS	Boiler Routine Maintenance-Annual 1.5% Inc.	n/a	\$3,360.00	\$3,410.40	\$3,461.56	\$3,513.48	\$3,566.18
HOS	Boiler Replacement	30	\$0	\$0	\$0	\$0	\$0
HOS	Repair & Maintenance Contracts-Annual 2% Inc.	n/a	\$8,845.00	\$9,021.90	\$9,202.34	\$9,386.38	\$9,574.11
HOS	HVAC PM Program-Annual 3 % Inc.	n/a	\$2,375.00	\$2,446.25	\$2,519.64	\$2,595.23	\$2,673.08
HOS	DDC Control Maintenance/Service-Annual 1% Inc.	n/a	\$2,000.00	\$2,020.00	\$2,040.20	\$2,060.60	\$2,081.21
HOS	DDC Control Replacement	15	\$0	\$0	\$40,000	\$0	\$0
HOS	Domestic Hot Water Pump Replacement	20	\$0	\$0	\$0	\$0	\$0
HOS	Heating Pump Replacement	20	\$0	\$0	\$0	\$0	\$0
HOS	Domestic Hot Water Tank Replacement	20	\$0	\$0	\$0	\$0	\$0
HOS	Classroom Cabinet Heater Replacement	30	\$0	\$0	\$0	\$0	\$0
HOS	Building Exhaust Fan Replacement	20	\$0	\$0	\$30,000	\$0	\$0
HOS	Fire Alarm Panel Replacement	25	\$0	\$0	\$0	\$0	\$0
HOS	Public Address System Replacement	20	\$0	\$0	\$0	\$0	\$0
HOS	Elevator Upgrades	20	\$0	\$5,000	\$0	\$0	\$0
HOS	Exterior Door Replacement	20	\$0	\$0	\$0	\$0	\$0
HOS	Window Replacement	35	\$0	\$0	\$0	\$0	\$0
HOS	Water Cooler Replacement	15	\$0	\$0	\$0	\$0	\$20,000
HOS	Landscaping/Grounds Maintenance-annual 3% Inc.	n/a	\$9,550.00	\$9,836.50	\$10,131.60	\$10,435.54	\$10,748.61
HOS	Gymnasium Floor replacement	20	\$0	\$0	\$0	\$0	\$0
HOS	Custodial Small Equipment Replacement-Annual	n/a	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
HOS	Custodial Equipment/Machine Replacements	10	\$0	\$0	\$0	\$20,000	\$20,000
H.O. Smith Sub-Total			\$58,130	\$64,295	\$461,486	\$124,704	\$108,950

Building	Project Title	EUL (years)	FY23	FY24	FY25	FY26	FY27
SAU	Parking Lot-Paving	30	\$0	\$150,000	\$0	\$0	\$0
SAU	Parking Lot-Fill & Sealcoat	n/a	\$0	\$0	\$0	\$0	\$20,000
SAU	Fencing Repairs	20	\$0	\$0	\$0	\$2,000	\$0
SAU	General Repairs-Annual 2% Increase	n/a	\$12,200.00	\$12,444.00	\$12,692.88	\$12,946.74	\$13,205.67
SAU	Ceiling tile replacement-annual 1% Increase	n/a	\$300.00	\$303.00	\$306.03	\$309.09	\$312.18
SAU	HVAC Filter Replacement-Annual 1% increase	n/a	\$300.00	\$303.00	\$306.03	\$309.09	\$312.18
SAU	Building A/C Replacement	20	\$7,000.00	\$0.00	\$0.00	\$0.00	\$0.00
SAU	Flooring Replacement	20	\$0.00	\$0.00	\$0	\$0	\$0
SAU	Lighting Replacement	20	\$0.00	\$0.00	\$0	\$0	\$0

Facilities Repair/Maintenance Annual Projections



Hudson School District SAU#81

Building	Project Title	EUL (years)	FY23	FY24	FY25	FY26	FY27
SAU	Annual Painting	n/a	\$1,300.00	\$1,313.00	\$1,326.13	\$1,339.39	\$1,352.79
SAU	Roof Replacement	25	\$0	\$0	\$0	\$0	\$0
SAU	Boiler Routine Maintenance-Annual 1.5% Inc.	n/a	\$2,050.00	\$2,080.75	\$2,111.96	\$2,143.64	\$2,175.80
SAU	Boiler Replacement	30	\$0	\$0	\$0	\$0	\$0
SAU	Repair & Maintenance Contracts-Annual 2% Inc.	n/a	\$5,195.00	\$5,298.90	\$5,404.88	\$5,512.98	\$5,623.24
SAU	HVAC PM Program-Annual 3 % Inc.	n/a	\$1,920.00	\$1,977.60	\$2,036.93	\$2,098.04	\$2,160.98
SAU	DDC Control Maintenance/Service-Annual 1% Inc.	n/a	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
SAU	DDC Control Replacement	15	\$0	\$0	\$30,000	\$0	\$0
SAU	Domestic Hot Water Tank Replacement	10	\$0	\$0	\$0	\$0	\$0
SAU	Emergency Generator Replacement	25	\$0	\$0	\$0	\$0	\$0
SAU	Fire Alarm Panel Replacement	25	\$0	\$0	\$0	\$0	\$22,000
SAU	Elevator Upgrades	20	\$1,200	\$70,000	\$0	\$0	\$0
SAU	Exterior Door Replacement	20	\$0	\$0	\$0	\$0	\$0
SAU	Window Replacement	35	\$0	\$0	\$0	\$0	\$0
SAU	Landscaping/Grounds Maintenance-annual 3% Inc.	n/a	\$5,000.00	\$5,150.00	\$5,304.50	\$5,463.64	\$5,627.54
SAU	Custodial Small Equipment Replacement-Annual	n/a	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
SAU Sub-Total			\$37,465	\$249,870	\$60,489	\$33,123	\$73,770
MB	General Repairs-Annual 2% Inc.	n/a	\$3,960.00	\$4,039.20	\$4,119.98	\$4,202.38	\$4,286.43
MB	Grounds Equipment Repairs-annual 1% inc.	n/a	\$9,000.00	\$9,135.00	\$9,272.03	\$9,411.11	\$9,552.27
MB	Grounds Equipment/Vehicle Replacement	n/a	\$0	\$0	\$0	\$50,000	\$38,000
Maintenance Building Sub-Total			\$12,960	\$13,174	\$13,392	\$63,613	\$51,839
DW	Snow Removal Services-Annual 3% Inc.	n/a	\$140,000	\$144,200	\$148,526	\$152,982	\$157,571
DW	Disposal Services-Annual 3% inc.	n/a	\$71,100	\$73,233	\$75,430	\$77,693	\$80,024
DW	Custodial Disposables-Annual 2% Increase	n/a	\$97,100	\$99,042	\$101,023	\$103,043	\$105,104
DW	Custodial Chemicals-Annual 2% Increase	n/a	\$53,100	\$54,162	\$55,245	\$56,350	\$57,477
DW	Custodial Equipment/Auto Repairs-annual 1% Increase	n/a	\$26,700	\$26,967	\$27,237	\$27,509	\$27,784
DW	Grounds Supplies-Annual ice melt, etc.	n/a	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
District Wide Sub-Total			\$398,000	\$407,604	\$417,461	\$427,577	\$437,960
Facilities Repair/Maintenance Projections Total:			\$1,860,454	\$1,956,922	\$2,129,351	\$1,932,338	\$2,278,897