

Town of Hamden

Feasibility Study for Northern/Central Hamden Schools Rebuild/Renovation Projects



▲ West Woods School



▲ Shepherd Glen School



▲ 60 Putnam Avenue



▲ Alice Peck School

FINAL Prepared for:
Town of Hamden
September 3, 2014



SILVER / PETRUCELLI + ASSOCIATES
Architects / Engineers / Interior Designers

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Acknowledgements

We wish to thank the Town of Hamden, for the opportunity to serve the Town and Hamden Public Schools for this study. We would also like to thank the members of the Operation Committee (Ops), Board of Education (BOE), administrators, teachers, and staff for their enthusiasm, helpfulness, and input as well as parents and concerned citizens who participated.

Executive Summary

This report is the result of a study commissioned by the Town of Hamden through the Operations Committee, to determine and assess the current condition of the Shepherd Glen School, the West Woods School, the Alice Peck School and the Central Administration Building aka 60 Putnam Ave. to determine an approach to improving the two elementary schools and the use of Alice Peck School. The existing school facilities, the site, including traffic flow and parking needs were assessed with the understanding that the facilities would be evaluated for alterations, renovation, and possible new construction for the two current elementary schools. The goal was to evaluate the two elementary schools and determine the best course for the future. While not included in this study the recent discussion of racial imbalance in the elementary school has been discussed. The demographic information provided in the RFP are the basis for this study.

The issues addressed in this report include current physical plant deficiencies at the school with a broad range from building and fire code conformance, including accessibility and the Americans with Disabilities Act guidelines for barrier-free buildings (Title II ADA), health and life safety issues, mechanical, electrical and plumbing system conditions, technology, environmental hazards and on-going and long-term maintenance issues. In addition to physical plant deficiencies, programming or space needs have been identified and related to the concept of future use of the schools. These concerns are addressed and included in this report.

The Operations Committee would like to understand the options available to address the needs identified combined with the capital needs provided in the RFP. No specific direction was provided regarding a Town wide referendum or of meeting any milestone for submitting a grant application by the annual June 30, deadline.

This report was prepared by the architectural and engineering firm of Silver/Petrucelli + Associates, Inc., (S/P+A) of Hamden Connecticut, a firm specializing in municipal and school programming, planning and design, feasibility analyses and building condition investigations including building envelope surveys, as well as window and roof repair and replacement.

The BOE provided copies of the four (4) updates to the Asbestos Hazard Emergency Response Act (AHERA) reports for each school and this environmental analysis served as the basis of this report at this stage of the process.

The Hamden Public Schools' Central Office in the RFP provided the enrollment projections for 2011 through 2016.

Process

The information contained in this report was gathered by S/P+A via meetings and interviews with school administrators, the principal, staff and teachers at the school as well as school facilities /maintenance for the school district from the Central Office, and members of the community attending the meetings

Extensive on-site facility evaluations and investigations were conducted by the architects, mechanical, electrical, plumbing and fire suppression engineers.

This data was organized and appears in sections of this report in the form of meeting minutes, building condition narratives, floor plans, and spreadsheets detailing the specific code, repair or maintenance issues or deficiencies, with suggested recommendations including corrective actions and prioritization. A design approach to each of the three schools was prepared, beginning with site analysis, site planning, building analysis and building planning. A school program was developed comparing the existing special areas with program goals discussed with the educators.

Initial discussions with the Operations Committee revealed that the “Renovate as New” option was not going to be looked upon favorably as capital expenses. Therefore the Alteration process with specific project scope is preferred. Some projects may be taken on by the Town without a State grant to address immediate needs, while longer term and more complex project are forthcoming.

We will separate our findings for the three schools as follows:

Report Findings

This report clearly identifies current and future needs which will assist the Town/Operations Committee in determining to continue with the two elementary schools and an approach to the improvements at Alice Peck School. The planning approach for each of the three schools will result in a feasible site design, fulfilled program space needs and operational efficiencies for years to come. In addition the Central Administration Office, 60 Putnam has been “considered for relocation”.

Shepherd Glen School

Overall, the Shepherd Glen School is in fair condition, and has been reasonably maintained well based on the existing conditions and existing systems. The school was constructed in 1972 and has not seen any major improvements. The school is a unique design both in the circular plan shape and construction type. The open plan is considered somewhat typical of this era, however the glue laminate structure, columns beam and circular clearstory is not typical of school construction. The “structural integrity” of the building was recently confirmed by SP+A consultant, Michael Horton. The open classroom floor plan works well based on the feedback from the school administration and central office.

The study included conceptual design and cost for a new school at the Shepherd Glen site. The school was constructed when the Skiff Avenue Extension was also constructed in 1972, and reversing the now well established road was not a consideration based on feedback from the Town, namely engineering and town planner. However, the vehicular site circulation on and off the site for both drop off and pick up of students is a primary and foremost safety concern for all parties. The school district is spread throughout Hamden and to the New Haven line and therefore buses and vehicular traffic is increased at this school. It is also reported that the transient population at this school is significant and hard to plan for. A proposed schematic site plan is included in this study to address this concern.

In general, the school is in need of numerous improvements and upgrades to almost all areas as addressed in the body of this report and the code and conditions matrix. Among these items are the need to provide a barrier-free environment throughout the school facility as well as compliance with current building and fire codes, including the toilet rooms throughout the school, which contain numerous violations of federal, building, and accessibility codes and are located along the building exterior in an “awkward” location. In addition, accessibility issues have been noted with non-compliant classroom sink workstations, door hardware. The original windows have deteriorated and are in need of replacement, the single glazed windows and doors along with the rusting steel frames have more than exceed their life expectancy and will fail in the near future.

The building is due for roof replacement and has passed the “20-year” life threshold and therefore this has been incorporated in the planning. The drywells and exposed rain leaders have failed and the roof storm drain system should be re-designed.

The Connecticut State Building Code requires that for any **new** educational construction the building be fit out with a fire suppression system. Due to the school’s connection to a municipal water supply this seems feasible, pending flow testing, and is a consideration for this school, although not requested in the Capital Improvement provided in the RFP.

The primary space needs for Shepherd Glen School, as requested by the Central Office and staff, is documented in the meeting minutes contained in this report. The space needs are to retain the open classrooms, increase the size of the cafeteria and kitchen, increase the gymnasium or relocate mechanical system to allow for gathering the entire student population under one roof; create or allow for a spaces for testing and or update the media center; updated administrative offices, conference room(s), and nurse’s suite; and two music enclosed classrooms. Two proposed schematic floor plans are included in the study to address these needs.

The building was built as an all-electric school and the unit ventilators, exhaust fans and all major systems have exceed their life expectancy, including the 1,000 gallon electric hot water tanks.

The State grant space standards consider the highest projected student population eight years from the Town’s application to the Department of Education. The BOE provided an outdated projection, however the current total school area is close to the allowable area and therefore would most likely not be reduced if a full scale state project were undertaken.

West Woods School

Overall, the West Woods School is in good condition, and well maintained, many of the systems have reached the end of their serviceable life. The original school was constructed in 1972 with no additions and was upgraded with HVAC in 1995 and windows and doors in 2003. The layout is well planned with a central interior courtyard separating academic space from assembly space – gymnasium, cafeteria, music, and art spaces. The result is a large format layout. The construction type is typical of schools of this era - steel frame, brick/masonry exterior and ones story flat roof. The school is reported to be well used by the surrounding community.

The school is in need of a few significant improvements, the roof, roof top mechanical equipment, and toilet facilities. The life expectancy of the onsite septic system is unknown and should be subject of a civil engineering study and this may well be significant. The balance of the school is in need of some improvements and upgrades to specific areas as addressed in the body of this report and the code and conditions matrix. Among these items are the need to provide a barrier free environment throughout the school facility as well as compliance with current building and fire codes, including the toilet rooms throughout the school, which contain numerous violations of federal, building, and accessibility codes. In addition, accessibility issues have been noted with classroom sink workstations, door hardware, the stage and stage stairs. Most of the original windows have been replaced in 2003 and are in good condition.

The building is due for roof replacement and has passed the “20-year” life threshold and therefore this has been incorporated into the project and scope.

The Connecticut State Building Code requires that for any **new** educational construction the building be fit out with a fire suppression system. Due to the school’s connection to a municipal water supply this is feasible, however not required, or envisioned in this study.

The primary space needs for West Woods School, as requested by the Central Office and staff, is documented in the meeting minutes contained in this report. The space needs are the addition of furniture in the classrooms to better serve the open classroom floor plan. The roof leaks and stained ceiling tile are foremost in most staff and parent’s minds followed by the need to duplicate the current computer rooms and “fix” the toilet rooms.

The State grant space standards consider the highest projected student population eight years from the Town’s application to the Department of Education and based on the projections this is out of date, however West Wood School “greatly” exceeds the State Space Standards and would be subject of grant reduction if a full scale project were undertaken with a State grant.

Alice Peck School

Overall, the Alice Peck School is in good condition is well maintained, and with the exception of the boilers and tunnels is serviceable. The school was constructed in 1953 with an addition in 1998 for a library/media center and window and door replacement. The layout is essentially a T-shape with the Library addition along the center of the “T”. The double loaded “cellular” or

walled classrooms are arranged in two wings with the central administrative space at the center. The gymnasium, cafeteria, and music rooms are within the third wing. The site is ample with parking in front and along the front street line and play field adjacent the school.

In general, the school is in need of significant improvements to the roof, boilers, tunnels and entire mechanical system. This is the focus in this study, where a conceptual design to add a gable roof with HVAC in the attic is proposed. The balance of the building could be and upgraded to specific areas as addressed in the body of this report and the code and conditions matrix, if the final use is determined and confirmed. At this time the conceptual uses if for the Pre-K to continue and the HCLC to return to this school when the lease expires. If so, the need to provide a barrier-free environment throughout the school facility as well as compliance with current building and fire codes, including the toilet rooms throughout the school, which contain numerous violations of federal, building, and accessibility codes. In addition, accessibility issues have been noted with non-compliant classroom sink workstations, door hardware, and the stage and stage stairs. Most of the original windows have been replaced and are in good condition.

The building is due for roof replacement and has passed the “20-year” life threshold and therefore this has been incorporated in the project scope. The spray on roof has failed and is past it 10 year life. The skylights and roof leak.

The Connecticut State Building Code requires that for any new educational construction the building be fit out with a fire suppression system. Due to the school’s connection to a municipal water supply this is feasible, however not required, or envisioned in this study.

The primary space needs for the Alice Peck School, as requested by Central Office is to continue and possible expand the Pre-K program and return the HCLC to this building once the lease expires on the current circular avenue facility.

The State grant space standards consider the highest projected student population eight years from the Town’s application to the Department of Education. Based on the information provided we project a school population based on the square foot area.

Central Administration Office, 60 Putnam Ave

The Board of Education offices are currently located at 60 Putnam Street on three floors. SP+A prepared a space need program and the report concludes that the total Personnel (44) and space requirement by department results in the total area needed for the BOE offices of **22,768 square foot**. The 60 Putnam Ave facility and the BOE office are considered efficient and a “good” space standard.

The request to consider relocating these office to the Hamden Government Center (HGC) in the RFP (#13-10) has not been addressed to date. No information has been provided for the HGC, therefore no planning for relocation is included in this study.

It should also be clearly noted that there are two Town offices in 60 Putnam Ave, namely Youth

Services and the Juvenile Review Board. We have not been provided information from the Town for departments or programs and therefore have include no information herein.

Finally, the RFP asked SP+A to consider relocating the Alice Peck School programs, namely the Pre-Kindergarten classrooms to the 60 Putnam Ave facility, which is not a realistic planning option. In the six *bulleted* consideration points requested in the RFP this was affectively “withdrawn” by the BOE.

Section I - Introduction

Report Overview and Purpose

Silver/Petrucelli + Associates, Inc., Architects, Engineers and Interior Designers, was retained by the Town of Hamden, Connecticut to conduct a facilities and site assessment and subsequent master plan programming and design services for two active elementary schools; the current Pre-Kindergarten program and the BOE offices to meet the future educational programmatic needs of the central and northern district.

This report analyzes the current facilities and grounds with regard to building and fire code compliance, accessibility (ADA), on-going and future maintenance needs, school planning and master planning. It recommends modifications and additions to the building or spaces to accommodate the recommendations of the architect and engineer.

This report includes this review and makes projections for school operations, maintenance and educational space needs for a 20 + year future projection, including the overall future master planning for the school and site.

The code compliance effort has been undertaken to determine the relative compliance of the facility and grounds and their architectural, mechanical, plumbing or electrical systems with the current building and life safety codes. The State of Connecticut's Building, Fire, and Health Codes as well as Federal OSHA and Americans with Disabilities Act (ADA) requirements are incorporated in the review of the facility. The Connecticut Fire Safety Code is the only retroactive and "immediately" enforceable code. The balance of the codes noted is "prescriptive" and apply to the project with the authority having jurisdiction, from local to state. Should any of the code conformance or renovation work disturb existing hazardous materials or systems, the required abatement work would need to be performed.

The existing schools were also evaluated for their "renovation" potential, developing recommendations regarding the conditions of the exterior weatherproofing envelope systems, interior finishes, mechanical, plumbing and electrical systems, including site systems and traffic patterns. These recommendations are to address the need to replace aging or obsolete building systems and extending the life of the structural components that are expected to be useful for years to come. The finishes are to be evaluated not only for their usefulness and appearance, but also for their potential to be upgraded to create a new aesthetic image that will serve to benefit the children, educators, parents, community and potential new students and families.

Report Services

The following services were provided to complete the facility analysis and on-going and long-term maintenance needs and master planning:

1. The project was initiated with a kick-off meeting with the Architects and the Operation Committee to outline the goals and requirements during this project.
2. Subsequent meetings and interviews were held with the Superintendent, Principal, Teachers, Special Education and staff of Shepherd Glen School, West Woods School and the Central Office.
3. The architects and engineers reviewed the existing drawing archives of the school. Field verification of existing conditions and documentation of site features and building floor plans were input in CAD format.
4. The architects discussed prior code violation reports, and/or items noted at the schools by the fire marshal (none reported by the building official)
5. Code conformance field surveys were conducted of the existing facility and grounds by architects and engineers with regard to architectural, site, mechanical, electrical and plumbing systems. Code evaluations and interpretations and the associated recommendations to remedy each code violation, including prioritization and timeframes for addressing each deficiency. Code modification recommendations were made where applicable.
6. Facilities condition assessments were prepared after field surveys were conducted of the existing facility and grounds by architects and engineers with regard to architectural, site, mechanical, electrical and plumbing systems. These assessments are in order by priority.
7. Space program of existing and schematic design organized by spaces and areas and educational needs.
8. Site analysis in graphic and written format.
9. Existing floor plan analysis in graphic and written format.
10. Proposed schematic site plan design, where applicable.
11. Proposed schematic floor plan design, where applicable.
12. Preparation of progress presentations and draft reports for review by the Committee.
13. Met with the School Operations Committee and BOE to review the draft report to provide

additional feedback and comments, including site issues.

14. Preparation of the final draft report including revising the report including feedback and comments for final review.
15. Final editing and preparation of the final report for distribution to the BOE & Town.
16. Attended Town meetings to present the report and answer questions posed by the community.

Interviews and Data Collection

An integral part of any master plan or space evaluation study is the development of an understanding of the educational program as it is currently being carried out in the school system. This includes determining the educational program elements that are working well, as well as those which are not working appropriately to standards or are deficient.

Since the study is also expected to look out into the future, it is important to gather information regarding future educational programs and technology, directions in teaching and curriculum, and how technology or other teaching tools are anticipated to affect the educational programs and thus the schools and their spaces for the future.

Meeting Minutes

This includes the seven onsite meetings held to discuss focused topics as follows:

Meeting #	Date	Title
1	February 24, 2014	Study Kick-off meeting with BOE
2	March 21, 2014	Informal School Needs - Shepherd Glen School.
3	March 27, 2014	Programming and School Needs – West Woods School
4	April 7, 2014	Operation Committee, progress meeting
5	April 25 , 2014	Programming and School Needs – West Woods School
6	May 6, 2014	Operation Committee, progress meeting

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MEMORANDUM OF MEETING

PROJECT: Hamden Feasibility School Study

CLIENT: Hamden Public Schools

MEETING PLACE: 60 Putnam Avenue

DATE AND TIME: February 24, 2014 @ 1:30

ATTENDEES:

Chris Melillo	Interim Superintendent
Michael Belden	CFO BOE
Mark Albanese	Facilities Director BOE
Bill Silver	S/P+A
Michelle Miller	S/P+A
John Ireland	S/P+A

Purpose: Study Kickoff meeting

-
1. The parents, the public, and the State representative are all aware of the forthcoming study and therefore there are some obvious questions and anxiety over the “slow start out there”. The BOE/District set aside approximately \$1M without expectations of state reimbursement for some immediate needs and potential summer construction or repair projects. This budget is understood as total cost, including soft cost, testing, fees, etc. This money does not need to be spent and should not overspend on this summer’s work. The leaking roof at West Woods School is a priority and the scope is to be determined with repairs likely to preserve the budget for interior renovations.
 2. **Schedule** – The September 13, 2013 schedule at the interview was revised, with the effective start date being the contract date after recent legislative council approval. S/P+A will reissue the time line with a March start date. It was noted that:
 - The BOE meets on the 2nd Tuesday of the month.
 - Operations Committee of the BOE meets on the 1st Tuesday of the month.

- To date there is no Town building committee for the project (similar to the Ridge Hill ES project.) It was noted that Chris Honnen is the chairman of the committee, Chris Daur, and that John DeRosa joined the committee. Mark Albanese and Mike Belden are staff and Interim Superintendent Chris Melillo attend this committee meeting.
3. There have been numerous “dialogs” in the past regarding the Shepherd Glen School and the use/re-use of the wood frame construction (glulam) or should there be new construction on the 13+/- acre site. S/P+A will evaluate all options and advise.
 4. It will be necessary to update the demographics and the Enrollment projections. Milone & MacBroom will be retained by the Town/BOE to update the “demographic” study reflecting projected enrollment out 10 years. The last approved BOE enrollment projection may be the starting point. The Operations Committee has raised concern and there will be further discussions of the projections and districts.
 5. The Alice Peck School currently uses four (4) standard classrooms and two (2) SPED classrooms for the early child development programs. This equates to approximately 60 + 50 or about 110 students attending this program.
 6. There are approximately 300 +/- students at West Woods School and 350 +/- at Shepherd Glen School
 7. A “themed” school concept (not magnet) was discussed and the initial thought is not to pursue this idea.
 8. S/P+A should “glance” at the current middle school which is 7th and 8th grade with the concept of adding the 6th grade there. The general thinking is this school is at or near capacity with 400-500 +/- students.
 9. The concept of an intermediate school has been discussed in Town before and this is not an option.
 10. Moving the BOE central office to the Government Center is still on the table. The resultant use of the 60 Putnam Ave building is unknown. There are currently 30 +/- people working in the BOE/District office and there are some youth & juvenile services run by the Town at this facility. At the Government Center the L-wing was discussed for the BOE offices and S/P+A will briefly investigate this as well in the study as well as the pros and cons of the 60 Putnam Ave facility.
 11. The recent move of the Hamden Collaborative Learning Center to 306 Circular Ave from Alice Peck School is a modestly priced 10 year lease of the former John Berry School.
 - The 1st and 2nd floors are underutilized.
 - There were four (4) new students added recently so the total is now approximately 57 or 67 students.

12. Staff to student ratio is from Kindergarten to 3rd grade for 1 staff to 20 students by contract and 4th through 6th grade is 1 staff to 25 students by contract. If there are an additional 10 more students per grade level, then policy adds a teacher or paraprofessional.
13. Three years ago approximately 45 +/- children from West Woods were redistricted to Bear Path School. Approximately 10 years ago the district closed Alice Peck School after the Bear Path renovation. A couple of years ago Church Street to Helen Street was redistricted. It would be favorable not to move Church St or West Woods back after the recent redistricting.
14. The Police Chief is currently working on a town wide radio and communication system upgrade. This may interface with this study and future projects.
15. External security laminations on the existing window glazing, upgrades to the intercom, buzzer and video system are currently under consideration, etc. This project is approximately \$880k with 37% +/- matching funds from the Town.
16. S/P+A recently downloaded and discussed a clarification from DAS regarding the July 1st 2014 implementation of the School Safety Infrastructure Council report.
17. S/P+A will interview each school's Principal who will choose other staff to participate in these program reviews. Kim Planas, Director of Pupil Personnel Services will be interviewed as well. Jackie Williams, the current PTA president at Shepherd Glen may be involved with that school's reviews.

Any corrections, additions, or comments should be made to Silver / Petrucelli + Associates within 14 days of the date of the meeting.

Distribution: All attendees, Building Committee members

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MEMORANDUM OF MEETING

PROJECT: Hamden Feasibility School Study

CLIENT: Hamden Public Schools

MEETING PLACE: Shepherd Glen School

DATE AND TIME: March 21, 2014

ATTENDEES:

Joseph DiBacco	Principal
Gregory Morrill	Head Custodian
Mark Albanese	Facilities Director BOE
Michelle Miller	S/P+A
John Ireland	S/P+A

Purpose: Informal School Needs

We discussed long-term and short-term needs and focused the discussion on work that might be accomplished this summer. The following was identified:

1. Entry drive drop off/pick up vehicles on street and buses in loop is a safety concern. Entry drive is one lane in and out, it's a bottleneck. More parking is needed. Base field used but not critical to school needs. Could a drop off be created on Skiff Street Extension? Is another curb cut an option?
2. Doors exterior and interior don't close and latch which is a safety concern. Can the interior doors be released for lock down?
3. Air quality is a concern, 15 percent of students have asthma and approximately 15 percent have respiratory concerns. Is it possible to seal the slab on grade and/or the carpet could be replaced?
4. Furniture units dividing open classrooms in 3rd and 4th grade work well. Can there be more of these cubby/storage dividers? More technology on carts works well in these classrooms.
5. Phone system has only three lines into school and a single phone in center of classroom pod is shared for 4 four classrooms.

We discussed long term needs and other concerns as follows:

- Music is taught in the corridor, only one room available.
- There is a wood partition in the corridor.
- Wood beams in gym were evaluated by BL Company's structural engineer and then repair at Christmas break. BL recommended a review throughout the building of all of the structural beams.
- All toilet rooms need to be improved.
- Existing cubbies are dark and obscure, can't see the children.
- New mechanical AC units were added throughout the school, typically cut into the existing window system. The existing unit ventilation is not functioning. A recent control improvement was not working well and was difficult to control. Recent efforts were a little more positive. Control system difficult to use. Mostly non-functional exhaust fans at clerestory. This was an all-electric building, gas now serves the roof top units. The two units in the gym are loud and exposed.
- Small point of use hot water tanks exposed throughout the school were added recently.
- Changes in grade on site result in ramps at library "circle" and at gym. There are four to six steps throughout school.
- Kitchen is out of date.
- Cafeteria is too small.
- Gym serves as the auditorium with a portable and telescoping stage. This is the only swing space or multipurpose space used for computer testing and all activities group or otherwise. It is used by Parks & Recreation in the summer too.
- There is one computer lab set up between cubbies in the center of an open classroom.
- Fence perimeter of site to define school boundaries.
- Main entry doors in a vestibule series and the option of entering the office from the entry vestibule before entering the school is needed.
- Sign on school is needed and or the sign on the street should be replaced or updated, it is not effective in identifying the school. The school is set back behind trees and hard to identify.

Any corrections, additions, or comments should be made to Silver / Petrucelli + Associates within 14 days of the date of the meeting.

Distribution: All attendees, Building Committee members

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MEMORANDUM OF MEETING

PROJECT: Hamden Feasibility School Study

CLIENT: Hamden Public Schools

MEETING PLACE: Shepherd Glen School

DATE AND TIME: March 27, 2014

ATTENDEES:

Joseph DiBacco	Principal
Michael Belden	CFO BOE
Daniel Hayden	First Grade Teacher
Gregory Morrill	Head Custodian
Jacqueline Williams	PTA President
Matt O'Connor	PTA Vice President
Mark Albanese	Facilities Director BOE
Michelle Miller	S/P+A
John Ireland	S/P+A

Purpose: **Programming and School needs**

Daniel Hayden - 1st grade teacher at school for 16 years

- Values open space for collaboration
- Change old chalk boards for dry erase boards.
- New furniture needed; chairs desks, cabinets and shelving.
- Teachers have limited access to locking storage.
- Reno-as-new is desired – possibly introduce half height walls to separate classrooms in pod for sound absorption and for usable wall surface, cubbies and storage.
- Greenhouse is on wish list.

Joseph DiBacco, Principal

- Pick up/drop-off is a huge safety concern. Need to get cars off street and separate buses and cars, parking very limited. A separate access to parking or vehicles would help. Joe is open to the idea of using the playing fields to make the traffic safe.
- Exterior doors; 40 years old with gaps, don't latch also major safety issue.
- Interior unit doors; problematic, must be manually locked, difficult to use – would like fire-rated doors with bars and magnetic lock down hardware.
- Phone system; need more than 3 lines and caller ID. Need more than 1 phone per unit, 1 per teacher station is desired.
- Carpet; old and dirty, possibly effecting high asthma and allergy rate. Remove not necessarily replace.
- PA system is also problematic.
- Would like to expand network of cameras to view pickup/drop-off for safety and liability.
- Back hallway could be modified to make space for offices, conference room or music room.
- If music room could expand, make 2 smaller rooms.
- Feels this building works well for students and staff, respects the culture and family atmosphere. Would like to see Reno-as-new.

Jacqueline Williams, PTA President

- Similar concerns expressed above.
- Biggest problems are leaking roof and heating and cooling especially in classrooms.
- Overall aesthetics look worn and “industrial”; paint CMU walls.
- Signage at entry.
- Outside unsafe due to numerous people on site particularly the dog walkers on site. The woods are problematic due to visibility and kids running off.
- Old playground with wood chips; would like new safer material. Property separation/fence at playground.
- Bathrooms need to be updated.
- Kitchen needs to be updated, rather small.
- Open concept teaches the students to manage and advance their learning skills.
- Reno-as-new is desired.

Gregory Morrill, Head Custodian

- Roof is being patched now and leaks.
- HVAC; better since re-wired yet to see some of the units and the how functional the A/C is in the summer.
- 1,000 gallon water heater, inefficient (serves 4 bathrooms and kitchen).
- Nesbits no longer working; using electric window units (4 in larger units) waiting on 3 more.

- Need new windows; single glazed and rusted frames.
- Some spaces do not exhaust at clerestory fans.
- Reno-as-new will solve all day to day problems.

Matt O'Connor, Vice President PTA

- Similar to above.
- Very familiar with building, was student himself and grew up nearby.
- Safety at street, would like to see street as dead end again.
- School owns land across street.
- Woods overgrown at pathway for walkers.
- Closets have become offices.
- Reno-as-new with an addition to expand.
- Sees walking population increasing in the area.
- During the course of the study SPA will produce:
 - a list of building issues.
 - a facility assessment regarding building, architecture, interiors, mechanical, electrical and building code.
 - short term and long term plans
 - conceptual floor plans to address these issues
- Short term items worth a quicker turn around are:
 - Site improvements with traffic and parking.
 - Exterior doors and interior unit doors.
 - Exterior signage and fencing.

Any corrections, additions, or comments should be made to Silver / Petrucelli + Associates within 14 days of the date of the meeting.

Distribution: All attendees, Building Committee members

SILVER / PETRUCELLI + ASSOCIATES

Architects / Engineers / Interior Designers
3190 Whitney Avenue, Hamden, CT 06518-2340
Tel: 203 230 9007 Fax: 203 230 8247
silverpetrucelli.com



MEMORANDUM OF MEETING

PROJECT: Hamden Feasibility School Study

CLIENT: Hamden Public Schools

MEETING PLACE: 60 Putnam Avenue

DATE AND TIME: April 7, 2014

ATTENDEES:

Mark Albanese	Facilities Director BOE
Chris Honnen	BOE, chair Operations
Chris Daur	BOE, Operations
John DeRosa	BOE, Operations
Chris Melillo	Assistant Superintendent
Michelle Miller	S/P+A
Bill Silver	S/P+A
John Ireland	S/P+A

Purpose: Operations Committee, BOE

1. SP+A gave an overview of the State Grant process as it relates to Hamden and the potential construction projects.
2. The 60 Putnam Street building not only houses the HPS offices it is also currently used for some special education, homebound tutoring as well as a Town run after school program. There are approximately 4 staff, serving 15 +/- students. If the HPS office is relocated, these programs are to be determined.
3. There are 4 buses at Shepherd Glen School and quite a few walkers and parent driven students. This district extends all the way down Whitney Avenue to New Haven.

4. The West Woods School appears to be far better than the Shepherd Glen structure. Any update needs with the state reimbursement of 66.79% could be incorporated in the Renovate as New.
5. The discussion of Open classrooms should be continued with the BOE. This discussion directly relates to Shepherd Glen and West Woods and indirectly to Ridge Hill. SP+A reported that at Shepherd Glen the open plan is well liked and “works well”. More modular furniture is needed similar to the 4th grade.
6. Alice Peck School currently houses the Early Child Development program but could be brought back into service as an Elementary School. SP+A should present the pros/cons.
7. Alice Peck School was updated in the 90’s. SPA+ will follow up in obtaining more information on school construction improvement projects for this school and the focus schools.
8. Moving the Pre-K into schools is possible if the Alice Peck School is needed. (We did not discuss this however HCLC at 306 Circular Ave is not utilizing the full area at this location).
9. Could the Bear Path School add population? Could other schools take on some additional student population? The current districting resulted in some odd layout on the map. Some of this was the result of racial balancing in the district. A re-districting is never to anyone’s liking and is a highly emotionally charged issue. This is not the first time this subject has been raised.
10. We discussed the idea of combining two of the elementary schools resulting in “Mega Elementary” and this does not fit well into the current eight (8) neighborhood school mind set.
11. We discussed the structural problem at Shepherd Glen and the Ops committee agreed SP+A should hire M. Horton & Associates to review the structure with a 20 year time line or longer expectancy..

Any corrections, additions, or comments should be made to Silver / Petrucelli + Associates within 14 days of the date of the meeting.

Distribution: All attendees, Building Committee members

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MEMORANDUM OF MEETING

PROJECT: Hamden Feasibility School Study

CLIENT: Hamden Public Schools

MEETING PLACE: West Woods School

DATE AND TIME: April 25, 2014 @ 1:00 pm

ATTENDEES:

Michelle Coogan	Principal
Jessica Essenter	Teacher
Heather Tsinzo	Teacher
Tim Morrill	Head Custodian
Mike Bennett	Parent
Christy Palumbo	Parent
Jennifer Conklin-Schmitz	Parent
Michael Belden	CFO BOE
Mark Albanese	Facilities Director BOE
John Ireland	S/P+A
Michelle Miller	S/P+A

Purpose: Purpose: **Programming and School needs**

The committee assembled had previously prepared a questionnaire or sought information from various contacts within the school community and reported the following:

1. PROS

- The layout is desirable for the following reasons:
 - Separation of program and classrooms to one side.
 - Classes away from front door.
 - Courtyard and brightness/natural light from windows.
 - Bathrooms in each unit help to limit children from wandering.
 - Location is central within the neighborhood.

- Provides nice outdoor spaces.
- Some like drop-off although it is a little tedious circulating on site.
- Closed Kindergarten classrooms work well.
- Main Office and Nurse location (although it is 70's looking)
- Built very well – strong construction
- Dark brick – helpful in keeping clean with young children
- Open classrooms allow for collaboration and helps students learn how to concentrate.

2. CONS/CHANGES

- Student bathrooms condition is very problematic with water issues, dated finishes and odor problems. Some locked and closed.
- Temperature control-has improved some recently
 - Tends to drastically vary per unit (50-90 degrees)
 - Oak – fluctuates temperature
 - There are 7 zones (Kindergarten and Office are on 1 zone)
- Group vs. private bathrooms seems to cause very poor ventilation.
- Roof leak
 - Water infiltration
 - Causes tiles to sag and discolor and then they are removed and open.
- PA system does not reach hall or classes in library (possibly fix with security grant – HP Utility Communication).
- Need more phone lines as there are only 2 incoming, “always busy”. (more outgoing lines)
- Dated answering system.
- Maple and Oak cubbies, especially the ceilings, are dated and rundown with holes.
 - Possibly modify to be more open to classroom.
 - Possibly incorporate computer lab space as in Hickory and Hemlock.
- Lack of lighting in parking lot
 - Flood lights at school but 2 lights are not working (timer issue).
- Steps to lower parking level are damaged and there is no hand rail in the middle.
- Sidewalk is damaged - tripping hazard.
- Rugs throughout the school need to be replaced - possible mold issues.
- Parking lot – need to increase.
 - Not enough parking especially when activities occur.
- Recess location – (exterior is often wet)
 - Grass limited (season limits the ability to use grassy areas)
 - Improvements could be made, possibly there is a better location.
 - Parking could be added at the side if play areas are relocated.
- Space for teachers is limited-
 - Storage space in units - some have more than others.
 - Lots of dated furniture
 - Furniture tends to belong to teacher not space.
 - Teacher lounge

- Conference Room – often needs of a private meeting space
- Open classrooms –
 - Noise is problematic at times, depending on grades located in each unit the noise changes. Oak is loudest unit with 100 kids and the mix of grades.
 - Mix of grades makes the open concept more difficult – would like to keep same grades together with 6 units (typically 3 classes per grade).
 - Some parents are not fond of the open space.
 - Wall space for hanging student work is limited.
 - Smart board location limits flexibility of space.
 - Lacks a quiet place for child in certain situations when they need to be calmed.
 - Problem with individual classrooms is teachers veer in different directions.
 - Maybe 1st grade would work better with individual classrooms.
- Gym stage is large and underutilized.
- Art classroom is highly liked but is rather large.
- Music Room– possible divide space into Instrumental and Choral.
- Science Lab is located off of Cafeteria.
- Computers are better for class as in Maple and Oak
- Technology –
 - “ELMOs” 1 per unit – could use more
 - Smart boards – 3 new in Hemlock , but lost chalkboards
- Oak + Hemlock have one exit to main hall and the other two have two doors to the main hallway.
- Clocks
- With all the snow in the winter a paved path around building would be extremely beneficial.

The timeline of this study and the grant process was discussed. Hamden’s school construction State Reimbursement rate is 66.79% for renovations and 56.79% for new construction. There are three paths that could be followed when applying for state funding:

- Alterations + Code modification – state average \$250.00 per square foot
- Renovate as New – state average \$350.00 per square foot
- New Construction – state average \$450.00 per square foot

The study will continue evaluating Shepherd Glen, Alice Peck and West Woods throughout the summer. When conclusions are made and the town approves the recommendations from the Board of Education then the State Grant process can begin. In the meantime some improvements could be made with funding set aside from the Town/BOE.

Possible work to improve West Woods this summer includes:

- Roof: The entire roof could not be done with the current funding and the study may conclude with new work that would alter the roof.
 - Fix the problematic roof edge at the respect hallway.
- Replace the ceiling and lighting at Oak and Maple cubbies
- Sidewalks: investigate dry well and grates to determine if this could be a potential summer project, replace concrete and clean out storm piping.
- PA, and phone system thru Security Grants (Clocks also high on the list)
- Lower Parking stairs: investigate if fixing the stairs and adding a handrail would be beneficial at this time.

Any corrections, additions, or comments should be made to Silver / Petrucelli + Associates within 14 days of the date of the meeting.

Distribution: All attendees, Building Committee members

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MEMORANDUM OF MEETING

PROJECT: Hamden Feasibility School Study

CLIENT: Hamden Public Schools

MEETING PLACE: Putnam Avenue

DATE AND TIME: May 6, 2014 @ 6:00 pm

ATTENDEES:

Mark Albanese	Facilities Director BOE
Michael Belden	CFO BOE
Chris Honnen	BOE, Chair Operations
Chris Daur	BOE, Operations
John DeRosa	BOE, Operations
Chris Melillo	Assistant Superintendent
Lynn Campo	BOE
Michelle Miller	S/P+A
John Ireland	S/P+A

Purpose: Purpose: **Interim review of study**

1. We discussed the summer improvement projects and the SPA proposal for West Woods. We also discussed Shepherd Glenn and currently SPA has not prepared a proposal. During the course of the meeting we discussed the pros and cons of doing work on the schools before the study was complete, and the committee agreed that some work should be done now. If it were later deemed un-useable the expenditure should be limited. The committee voted on four West Woods items: 1, 2 & 3, as presented. Item 4 being handled by the Town. There is an alternate hourly rate for SPA assistance with electrical engineering for item #4. Further, at Shepherd Glenn we agreed on item 2 and the exterior doors for the summer improvement project. SPA's next step is to meet with Marc and Mike to finalize details, anticipate the bidding process, and scheduling of this work

2. We continued the presentation and discussed the attached PowerPoint slides. The space standards are used as a measure of school size and in general both Shepherd Glenn and West Woods exceed the State maximum allowable size by enrollment. While this is not cast in stone at this time it is a relative measure of the school size, efficient school layout and element of the State grant process.
3. We discussed Shepherd Glenn and SPA's facility assessment and the summary is included in the PowerPoint. We presented floor plan options for Shepherd Glenn as requested to subdivide the building into a more traditional size and enclosed classroom, which is difficult with this layout. We also presented site plan options to separate bus and vehicular traffic as well as staff parking. We also prepared a conceptual design for a New Shepherd Glenn School, based on the current population. The new school could occupy the existing location, the playing field location or the current Skiff Street Extension location, if this road is closed. All of these options could be pursued on the site. The site has wetlands. The new construction process would be extensive. The parking and separation of vehicle - bus, visitor and staff parking is proposed as well for both new and renovate. The conceptual designs are included in the PowerPoint presentation. Finally, on Shepherd Glen we presented a cost matrix for Alterations, Renovate as New, and New Construction, the anticipated reimbursement rate, and Hamden's share of those project costs.
4. We had a similar discussion regarding West Woods and our facility condition assessment. Here the floor plan options were presented to create standard classroom size and in fact demolish the current open classrooms down to the slab trying to reuse foundations, and infilling the courtyard with a media center. The would be site is re-designed to allow for a separate bus drive, loop and drop-off with a curb cut off of Still Hill Road. A visitor and parent parking in roughly the current location and then a separate staff parking at the east side opposite the bus loop. All of the playgrounds will be moved to the more interior sections of the site, away from the streets. Finally at West Woods we presented the cost options for Alterations, Renovate as New and discussed the potential downside in the grant process for Renovate as New with demolition and the potential to classify this as New Construction which will have to be determined by the State.
5. We discussed the architectural, mechanical, and electrical assessment at the Alice Peck School. We presented the existing floor plan and a conceptual design to abandon the tunnels and basement, constructing a peaked roof on the building and removing the polyurethane roof, down to the roof deck. Mechanical units would be located inside the peaked roof and ductwork extended over to the classroom spaces. Here the costs were presented for Alterations which are not recommended because of the scale, complexity of the project being done piecemeal. If the facility is to be used as a school the Renovate as New process is recommended.
6. We obtained the AHERRA reports and generally summarized the findings in those reports and at this time this will probably pause the hazardous material aspect of this study.

7. SPA prepared a detailed program of the Board of Education offices at 60 Putnam Street, in summary the 44 people included in the offices totals approximately 23,000 sf. We presented an analysis of 60 Putnam Ave space, which is currently well utilized with a couple of exceptions; the basement storage is underutilized which is to be expected of this type of space, quality, and age of space and that the gymnasium while used occasionally is also not an efficient use of space. The Board of Education offices are efficient in the current building. All parties agreed 60 Putnam Ave would not be a good Elementary School conversion.
8. It was discussed during the meeting that Michael Horton had visited Shepherd Glenn and concluded that the building is in no structural distress, is in reasonably good shape structurally. The recent water infiltration could be solved by replacing this beam and any adjacent beams found to be compromised by water infiltration. The water infiltration appear to be migrating via ice damming and the current assumption is this would be corrected with a new roof and storm water system. The balance of the structure is unique, hard to adapt, equally hard to modify, which was also discussed with M. Horton. A write-up will be included in the final study.
9. In conclusion, the Facility Operations Committee has been presented the concept of subdividing West Woods and Shepherd Glenn into more traditional classrooms as requested. This option could also apply to Ridge Hill except that it does not allow for windows in the interior classrooms at Ridge Hill without further thought/study. Therefore, the Board of Education will have to determine if the direction of enclosing classrooms in Hamden is desirable. We previously discussed the demographics and this too is in the Board of Education's hands at this time and not included in this study. The school populations are based on the Town Website or past enrollment projections which are very similar. In summary, we also presented three distinct approaches to improving the three school facilities. First being Alteration, second, Renovate as New and the third, New Construction which was only considered for Shepherd Glenn. While there is considerably more detail and discussion to these approaches and the processes, this is a key decision point. Therefore, this decision is included in the request for the Facility Operations Committee and Board of Ed's consideration. More detailed information will be included in the final study. SPA expects to refine the study from this point forward based on feedback from the BOE.

Any corrections, additions, or comments should be made to Silver / Petrucelli + Associates within 14 days of the date of the meeting.

Distribution: All attendees, Building Committee members

Codes Governing School Construction

The following is a list of the **current** building codes which are applicable for the State of Connecticut, and these codes were used as the basis for the code review for this study. Please note that not all of these codes have been thoroughly reviewed for this space study, but major codes with significant cost and life safety implications were reviewed.

State and Federal Codes Governing School Construction

Current Building Codes
State of Connecticut
Effective December 31, 2005

2005 State of Connecticut Building Code
2005 Connecticut Building Code Supplement
2005 Connecticut Fire Safety Supplement
2003 International Building Code (IBC)
2003 International Fire Code
2011 National Electrical Code
2003 Life Safety Code (NFPA 101)
2003 International Mechanical Code
2003 International Plumbing Code
2009 International Energy Conservation Code
2003 ICC/ANSI A117.1 Handicapped Accessibility Code
1973 Uniform Federal Accessibility Standards (UFAS)
 Section 504, Rehabilitation Act of 1973
2006 Connecticut Public Health Code
1999 Connecticut O.S.H.A. Regulations - Title 29 Dept of Labor
1996 U.S. Consumer Product Safety Commission – Playground Safety
1991 Americans with Disabilities Act (ADA)
 - Title I Employment
 - Title II Government Facilities
 - Title III Public Accommodations

As the codes are updated, they will affect the pertinence of the information contained in this report, and the facilities should be reviewed for the applicable changes in the codes, revising the report accordingly. Most importantly, the codes that are in effect at the time the building permit is obtained by the Contractor for any work at the school are the ultimate determinant codes, so changes in the codes and their adoption dates should be closely monitored and planned for.

The school buildings were surveyed to determine compliance with current fire safety, building and health codes and regulations. Most areas of the buildings were investigated and mechanical, plumbing and electrical violations range from inaccessible (not ADA compliant) plumbing fixtures to inadequate combustion air provisions. The violations observed are documented in the attached spreadsheets.

This report is preliminary in nature and not a Construction Document, but represents a reasonable accounting of most significant violations at the schools. However, the definitive determination of code violations rests solely with the local authorities, primarily the Town of Ledyard Building Official, Fire Marshal and Regional Health Director.

Potential Code Modifications

The following code modifications are customarily granted by local and state building and fire officials. These modifications to the code provide reasonable life safety for a school's occupants while reducing the financial burden of a project. They are usually prepared by the Architect and presented to the local building, fire or health officials for their review and recommendation. Their positive or negative endorsement is then forwarded to the State Building and Fire Officials for their review and for final approval or rejection.

<u>Code</u>	<u>Description</u>
Fire – 11-3.6.1	Waive closer hardware requirement for classroom doors.
IBC – 1009.11.5	Waive handrail extension due to existing hardship.
IBC – 114.4	Elevator exemptions for key operation of elevators.
IBC – 1019.1.2	Penetrations in a stair for video security.
IBC – 506.2	Reduction of existing building frontage for new additions
IPC – 2902.1	Minimum number of required plumbing fixtures, non-simultaneous use of assembly space with classroom.

AREA CALCULATIONS

This report includes a tabulation of GROSS building areas (measured from outside face of exterior walls) for existing construction and new additions. These numbers were generated from the approved schematic design plans and the overall building plans included in the pages following this tabulation summary.

The report also includes the tabulation of the total NET building area (measured from inside face of exterior wall), which is used by the State of Connecticut Bureau of School Facilities to determine reimbursement calculations.

The State Space Standards Worksheet is submitted with the grant applications for all New, Extensions, Alterations, and Renovation projects. The worksheet is used for “*computing the maximum facility total square footage eligible for reimbursement for this project.*” The worksheet uses the highest projected 8-year enrollment from a “current” demographic study or Enrollment Projection report provided by the School District. On the worksheet, the Allowable Square Footage per Pupil is stated based on the total projected school enrollment in the school. The allowable square footage for each grade level is then added for a total sum and then divided by the number of grades. This average is then multiplied by the highest enrollment. This total is the allowable or maximum square footage eligible for reimbursement. (Note, there is an increase in the allowable area of a school facility constructed pre-1950 for this area.)

If the proposed school area is calculated to be less than the allowable maximum Space Standard then there is no grant reduction. If the district elects to exceed the allowable Space Standards then the eligible

cost will be reduced by the percentage that the allowable maximum area is exceeded. Any reduction in the eligible cost must be certified in writing by the Superintendent of Schools. There may be an option for special legislation and or to appeal the allowable Space Standards based on special circumstance, both of which are best determined in conjunction with the State School Facilities staff.

This report uses and includes the State Space Standards Worksheet as the basis of establishing the maximum allowable square footage based on the Enrollment Projections provided and as a tool for determining this square footage by the Local Education Authority and School District.

GRANT REGULATORY REQUIREMENTS

HIGH PERFORMANCE BUILDING CHECKLIST

On January 1, 2009, in the State of Connecticut, new legislation amended General Statute Section 16a-38k which requires new school building projects costing \$5 million or more and receiving \$2 million in state reimbursement or \$2 million in renovation, to be designed in compliance with or exceed the High Performance Standards and Guidelines which were issued by the CT Department of Administrative Services and the Office of School Facilities. These guidelines are structured *similar* to the Leadership in Energy and Environmental Design – LEED® – rating system, as established by the United States Green Building Council.

This new legislation requires that school construction projects seeking state reimbursement funds will be designed and constructed to meet energy conservation standards and ‘green’ building practices.

Other measures that contribute points to the rating system, in addition to energy efficiency, are the use of renewable energy, water conservation, environmentally sensitive site design, redevelopment of brownfields (contaminated land and/or building areas), and storm water management.

While this project is not scheduled to be designed around a LEED standard, it will be designed around the “High Performance Building Standard” which meets the State of Connecticut’s equivalent standard thus maintaining eligibility for State reimbursement.

RENOVATE AS NEW REQUIREMENTS

Silver Petrucelli and Associates was requested to design the entire project to meet the “Renovate as New” modernization option that is offered by the State Department of Education under State Statute 10-282.

- This concept was developed by the State to encourage Towns to renovate/update their aging, but well built, existing school structures in their entirety, rather than needlessly demolishing them and rebuilding new facilities at a higher cost and greater reimbursement rate from the State.
- A professional opinion on the renovated school MUST state to ‘last’ 20 years from construction, which includes all systems (HVAC, electrical, plumbing), structure, equipment, finishes, etc.
- Most of these repairs, replacements and updates are reimbursed by the State at the City’s

reimbursement rate.

The first step in the evaluation of “Renovate as New” is this “feasibility” study prepared by S/P+A. During the course of this study and presumably continuing throughout the schematic design phase, the architectural team met with facilities and administrators that represented the three schools. Additionally, the architects and mechanical, electrical and plumbing/fire protection engineers scoured the three existing school buildings to determine the condition of the existing systems. These meetings and field surveys were important to determine the existing and future needs of the school. Many of the space needs and system upgrades that are recommended in this report, have been determined to be essential to meet the needs of the student population and the aging school. Moving forward a significant amount of deliberation and study should be devoted by staff and the PMBC to formulate recommendations with both the architects and engineers to make recommendations.

Further information on the ‘As New’ process is below from the Connecticut General Statutes:

GUIDELINES FOR DETERMINING ELIGIBILITY OF SCHOOL CONSTRUCTION PROJECTS FOR STATUS AS RENOVATIONS AS DEFINED IN C.G.S. 10-282

1. The applicant must submit a written application for such status.
2. The applicant must have gone through a formal process of evaluating the proposed project. Professional estimates must be available to document that significant cost savings will result.
3. The entire facility must be brought into 100 percent compliance with all applicable codes (including handicapped accessibility) when this renovation project is complete.

Partial renovations of an entire facility or complete renovations of a wing of a facility does not qualify.

4. The renovation must incorporate education technology capability throughout the facility, as recommended in the *Guidelines for Technology Infrastructure in Connecticut Schools*.
5. It must be determined by a structural engineer that the structural integrity of the original building has not been compromised and is adequate to provide for continued occupancy for a period of time comparable to that of a new facility.
6. A detailed report on all existing building systems must be provided, including HVAC and electrical systems, water, roofing, lighting, plumbing, energy monitoring, communications and security systems. Professional opinions must be provided that all systems will have a useful life of at least 20 years following the construction project.
7. All new and replacement windows must be energy efficient.
8. The site of the existing facility must be central to the area served and adequate to provide the educational programs offered.
9. Any other analysis deemed necessary by the Department to properly evaluate the request must be provided.

Section II – Shepherd Glen School, West Woods School and Alice Peck School Facilities Analysis

Shepherd Glen School was constructed in 1972 on a 33.82 acre site and there are no additions.

West Woods School was constructed in 1972 on 39.29 acre site and there are no additions.

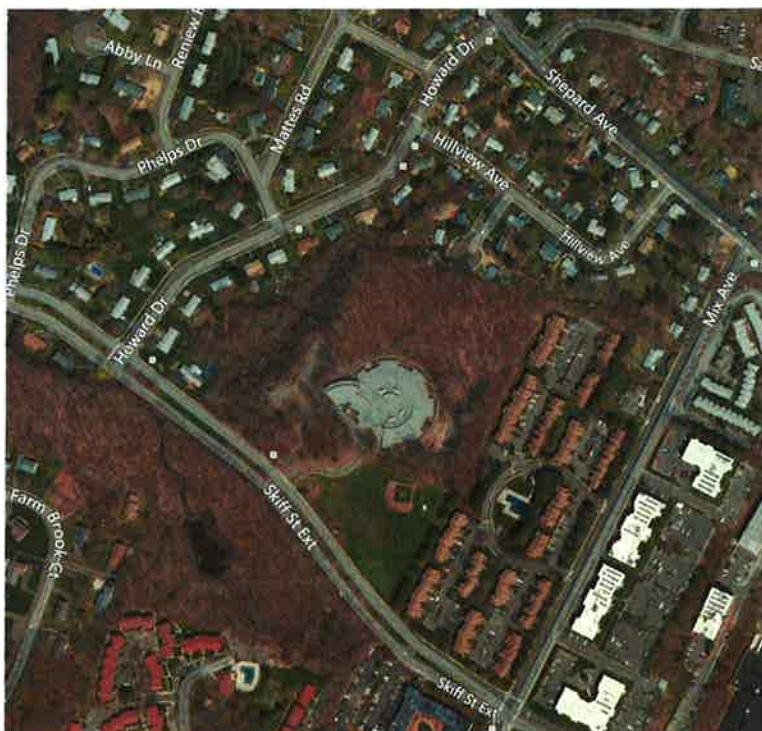
Alice Peck School was constructed in 1953 on a 13.59 acre site. Additions were put on by the same architect in 1958 to extend the wing further to the north. The media center addition was added in the 1998.

Several field surveys were conducted by Silver/ Petrucelli + Associates, Inc. (S/P+A) Architects and Engineers during the spring of 2014. A portion of these surveys were conducted with the building and grounds and every major space was visually accessed, as were the exterior of the building.

S/P+A conducted several programming meetings with the staff and PTA members of Shepherd Glen and West Woods Schools as well as the Hamden School Building Operations Committee.

SHEPHERD GLEN SCHOOL

Site Conditions, Description and Analysis



The School located approximately in the middle of the town. The site is accessed off of Skiff Street Extension. The front portion of the site is generally level before rising up approximately 20 feet to the north at the Jayne Lane cul-de-sac. The school was placed on the flat portion. The northern and western portion of the site is highly wooded. The approximate 33+ acre site is intersected by Skiff Street Extension which has left the southwestern portion completely undeveloped as there is a small body of water and an associated brook. The site is bounded by single family homes to the west and north on Howard Drive and Hillview Avenue. To the east Mix Avenue surrounds the area with

densely populated apartments and condominiums. The Arden House is located to the southeast.

Further to the southeast, Skiff Street Extension intersects the retail area of Dixwell Avenue. The site is in a residential zone, R3. The site also contains a large amount of wetlands. The wetlands exist to the west on the developed site and to the south across Skiff Street Extension which makes the majority of that land unbuildable. According to Hamden GIS some of the school gym appears to encroach the wetlands.

The aerial view illustrates the local road network and site access to parking and drop off. The playscapes at the east adjacent to the school are unfenced and well used. The southeastern baseball field and soccer field appears accessible (or potentially readily accessible), however there is no parking area close by.

The building is laid out in a circular plan with open classrooms or “pods” radiating off the central media center. The gym, cafeteria and administration is laid out in an arch intersecting the circle at the front of the building.

On-site Traffic Circulation & Parking (not a civil engineering review)

Parking and on-site circulation is problematic and unsafe. There is one entry/exit point to the entire site. Traffic flows around a one way traffic circle comingling both cars and buses. The parking lot is accessed through the same route. All vehicles are forced to follow this circle.

On-site parking is separated from the traffic circle located to the west adjacent to the swamp. The lot consists of approximately 45+/- spaces. Parking is scarce and the lot has two dead ends with no turn around. The parking lot is also technically within the wetlands.

During morning arrival and afternoon departure vehicles cannot enter the site as buses take priority. Drop-off is forced to occur on Skiff Street Extension which results in numerous problems. First, the street is located over 350 feet from the front door resulting in a long walk. Second, Skiff Street Extension is a fast paced divided boulevard which is not meant for children to be dropped off on. In the harsh winter as snow builds up on the bank of the street it results in drop-offs occurring into the traffic. This process is dangerous and is in great need of improvement. There does appear to be sufficient site area to create a parent drop-off loop in the final master plan. The single main entry facilitates traffic observation and the separation of visitor parking is possible.



The loading area is at the front of the building located off of the one way traffic circle. Although it is hidden, it is also awkward and narrow. The trash dumpster is located within the loading area.

Most of the on-site asphalt sidewalks are cracking or deteriorating. The concrete sidewalks at the entry are in good condition as they were replaced in 2012. Landscaping is largely overgrown encroaching pathways.

Sidewalks & Accessibility

Most of the on-site sidewalks are asphalt and are in need of repair. Most of the exit doors from the school building have a flush condition at a concrete pad, however some have a greater than ½ inch differential to the asphalt sidewalk. Final proposed construction documents should review all existing cross slopes, heights, gaps, etc.

Athletic Fields, Play Areas

There is one baseball field and one soccer or open field on the site. There is an old rundown basketball court located within the wooded area on the east side of the school. There is one large children's playground at the east side of the school. The surface consists of woodchips and the edging is raised which creates an accessibility access issue. Both of these areas could use improvements.

The School District may elect to hire a Certified Playground Safety Inspection, to review compliance with the current safety guidelines and standards. We have not identified an estimated cost for this, however the final design scope may well merit this.

The backstops are in fair condition. Handicap access should be added via a paved pathway with a maximum 5% grade which is considered “barrier free”. Perimeter fencing along the southeastern property line or around the playground should be considered as the site tends to get daily “visitors” or condominium owners that walk their dogs around the site. The addition of the above concepts could provide an accessible route to each area of activity. This concept should be reviewed and confirmed with the district and the use of this site.

Landscaping & Lighting

The landscaping on-site is in generally good to fair condition. However, there are areas where the landscape has become overgrown needs to be trimmed or removed and replaced. The main entry with planters and plant beds presents a “welcoming” environment. The site lighting is provided on overhead poles. The fields do not have any light fixtures. The coverage and light levels of all on site lighting is unknown. Signage does not exist at the school and is desired at the entry.

Storm Drainage Discharge

The original concept with storm water was exposed roof drains with gutters dispersing into drywells. As this feature flanks the front entry this concept was used as a water feature throughout the facility. Overtime this design element failed. The capacity became overwhelming for the system and the drywells filled with silt and deposits so water couldn't percolate fast enough. It is recommended to use traditional gutters piped to storm drains. The proximity of wetlands create a challenge as this would be a major project. A storm water management plan should be worked into the master plan of Shepherd Glen.

Water supply and Wastewater Disposal

The school has city water and city sewer. The original site drawings do not provide any of the piping information. There are no known reported problems.

Exterior and Interior Facility Conditions

The main entry is set back and covered. It is accessed via a level concrete walk through a set of four steel doors in a single layered glazed “storefront wall”. The entry vestibule meets the code minimum in size. The location adjacent the administrative office is close to the entry however visual observation is limited and no restriction of circulation is provided upon entering the building as the lobby opens right up to the central media center.

The exterior walls are brick and concrete masonry unit cavity walls and much of it is clad in wood shingles. The shingles are in rough condition. According to the International Building Code, combustible materials such as these shingles are not permitted on this construction type. The building is constructed with brick “veneer”, rigid insulation and unpainted concrete masonry unit interior (running bond). The energy efficiency of this construction is low, and typical in the 1970s (“pre energy crisis”), and not one that is easily or readily corrected.

On a masonry building, one area of concern is that often window heads will spall and crack at the lintel bearing points and this is typical of the doors as well. In addition, the potential for experiencing water infiltration and associated damages at the brick intersections and flashings should be inspected in detail. Overall, the mortar is in reasonably good condition although the age of the building suggests in the near future a detail review should evaluate if limited or whole sale repointing is required. The areas of concern are near the gym where water has been splashing against the façade. There are many areas around the building where mold/mildew has built up on the brick and should be cleaned.



When evaluating the energy efficiency of a building, it is known that nearly 25–40% of all heat energy is lost through windows. The original windows are in disrepair. The single layer of glazing is highly inefficient. The original frames are practically rusted through. Most of these windows are a “storefront” system. It can be assumed that a great deal of energy is being lost through these openings. Due to the inefficiency and age of the window

system, it is recommended they be replaced with insulated double or triple glazed systems which will significantly reduce heating and cooling costs in these sections of the building. This change would then incorporate security design elements to be determined once the design proceeds and the risk assessment is complete.

Steel exterior doors are in bad shape and will be replaced in the summer project. Frames, and lintels are rusting in some locations, and should be scraped, primed, and repainted to prolong

their useful life. The condition of the caulking around door and window frames ranges should continue to be monitored and replaced on an as needed basis or as part of a routine maintenance plan.

Window sills are in good condition throughout. Exterior sills are canted down and in reasonable condition as well, however the joints are susceptible to water damage. It is recommended the interior and exterior sills be evaluated and replaced if the scope of the improvements merit this.

The existing built up roofs are past the 20 year replacement date as they were replaced in 1992. The roof appears to be in a reasonably fair condition considering their age. We did not receive any reported leaking. Although some observations were made by the architect on seeing evidence of water damage on ceiling tiles in areas such as the corridor. The roof replacement should be included in the scope and budget of the new project. The remaining exterior issues are maintenance and cosmetic and include general cleaning.

On the interior, the building is in good condition with finishes varying in age and appearance, however most are at the end of their useful life. The toilet rooms throughout the school contain numerous violations of federal, building, and accessibility codes. In addition, many of the fixtures and finishes are past the end of their useful life and should be replaced.

Most if not all of the casework throughout the building does not contain the minimum clear floor and knee space at administration, nurses office and the numerous sink workstations and storage as required by Federal law and the Connecticut State Department of Education. In addition, sink workstations in many classrooms do not have a clear approach, as they are blocked by storage items and casework. The height and reach do not comply as well.

The structure of the building is quite unique. The building is defined by its system of glue laminated beams and columns. Large exposed structure is braced by metal ties and fasteners. The gym has evidence of structural issues. After review by Michael Horton and Associates the issue is due to water penetration and can be easily fixed. The structure is sound and stable. However with wood being a highly combustible material with the lack of a sprinkler system it raises a concern.

Walls throughout the school are constructed mostly from concrete block and are in good condition, with the exception of some minor cracking and settling in the concrete block. The appearance of the concrete block is dull as all surfaces except the toilet rooms have not been painted. All corridor and fire rated walls should extend to the roof deck above and have fire rated sealed joints and penetrations, conforming with all current building and fire codes. The condition above the ceiling is inaccessible. The limited paint throughout the school is in good condition and should continue to be monitored and touched up as part of routine maintenance.

Flooring throughout the school consists of carpet, vinyl composition tile (VCT), and ceramic tile. The VCT are in mostly good condition, with selective replacement needed in rooms and areas of extended age and distress. The carpet is fair and in some places poor. As noted the population has a high level of asthma and allergies that may be linked to the carpet.

The ceiling, composed of “tectum” tiles overall is in good condition throughout most of the school. Although, certain areas require replacement in the near future due to age, while selective replacement is recommended in specific areas where water infiltration and staining have occurred.

Interior steel doors are in decent condition. Most door hardware should be upgraded to meet current federal, building and accessibility codes. Security is also a concern as the doors require manual locking. They should be replaced.

A few critical programmatic spaces are challenging. The gym has some issues. At a lower level the space is accessed by a ramp or the stair at the side. The ramp is in need of another railing as its width is too wide to meet the code requirement. As noted the beams have been damaged due to water infiltration. There are also large mechanical units within the spaces which is a safety issue. The size is small and the shape is awkward. There is no stage or platform. The cafeteria is rather small and rundown. The kitchen is original. The equipment needs to be updated. The media center is the heart of the school, but with it being completely open the school lacks an enclosed conference room. The administrative suite is also undersized.

Limited Asbestos, Lead-based Paint and other Hazardous Materials Report

EnviroMed Services has conducted **Asbestos Hazard Emergency Response Act (AHERA)** which requires public school districts and non-profit schools to perform inspections, maintain a plan and training for the staff.

High-points of findings in the facility are typical in building of this age. Results report carpet adhesive and carpet base, wall and ceiling board and compound, window and door frame caulk are contaminants. There is also results of column caulking, floor vinyl mastics, ceramic floor tile grout, transite panels, sink undercoating, duct connectors and fire door core.

We would be remiss if we did not bring an “emerging hazmat” issue to your attention. We have attached an article: [EPA Fact Sheet for Schools: Caulk containing PCBs](#) and also bring this to your attention in this analysis. We are now encountering numerous school renovation projects where this issue is “significantly” affecting budgets. We provide this information for your use and remain available to discuss this and any implications it may have on your future projects.

While we understand the schools window will need to be replaced in the near future, PCBs were used in numerous building products. Sealants or caulk is perhaps the most common building product to include PCB “oil” however it is not the only one.

Mechanical, Plumbing, Fire Protection and Electrical Systems

Mechanical Observations

The building was originally an all-electric building with heat provided by Electric Coils installed in the Air Handling Equipment supplemented with Electric Radiant Heating installed at areas of greater heat loss such as windows and entrances.

Classrooms and Cafeteria are served by Unit Ventilators Air Conditioning Units. The units are currently inoperable and window type Air Conditioners have been installed to condition the spaces.

A portion of the Building, including the interior portions of the classrooms, have been converted to Natural Gas with the installation of Gas Fired Packaged Rooftop Units which we believe were installed in the mid 1990's. The gas fired equipment has helped to reduce the building's energy cost. The units should be considered to be approaching the end of their useful life and planned for replacement.

The Gymnasium is served by two Heating and Ventilating Units suspended from the structure. The units are equipped with electric heating coils. The units were part of the original construction and are at the end of their use life.

Replacement HVAC systems will be required to meet current improved standards for Energy Efficiency, Acoustics and Indoor Air Quality. Systems installed as part of a *Renovate as New* project will be required to meet the CT High Performance Building Standards. Energy efficiency and will need to be demonstrated through an energy modeling computer simulation in order to meet the current standards for energy conservation.

Systems meeting the minimum efficiencies required by the Energy Code and High Performance Building Standards include the following.

- Energy Recovery from Exhaust Air
- High Efficiency Condensing Gas Boilers
- High Efficiency Magnetic Bearing Chiller(s)
- Geothermal (Ground Source) Heating/Cooling Equipment
- Variable Flow Air Handling Systems with Demand Control Ventilation
- High Efficiency Condensing Gas Domestic Water Heaters

A Grease Exhaust Hood is installed in the Kitchen and is served by an Exhaust Fans located in the space. The installation does not appear to meet the current standards for Kitchen Grease Exhaust.

Plumbing Observations

Because no Site Utilities or entire building Plumbing plans were made available for review, the following utility and buried pipe information is from staff interviews, and site verifications hampered by occupied conditions and concealment of piping.

The water service has an exterior meter pit and separate main shutoff in the traffic circle's grassed island, but no interior main shutoff. Water service entrance(s) could not be located in the field, and there could be multiple entrances, based on the shape of the building. From a partial Plumbing plan of the Kitchen area, the Kitchen sanitary heads toward the administration entrance area to exit the building. The rest of the buildings buried pipe routing remains unknown. Storm is collected externally to gutters and leaders discharging into "drywells" (round collection pits),

extending above grade. A natural gas meter serves (4) rooftop units and will serve the new instantaneous water heaters (see following).

Domestic Water Heating: Classroom sinks, and each classroom toilet room typically have individual electric storage heaters. In cases where larger demand is expected (Art Room), a bank of washup sinks may be served by a heater with larger storage capacity. Electric elements are typically 1000 to 1600 watts, resulting in long recovery periods. Many of these small heaters are fairly new. The Kitchen and Teacher's Room and Gym area toilet rooms have up to now been served by a 1000 gallon, 25 kW electric storage heater in the mezzanine, which was grossly oversized for the present demand of the warming kitchen, in which the commercial dishwasher is no longer used, and chemical sanitation implemented at the pot sink. A recent Improvements project design included the replacement of this inefficient and oversized system with two instantaneous gas-fired tankless water heaters, practically eliminating standby losses, while supplying sufficient hot water to satisfy demand. At present, a temporary 100 gallon electric storage heater is installed to allow school occupancy during the change out.

Fixture Condition: In general, fixtures and controls are old, especially in classroom and their toilet rooms.

Fixture Accessibility: The classroom sinks/drinking fountains and toilet rooms; teacher's room sink and toilet rooms; administration and nurse's suite sink and toilet rooms, public drinking fountains are non-compliant. In a few public areas, attempts have been made to make toilet rooms more accessible. The kitchen has an ADA wash sink, but exposed piping is not covered. The kitchen also lacks an accessible food prep sink and work area.

Concerns: In addition to accessibility and useful life issues, other concerns include:

- Hot water tempering and expansion protection: no mixing valves or expansion tanks were found on inspected water heaters. Mixing valves provide an additional level in protecting against scalding, and expansion tanks are required on all systems in which a check valve is installed on the cold water supply.
- Existing kitchen program has been modified to warming kitchen use; a full kitchen renovation to eliminate disused fixtures/equipment and more closely suit the present program would make kitchen operations more efficient and make disused space available for other uses (the Dishwasher Room, for example.)
- Kitchen food prep sink waste is directly connected to building sanitary system. This connection must be indirect via hub drain or floor sink, to prevent possible food contamination.
- From Owner's request for "point-of use" heater (inferred to mean "instantaneous without need for storage", as many low volume storage point-of-use heaters are presently installed), it appears the present heaters' hot water supplies are outstripped by their respective hot water demands.
- Lack of interior domestic water main shutoff valve makes maintaining/repairing this system difficult.

Proposed Work – Plumbing

Priorities:

- Address code issues:
Prep sink waste correction
Provide expansion tanks on domestic water systems with cold water check valves.
- Address accessibility issues: provide accessible toilet room, classroom, kitchen, and drinking fountain fixtures
- Address Owner's concerns regarding water heaters in coordination with accessibility renovations. Note: for instantaneous water heaters, new 208V/3 phase panel(s) and an individual feeder to each heater would be required. Estimated total wattage required for instantaneous electric water heaters throughout: about 150 kW, requiring (2) new 225A, 208V/3 panels.

Lesser Priority but Strongly Recommended:

- Provide thermostatic mixing valve on all new water heater systems.
- Provide interior domestic water main shutoff valve(s) to facilitate maintenance
Prep sink waste correction

At Owner's Discretion, or as necessitated by new layout (as for Option B):

- Complete Kitchen Upgrade

Electrical Observations

The existing electrical system is a 3000 Amp, 120 / 208 volt 3-phase, 4-wire service, which was found to be in good shape and appears to be adequate for the facilities current functions and use. This electrical system is most likely more than capable of handling modifications and minor expansions to the existing building, as the majority of new systems are very efficient compared to what is currently installed. The existing interior & exterior lighting is largely outdated, and very inefficient compared to modern fluorescent and LED fixtures. Fire alarm is dated and may require updates in the near future. The emergency lighting for the most part is a DC central system that is supplemented with single point product throughout the facility. All were found to be beyond their expected life of 20 years and should be considered to be replaced with self-diagnostic, self-testing product. It also should be noted that the current emergency light doesn't meet current codes with respect to maintained foot-candle reading at grade and a uniformity of no greater than 40:1 max to min. There were areas found that either did not have occupancy sensors or they were not working which doesn't meet the current IECC code requirements. (See Figure 2) The intercom was found to be old and out of date, it should be replaced with today's technology.

Power:

As mentioned above, the existing service is 3000 Amp, 120 / 208 volt 3-phase, 4-wire service, GE AV Line switchboard dated 1971 / 1972. It is good condition for its age but exceeds the design life of 30 years. (See picture figure 1) The incoming utility service is served from an exterior pad mounted transformer on the northwest side of the building. The existing main electrical service equipment is in good condition, and large portions of the branch panels are 80

to 90 % full. There were areas found throughout the facility where extension cords were being used to access power in areas that didn't have a convenience outlet, any and all of these areas should be corrected so that this code violation is eliminated.



Figure 1



1 x 4 classroom prismatic wrap



Occupancy Sensor



Typical Exit Sign



Typical distribution Pnl



Typical emergency lighting



Fire Alarm Pnl



Typical Site Lighting

DC emergency system

Typical remote head

Recommendations:

2014 summer projects:

- IP Phone system upgrade:
 - IP Phone with yearly maintenance & license.
 - 24 port POE Switch.
 - Network - (12 stations).
 - Additional phone lines. TBA

Proposed Capital Improvements:

- Install a new service (2500 amp 277 / 480 3P based on current service size); power & distribution.
- Design and install new task and ambient exterior & interior lighting & emergency lighting per latest code requirements. All light sources will be based on current LED technology.
- Install new security / camera / intercom equipment.

WEST WOODS SCHOOL

Site Conditions, Description and Analysis

The School is located in the northern portion of Hamden. The site is accessed from West Todd Street. The site consists of rolling hills at southwest with some flat areas. The building is placed on a fairly level portion with the hills remaining wooded. Two fields are placed to the south of



the school surrounded by woods and some homes off of Misty Meadow Lane. The site is bound by single family homes on West Todd, Still Hill Road, Peck Lane and Misty meadow Lane. The site is in a residential zone, R2. The site also contains wetlands stemming from a small brook that runs east west to the south of the school. However it does not affect any of the building, parking or fields. SNET does have a mini-hut located on the parcel to the southeast.

The aerial view illustrates the local road network and site access to parking and drop off. The paved play area (hardscapes) at the east adjacent to the school are unfenced and well used. More play areas for younger children are located to the south close to the school. The southeastern soccer fields appear accessible (or potentially readily accessible), however there is no parking area close by. The site is defined as a school site. There is a public sidewalk along the West Todd Road that allows unrestricted access to the school and the site. No fencing on site exists. Vehicle access is allowed to the school at the front and to the east where staff parking and loading occur.

The building is organized into 3 zones. The center zone consists of administration at the front and four kindergarten classrooms to the rear. There is a courtyard in the middle. To the west the academic zone elevated is accessed via ramps at two corridors. Four academic open classroom pods line the exterior, two at the north and two at the south. The Library is connected off the corridors in the center. The final zone to the east is lower accessed via ramps at two corridors. This zone holds the more public functions such as the gym to the south and the cafeteria and kitchen are at the north. Music and Art are located in the middle with art having access to daylight.

On-site Traffic Circulation & Parking (not a civil engineering review)

Parking and on-site circulation appears to be less than satisfactory as the bus and vehicular traffic is not completely separated. Currently there is one (1) entrance/exit and one (1) exit only at West

Todd Road. All vehicles enter at the west side and follow the one-way traffic flow through the site. The lower level parking area is accessed from the left hand lane while drop off and some limited parking including handicap is accessed on a one way right hand side. The drop-off although not separated is quite wide and allows vehicle to pass by. Parents describe the pick-up drop off process as tedious. The traffic is “calmed” by the one way circulation and limited separate parking area in the “front yard”.

On-site parking also occurs at the east hardscape play area at times. Those spaces are difficult to count because they are not all stripped. The lower front parking appears to accommodate approximately 50+/- spaces. The upper parking includes 4 handicap and 7 other spaces. The lower parking area has a large empty central area that could be relouted at to create a more efficient arrangement of spaces or landscaping could be added.

Parent pick-up and drop-off is difficult because there is no separate bus drive or separate loop configuration. It was observed that parents stop in the drive lane blocking this lane to drop off students at school. The overhead cover on the drop-off pick-up area is provided in the existing design. The master plan will provide an approach for separating vehicular and bus traffic creating a safe and suitable drop-off area.

There are trash dumpsters are on the east side of the school near the loading dock.

Most of the on-site bituminous concrete pavement is generally in good to fair condition at the front of the school and fair condition at the east of the school with cracking or deterioration.

Sidewalks & Accessibility



Most of the on-site sidewalks are in fair to poor condition. The front sidewalk is in poor condition and consists of cracking and uneven patching. Some of this is due to water infiltration via aluminum posts at the covered walkway that empty into drains that are likely backed up or inefficiently engineered. The stair that leads to the lower parking area is also in disrepair. The nosing has been destroyed and is creating a safety hazard. However, both the front sidewalk and the stair will be resolved and corrected for the beginning of the 2014 school year. The exit doors from the front of the school have a flush

condition at the sidewalk. Staff has requested a paved path around the building especially in the winter months. Some thresholds have a greater than ½ inch differential. Some of the sidewalk ramps appear to be non-conforming to the required standards, including tactile warning. Final proposed construction documents should review all existing cross slopes, heights, gaps, etc.

Athletic Fields, Play Areas

There are two soccer fields located to the south enclosed within the wooded area. There are two children's playscapes. One is located close to the east towards the front while the hardscape is adjacent taking up a large space behind. This area also incorporates a partial basketball court. The second playscape for younger children are located to the south close to the school, conveniently off of the kindergarten classrooms. This area is accessed right off of the classrooms. Some teacher feel that more grass areas for play would be beneficial. Also the location of the play area could be reviewed if parking is expanded to that eastern side.

The School District may elect to hire a Certified Playground Safety Inspection, to review compliance with the current safety guidelines and standards. We have not identified an estimated cost for this, however the final design scope may well merit this.

Handicap access to the athletic field area via a paved pathway with a maximum 5% grade is considered "barrier free". The backstop is in fair condition and should be considered for replacement and the necessary team benches and protective fencing should be installed. Additionally, the accessible route should to be extended to the most remote side of the field. This concept should be reviewed and confirmed with the district and the use of this site.

Landscaping & Lighting

The landscaping on-site is in generally good to fair condition. However, the areas where the landscape can become overgrown and needs to be trimmed or removed as it encroaches the building. The front of the school has limited landscaping and appears out of date.

The site lighting at the school appears to be limited to overhead poles surrounding the perimeter of the parking lot. The field does not appear to be lit. The coverage and light levels of all on site lighting is unknown.

Storm Drainage Discharge

The storm drainage at the front of the site appears to be in catch basins no utility drawings were provided. Improvements are being made with the installation of more drains at the newly designed front sidewalk to make improvements. The rear of the site appears to be surface drained, assumed to be storm drained. The parking lot does not appear to have any drains.

Water supply and Wastewater Disposal

The water is supplied to the school via city water supply. However this school does have a septic tank. The tank's pump house is located to the southeast corner off the school. There are three leaching fields that are located to the back underneath the fields.

Exterior and Interior Facility Conditions

The main entry is recessed along the front of the school, via a concrete walkway that ramps up to the vestibule. A second entry in the same appearance flanks the administration suite. Two similar entries create confusion as the eastern entrance is the activated main entrance with the buzzing system. The location adjacent the administrative office is close to the entry limited to visual observation with no restriction of the circulation entering the building. The recommendation is to relocate the administration to be adjacent to the vestibule and define the main entrance to stand out from the secondary.

The exterior brick walls of the school are generally in good condition. The building is constructed with brick “veneer, 2” rigid insulation and painted concrete masonry unit interior (running bond). The energy efficiency of this construction is low, as was typical in the 1970s (“pre energy crisis”), and not one that is easily or readily corrected. In some areas building is also faced with split-faced block instead of the faced brick.

On a masonry building, one area of concern is that often window heads will spall and crack at the lintel bearing points and this is typical of the doors as well. In addition, the potential for experiencing water infiltration and associated damages at the brick intersections and flashings should be inspected in detail. Overall, the mortar is in decent condition with some areas of concern. Areas in need of repointing should move up in the project priority list.

When evaluating the energy efficiency of a building, it is known that nearly 25–40% of all heat energy is lost through windows. The windows are the original windows which are aluminum frames with insulated glass. Considering that they are insulated they are not as big of a priority for replacement. Although in the future it is recommended they be replaced with insulated triple glazed systems which will reduce heating and cooling costs in the building.

The aluminum window frames are in good condition. Aluminum doors, frames, and lintels appear to be in good condition. The condition of the caulking around door and window frames ranges are good, and should continue to be monitored and replaced on an as needed basis or as part of a routine maintenance plan.

Window sills are in good condition throughout. The aluminum exterior sills are canted down and in reasonable condition as well, however the joints are susceptible to water damage. It is recommended the interior and exterior sills be evaluated and replaced if the scope of the improvements merit this.

The existing roofs are past the 20 year replacement date as it was last replaced in 1993. The roof is leaking in many areas and needs to be replaced. Specifically the roof where the academic zone meets the administration zone has major water infiltration problems. This is being mediated in this year as funding is arranged to address the entire roof. The roofs above the high transoms in the pods are also problematic. The roof replacement should be included in the scope and budget of the new project.

The remaining exterior issues are maintenance and cosmetic and include general cleaning and painting.

On the interior, the building is in reasonable condition with finishes varying in age and appearance, however some are at the end of their useful life. The toilet rooms throughout the school contain numerous violations of federal, building, and accessibility codes. In addition, many of the fixtures and finishes are well past the end of their useful life and should be replaced. The toilet rooms within the kindergarten classrooms were most recently replaced but need to be updated to meet ADA requirements.



Most if not all of the casework throughout the building does not contain the minimum clear floor and knee space at administration, nurses office and the numerous sink workstations and storage as required by Federal law and the Connecticut State Department of Education. In addition, sink workstations in many classrooms do not have a clear approach, as they are blocked by storage items and mechanical units. The height and reach does not comply as well. The remaining wood casework, is in fair condition and replacement should be considered and anticipated as part of a long term plan.

Walls throughout the school are constructed mostly from brick and block. They are both in good condition, with the exception of some minor cracking and settling in concrete block. All corridor and fire rated walls should extend to the roof deck above and have fire rated sealed joints and penetrations, conforming with all current building and fire codes. The condition above the ceiling is inaccessible. Paint throughout the school is in good condition and should continue to be monitored and touched up as part of routine maintenance.

Flooring throughout the school consists of carpet, vinyl composition tile (VCT), ceramic tile and some concrete (art). The carpet is in fair condition with selective replacement needed in rooms and areas of extended age and distress. Ceramic tile, concrete and VCT are in mostly good condition.

Acoustical ceiling tile (ACT) is in poor to fair condition throughout most of the school. The ceilings are 12x12 ceiling tiles in a suspended grid. Certain areas require replacement in the near future due to moisture infiltration as some tiles have fallen and have been removed. Fixing the roof and improving the humidity in the facility will help to avoid further deterioration.



Interior wood doors are in good condition, but most hollow metal frames would benefit from a fresh coat of paint. Door hardware should be upgraded to meet current federal, building and

accessibility codes, but there are many doors with knob handles, which do not meet accessibility codes due to the grasping and twisting action required to operate.

The stage or platform is in good to fair condition and serviceable for its current use. However, the stage or platform is constructed of and supported by combustible materials, wood which was the typical in the 1970s. In addition, if the area underneath the stage is being used to store chairs, it is only allowable only when the underside of the platform is protected with a 1-hour fire rating.

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EnviroMed Services has conducted **Asbestos Hazard Emergency Response Act (AHERA)** which requires public school districts and non-profit schools to perform inspections, maintain a plan and training for the staff.

High-points of findings in the facility are typical in building of this age. Results report suspended ceiling tile, carpet adhesive and carpet base, wall and ceiling board and compound, window and door frame caulk are contaminants. There is also results of column caulking, vinyl floor mastics, ceramic floor tile grout, transite panels, mudded fittings on fiberglass pipe, peg & chalk board glue dots and sink undercoating.

We would be remiss if we did not bring an “emerging hazmat” issue to your attention. We have attached an article: EPA Fact Sheet for Schools: Caulk containing PCBs and also bring this to your attention in this analysis. We are now encountering numerous school renovation projects where this issue is “significantly” affecting budgets. We provide this information for your use and remain available to discuss this and any implications it may have on your future projects.

We would be remiss if we did not bring an “emerging hazmat” issue to your attention. We have attached an article: EPA Fact Sheet - PCBs in Caulk and we bring this to your attention in this analysis. We are now encountering numerous school renovation projects where this issue is “significantly” affecting budgets. We provide this information for your use and remain available to discuss this and any implications it may have on your future projects.

While we understand the schools may not replace windows right away it will need to happen in the future, PCBs were used in numerous building products. Sealants or caulk is perhaps the most common building product to include PCB “oil” however it is not the only one.

Mechanical, Plumbing, Fire Protection and Electrical Systems

Mechanical Observations

The building is served primarily by Gas Fired Packaged Rooftop HVAC Units. The Rooftop Units were installed as replacements for original Multizone Rooftop Units and were installed in 1993 along with new VAV Terminal Units to provide the required zone temperature control. The systems are now at the end of their useful lives.

The gymnasium is served by an Air Handling Unit with electric heating coil. The system is original to the building construction and should be considered to be at the end of its useful life, and planned for replacement.

Replacement HVAC systems will be required to meet current improved standards for Energy Efficiency, Acoustics and Indoor Air Quality. Systems installed as part of a *Renovate as New* project will be required to meet the CT High Performance Building Standards. Building energy efficiency and will need to be demonstrated through an energy modeling computer simulation in order to meet the current standards for energy conservation.

Systems meeting the minimum efficiencies required by the Energy Code and High Performance Building Standards include the following.

- Energy Recovery from Exhaust Air
- High Efficiency Condensing Gas Boilers
- High Efficiency Magnetic Bearing Chiller(s)
- Geothermal (Ground Source) Heating/Cooling Equipment
- Variable Flow Air Handling Systems with Demand Control Ventilation
- High Efficiency Condensing Gas Domestic Water Heaters

Portable Dehumidifiers have been installed due to humidity problems in Classroom Units. Any major renovation will address space humidity and water migration issues. Replacement rooftop units will be equipped with a dehumidification cycle.

A Grease Exhaust Hood is installed in the Kitchen and is served by an Exhaust Fan located on the roof. The system will be evaluated for compliance with code and the requirements of the school.

Plumbing Observations

Limited Plumbing Plans were available for review. Original site utilities plans (1970) indicate and detail a site septic system south of the building, and manholes and “septic pump house” exist in that area. The sanitary building exit is on the east side, just north of the Gym. The 4” domestic water service is from the Still Hill Road water main, via a water meter pit. Building storm drainage exits at multiple points along the perimeter to join the site storm system, which routes to the West Todd Street storm main. A natural gas meter serves rooftop units and domestic water heaters.

Domestic Water Heating: Previously, domestic water heating was all-electric, but at least some heaters have since been replaced by gas models (behind Kitchen for instance). Although time constraints did not allow inspection of all indicated heater locations, it’s suspected that smaller heaters serving isolated fixtures remain electric, while heaters serving larger groups of fixtures, and having hot water recirculation were replaced with gas heaters.

Fixture Condition: In general, fixtures and controls are original (about 40 years old). Some newer fixtures have been installed in public access toilet rooms to achieve some measure of accessibility compliance.

Fixture Accessibility: Almost all classroom sinks/drinking fountains, and toilet rooms; public toilet rooms; staff sinks and toilet rooms; and public drinking fountains are non-compliant. In a few public areas, attempts have been made to make toilet rooms more accessible. The kitchen has an ADA hand wash sink, but exposed piping is not covered, and access clearance is infringed upon by an under fixture waste pump installation. The kitchen also lacks an accessible food prep sink and work area.

Concerns: In addition to accessibility and useful life issues, other concerns include:

- Hot water tempering and expansion protection: no mixing valves or expansion tanks were found on inspected water heaters. Mixing valves provide an additional level in protecting against scalding, and expansion tanks are required on all systems in which a check valve is installed on the cold water supply.
- Existing kitchen program has been modified to warming kitchen use; a full kitchen renovation to eliminate disused fixtures/equipment and more closely suit the present program would make kitchen operations more efficient and make disused space available for other uses (the Dishwasher Room, for example.)
- Kitchen food prep sink waste is directly connected to building sanitary system. This connection must be indirect via hub drain or floor sink, to prevent possible food contamination.
- Kitchen pot sink has no grease trap; can lead to clogged sanitary system piping.
- Owner's Concern: Replace septic pump house; house was locked at time of visit, and scope is unclear: replace building shell only, or equipment as well?

Proposed Work – Plumbing

Priorities:

- Address code issues:
Prep sink waste correction
Provide expansion tank on domestic water heating systems with cold water check valves.
- Address accessibility issues: provide accessible toilet room, classroom, kitchen, and drinking fountain fixtures

Lesser Priority but Strongly Recommended:

- Provide thermostatic mixing valve on all domestic water heater systems.
- Provide AGRU (Automatic Grease Recovery Unit) on Kitchen pot sink waste.

At Owner's Direction:

- Septic Pump House equipment replacement
- Complete Kitchen Upgrade

Fire Protection Observations

Sprinkler service does not exist at this time. Sprinkler systems are not required to be installed in existing educational (Pre-K-12) construction, but any new addition will require a sprinkler system only for that portion. However, we recommend a complete building sprinkler system for this type of occupancy.

Electrical Observations

The existing electrical system is a 2500 Amp, 277/480 3-phase, 4-wire service, which was found to be in good shape and appears to be adequate for the facilities current functions and use. This electrical system is most likely more than capable of handling modifications and minor expansions to the existing building, as the majority of new systems are very efficient compared to what is currently installed. The existing interior & exterior lighting is largely outdated, and very inefficient compared to modern fluorescent and LED fixtures. Fire alarm is dated and may require updates in the near future. The emergency lighting for the most part is a DC central system that is supplemented with single point product throughout the facility. All were found to be beyond their expected life of 20 years and should be considered to be replaced with self-diagnostic, self-testing product. It also should be noted that the current emergency light doesn't meet current codes with respect to maintained foot-candle reading at grade and a uniformity of no greater than 40:1 max to min. There were areas found that either did not have occupancy sensors or they were not working which doesn't meet the current IECC code requirements. (See Figure 2) The intercom was found to be old and out of date, it should be replaced with today's technology.

Power:

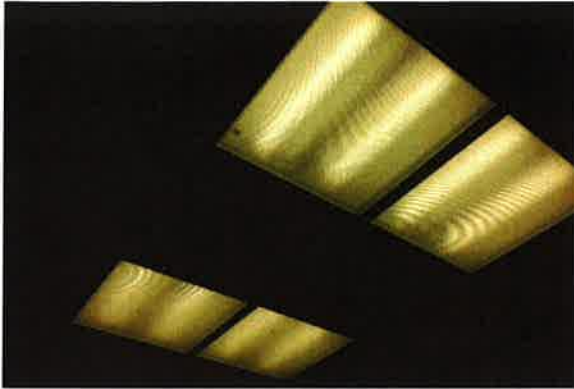
As mentioned above, the existing service is 2500 Amp, 277 / 480 volt 3-phase, 4-wire service, Federal Pacific Electric switchgear dated 1971. It is good condition for its age but exceeds the design life of 30 years. (See picture figure 1) The incoming utility service is served from an exterior pad mounted transformer on the northwest side of the building. The existing main electrical service equipment is in good condition, and large portions of the branch panels are 70 to 80 % full. There were areas found throughout the facility where extension cords were being used to access power in areas that didn't have a convenience outlet, any and all of these areas should be corrected so that this code violation is eliminated.



Figure 1



Figure 2



Existing 2 x 2 Lay-in troffer



Occupancy Sensor



Exterior HID Lighting



Exit Sign



Exterior Pole Light



Classroom Wrap



Corridor strip light

Recommendations:

2014 summer projects:

- Lighting – 14 X 33 –cubbies):
- PA system upgrade:
- IP Phone system upgrade:
 - IP Phone with yearly maintenance & license.
 - 24 port POE Switch.
 - Network (12 stations).

Proposed Capital Improvements:

- Install a new service (2500 amp 277 / 480 3P based on current service size); power & distribution.
- Design and install new task and ambient exterior & interior lighting & emergency lighting per latest code requirements. All light sources will be based on current LED technology.
- Install new security / camera / intercom equipment.
- Install new Fire Alarm system & devices.

ALICE PECK SCHOOL

Site Conditions, Description and Analysis



The Alice Peck School is centrally located on the north side of the town. The 13.59 acre site sits at the top of a hill on the corner of Hillfield Avenue and Shepherd Avenue. The school is situated on the flatter portion of the site facing Hillfield Avenue. To the north and east of Shepherd Avenue the site remains wooded. The site is bounded by single family homes to the west, east and south. The site is in the residential zone, R3. The site is accessed off of Hillfield Road with a one way “traffic circle” and limited parking at the front. Additional

parking is located and connected to the west. It also access point on to the street creating three curb cuts. The parking lot transitions into a paved or hardscape play area to the northwest adjacent the cafeteria.

The aerial view illustrates the local road network and site access to parking and drop off. The playscapes at west and east are used but unfenced. At the northwest there is one baseball field.

The building is laid out in a T-shape consisting of double loaded corridors. The gym and cafeteria are located to the west while classroom wings are located to the north and east. The east wing is currently used for the preschool program. The media center addition sits adjacent to the northern wing. Administration is centrally located.

On-site Traffic Circulation & Parking (not a civil engineering review)

Parking and on-site circulation appears to be satisfactory, however the bus and vehicular traffic is not separated around the circle. It is unclear how the school drop-off and pickup process is conducted. There is room to create a separate bus and car drop-off zone.

Currently there are two (2) two-way drives and one (1) one-way at Hillfield Road. On-site parking is divided into two parking lots. A small one is located to the front along the traffic circle while the larger lot is located to the west. This lot consists of approximately 56+/- spaces, 9+/- spaces in front of the building.

Much of the on-site bituminous concrete pavement is generally in worn condition with cracking

or deterioration. A nominal amount of the concrete curbing on-site has been damaged and is in need of repair.

Sidewalks & Accessibility

The on-site sidewalks are concrete and bituminous. They are generally in fair to good condition. Most of the exit doors from the school building have a flush condition at the sidewalk, however some have a greater than ½ inch differential. There are no sidewalk ramps conforming to the required standards, including tactile warnings.

Athletic Fields, Play Areas

At the northwest there is one baseball field. It appears there once was a second one a backstop still remains. The existing baseball field has backstops, bleachers and is fenced in. The fence could use some improvements. There is no paved path leading to the field. Handicap access to the athletic field area via a paved pathway with a maximum 5% grade is considered “barrier free”, including the accessible route to the baseball backstops. The playground sits just south of the field and the surface consists of woodchips and the edging is raised which creates an accessibility access issue. Another playground sits to the east off of the preschool wing. Both of these areas could use improvements.

Landscaping & Lighting

The landscaping on-site is in generally good to fair condition. The site lighting at the school appears to be limited to overhead poles surrounding the perimeter of the parking lot. The field does not appear to be lit. The coverage and light levels of all on site lighting is unknown.

Storm Drainage Discharge

Storm water is collected via roof drains except on the hipped roof Media center. It is internally is internally collected and dispersed below grade at undetermined location.

Water supply and Wastewater Disposal

Alice Peck is supplied with city water. Originally the site used a septic system. In 1990 the septic system was abandoned and the building was connected to city sewer. Now building’s sanitary buried pipe routes to the west.

Exterior and Interior Facility Conditions

The main entry is set back and accessed via a large open concrete walk area with a pair of double doors set in masonry surrounds. The entry includes a vestibule from its original design. The lobby consists of a welcoming octagonal space with skylight above. The location is across from the administrative office which is close to the entry however visual observation is limited and no restriction of the circulation is provided upon entering the building.



As stated in the site narrative above, each of the egress exit doors should be reviewed for flush conditions at the sidewalk, conforming to current code and accessibility requirements. The mix of concrete and bituminous sidewalks are in fair condition but could use some improvements.

The exterior masonry walls are brick and are generally in good condition, with no known areas of settling and spalling. The building is constructed with concrete masonry units and a brick “veneer” with no air space and an

interior coursing with a waterproofing membrane between the two wythes of masonry. The energy efficiency of this construction is very low, and typical in the 1950s (“pre energy crisis”), and not one that is easily or readily corrected.

When evaluating the energy efficiency of a building, it is known that nearly 25–40% of all heat energy is lost through windows. It can be assumed that a great deal of energy is being lost through these openings. The current windows are not original and appear they may have been replaced in 1998 during the Media center addition and other facility upgrades. It is recommended that at the time they are ready to be replaced insulated double or triple glazed systems should be used which significantly reduce heating and cooling costs of the building. This change would also incorporate security design elements to be determined.

Aluminum doors, frames, and lintels appear to be in good condition. The condition of the caulking around door and window frames ranges are good, and should continue to be monitored and replaced on an as needed basis or as part of a routine maintenance plan.



The existing roof is a Dow Corning Silicone/Polyurethane Foam Roof System. It was replaced in 1999 and only had a ten year warranty. This roof system is completely failing as you can see the bubbling in the photographs. Not only is the roof leaking but the skylights are too. The roof and skylight replacement should be included in the scope and budget of the new project as it is a major priority.

The remaining exterior issues are maintenance and cosmetic and include general cleaning.

On the interior, the building is in good condition with finishes varying in age and appearance. The interior walls are constructed of painted concrete block and brick. They are generally in good condition, with the exception of some minor cracking and settling in the common wear

locations. The condition above the ceiling is inaccessible. Paint throughout the school is in good condition and should continue to be monitored and touched up as part of routine maintenance.

All toilet rooms contain numerous violations of federal, building, and accessibility codes. In addition, many of the fixtures and finishes are past the end of their useful life and should be replaced.

Most if not all of the casework throughout the building does not contain the minimum clear floor and knee space at administration, nurses office and the numerous sink workstations and storage as required by Federal law and the Connecticut State Department of Education. In addition, sink workstations in many classrooms do not have a clear approach, as they are blocked by storage items and casework. The height and reach does not comply as well.

Flooring throughout the school consists of carpet and vinyl composition tile (VCT) in the corridors. The carpet in areas are worn out. The VCT are in mostly good condition, with selective replacement needed in rooms and areas of extended age and distress.

Acoustical ceiling tile (ACT) where present is in good condition throughout most of the school. Open ceiling areas and sheetrock areas are painted and well maintained.

Interior wood doors are in good condition, set or hung from painted hollow metal frames. Most door hardware should be upgraded to meet current federal, building and accessibility codes, but there are many doors with knob handles, which do not meet accessibility codes due to the grasping and twisting action required to operate.

The stage or platform is in good condition and serviceable for its current use. However, the stage or platform is constructed of combustible materials of wood which was typical in the 1950s. In addition, the area underneath the stage is/was being used to store chairs, which is allowable only when the underside of the platform is protected with a 1-hour fire rating. The handrail off the back of the stage does not have proper extensions, and there is an accessible lift.

Limited Asbestos, Lead-based Paint and other Hazardous Materials Report

EnviroMed Services has conducted **Asbestos Hazard Emergency Response Act (AHERA)** which requires public school districts and non-profit schools to perform inspections, maintain a plan and training for the staff.

High-points of findings in the facility are typical in building of this age. Results report vinyl floor mastics, carpet adhesive and carpet base, wall and ceiling board and compound, window and door frame caulk are contaminants. There are also results of column caulking, ceramic floor tile grout, transite panels, peg and chalk board glue dots, sink undercoating, fire door core, boiler breaching, insulation, duct connector, ceiling tile and glue and wall patching.

We would be remiss if we did not bring an “emerging hazmat” issue to your attention. We have attached an article: [EPA Fact Sheet for Schools: Caulk containing PCBs](#) and also bring this to your attention in this analysis. We are now encountering numerous school renovation projects

where this issue is “significantly” affecting budgets. We provide this information for your use and remain available to discuss this and any implications it may have on your future projects.

While we understand the schools had a window replacement project, PCBs were used in numerous building products. Sealants or caulk is perhaps the most common building product to include PCB “oil” however it is not the only one.

Mechanical, Plumbing, Fire Protection and Electrical Systems

Mechanical Observations

The building is served by the original Bigelow Steam Boilers installed in 1953. The boilers are capable of firing on Natural Gas or No. 2 Fuel Oil. One of the boilers was firing at the time of our visit but was leaking badly from its external controls piping. The boilers should be considered to be at the end of their useful lives and planned for replacement.

Classrooms are served by Unit Ventilators which were installed as part of a 1991 building renovation. The units appear to be in serviceable condition but should be inspected for proper operation fan, damper and control valve operation. Steam traps are reportedly in poor condition and in need of replacement.

An air cooled chiller installed outdoors on grade and provides chilled water for air conditioning. The Chilled water Pumps are located in the boiler room. The chiller and pumps appear to be in serviceable condition.

Air Handling Equipment for the Media center is installed in the crawl space. Air Conditioning is provide by DX refrigerant coils and the condensing units are located outdoors on grade. The system is obsolete and should be planned for replacement. There is an existing moisture problem in the media center and a portable dehumidifier has been installed in an attempt to address this. Replacement HVAC system will include dehumidification cycle.

The Gymnasium/Multipurpose Room is served by two gas fired packaged rooftop units, installed on the roof of the space. The Rooftop units appear to be in good condition.

A Grease Exhaust Hood is installed in the Kitchen and is served by an Exhaust Fan located on the roof.

Replacement HVAC systems will be required to meet current improved standards for Energy Efficiency, Acoustics and Indoor Air Quality. Systems installed as part of a *Renovate as New* project will be required to meet the CT High Performance Building Standards. Building energy efficiency and will need to be demonstrated through an energy modeling computer simulation in order to meet the current standards for energy conservation.

Systems meeting the minimum efficiencies required by the Energy Code and High Performance Building Standards include the following.

Energy Recovery from Exhaust Air
High Efficiency Condensing Gas Boilers
High Efficiency Magnetic Bearing Chiller(s)
Geothermal (Ground Source) Heating/Cooling Equipment
Variable Flow Air Handling Systems with Demand Control Ventilation
High Efficiency Condensing Gas Domestic Water Heaters

Domestic Water Heating is provided by Electric Water Heaters.
Auxiliary Domestic Water Heaters serve miscellaneous toilet rooms.
Building is not fully sprinklered and the stage area of the Gym/Multipurpose Room is not equipped with sprinklers, Standpipe or Roof Heat/Smoke Vents. Any major renovation will include installation of Automatic Sprinkler System to serve entire building as well as Standpipe and Vents for the Stage.

Plumbing Observations

Site Utilities plans were not available; Plumbing Plans from a 1990 project were examined. The following utility and buried pipe information is from staff interviews, and site verifications hampered by occupied conditions and concealment of piping.

The domestic water service is provided from the Hillfield Avenue main. Water mains are routed in tunnels where possible. [Tunnels are posted with warning signs regarding entry.] From existing plans and field verifications in basement, sanitary is collected (in pipe tunnels, where possible) to exit at three locations near the basement boiler room, and at one location on the west side of the Media Center. Site sanitary is collected to route west to a sanitary manhole. (The 1990 project included abandoning the site septic system and connecting building sanitary to the street sanitary main.) The rest of the buildings buried pipe routing remains unknown. Except for the hip-roofed Media Center, roof drainage is collected internally (in pipe tunnels, where possible) to exit below grade at undetermined location(s). A natural gas meter serves rooftop units, (2) dual-fuel boilers, (2) domestic water heaters, and kitchen cooking equipment.

Domestic Water Heating: Two gas fired water heaters located in the boiler room serve the entire building. One heater serves the Kitchen (presumably at higher distribution temperature), and the other serves toilet rooms and classroom sinks. Both are relatively new and in good condition. Hot water is recirculated.

Fixture Condition: In general, fixtures and controls are old. Some newer fixtures have been installed in staff and public access toilet rooms modified to achieve some measure of accessibility compliance.

Fixture Accessibility: Almost all classroom sinks/drinking fountains, and toilet rooms; public toilet rooms; administration and nurse sinks and toilet rooms; public drinking fountains are non-compliant. In a few public areas, attempts have been made to make toilet rooms more accessible. The kitchen has an “ADA” hand wash sink, but exposed piping is not covered, and access clearance is not maintained. The kitchen also lacks an accessible food prep sink and work area.

Concerns: In addition to accessibility and useful life issues, other concerns include:

- Hot water tempering and expansion protection: no mixing valves or expansion tanks were found on inspected water heaters. Mixing valves provide an additional level in protecting against scalding, and expansion tanks are required on all systems in which a check valve is installed on the cold water supply.
- The kitchen program (full-service versus warming) is unclear, since it appears the Dishwasher is still used. However, a full kitchen renovation to eliminate disused fixtures/equipment, address ADA concerns and more closely suit the present program would make kitchen operations more efficient and possibly free up space for other uses.
- Kitchen food prep sink (ADA or not) does not exist. This is a health code requirement.
- Owner's Concern: Roofs needs replacement.
- Owner's Concern: Service all water and sewer piping in crawlspaces (tunnels)
- Owner's Concern: Repair/replace insulation on all crawlspace (tunnel) piping; or reroute piping in new pitched roof attic space.

Proposed Work – Plumbing

Priorities:

- Address code issues:
Prep sink provision.
Provide expansion tank on domestic water heating systems with cold water check valves.
- Address accessibility issues:
Provide accessible toilet room, classroom, kitchen, and drinking fountain fixtures
- Provide new roof drains in coordination with roof replacements. Roof drain costs included in Architectural estimate roof replacement line item(s).
- Inspect and service all water, sanitary and storm piping in tunnels, after abatement:
 - Domestic water piping; Repair leaks, replace defective shutoff valves; flush, sanitize
 - Storm and Sanitary: .TV inspection for condition and leaks; if viable, jet clean; if not, replace piping with new
- Remove any remaining tunnel domestic water piping insulation after abatement, and reinsulate all tunnel domestic water piping .Since only water piping can feasibly be rerouted through the new attic; we do not recommend this option; tunnels cannot be abandoned due to sanitary and storm piping installations.

Lesser Priority but Strongly Recommended:

- Provide thermostatic mixing valve on all domestic water heater systems.

At Owner's Direction:

- Complete Kitchen Upgrade

Fire Protection Observations

Sprinkler service does not exist at this time. Limited area sprinkler systems are provided from the domestic water system for janitor's closets. Full Sprinkler systems are not required to be installed in existing educational (Pre-K-12) construction. However, we recommend a complete building sprinkler system for this type of occupancy.

Electrical Observations

The existing electrical system is a 1600 Amp, 120 / 208 volt 3-phase, 4-wire service, which was found to be in very good shape and appears to be adequate for the facilities current functions and use. This electrical system is most likely more than capable of handling modifications and minor expansions to the existing building, as the majority of new systems are very efficient compared to what is currently installed. The existing interior & exterior lighting is largely outdated, and very inefficient compared to modern fluorescent and LED fixtures. Fire alarm is dated and may require updates in the near future. The emergency lighting for the most part is single point product throughout the facility. All were found to be good shape but are late 90's vintage and therefore should be considered to be replaced with self-diagnostic, self-testing product. It also should be noted that the current emergency lighting doesn't meet current codes with respect to maintained foot-candle reading at grade and a uniformity of no greater than 40:1 max to min. There were areas found that either did not have occupancy sensors or they were not working which doesn't meet the current IECC code requirements. (See Figure 2) The intercom was found to be old and out of date, it should be replaced with today's technology.

Power:

As mentioned above, the existing service is 1600 Amp, 120 / 208 volt 3-phase, 4-wire service, Cutler Hammer PowerLine dated 1996 and it is great condition. (See picture figure 1) The incoming utility service is served from an exterior pad mounted transformer on the southwest side of the site. The existing main electrical service equipment is in good condition, and large portions of the branch panels are 65 to 75 % full. There were a few areas found throughout the facility where extension cords were being used to access power in areas that didn't have a convenience outlet, any and all of these areas should be corrected so that this code violation is eliminated.



Figure 1



Existing prismatic 1 x 4's



Existing 2 x 4 troffer



Typical Emergency lighting



Typical Exit Sign



Hallway fixture needs lens



A few occupancy sensors were found



Exterior Pole Light



Fire Alarm Panel

Proposed Capital Improvements:

- Design and install new task and ambient exterior & interior lighting & emergency lighting per latest code requirements. All light sources will be based on current LED technology.
- Upgrade some electrical panels and add convenience power as required.
- Install new security / camera equipment.
- Install new Fire Alarm system & devices.

60 PUTNAM, BOARD OF EDUCATION OFFICES

Site Conditions, Description and Analysis



The Board of Education Offices, 60 Putnam, is located approximately in the southeast of the town. The site is accessed off of Putnam close to Whitney Avenue. The site is generally level. The building was placed towards the north and overtime it has been added on to. The 2+ acre site is very narrow but occupies a portion of the entire block, abutting Augur Street. The parking lot occupies the remaining southern portion of the site.

The aerial view illustrates the local road network and site access to parking. There currently is no drop off at the front of the building as it is not used as a school. There are no fields or playground. The majority of the open site consists of the parking lot.

The building is laid out in a T-shape with double loaded corridors. The original building which fronts Putnam holds all of the Board of Education offices which are largely on the second floor. The first floor holds conference rooms and the board room. The rest of the building is separated by a storage room blocking the corridor intersection on the first floor. This separates the Board of Ed function from the other two functions, Youth Services and the Juvenile Review Board, although the intertwine to some degree. This area has more classroom that was once medical office and a gymnasium.

The original building dates back to 1915 which was originally designed as Putnam Avenue Elementary School. In 185 the school was closed and the building went under renovations. The front was converted to the Hamden Schools Administrative Offices. The rear addition was converted into Hamden Mental Health Services. In 1999 the rear area was then converted into classrooms for the steps/reach program. Finally in 2010 was converted into Special Education Offices and Hamden Youth Services evening programs.

Mechanical, Plumbing, Fire Protection and Electrical Systems

Mechanical Observations

Proposed Work – Mechanical

Plumbing Observations

Site Utilities plans were not available; however, it is known that domestic and fire water, sewer

and gas services are from street mains. The building is sprinklered.

A large capacity exterior gas meter/regulator assembly serves (2) dual-fuel boilers. An interior gas meter appears abandoned from former burner gas pilot days.

Domestic Water Heating: It appears a single gas fired water heater located in the boiler room serves the entire building. The system does not have either a thermostatic mixing valve or a thermal expansion tank. Hot water recirculation is not provided.

Plumbing Fixture Accessibility: Bathroom fixtures appear non-compliant.

Proposed Work – Plumbing

Priorities:

- Provide gas system revisions for boiler replacement with condensing gas boilers
- Provide gas system revisions for existing rooftop HVAC unit replacement
- Provide gas piping to new Gym HVAC unit
- Coordinate with Gas Company for increased meter/regulator capacities in support of the new and replacement gas-fired equipment.
- Provide expansion tank on domestic water heating system with cold water check valve.

Lesser Priority but Strongly Recommended:

- Provide thermostatic mixing valve on domestic water heating system.

Fire Protection Observations

Building is sprinklered. No new fire protection work is required at this time.

Electrical Conditions Assessment

Overall:

The existing electrical system for the entire building is two separate 600 Amp, 277/480 3-phase, 4-wire services (one for the school & one for the office section) dated 9/83 which were found to be in good shape and appear to be adequate for the facilities current functions and use although the distribution panels seem to be full, an added one for future requirements should be considered at this point. This electrical system is most likely more than capable of handling modifications and minor expansions to the existing building, as the majority of new systems are very efficient compared to what is currently installed. The interior fluorescent T8 F17 / F28 watt saver lighting was found to be current; some lenses were damaged and should be replaced. The existing exterior lighting is largely outdated and very inefficient compared to current LED fixtures and should be considered to be replaced one for one. The Fire alarm panels are an FCI Model FC-72 and a Fire-Watch 411 UDAC (transmission to an offsite monitoring facility). After reviewing the service records it appears that appear to be both functioning properly. The emergency lighting for the most part was found to be nonexistent in the Board of Education spaces, all that was found was a couple of fluorescent lay-ins with battery pacs and battery

backed up exit signs. It does not appear that they are being tested per the NFPA Life Safety code requirements on a one a month schedule. Recommendations are to install self-diagnostic, self-testing single point emergency and exits sign product throughout the building. It was also noted that none of the bathrooms have call for aid equipment; all should be up fitted with same. In the board room the down lights were retrofitted with LED lamps, the 2x2 fluorescent lighting is 1 inch low glare paracube lensed fixtures that are designed for computer rooms, not general lighting.

The remainder of the spaces: all lighting appears to have been current T8 technology. Some of the wraparound fixtures needed attention in the basement areas, lenses were found cracked, broken or missing. In the school outsource areas the emergency lighting appeared to meet current code requirements. It does not appear that they are being tested per the NFPA Life Safety code requirements on a one a month schedule. Recommendations are to install self-diagnostic, self-testing single point emergency and exits sign product throughout the building.

Power / Lighting / Fire Alarm / Security Access:



Service #1 & #2



Electrical Pnl (Unlabeled)



Electrical Pnl (Unlabeled) one circuit available



FAP (FCI / FC-72)



Fire Watch 411 UDAC Pnl



Security Access / Card Reader - Controller



Typical Wraparound Lighting / with Occupancy Sensor



Low glare 2 x 2 fluorescent lighting found in board room



Recessed down lighting found in board room retrofitted with LED lamps



Exit Sign Lighting (typical throughout the office building)



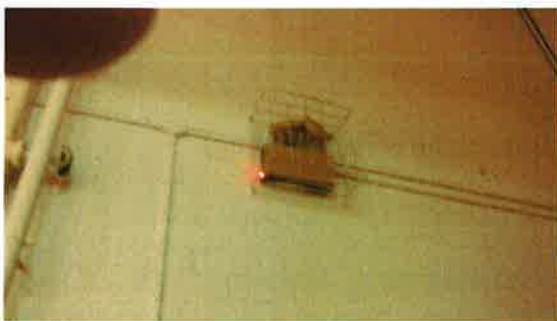
Emergency Lighting (typical throughout the school outsource areas)



4 lamp high bay fixture (gym area)



Lighting (gym area)



Emergency Lighting (gym area)





Exit Signs (gym area)



Damaged / missing lens example

Proposed Capital Improvements:

- Upgrade some electrical panels and add convenience power as required for HVAC.
- Install new emergency lighting & exit signs throughout the building.
- Add / replace smoke heads as required by current code requirements.
- Install new security / camera equipment.
- Replace (in kind & added locations as required) building lights with current LED technology.
- Replace pole and lighting fixtures in parking areas (4 setups) with current LED lighting; some tree trimming / pruning will be required when lighting is upgraded.

Hamden Public School
North Central School Study
School Improvement History

North & Central School Facility	School area gross square feet	Year Constructed	year(s) modified	construction modification	const. modification cost	Roof replacement	roof replacement cost	Notes
Shepherd Glen Elementary School	56,000	1972	1999	A/EC/CV	\$154,000			
						1993	\$500,000	
West Woods Elementary School	86,000	1972	2003	windows/ext doors			\$757,550	"SCGMS audit Issues"
						1994	?	
			1995	HVAC upgrades	?			
Alice Peck School	46,000	1953	1990	code update, unit ventilators, some DX	\$450,000	1999	\$539,000	
			1998	burners upgraded E/RE	\$750,000			
			2011	chiller				
Central Administration	32,000	1915	1985	renovate school to office, 16,000 sf to medical	\$495,000			
			1935/1998	boilers / burner	\$170,000			
			1999	medical to alterenate ed	?			
						1999	\$343,000	
			2005	fire suppression	?			
Bear Path Elementary School	64,000	1962	1999		\$20,000,000			
this text/font is from SCGMS web site								
All other Hamden Schools Facilities								
Hamden Middle School	196,600	1999			\$54,422,000			
Hamden High School	331,000	1991			\$40,000,000			
		1999			\$2,629,000			
Wintergreen Magnet	82,700	1997	N		\$15,510,000			
Spring Glen Elementary School	57,400	2000	N		\$16,074,000			
Church Street Elementary School	68,600	1986	N		\$8,180,000			
Dunbar Hill Elementary School	53,200	1950	1991		\$3,500,000			
Helen Street Elementary School	47,500	1988	N		\$7,400,000			
Ridge Hill Elementary School		1971	2012			1998	\$823,000	

Section III – Photographs
Existing Conditions Photographs – Shepherd Glen School



Main entry



Typical exterior, rain leader and mech. unit



Custon leader and drywell



Exterior walk and playground



Main entry & circle



West side & Parking

Section III – Photographs

Existing Conditions Photographs – Shepherd Glen School Cont.



Toilet at exterior typ.



Cubbies at exterior wall



Hot water tank replacement



Typical Classroom clearstory - kindergarten



Thru window mechanical & abandon unit ventilator



Clearstory "ring" at Library

Section III – Photographs

Existing Conditions Photographs – Shepherd Glen School Cont.



Art



Classroom in corridor



Kitchen



Gym dry rot repair



Gym and repair, HVAC exposed to left



Rusted thru steel window frame

Section III – Photographs
Existing Conditions Photographs – West Woods School



School sign



Main entry.



Roof step at Respect hall, new mech unit



Clearstory, typical



Site lighting busses cueing



Stairs from parking

Section III – Photographs

Existing Conditions Photographs – West Woods School



Cubbies



Computer lab



Corridor glass, some wire glass



Courtyard newer glazing



Cubbies subdividing open classrooms



typical toilet, smaller unit adjacent

Section III – Photographs

Existing Conditions Photographs – Alice Peck School



Main entry, right corridor, admin left.



Media/Library addition



Gym & stage



Gym



Cafeteria



Administration/office

Section III – Photographs

Existing Conditions Photographs – Alice Peck School Cont.



Tunnel in basement, typical two wings both sides



Kitchen



Roof and vent system



Failed roof toward gym, entry



Typical toilet room



Retrofit burner on original boiler

Section IV – Architectural Planning Options

Existing Site Plan and Proposed Site Plan

The attached site existing plan and proposed site plans were developed along with the building program and Facilities Conditions and Code Analysis. The existing site plans at the time of the original construction provided by the Town along with any additional further information were reviewed and evaluated. The data collected from these sources was used to analyze each of the three sites. The proposed preliminary site design was then developed by S/P+A.

Each of the site design concepts presented strive to improve safety at the school sites. There are many safety concerns and potential improvements currently possible on each of the sites. A conceptual risk assessment was used for planning and some of these have been identified in the facility condition matrix under general site. The School Security Infrastructure Standards (SSIS) report identifies the National Clearinghouse for Educational Facilities Assessment Guides which serve as a reference or “suggested” standard. Ultimately, the standards are intended to be provided by the local School Safety Design Committee

The age and level of development of each of the three sites is very different. While commonalities do exist and have been identified between the three sites, the differences have also been identified. The Shepherd Glen School has in fact been the recent subject of study by the Town Engineering Department in conjunction with the Town Planner. Safety and traffic concerns elevated the public and Town awareness and the initiative was taken to review options. SP+A met with the two departments and discussed the conceptual site plan. The options were then discussed at the Operation Committee meeting. The study includes the proposed site plan option for Shepherd Glen School.

An analytical approach to parking was developed based on the general estimate of the staff at each school. The parking needs were balanced with any limiting factors identified in the analysis of the existing site. The Schools are not direct contributors to State highways which reduces the level of complexity for potential change/relocation of curb cuts, onsite traffic and parking changes. Traffic and parking studies, while not necessary or even possible at this time, may well factor into the future site design.

Subsurface and geotechnical engineering is always useful for planning and is essential for the development of structural construction documents for foundations and bearing. The current analysis is based on visual observation, practical experience, and any information provided. It would make sense to advance the collection of subsurface information early on in the forthcoming design development process to validate the select conceptual designs.

These initial site concepts will be further refined through the design process based on feedback, comments, and recommendations, as well as the project and team goals established at the start of the formal design process.

Facility Condition and Code Analysis

The Facility Condition assessment and Code Analysis matrix collects the total comments and obvious or visible conditions by the architects and engineers for each of the three schools. The matrix is prepared in summary style, listing by column the Violation or Condition, Corrective Action and Remark where appropriate. The comments are assigned by school and prioritized. The priority is ranked from one (1) to four (4) with one (1) being the highest or most immediate priority. Customary at this stage of planning, exploratory demolition and testing has not been completed, however if appropriate, it is identified for future stages of the project. The matrix is used for planning, estimating and formulating the preliminary designs.

Ledyard School Facilities Improvement Project
Combined - Gallup Hill School, Ledyard Center School and Ledyard Middle School
Facility Condition and Code Analysis

School	Code Reference	Violation or Condition	Corrective Action	Remarks	System Division	Priority Rank
Site Conditions - Combined						
SGS, WWS & APS		General design practice	Increase of on-site parking is needed and develop a separate buss and parent drop-off loop. See attached plan for Schematic layouts			
SGS, WWS & APS		Distances to hard surfaces, impact surfaces and palyscape safety not to current standards at all playscapes, swing sets, etc.	Playscape equipment & surfacing replacement	Certified Playground Safety Inspector; Landscape Architect	S	1
SGS, WWS & APS		Storm water management system appear functional	Confirm conceptual storm water management plan and existing storm water system and site hydrology. Confirm water quality and runoff regulations, incorporate in new design.	Discuss any advanced storm water management practices, such as "rain gardens", oil water separation, etc.	S	2
SGS, WWS & APS	ANSI 117 (ADA)	Accessible path from school to all playing fields on site not provided	Extend Handicap access at all sports fields and to any existing benches and bleachers.	Office of Schools Facilities/ Office of Civil Rights/Title II	S	1
APS	ANSI 117 (ADA)	Accessible curb ramps and passenger loading zone not present	Provide curb ramps at passenger loading zone. Install new curb ramp along the accessible route.		A	1
SGS		Landscaping	Trim or remove and replace all overgrown landscaping, remove any plantings adjacent to building.		A	1
SGS, WWS & APS		General Site Condition	Repair damaged curbing throughout site as required		S	3
SGS, WWS & APS		General Site Condition	Provide new field & parking lighting		S	3
SGS		General Site Condition	Provide complete site or play area/field perimeter fence	No fencing at SGS is problematic with pedestrian use and kids running off towards woods.	S	2
SGS, WWS & APS		General Site Condition	Provide new baseball backstops and team benches and protective fencing at fields as required.		S	3
EXTERIOR FACILITIES CONDITION - COMBINED						
SGS	(B) 1025.2.1	Windows are not energy efficient.	Replace all existing windows with energy efficient insulated glazed and screened systems.	See EPA Fact Sheet for more information regarding possible PCB's.		
SGS, WWS & APS	ANSI 117 (ADA)	All designated means of egress are not handicapped accessible.	Door area clearances, hardware, thresholds and path require detailed review		C	1
SGS, WWS & APS	ANSI 117 (ADA)	Existing ramp and handrail are not handicapped accessible. Ramp has transitions greater than 1/2" at both the ground level and at the door sill.	Remove existing handrails and replace with 1 1/4 NPS handrails with proper heights and extensions to meet ADA requirements. Reconstruct ramp and re-grade asphalt to		A	1
SGS, WWS & APS	ANSI 117 (ADA)	All play areas are not handicapped accessible.	Provide accessible paved path and entry to play area. See play surfacing above.		A	1
SGS	602.4 (IBC)	Type IV construction "exterior walls are of noncombustible materials"	Remove cedar singles		A	2
					C	1

Ledyard School Facilities Improvement Project
Combined - Gallup Hill School, Ledyard Center School and Ledyard Middle School
Facility Condition and Code Analysis

School	Code Reference	Violation or Condition	Corrective Action	Remarks	System Division	Priority Rank
WWS	General	Efflorescence and failed mortar joints visible at some masonry locations. Lintels and bearing to be reviewed in details.	Locate water infiltration point(s) of entry and remediate problem. Once remediated, re-point masonry and replace any damaged brick. Steel lintels, scrape prime and paint.		G	1
SGS	General	Hollow window door and frame is rusted.	Remove and replace door and frame. Prime, paint and seal.			
SGS, WWS & APS	General	roof near the end of their useful life.	Evaluate loads and conditions of existing roof, including sheathing and number of roof layers. Re-roof including flashing as required.	Include an allowance for replacing sheathing, removal and replacement will be required.	G	2
INTERIOR FACILITIES CONDITION - COMBINED						
SGS, WWS & APS	4.13.9 (ADA) 404.2.6 (ANSI 117.1)	Door hardware is not accessible. Knob handles require grasping and twisting.	Remove door locksets and install new accessible lever handle locksets where designated.			
WWS & APS	410.4 (IBC)	Space beneath permanent platform (aka stage) used for storage, floor construction shall not be less than 1-hour fire-resistance-rated construction.	Install two layers of fire-rated gypsum board as a UL assembly to underside of platform (stage) construction. Re-use fire alarm system devices.		A	1
SGS, WWS & APS	ADA	Accessible signs throughout needed	Provide new signs throughout project area		A	1
SGS, WWS & APS	Code - Arch & Mech	Pipe penetrations at top of wall may not be sealed for smoke (fire rated), typical above ceilings.	Provide fire rated sealant at perimeter of all pipe penetrations through fire or smoke rated wall.		A	1
SGS	Code - Arch & Mech	SGS includes a mechanical loft, rating unknown	Confirm if loft is a fire rated separation or partition. Provide dampers or rated penetration.		C	1
WWS	1025.1.1 (IBC)	Courtyard existing. The egress path from the courtyard to safety requires students to re-enter the building corridor, which is an unprotected environment.	A minimum of (2) exits from the courtyard to safety must be located within a fire rated exit passageway, separated from the remainder of the facility by fire/smoke rated walls and finish, and accessories that meet all IBC/ANSI 117.1 and Federal Code requirements and clearances.	Only if reno as new - To fix install sprinklers, it would negate the need for a second means of egress from each classroom.	C	1
SGS, WWS & APS	603-606 (ANSI 117.1)	Existing toilet rooms do not meet accessibility standards. Common issues noted: no vertical grab bar, not enough turning space/clearance around fixtures, exposed pipes, fixture/accessory mounting heights, sink and lav controls, etc.	Reconfigure/redesign the toilet room to provide new fixtures, finish, and accessories that meet all IBC/ANSI 117.1 and Federal Code requirements and clearances.	Toilet rooms are outdated. It is recommended that all designated accessible toilet rooms are upgraded to meet all current code and accessibility requirements and clearances.	C	1
SGS, WWS & APS	413.6 (ADA) 1101.2 (IBC) ANSI 117.1	Door push and/or pull maneuvering clearances do not meet code. Built in casework need to be removed or modified.	Where obstruction is not furniture related, modify door swing and/or location to comply.	Most obstructions are from furniture rather than building construction. Remove or relocate furniture obstructing the push and pull clearances.	A	1
SGS, WWS & APS	715.3.7.1 (IBC)	Fire rated walls, door & frame and hardware may be required by code.	Classification of construction and spaces.	Include in design		
SGS, WWS & APS	1009.11 (IBC)	Handrails are not code compliant. Common non-compliance issues: handrail extensions, mounting heights, hand rails, guardrails, on both sides.	Provide stairs compliant with current code.		A	2
SGS, WWS & APS	ADA	No accessible workstation at reception counter in main office, desk in media center, or casework where indicated.	Reconfigure/modify existing reception counter, desk and all casework where indicated, to provide handicapped accessible workstation.	Filing cabinets at reception counter - desk looks too high, measure at next site visit.	C	2
					A	1

Ledyard School Facilities Improvement Project
Combined - Gallup Hill School, Ledyard Center School and Ledyard Middle School
Facility Condition and Code Analysis

School	Code Reference	Violation or Condition	Corrective Action	Remarks	System Division	Priority Rank
SGS, WWS & APS	805.1 (IFC)	Bulletin boards, wood trim, student artwork, and miscellaneous materials (homosote) on corridor walls are combustible.	Although this is a common condition in most school facilities, by code corridors are not to contain combustible items. This item should be reviewed with the local authorities to confirm that the current layout and practice is acceptable.	Typical at all corridors.		
SGS, WWS & APS	ADA	Lights, devices, display, etc, protrudes more than 4" into the accessible path.	Remove and replace with ADA accessible model.		C	2
SGS, WWS & APS	715.3.7 (IBC)	Door closer not provided, or operating arm has been removed. All corridor and fire rated door shall be self closing.	Supply door closers at all non-conforming doors. Reattach closer arm at door closers that have been disassembled.	Code modification may be pursued to eliminate requirement of door closers on classroom doors.	A	2
SGS, WWS & APS	4.32 (ADA)	Insufficient knee space provided at sink and/or workstation.	Provide accessible sink and workstation per ADA Section 4.32. 27" high x 30" wide x 19" deep.	Sinks & workstations should be replaced during the next addition or school renovation.	C	2
SGS, WWS & APS	General	Wood and metal casework and countertops in most classrooms are dated, damaged, and near the end of their useful life.	Replace damaged and dated casework and countertops.	Damage to and age of casework varies. While replacement for all dated units is recommended, selective replacement on an as needed basis is a	A	3
SGS & WWS	General	Existing carpet is old and worn.	Replace carpeting at all locations.		G	3
SGS, WWS & APS	General	VCT flooring is old and worn in some locations.	Replace all VCT flooring at indicated rooms.		G	3
SGS, WWS & APS	General	At some locations blinds at window are damaged and at the end of their useful life.	Remove and replace blinds.		G	3
SGS, WWS & APS	General	Toilet room floor and wall finishes are worn.	Remove all damaged tiles and replace with new tiles to match existing. Repoint surrounding grout as necessary to make like new.	Replace all.	G	3
SGS, WWS & APS	4.32 (ADA)	Insufficient knee space provided at sink and/or workstation.	Provide accessible workstation per ADA Section 4.32. 27" high x 30" wide x 19" deep.	Sinks & workstations should be altered during the next major addition and/or school renovation.	G	3
SGS & WWS	General	Some existing doors and/or frames are in poor condition.	Remove and replace door, frame, and hardware.		A	2
APS	General	Dry wall finish is damaged and chipped.	Repair finish to make like new.		G	3
WWS & APS	General	Crack in concrete masonry unit (CMU)	Patch, repair, and replace CMU as required. Paint and re-point as necessary.		G	3
HAZARDOUS MATERIAL IMPROVEMENTS - COMBINED						
SGS, WWS & APS	General	Abatement of visible or known hazardous material at this time.	Exact numbers would be developed with a complete survey of each building at completing of design.		G	1

Ledyard School Facilities Improvement Project
Combined - Gallup Hill School, Ledyard Center School and Ledyard Middle School
Facility Condition and Code Analysis

School	Code Reference	Violation or Condition	Corrective Action	Remarks	System Division	Priority Rank
MECHANICAL IMPROVEMENTS - COMBINED						
SGS	IBC/BSF	Additions to educational facilities require fire sprinkler protection.	Install fire sprinkler system including fire pump if required.			
SGS, WWS & APS	IMC Chap 4	Corridors are not ventilated as required by code.	Install units to provide minimum ventilation.	Cabinet unit heaters ceiling mounted with outside air duct and roof mounted gravity vent.	C	1
APS	General	Steam Boilers are at the end of their useful life	Replace with new Steam Boilers		C	1
SGS	General	Packaged Unit Ventilator AC Units are inoperable.	Replace Unit Ventilators	Install Air to Air Heat Pumps or convert to Hot Water Heating	G	1
APS	General	Existing Rooftop DX units are still servicable	Plan for future replacement		G	1
APS	General	Steam Traps have become inefficient due to their age	Replace Steam Traps		G	3
APS	General	Tunnel Ventilation System is inoperable	Install new ventilation system		G	2
APS	General	Unit Ventilator Controls are difficult to maintain in good working order and cannot control units efficiently	Replace controls with new Electric/electronic controls		G	2
APS	DEEP	Underground Fuel Oil Storage Tank is Past its useful life	Remove Tank, Test and Remediate any Soil Contamination	Boilers are currently fired only on No. 2 oil	G	3
APS	General	Air Handling Equipment Servig Media Center is at end of useful life	Replace Air Handling Units		G	1
WWS	General	Rooftop HVAC Equipment is near end of useful life	Replace Rooftop HVAC Units		G	1
WWS	General	There is an obvious issue with high space humidity	Include dehumidification cycle as part of replacement Rooftop Units		G	2
SGS, WWS & APS	IMC Chap 5 & NFPA 96	Evaluate kitchen ventilation for compliance with current standards and school's needs	Replace exhaust and make-up air systems as required.		G	2
SGS & WWS	General	Gym and Kitchen Air Handling Equipment is at or near end of useful life.	Replace Air Handling Units		C	2
APS	General	The pneumatic control system it is likely to become less reliable and more costly to maintain as components continue to age.	Replace pneumatic control components with electric/electronic controls.	Recommend installing DDC Building Energy Management System for to optimize system performance	G	2
					G	3

Ledyard School Facilities Improvement Project
Combined - Gallup Hill School, Ledyard Center School and Ledyard Middle School
Facility Condition and Code Analysis

School	Code Reference	Violation or Condition	Corrective Action	Remarks	System Division	Priority Rank
PLUMBING IMPROVEMENTS - COMBINED						
SGS	General	Existing 1000 gallon electric storage heater is oversized for warming kitchen and banks of toilet rooms served.	Replace with gas-fired instantaneous condensing water heaters.	Already designed and project awarded; construction phase has begun.	G	
SGS, WWS, APS	603-606 (ANSI 117.1).	Each kitchen has a few ADA non-compliance issues: For example: Missing ADA fixtures, piping protect; non-compliant faucets or access clearances on ADA fixtures.	Provide under sink insulation; replace faucet handles with wrist blade type. Provide ADA Prep sink/work table; rework waste piping and under-fixture pump for proper access		A	1
SGS, WWS	PHC	Prep sink waste is hard-piped to building sanitary system; food prep sinks must have indirect connection (air gap) to sanitary waste systems	Revise prep sink drainage to discharge indirectly (via air gap) to building sanitary system (vis hub or floor drain).		C	1
SGS, WWS, APS	General	Existing Kitchen installation wastes space and does not well suit the present warming type meal prep and delivery program. The large dishwasher, in an adjoining room, is no longer used.	Provide complete Kitchen renovation to suit the present warming type meal prep and delivery program. The Dishwasher will be demolished, and room used for other fixtures in new accessible Toilet Rooms		G	3
SGS, WWS, APS	603-606 (ANSI 117.1). 604.4 (IPC)	Existing toilet rooms and fixtures are predominantly not ADA-compliant; fixtures are aged, and most controls not up to current water-saving standards	Demolish existing; provide new water-conserving ADA fixtures in new accessible Toilet Rooms		A, C	1
SGS	General	Owner's request: Replace classroom water heaters with "point-of-use" water heaters. Since each classroom sink, and each classroom toilet room has its own "point-of-use" heater already, the desire for accessible. (This condition exists for 2 in Art Room as well)	Demo exist'g, and coordinated with T.R. and C.R. ADA renovations, either instantaneous or small storage point-of-use heaters will be provided (as selected by Owner's reps) to multi-user wash fountain in Art and in Kindergarten	Note: Price instantaneous and POI separately; additional electrical panel and wiring costs for instantaneous due to large power input	G	1
SGS	603-606 (ANSI 117.1)	Existing 3-person stainless steel wash-up sink in Kindergarten is not accessible.	Demo (1) existing fixture, and provide (1) new accessible multi-user wash fountain in Art and in Kindergarten		A	1
SGS	603-606 (ANSI 117.1)	Existing classroom (including Art and Kindergarten) sink/drinking fountain fixtures are not accessible.	Demo existing sink/DF fixture, and provide new accessible Adult sink and Child Sink/DF fixtures in each C.R.		A	1
SGS, WWS, APS	603-606 (ANSI 117.1)	Most existing public area drinking fountains/water coolers are not accessible	Replace with ADA compliant fixtures		A	1
SGS	General	No main water service shutoff exists in building. Shutoff is achieved via outside main water shutoff in front traffic circle's island.	If feasible, provide main water shutoff(s) inside the building Water service entrance(s) not found in field. Request further documentation from Town.		G	3
SGS	General	Option A: Admin addition-implement additional security measures	Provide ADA Unisex Staff and Nurse's Suite TR and Exam Sink, and all necessary service extensions		G	?
APS, WWS	607.3.2 IPC	No thermal expansion tank provided for central domestic water heating system, downstream of cold water check valve	Provide thermal expansion tank on domestic water heating system.		C	1
APS	1104.3 (IPC)	Possible violation: Boiler Room drainage cannot be connected to storm drainage systems.	If verified not in compliance, redirect boiler room drainage to sanitary, pumping if necessary		C	1
WWS	General	Owner's Request: Septic Pump House	Exact scope to be determined. House only? Equipment as well? Pump house locked at time of visit.		G	?

Ledyard School Facilities Improvement Project
Combined - Gallup Hill School, Ledyard Center School and Ledyard Middle School
Facility Condition and Code Analysis

School	Code Reference	Violation or Condition	Corrective Action	Remarks	System Division	Priority Rank
ELECTRICAL IMPROVEMENTS - COMBINED						
SGS & WWS	NEC	General purpose receptacles in some areas are insufficient in quantity, resulting in the use of extension cords.	Provide approximately two additional receptacles in each general classroom. Two new panel boards will be required to provide new branch circuits to serve these added devices.	The need for dedicated computer receptacles or branch circuits could be coordinated with the scope of this work if desired.	E	2
	IBC 1011.1.1 and 1011.1.2	Egress paths for greater than 300 occupants are not marked with floor proximity exit signs. Accessibly egress paths are not marked with accessible signs.	Add floor proximity signs and accessible exit signs where required.	These requirements are typically not retroactive but would be necessary if renovations are performed.	E	3
SGS, WWS, APS	IBC	Emergency lighting coverage in several interior areas and outside egress doors is insufficient.	Replace and supplement emergency lighting coverage	Can be done as unit replacement, as work of general lighting replacement or via a generator installation.	E	2

GENERAL NOTES:

See general written description in report

LEGEND:

SGS - Shepherd Glen School

WWS - West Woods School

APS - Alice Peck School

A - Accessibility

C - Code

G - General

S - Site

EN - Environmental

E - Electrical

LEGEND PRIORITY:

1 = Urgent priority - These items should be corrected as soon as possible and most likely encompass code, health and life safety issues.

2 = High priority - These items should be corrected within a reasonable amount of time after the highest priorities referenced above. These may be associated with high priority maintenance issues or accessibility issues for the physically challenged. Maintenance items have a remaining useful life from 1-3 years.

3 = Moderate priority - These items may be associated with aesthetic or general maintenance issues. Remaining useful life of 3-5 years.

4 = Low priority - These items include maintenance and aesthetic issues that are not in current need of replacement, but should continue to be monitored on a regular basis. These items typically have a remaining useful life of 5-10 years or greater.



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Town of Hamden

Shepherd Glen School Code Analysis

Proposed Gym Addition

September 2, 2014

Silver Petrucelli & Associates

Code Analysis

Code Analyzed:	2005 Ct IBC & 2011 Ct IBC supplement
Date of original construction:	1972
Existing Construction type:	4
Use Group Classification of bldg:	E / A3
Conversion Factor of bldg.:	1.65%
Allowable Building area for bldg:	25,500 s.f. per floor (42,075 s.f. per floor)
Allowable Height for bldg:	3 Stories, 75 feet
Actual Building Area:	51,645 s.f.
Allowable increase to bldg:	0 s.f. (unless fire wall and lot line are created)
Occupant load (Design total for bldg.):	2683 Occupant
Exit capacity for entire bldg.:	4032 Occupants
Accessible Building:	Designated
Fire Suppression system:	None
Notification & Alarms:	100%
Detection:	100%
Threshold Limit Building:	No
Historic Building:	No
Existing Finishes:	Class A in exists, Class B in corridors

Field Notes on Existing Building

Exterior wall:	Masonry (no rating required)
Corridor Walls:	Masonry
First Floor:	Concrete slab on grade
Roof:	Metal deck over glue laminated beams

Town of Hamden

West Woods School

September 2, 2014

Silver Petrucelli & Associates

Code Analysis

Code Analyzed:	2005 Ct IBC & 2011 Ct IBC supplement
Date of original construction:	1972
Existing Construction type:	2B
Use Group Classification of bldg:	E / A3
Conversion Factor of bldg.:	1.60%
Allowable Building area for bldg:	14,500 s.f. per floor (23,200 s.f. per floor)
Allowable Height for bldg:	3 Stories, 75 feet
Actual Building Area:	82,650 s.f.
Allowable increase to bldg:	0 s.f. (unless fire wall and lot line are created)
Occupant load (Design total for bldg.):	3,413 Occupant
Exit capacity for entire bldg.:	5,880 Occupants
Accessible Building:	Designated
Fire Suppression system:	None
Notification & Alarms:	100%
Detection:	100%
Threshold Limit Building:	No
Historic Building:	No
Existing Finishes:	Class A in exists, Class B in corridors

Field Notes on Existing Building

Exterior wall:	Masonry (no rating required)
Corridor Walls:	Masonry
First Floor:	Concrete slab on grade
Roof:	Metal deck over xxx

CODE INFORMATION - BUILDING NO. 1

DATE OF ORIGINAL CONSTRUCTION 1972
DATE OF ADDITION
DATE OF PROPOSED ADDITION 2016-2017

1 GROUP CLASSIFICATION (Chapter 3)
(Primary) E-EDUCATIONAL
(Incidental) A3-ASSEMBLY

2 CONSTRUCTION TYPE (Chapter 6)
Minimum Type Required 4
Actual Type Provided (existing) --
(new) 2B

3 BUILDING HEIGHT (Chapter 5)
Allowable Height (story/feet) 3/65-0'
Actual Height (story/feet) 1/35-0'
(Stories Above Grade) 1

4 BUILDING AREA (Chapter 5)
a) Building Area (one floor)
Existing construction 51645 sq. ft.
New construction 0 sq. ft.
Total floor 51645 sq. ft.

5 AREA MODIFICATIONS TO TABLE 503 (for each separate building as defined by fire walls and/or exterior walls)

Total Perimeter = 212 ft 271 ft 512 ft 262 ft
Open Perimeter = 212 ft 271 ft 449 ft 194 ft
N E W S
Total Frontage (F) 1126 ft Perimeter (P) 1257 ft
(building perimeter which fronts on a public way or open space having 20 feet open min.) (perimeter of the entire building)
Width of open space (W) = 30
If=100[F/P-0.25]W/30
100[1126 / 1256 -0.25]30 /30=64.65
% Frontage increase (If) = 65
% of Allowable Tabular Area, At (Table 503) 100 %
% of Increase for frontage, If (506.2) 65 %
% of Increase for automatic sprinklers, Is (506.3) 0 %
Total percentage factor 165 %
Conversion factor 1.65
(Total percentage factor + 100)

6 CASE 1 - SINGLE OCCUPANCY OR NONSEPARATED USES (302.3.1)
(Allowable Area 506.4)

a) ADJUSTED TABULAR AREA
51645 / 1.65 31300 sq. ft.
(actual building area) (conversion factor)
b) ALLOWABLE AREA per floor (Aa)
1.65 x 25,500 42075 sq. ft.
(conversion factor) (tabular area, Table 503)
c) ACTUAL BUILDING AREA
(First Floor) 51645 sq. ft.
(second Floor) 0 sq. ft.
d) TOTAL FLOOR AREA (all stories) 51645 sq. ft.
e) ALLOWABLE FLOOR AREA (all stories)
42075 x 1 42075 sq. ft.
Allowable area per floor (Aa) number of stories (maximum 3)

7 CASE 2 - MIXED OCCUPANCY SEPARATED USES (302.3.2)
(NOT USED) (Allowable Area 506.4)

8 FIRE-RESISTANCE RATED REQUIREMENTS FOR BUILDING ELEMENTS
(Table 601, See Code Plans for specific designations)

1 Structural frame, including columns, girders, trusses Hr(s)
2 Bearing walls:
Exterior (Table 602) Hr(s)
Interior Hr(s)
3 Nonbearing walls & partitions
Exterior (Table 602) Hr(s)
4 Nonbearing walls & partitions
Interior Hr(s)
5 Floor Construction (including supporting beams & joists) Hr(s)
6 Roof Construction (including supporting beams & joists) Hr(s)

9 OCCUPANCY LOAD
Design Total for Each Floor 2683
Total Exit Capacity for Each Floor 4032
Design Total for Building 2683
Total Exit Capacity for Building 4032

CODE INFORMATION - BUILDING NO. 2

DATE OF ORIGINAL CONSTRUCTION
DATE OF ADDITION
DATE OF PROPOSED ADDITION 2014-2015

1 GROUP CLASSIFICATION (Chapter 3)
(Primary) E-EDUCATIONAL
(Incidental) A3-ASSEMBLY

2 CONSTRUCTION TYPE (Chapter 6)
Minimum Type Required 2B
Actual Type Provided (existing) --
(new) 2B

3 BUILDING HEIGHT (Chapter 5)
Allowable Height (story/feet) 3/75-0'
Actual Height (story/feet) 1/25-0'
(Stories Above Grade) 1

4 BUILDING AREA (Chapter 5)
a) Building Area (1st Floor)
Existing construction 0 sq. ft.
New construction 8391 sq. ft.
Total floor 8391 sq. ft.

5 AREA MODIFICATIONS TO TABLE 503 (for each separate building as defined by fire walls and/or exterior walls)

Total Perimeter = 71 ft 138 ft 123 ft 69 ft
Open Perimeter = 0 ft 0 ft 123 ft 69 ft
N E W S
Total Frontage (F) 192 ft Perimeter (P) 401 ft
(building perimeter which fronts on a public way or open space having 20 feet open min.) (perimeter of the entire building)
Width of open space (W) = 30
If=100[F/P-0.25]W/30
100[192 / 401 -0.25]30 /30=22.9
% Frontage increase (If) = 22.9
% of Allowable Tabular Area, At (Table 503) 100 %
% of Increase for frontage, If (506.2) 22.9 %
% of Increase for automatic sprinklers, Is (506.3) 200 %
Total percentage factor 322.9 %
Conversion factor 3.23
(Total percentage factor + 100)

6 CASE 1 - SINGLE OCCUPANCY OR NONSEPARATED USES (302.3.1)
(Allowable Area 506.4)

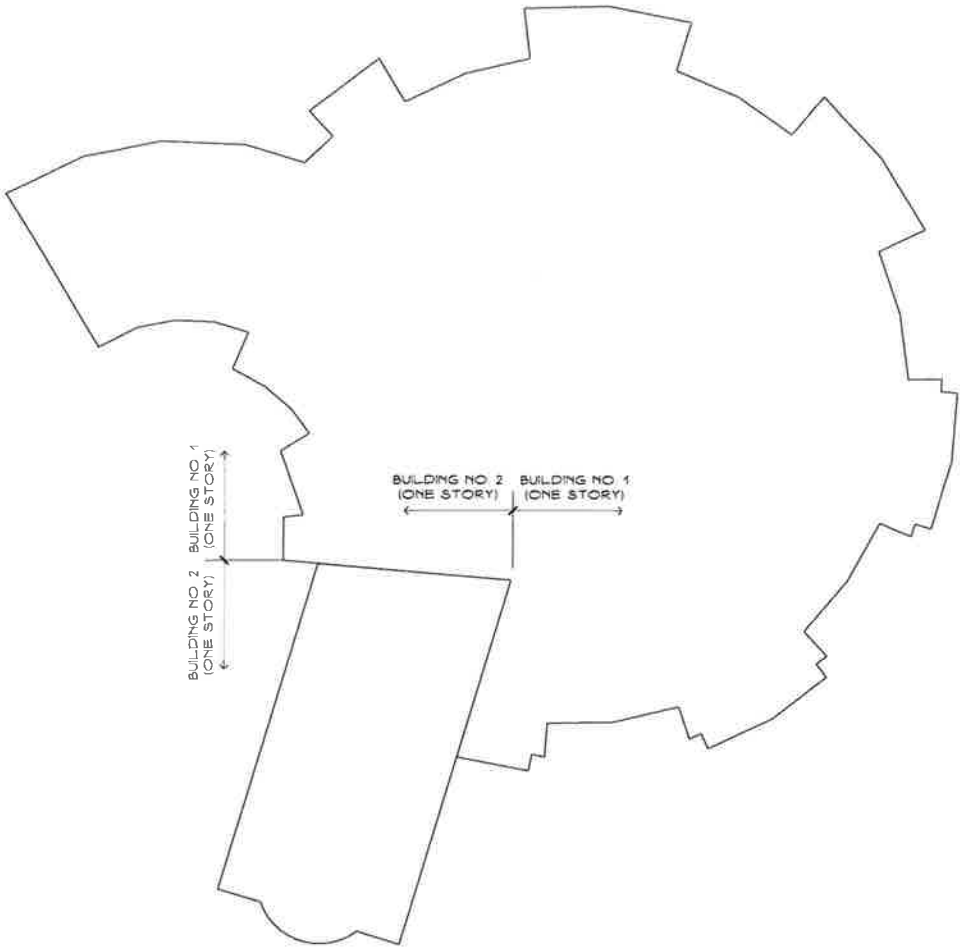
a) ADJUSTED TABULAR AREA
8391 / 3.23 2598 sq. ft.
(actual building area) (conversion factor)
b) ALLOWABLE AREA per floor (Aa)
3.23 x 14,500 46400 sq. ft.
(conversion factor) (tabular area, Table 503)
c) ACTUAL BUILDING AREA
(First Floor) 8391 sq. ft.
(second Floor) 0 sq. ft.
d) TOTAL FLOOR AREA (all stories) 8391 sq. ft.
e) ALLOWABLE FLOOR AREA (all stories)
46400 x 1 46400 sq. ft.
Allowable area per floor (Aa) number of stories (maximum 3)

7 CASE 2 - MIXED OCCUPANCY SEPARATED USES (302.3.2)
(NOT USED) (Allowable Area 506.4)

8 FIRE-RESISTANCE RATED REQUIREMENTS FOR BUILDING ELEMENTS
(Table 601, See Code Plans for specific designations)

1 Structural frame, including columns, girders, trusses Hr(s)
2 Bearing walls:
Exterior (Table 602) Hr(s)
Interior Hr(s)
3 Nonbearing walls & partitions
Exterior (Table 602) Hr(s)
4 Nonbearing walls & partitions
Interior Hr(s)
5 Floor Construction (including supporting beams & joists) Hr(s)
6 Roof Construction (including supporting beams & joists) Hr(s)

9 OCCUPANCY LOAD
Design Total for Each Floor 2683
Total Exit Capacity for Each Floor 4032
Design Total for Building 2683
Total Exit Capacity for Building 4032



SHEPHERD GLEN
CODE INFORMATION

Space Standards

The State of Connecticut publishes the Space Standard worksheet to accompany the ED049 Grant Application for projects seeking reimbursement of eligible cost from the State. The PMBC determined that maximizing the potential for reimbursement of eligible cost is a primary goal and therefore conforming to the “allowable” is preferred. Therefore, S/P+A completed a Space Standard worksheet in the state format for each of the three schools and used this as the basis of establishing a preliminary square foot area of schools.

While the complexity of the State Grant process and State Statutes does allow exemptions, at this stage of project planning it is prudent to use this as the design guideline.

We discussed combining the elementary schools and the conclusion that the operations committee arrived at is the eight (8) neighborhood school currently in operation will remain. See matrix, next page.

However the idea of bringing Alice Peck “back on line” as an elementary school and replacing Shepherd Glen School was also raised. Alice Peck is not ready to be used as an elementary school in the current condition, roof and boilers and hazardous material are of primary concern. . The geographic location in the district is northern most followed only by West Woods Schools which is less than a mile north in a straight line.

The Space Standards presented are based on the 2011 thru 2016 enrollment projection provided with the RFP, and selects the highest enrollment from this data. It should be noted these are out of date and will be required to be updated with any State grant application. These projection generally have a two year life expectancy and should be confirmed with DAS/OSF/Grants.

Hamden Public Schools
North Central Schools Study

2012-2013 School Year - Existing Enrollment Snapshot

Attendance Area	Total Students
Bear Path Elementary School	463
Church Street Elementary School	372
Dunbar Hill Elementary School	310
Helen Street Elementary School	288
Ridge Hill Elementary School	335
Shepherd Glen Elementary School	339
Spring Glen Elementary School	432
West Woods Elementary School	459
Total Enrollment K-6th grade in 2012/2013	2,998
<i>Avg. neighborhood K-6th School enrollment</i>	<i>375</i>

All information from Milone & MacBroom 2012 Enrollment Balancing Plan

Hamden Public Schools - Feasability Study

Shepherd Glen School

SPACE STANDARDS WORKSHEET

This worksheet should be submitted with the application for any N (new), E (extension), A (alteration), or RENO (renovation) project, or combination of such types of project

State Standard Space Specifications Grades

Projected Enrollment	Pre-K and K	1	2	3	4	5	6	7	8	9	10	11	12
Allowable Square Footage per Pupil													
0-350	124	124	124	124	124	156	156	180	180	180	194	194	194
351 - 750	120	120	120	120	120	152	152	176	176	176	190	190	190
751-1500	116	116	116	116	116	148	148	170	170	170	184	184	184
Over 1500	112	112	112	112	112	142	142	164	164	164	178	178	178

- Under the column headed "Projected Enrollment", find the range within which your school's highest projected 8 year enrollment falls.
- Using the figures on that line, complete the grid below for only those grades housed within the school.

Pre-K		6	152
K	120	7	
1	120	8	
2	120	9	
3	120	10	
4	120	11	
5	152	12	

	(a) Total (grades Pre-K through 12)	904
	(b) Number of grades housed	7
	(c) Average [(a)/(b)]	129
2015-2016 projection	(d) Highest Projected 8-year Enrollment	383
	(e) Maximum square Footage [(c) x (d)]	49,462

3. Total square footage at completion of project:

a. Existing area constructed pre-1950.	
b. Multiply "a." by 80%	0
c. Area (at completion of project) constructed 1950 or later.	
d. Square footage for space standards computation (b+c.)	51,645
If line 2(e) is greater than line 3(d) there is no grant reduction.	0
If line 3(d) is greater than line 2(e), divide line 2(e) by line 3(d).	96%

This factor will be used to reduce total eligible cost because of space in excess of the maximum eligible for reimbursement. If a project exceeds the standards solely as the result of extraordinary programmatic requirements, the superintendent may submit a request to the Commissioner for a waiver. A detailed list of space allocations for all extraordinary programs with explanations must be included with the request.

Hamden Public Schools - Feasability Study

West Woods School

SPACE STANDARDS WORKSHEET

This worksheet should be submitted with the application for any N (new), E (extension), A (alteration), or RENO (renovation) project, or combination of such types of project

State Standard Space Specifications Grades

Projected Enrollment	Pre-K and K	1	2	3	4	5	6	7	8	9	10	11	12
Allowable Square Footage per Pupil													
0-350	124	124	124	124	124	156	156	180	180	180	194	194	194
351 - 750	120	120	120	120	120	152	152	176	176	176	190	190	190
751-1500	116	116	116	116	116	148	148	170	170	170	184	184	184
Over 1500	112	112	112	112	112	142	142	164	164	164	178	178	178

- Under the column headed "Projected Enrollment", find the range within which your school's highest projected 8 year enrollment falls.
- Using the figures on that line, complete the grid below for only those grades housed within the school.

Pre-K		6	152
K	120	7	
1	120	8	
2	120	9	
3	120	10	
4	120	11	
5	152	12	

	(a) Total (grades Pre-K through 12)	904
	(b) Number of grades housed	7
	(c) Average [(a)/(b)]	129
2011-2012 Outdated	(d) Highest Projected 8-year Enrollment	539
	(e) Maximum square Footage [(c) x (d)]	69,608

3. Total square footage at completion of project:

a. Existing area constructed pre-1950.	
b. Multiply "a." by 80%	0
c. Area (at completion of project) constructed 1950 or later.	
d. Square footage for space standards computation (b+c.)	82,651
If line 2(e) is greater than line 3(d) there is no grant reduction.	0
If line 3(d) is greater than line 2(e), divide line 2(e) by line 3(d).	84%

This factor will be used to reduce total eligible cost because of space in excess of the maximum eligible for reimbursement. If a project exceeds the standards solely as the result of extraordinary programmatic requirements, the superintendent may submit a request to the Commissioner for a waiver. A detailed list of space allocations for all extraordinary programs with explanations must be included with the request.

Hamden Public Schools - Feasability Study

Alice Peck School

SPACE STANDARDS WORKSHEET

This worksheet should be submitted with the application for any N (new), E (extension), A (alteration), or RENO (renovation) project, or combination of such types of project

State Standard Space Specifications Grades

Projected Enrollment	Pre-K and K	1	2	3	4	5	6	7	8	9	10	11	12
Allowable Square Footage per Pupil													
0-350	124	124	124	124	124	156	156	180	180	180	194	194	194
351 - 750	120	120	120	120	120	152	152	176	176	176	190	190	190
751-1500	116	116	116	116	116	148	148	170	170	170	184	184	184
Over 1500	112	112	112	112	112	142	142	164	164	164	178	178	178

- Under the column headed "Projected Enrollment", find the range within which your school's highest projected 8 year enrollment falls.
- Using the figures on that line, complete the grid below for only those grades housed within the school.

Pre-K		6	152
K	120	7	
1	120	8	
2	120	9	
3	120	10	
4	120	11	
5	152	12	

	(a) Total (grades Pre-K through 12)	904
	(b) Number of grades housed	7
	(c) Average [(a)/(b)]	129
max population by s.f.	(d) Highest Projected 8-year Enrollment	357
	(e) Maximum square Footage [(c) x (d)]	46,104

3. Total square footage at completion of project:

a. Existing area constructed pre-1950.	
b. Multiply "a." by 80%	0
c. Area (at completion of project) constructed 1950 or later.	
d. Square footage for space standards computation (b+c.)	46,000
If line 2(e) is greater than line 3(d) there is no grant reduction.	0
If line 3(d) is greater than line 2(e), divide line 2(e) by line 3(d).	100%

This factor will be used to reduce total eligible cost because of space in excess of the maximum eligible for reimbursement. If a project exceeds the standards solely as the result of extraordinary programmatic requirements, the superintendent may submit a request to the Commissioner for a waiver. A detailed list of space allocations for all extraordinary programs with explanations must be included with the request.

Elementary School Programing, Existing & Proposed

S/P+A analyzed the existing square footage program of each school and discussed the future needs with school administrators to determine how it could be improved by the newly proposed options. The basis of this program is based on not consolidating any of the schools and off of the current enrollment projections. The idea of the individual classroom verses the open classroom was also discussed and reviewed. With many opinions on this issue and each school finding their existing layouts appealing the goal of this project is to study the needs of each school and the improvements that could be made to these facilities while the open classroom layout is to remain.

In designing and redesigning schools space standards are used as a tool. They suggest the required square footage a school should be based on the population. According to the State Standard Space Specification Shepherd Glen would be designed at 45,200 square feet while the existing school currently is 51,645 square feet. Both of these schools are oversized according to this concept and would therefore struggle to achieve state funding for additions on the existing schools although modification are granted on a case-by-case basis. Therefore additions become a balancing act of needs and cost.

Elementary School Program

Existing

Both the existing Shepherd Glen School and West Woods School have similar programs with West Woods having a larger population. Both schools have open classroom layouts. Both schools value the open concept while struggling to deal with some of its drawbacks. Each struggle with getting the space to work the best in regards to storage, wall space and teaching walls. West Woods has kindergarten in individual classrooms. Each school has smaller special education classrooms spread throughout. Both schools have music and art rooms, but Shepherd Glen music room is small and awkward. Computer labs are dispersed throughout both schools with both valuing the centralized computer lab in each pod. Currently Shepherd Glen has 18 classrooms and West Woods has 28. The classrooms function for the current enrollment in each school. Both schools have administration and nurse clustered in the front. Both have a gym but Shepherd Glen does not have a stage or a typically shaped functioning gym. Both have cafeteria and full kitchens.

Proposed

Programming was determined after analyzing the existing schools and meeting with some of the administration. As the school will have the same enrollment, the classroom quantities can remain. The program essential remains the same. Shepherd Glen is the only school that is programmatically lacking, as the gym and administrative space is undersized. Most of the program is to remain, but the organization and layouts of the pods are looked at in this study. The proposed pod program would be two gang toilet rooms per two pods central located. Smaller classrooms should be included in each pod. Areas for computer room should also be included in the pods. These changes to the program will help each school be a more functional learning environment.

Board of Education Programing

The Board of Education offices are currently located at 60 Putnam Street on three floors. SP+A was asked to prepare a space need program and consider relocating these office to the Hamden Government Center (HGC) in the RFP (#13-10). To date no information has been provided for the HGC, therefore no planning for relocation is included in this study. (SP+A asked for the same information that was provided by the BOE for their space needs, noted below.)

The BOE offices are comprised of six (6) departments - Superintendent, Personnel, Curriculum, Pupil Services, Finance and Facilities. In addition to the staff spaces there is a need for meeting spaces, storage, and archival space to serve the staff/departmental needs. A large format BOE meeting room is also needed and is already included in the 60 Putnam Ave building. The six departments include 44 staff positions which were provide with a personnel name and title or job description, ie Administration, Director, Clerk, etc. There are no projections for either growth or decrease in staff provided within the information from the BOE. While this is “common” at this stage of planning and is considered “sensitive and not public information” it should be noted that no expansion or contraction of the space requirement is considered. Therefore, the projection of 5 years forward in this matrix is irrelevant at this time.

SP+A prepared a Projected Space Requirements matrix, enclosed herein. The Summary Report page includes the total Personnel (44) and space requirement by department and the total area needed for the BOE offices of **22,768 square foot**. This total is derived from assigning the staff/employee a space standard or “office size.” The office could be an open workstation or an enclosed or walled office, please see Space Standard matrix for these options and note the Standard (STD) and TYPE assigned to each individual. The staff office is then increased by 45% to allow for circulation, layout, walls, etc. This percentage is a common grossing factor for office space based on “typical” office plans. Finally, the totals are increased by 15% for common areas (lobbies), mechanical rooms (mech, plumbing, toilets, etc.) and network spaces.

The Projected Space Requirements matrix is a planning tool. The next step is to layout the required space onto a scaled floor plan. In the case of 60 Putnam Ave facility, the offices are already in place on the floor plan, and therefore the matrix is used as a test of efficiency of this existing floor plan. The 60 Putnam Ave facility and the BOE office are considered efficient and a “good” space standard.

If the floor plans of the available space at HGC are provided along with programming information for “restacking” and relocating open space to contiguous space is provided then an assessment of the BOE “fitting” into the HGC can be provided and considered.

It should be clearly noted that there are two Town offices in 60 Putnam Ave, namely Youth Services and the Juvenile Review Board. These spaces are located on the ground or first floor and enter the building through a separate entry opening into the parking area. We understand these Town offices or programs of Youth Services use the gymnasium. We have been provided no information regarding these Town run departments or programs and therefore have include no information herein.

Finally, the RFP asked SP+A to consider relocating the Alice Peck School programs, namely the Pre-Kindergarten classrooms to the 60 Putnam Ave facility. Given the size, location of the original classrooms, the accessibility to these classrooms, the code requirement for on grade or direct exiting and the quantity of the Pre-K this is not a realistic planning option. While “*any obstacle can be overcome with money*” these obstacles were considered cost prohibitive. This was discussed with the Operations Committee on several occasions and this is not considered a viable option to present herein. In the six *bulleted* consideration points requested in the RFP this was “withdrawn” by the BOE.

PROJECTED SPACE REQUIREMENTS SUMMARY REPORT

TOWN Hamden Board of Education

LOCATION: Hamden, CT

START YEAR: 2014

For Review

PERSONNEL / SUPPORT			AREA			ADJACENCIES	DISTRIBUTION
CODE	DEPARTMENT	CURRENT LOCATION	People by Year			Usable Area By Year	By Department
			2014	2016	2019		
PER	Personnel	60 Putnam Ave	5	5	5	1,375	
FAC	Facilities	60 Putnam Ave	5	5	5	1,566	
FIN	Finance	60 Putnam Ave	9	9	9	3,173	
CIR	Curriculum	60 Putnam Ave	10	10	10	3,816	
SUP	Superintendent	60 Putnam Ave	8	8	8	3,822	
PP SERV	Pupil Personnel Services	60 Putnam Ave	7	7	7	2,132	
ARC BOE	Archival Storage & Conference	60 Putnam Ave				3,915	
TOTAL PERSONNEL			44	44	44	19,798	19,798
15% for Common, Mechanical, Network Areas						22,768	22,768
							TOTAL USABLE AREA REQUIRED

Circulation 45%

Note this Projected Space Requirement program matrix is a planning tool to be used in conjunction with design of floor plan layouts.

PROJECTED SPACE REQUIREMENTS SPACE STANDARDS

STD	AREA	TYPE	SIZE (LxW)	DESCRIPTION	PLAN REF.	QTY	COMMENTS	NET
A	300	PO	15'-0" X 20'-0"	PRIVATE OFFICE				
B	224	PO	14'-0" X 16'-0"	PRIVATE OFFICE				0
C	168	PO	12'-0" X 14'-0"	PRIVATE OFFICE				0
D	100	PO	10X10	PRIVATE OFFICE				0
W1	120	WS	10X12	WORK STATION				0
W2	72	WS	8X9	WORK STATION				0
W3	60	WS	8X7.5	WORK STATION				0
W4	49	WS	7X7	WORK STATION				0
W5	36	WS	6X6	WORK STATION				0
W6	25	WS	5X5	HOTEL WORK STATION				0
@						0	TOTAL OFFICES	0
Q1	80	CNF	8'-0" x 10'-0"	4 PERSON CONFERENCE				0
Q2	120	CNF	12'-0" X 10'-0"	6 PERSON CONFERENCE				0
Q3	180	CNF	15'-0" X 12'-0"	8 PERSON CONFERENCE				0
Q4	300	CNF	15'-0" x 20'-0"	10-12 PERSON CONFERENCE				0
Q5	600	CNF	20'-0" x 30'-0"	20 PERSON CONFERENCE				0
QT	900	CNF	30'-0" x 30'-0"	LARGE TRAINING ROOM				0
@						0	TOTAL CONFERENCE ROOMS	0
P1	25	PC	5'-0" X 5'-0"	PHOTOCOPY RM				0
P2	64	PC	8'-0" X 8'-0"	PHOTOCOPY RM				0
S1	120	ST	12'-0" X 10'-0"	STORAGE ROOM				0
S2	150	ST	15'-0" X 10'-0"	STORAGE ROOM				0
@								0
F1	6	LF	3'-6" x 1'-6"	LATERAL FILE CABINET				0
F2	6	SF	3'-6" x 1'-6"	STORAGE CABINET UNIT				0
F3	5	SC	3'-6"X 1'-0"	SHELVING UNIT				0
@								0
L1	300	LAB		LAB MODULE				0
L2	600	LIB		LIBRARY				0
L3	400	LAB		OFFICE DWG REFERENCE				0
B1	150	BRK	15'-0" X 10'-0"	BREAK AREA				0
B2	150	PLW	15'-0" X 10'-0"	PROJECT ROOM/BULLPEN			PROJECT WORKRM, BREAKROOM	0
ES	1056	LL	44'-0" X 24'-0"	EQUIPMENT STORAGE			4 BAY GARAGE, WORK BENCH AT BACK	0
LS	5	LS		LOCKER SECURITY			2'-0"WX1'-6"Dx6'-0"H	0

0

Department: Personnel
Section:

PERSONNEL / SUPPORT						NOTE : PERSONNEL MUST HAVE A REPORT CODE			SPACE STANDARDS			AREA	REMARKS
CODE	EMPLOYEE	POSITION	Report Code	Qty. by Year	STD	TYPE	ADD'L AREA	TOTAL AREA	Net Area by Year				
				2014	2016	2019			2014	2016			2019
												Grossing Factor	45%

[illegible][illegible]

PROJECTED SPACE REQUIREMENTS DETAIL REPORT

Department: Facilities
Section:

Hamden Board of Education
Hamden, CT

PERSONNEL / SUPPORT				NOTE: PERSONNEL MUST HAVE A REPORT CODE				SPACE STANDARDS				AREA			REMARKS
CODE	EMPLOYEE	POSITION	Report Code	Qty. by Year			STD	TYPE	ADD'L AREA	TOTAL AREA	Net Area by Year				
				2014	2016	2019					2014	2016	2019		
	Noga	FACILITIES ADMIN OFFICE		1	1	1	W1	WS		120	120	120			
	Caraglio			1	1	1	W1	WS		120	120	120			
	Albanese	FACILITIES DIRECTOR		1	1	1	A	PO		300	300	300			
	Simeone	CUSTODIAL		1	1	1	W3	WS	60	120	120	120			
	Mrozinski			1	1	1	W3	WS	60	120	120	120			
		FACILITIES STORAGE		2	2	2	S2	ST		150	300	300			

PERSONNEL TOTALS:

5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

NET AREA TOTALS:

1080	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080
------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

GROSS SUB-TOTALS:

1566	1566	1566	1566	1566	1566	1566	1566	1566	1566	1566	1566	1566	1566	1566	1566	1566
------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

Hamden Board of Education
Hamden, CT

PERSONNEL / SUPPORT				NOTE: PERSONNEL MUST HAVE A REPORT CODE				SPACE STANDARDS				AREA			REMARKS
CODE	EMPLOYEE	POSITION	Report Code	Qty. by Year			STD	TYPE	ADD'L AREA	TOTAL AREA	Net Area by Year			Grossing Factor	45%
				2014	2016	2019					2014	2016	2019		
	Accetullo	CIRRICULUM ADMIN OFFICE		1	1	1	W1	WS		120	120	120	120		
	Walsh			1	1	1	W1	WS		120	120	120	120		
	Golda	DIRECTOR OF FINE ARTS		1	1	1	B	PO		224	224	224	224		
	Smey	DIRECTOR OF MEDIA / A&I		1	1	1	B	PO		224	224	224	224		
	Frocucci	DIRECTOR OF ATHLETICS		1	1	1	B	PO		224	224	224	224		
	Murtagh	LANGUAGE ARTS CHAIR		1	1	1	B	PO		224	224	224	224		
	Kaplin	DIRECTOR OF TECHNOLOGY		1	1	1	B	PO		224	224	224	224		
	O'Toole	DIRECTOR OF MATH		1	1	1	B	PO		224	224	224	224		
	Pietrosimone	MATH CHAIR		1	1	1	B	PO		224	224	224	224		
	Jordan-Whitney	DIRECTOR OF READING/LA		1	1	1	B	PO		224	224	224	224		
		CIRRICULUM STORAGE		4	4	4	S2	ST		150	600	600	600		

PERSONNEL TOTALS:

10	10	10
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NET AREA TOTALS:

2632	2632	2632
------	------	------

GROSS SUB-TOTALS:

3816	3816	3816
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Department: Pupil Personnel Services
Section:

PERSONNEL / SUPPORT	NOTE - PERSONNEL MUST HAVE A REPORT CODE	SPACE STANDARDS	AREA	REMARKS
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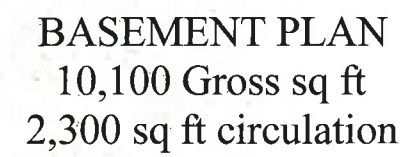
PERSONNEL TOTALS:

PROJECTED SPACE REQUIREMENTS DETAIL REPORT

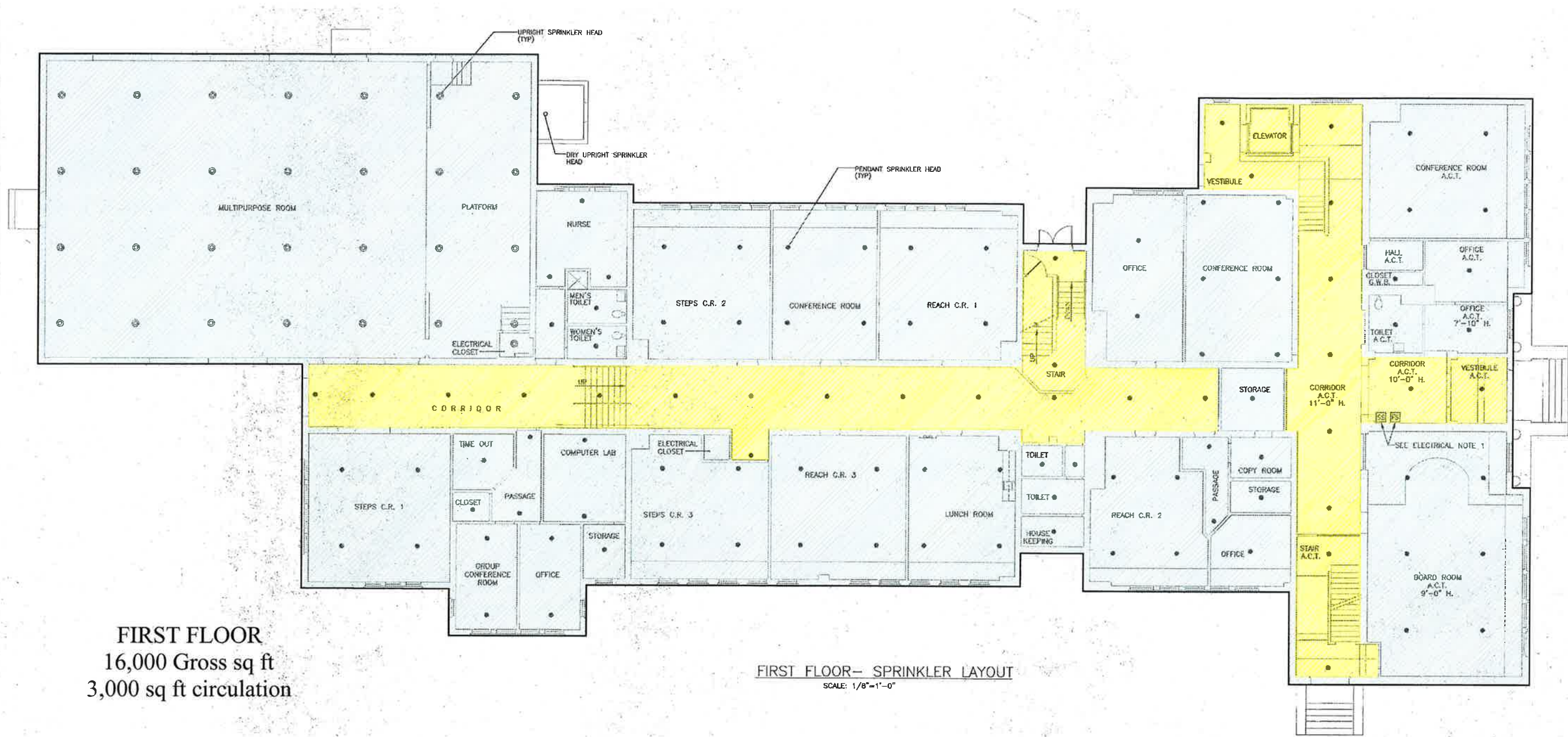
Department: Archival Storage & Conference
Section:

Hamden Board of Education
Hamden, CT

PERSONNEL / SUPPORT				NOTE : PERSONNEL MUST HAVE A REPORT CODE				SPACE STANDARDS				AREA			REMARKS		
CODE	EMPLOYEE	POSITION	Report Code	Qty. by Year			STD	TYPE	ADD'L AREA	TOTAL AREA	Net Area by Year			Grossing Factor	45%		
				2014	2016	2019					2014	2016	2019				
		BOE CONFERENCE ROOM		1	1	1	Q5	CNF		600	600	600	600				
		BOE CONFERENCE ROOM		1	1	1	QT	CNF		900	900	900	900				
		ARCHIVAL RECORDS		5	5	5	S2	ST		150	750	750	750				
		OFFICE SUPPLY		3	3	3	S2	ST		150	450	450	450				
PERSONNEL TOTALS:											NET AREA TOTALS:		2700	2700	2700		
												GROSS SUB-TOTALS:		3915	3915	3915	



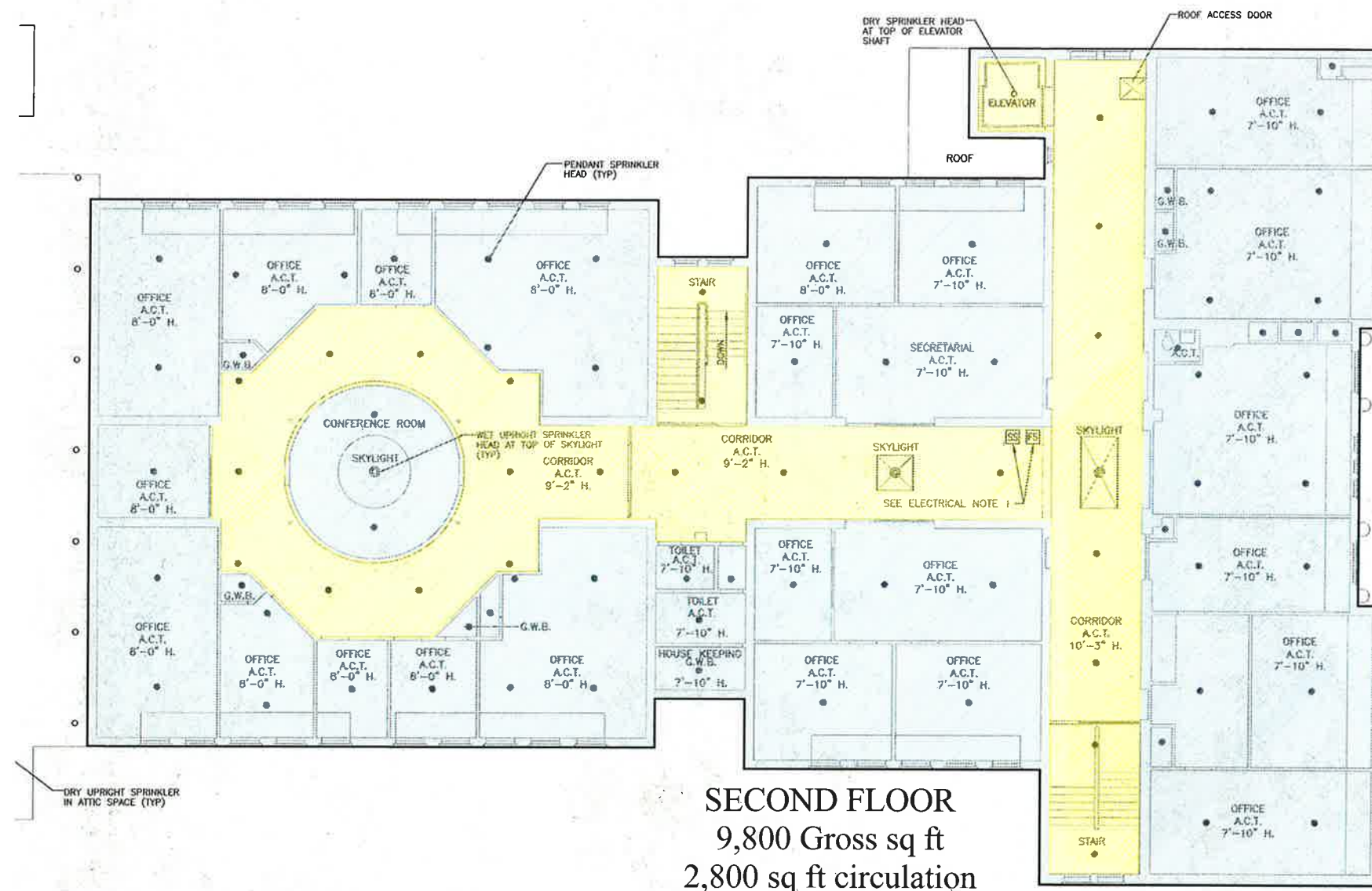
SCALE: 1/8" = 1'-0"



FIRST FLOOR
16,000 Gross sq ft
3,000 sq ft circulation

FIRST FLOOR- SPRINKLER LAYOUT
SCALE: 1/8"=1'-0"

FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"



SECOND FLOOR PLAN
 SCALE: 1/8" = 1'-0"

Existing and Proposed Floor Plans

The following plans are schematic in nature and were generated from numerous meetings held between S/P+A and educators. The proposed additions and renovations are a representation of the space needed for staff and students to function and learn at a reasonable capacity, while maintaining and meeting all necessary federal, building, and accessibility codes.

Shepherd Glen Planning Options

The proposed floor plan for Shepherd Glen was determined after analyzing the existing floor plans, building construction, building systems, the site layout and faculty input. Before concluding with the following options we previously explored converting the open pod layout of the school into individual classrooms. We also explored designing a new elementary school on site. Those options helped to reach a decision that the open concept is to remain, but the school does need to be brought up to today and the foreseeable future's standards.

Two final options provided illustrate what is needed for this school to create a functioning learning environment. The bathrooms in each pod are in much need of renovation. The plans propose to relocate and rebuild them all together. It creates the opportunity for more natural daylight and views. If classrooms are arranged as shown each of the four classes per pod would have a wall of windows. Moving the bathrooms in the center as depicted allows for two pods to share gang toilets. Reworking the inner circle allows each pod to be organized with all plumbing to one side and on the other a small interior classroom labeled as SPED allows for one quiet enclosed room in each pod. The central area can be designated for computers or group activities.

Along with these modifications to the floor plan it is recommended to upgrade some of the materials and finishes throughout the facility. It is extremely recommended to replace the roof, all exterior windows, and classroom doors. It is recommended to replace the cedar shakes with a noncombustible material. On the interior it is recommended to replace carpet, paint to the bare block walls, replace some of the damaged ceilings and upgrade more furniture. These finishes, the toilet room remodel and the parking/drop-off is highly recommended and shown in both Option A and Option B.

Option A: Administration/Entry Addition

The existing floor plan does not have much square footage to adequately provide the administrative needs of the school. With only one individual office and no conference room private meetings are difficult to facilitate within the building. The existing main office also lacks a direct connection with the front door and a visual on the approach. The proposed addition allows for four private offices, a conference room, workroom and nurses suite. The main office then connects with the newly located entry vestibule.

Option B: Gym Addition/ Cafeteria Relocation

The existing floor plan has a gym that is small and the shape is not very functional. The existing cafeteria is also undersized. We've positioned a new gym with direct access off of the lobby and

proximity to the playing fields. The proposed gym also has a dual purpose of an auditorium with a platform and could seat over 600 people. The entry is revised to occur within the current administration space. Administration relocates to the current cafeteria space as the square footage in that space can accommodate their needs much more efficiently. The cafeteria relocates to the gym as the square footage there can hold about 290 students per lunch wave. The kitchen needs to be upgraded regardless of the cafeteria relocation, but with this move it can remain in the same location. The plan would be modified slightly and equipment would be replaced. It is also recommended to reorganize the music room, corridor and art room. The music room in its linear shape is an awkward classroom and would instead work well as the corridor. Adding more usable square footage towards the art room, the plan is reworked to accommodate a more appropriately shaped space for music. Art remains close to the same size and space for a faculty room is included. This floor plan along with the redesigned parking and drop-off will solve all of the current issues.

West Woods Planning Option

The proposed floor plan for West Woods was determined after analyzing the existing floor plans, building construction, building systems, the site layout and faculty input. Before concluding with the following options we previously explored converting the open pod layout of the school into individual classrooms. This option helped to reach a decision that the open concept is to remain, but the school does need to be brought up to today and the foreseeable future's standards.

West Woods School has a nicely organized and highly functional layout. The three zones of the building are well defined and appropriate for the elementary school. The options provided illustrate what is needed for this school to create a functioning learning environment. The major planning move here would be to renovate and modify the toilet room layout in each pod. The existing toilets are individual and do not meet today's code requirements. The most efficient layout would be to provide gang toilets, one male and one female per two pods. The existing location is the right location it just needs to expand further. Using the two storage rooms allows adequate space for two gang toilets back to back. Sinks and drinking fountains are adjacent to the toilets located within an alcove at each pod allow for the plumbing to remain together. With the success of converting the cubby rooms into computer rooms it is suggested to do the same in Oak and Maple. This move requires additional furniture for student storage. The inner classroom support space could also be modified to create a larger more usable classroom for a quieter learning environment and could be studied further as this project moves forward.

Along with these modifications to the floor plan it is recommended to upgrade some of the materials and finishes throughout the facility. It is extremely recommended to replace the roof and address any other issues with the building envelope such as repointing and resealing the parapets. On the interior it is recommended to replace the ceiling tiles in the pods and any other damaged areas. Other finishes include carpet, painting and interior doors. It is also recommended to upgrade more furniture. These finishes, the toilet room remodel and the parking/drop-off are highly recommended to upgrade this facility to meet today's standards.

Alice Peck School Planning Options

The Alice Peck floor plan is a quintessential school layout. The school doesn't require a considerable amount of planning modification to be brought up to today and the foreseeable future's standards. The architectural improvements that need to be made to this school tend to focus more on the exterior with more minor upgrading on the inside.

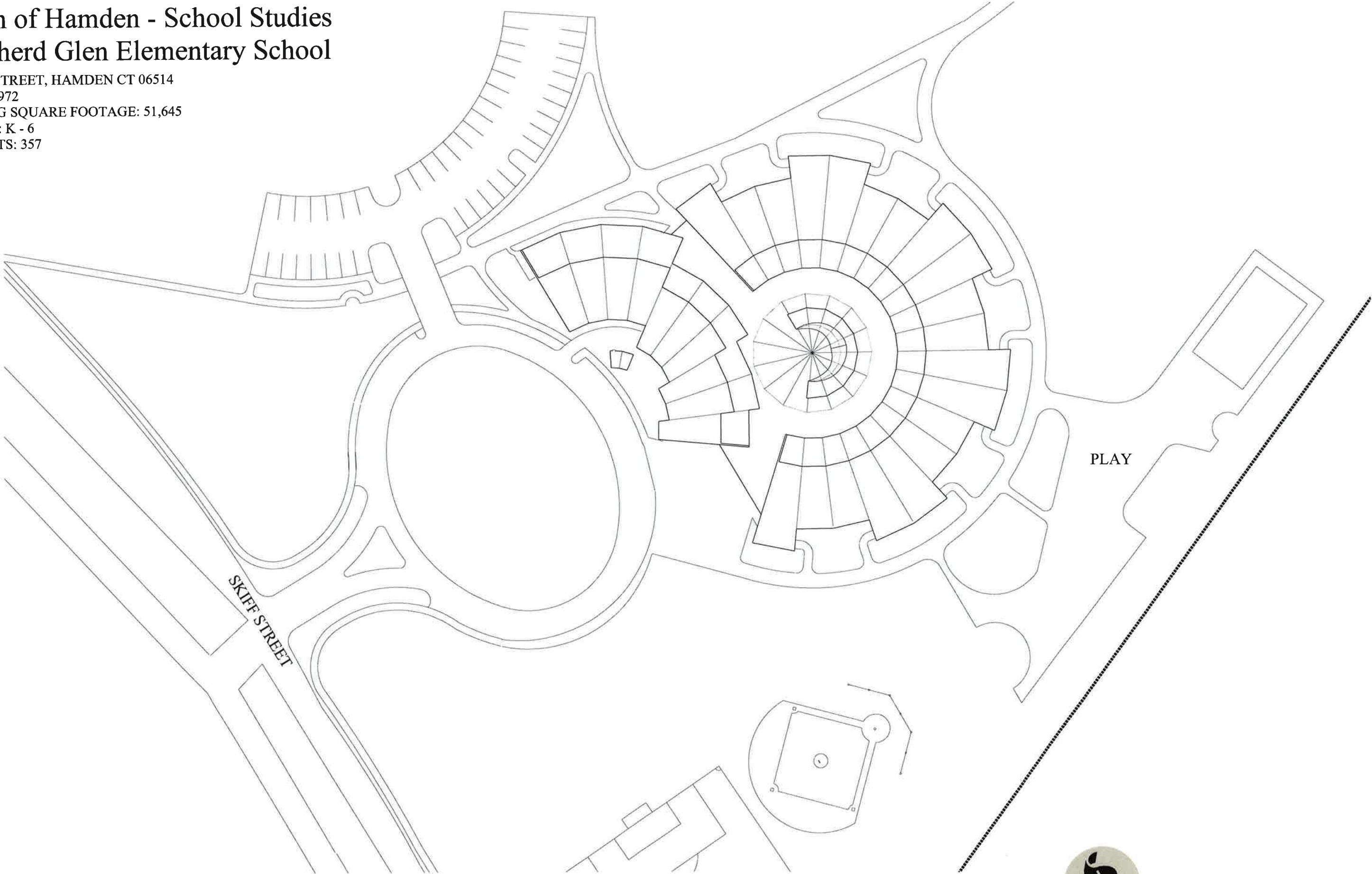
The Alice Peck School currently holds the town preschool program in the east wing. The north wing is currently unused. It is a possibility that the Hamden Collaborative Learning Center may move back in and occupy the north wing. Currently, the Learning Center is located on Circular Avenue in a building being rented by the BOE.

The Alice Peck School could work well with the two programs each occupying separate wings of the school. Sharing the cafeteria, gym and media center would need to be coordinated. As mentioned previously there is not a considerable amount of interior work required at the school. All toilet rooms must be renovated to meet the federal, state and American Disability Act codes. Many of the toilets are not compliant or in need of repair as some are not even in working order.

The main concept that is recommend architecturally intertwines a mechanical solution. As the roof is in dire need of replacement, the crawl spaces contain hazardous materials and mechanical upgrades are needed it is recommended to abandon the crawl space and build a new gable roof on top. This roof could then house mechanicals the feed down into the spaces. This concept is illustrated in a diagrammatic building section.

Town of Hamden - School Studies
Shepherd Glen Elementary School

1 SKIFF STREET, HAMDEN CT 06514
BUILT: 1972
EXISTING SQUARE FOOTAGE: 51,645
GRADES: K - 6
STUDENTS: 357



SHEPHERD GLEN SCHOOL
EXISTING SCHEMATIC SITE PLAN



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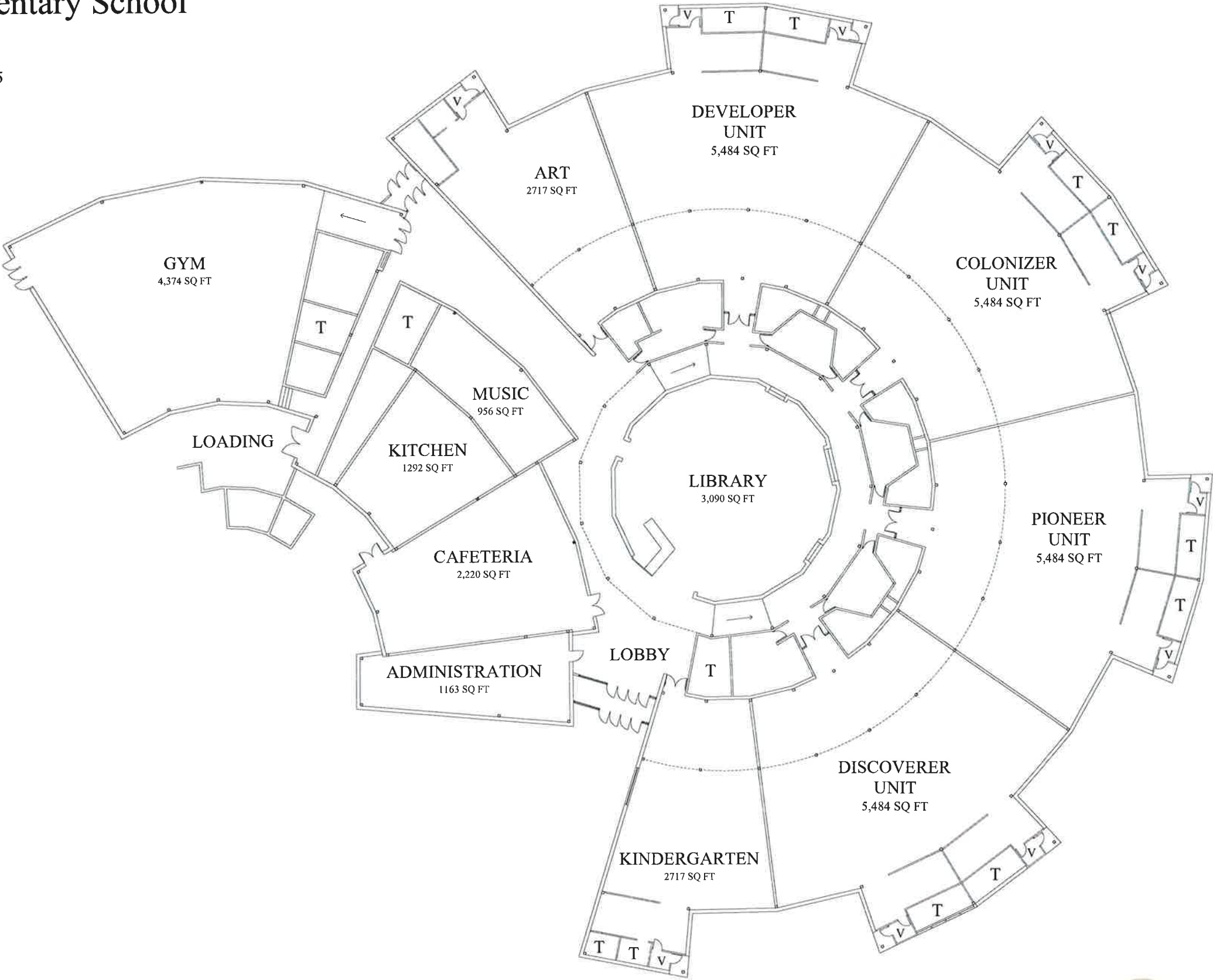


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Town of Hamden - School Studies

Shepherd Glen Elementary School

1 SKIFF STREET, HAMDEN CT 06514
BUILT: 1970
EXISTING SQUARE FOOTAGE: 51,645
GRADES: K - 6
STUDENTS: 357



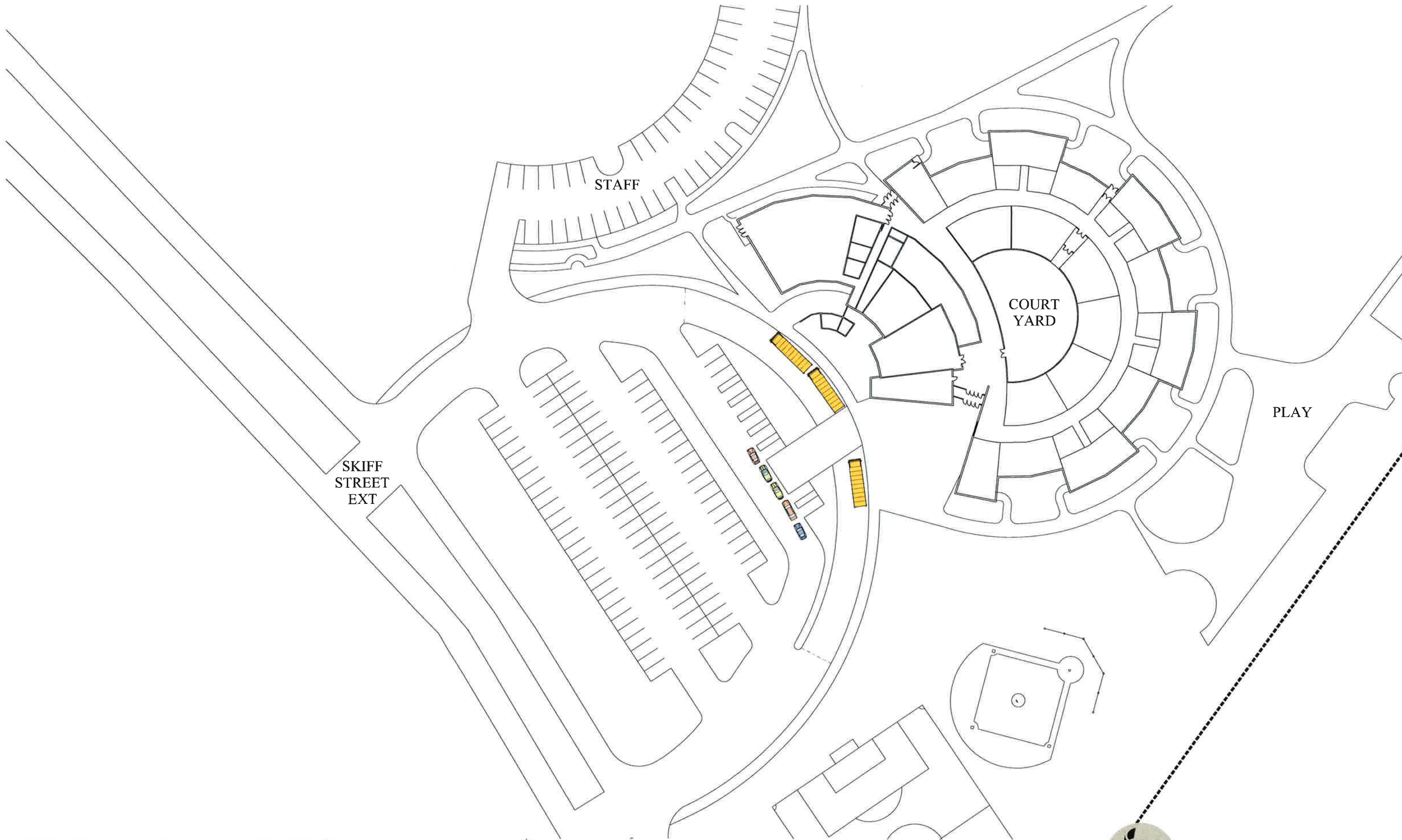
SHEPHERD GLEN SCHOOL
EXISTING SCHEMATIC FLOOR PLAN



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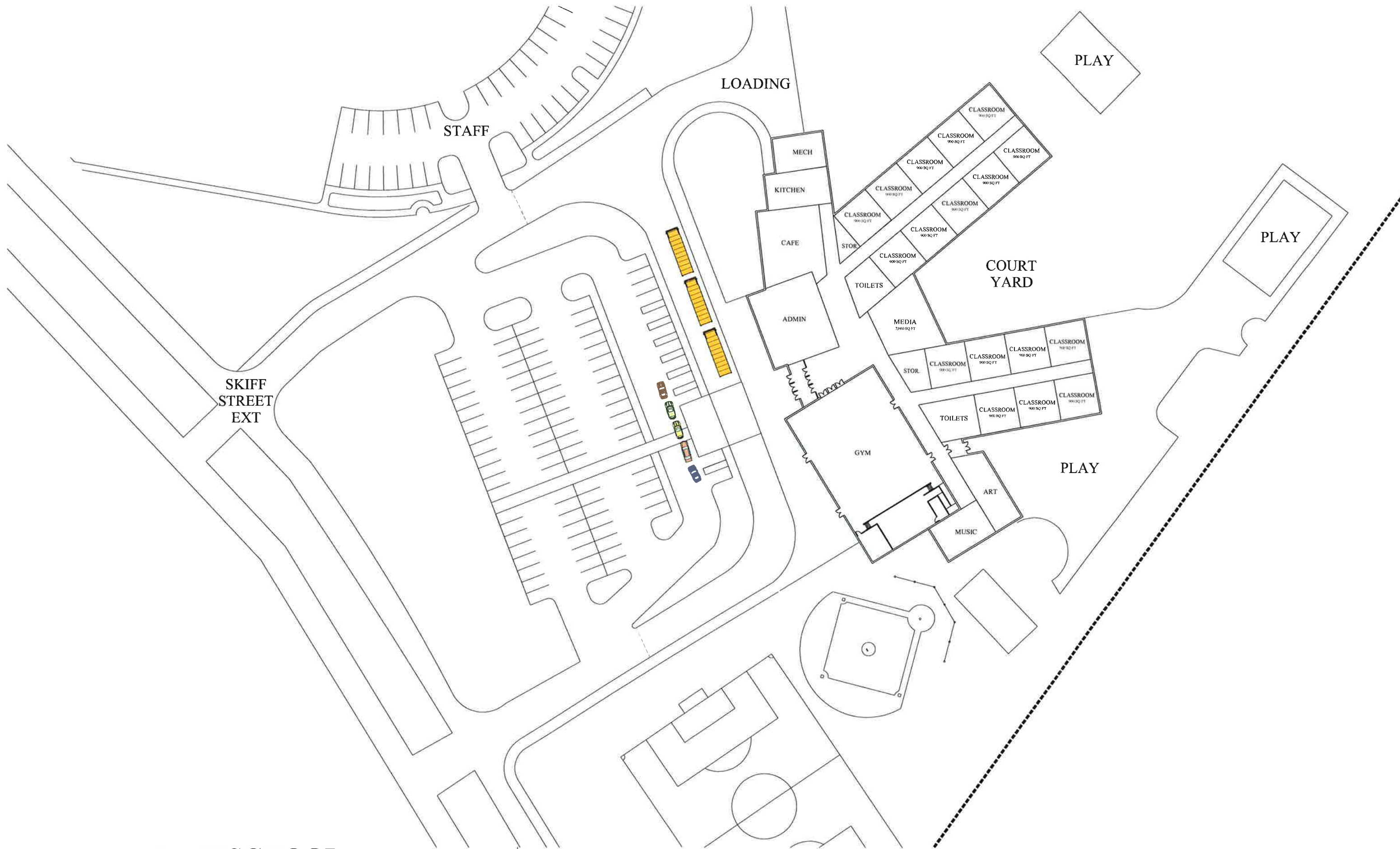
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SHEPHERD GLEN SCHOOL
PROPOSED SCHEMATIC SITE PLAN



SILVER / PETRUCELLI + ASSOCIATES
Architects / Engineers / Interior Designers



**SHEPHERD GLEN SCHOOL
PROPOSED SCHEMATIC SITE PLAN**



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**SHEPHERD GLEN SCHOOL
PROPOSED SCHEMATIC FLOOR PLAN**

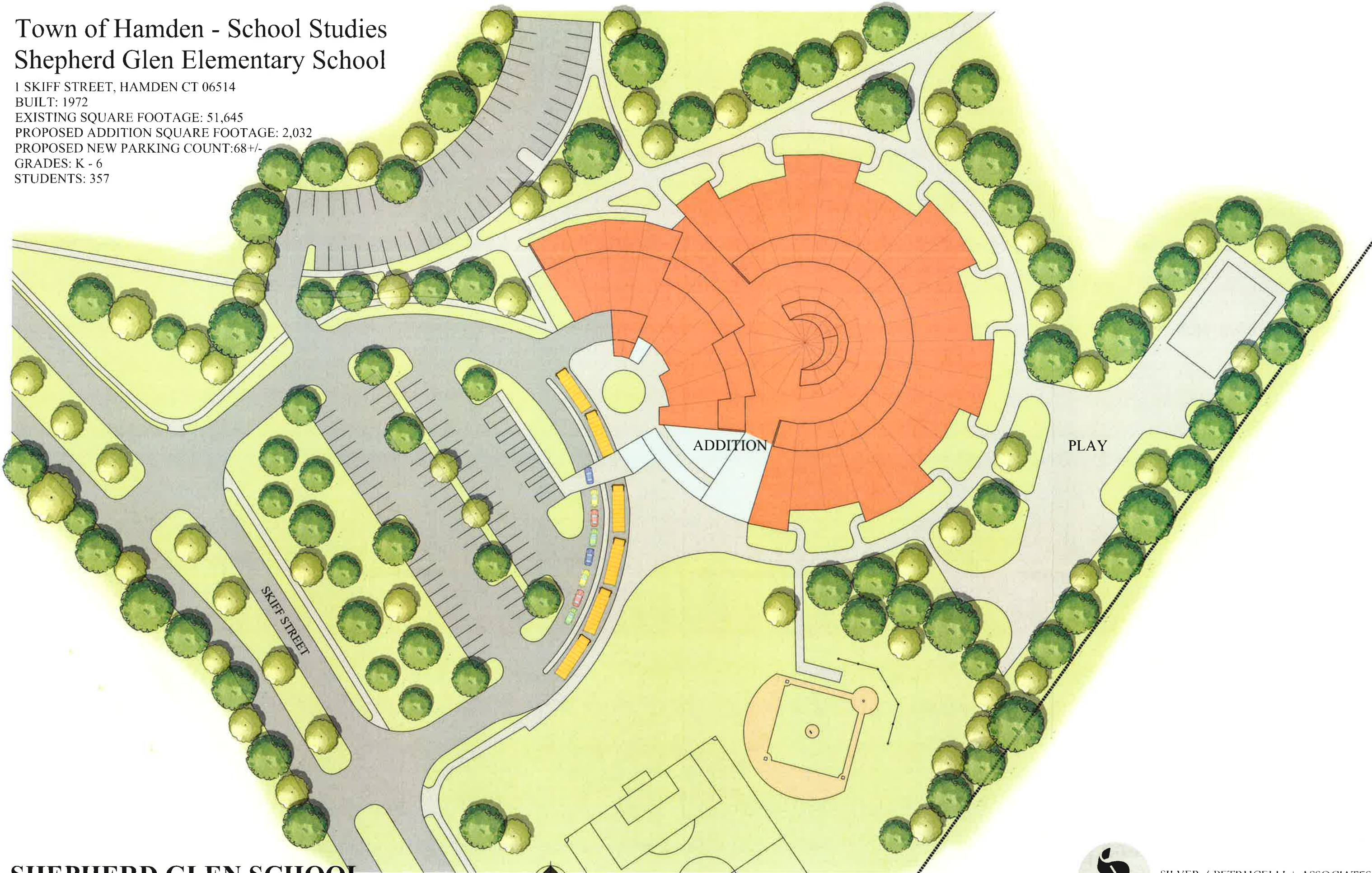


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Town of Hamden - School Studies

Shepherd Glen Elementary School

1 SKIFF STREET, HAMDEN CT 06514
BUILT: 1972
EXISTING SQUARE FOOTAGE: 51,645
PROPOSED ADDITION SQUARE FOOTAGE: 2,032
PROPOSED NEW PARKING COUNT: 68+/-
GRADES: K - 6
STUDENTS: 357



SHEPHERD GLEN SCHOOL
SCHEMATIC SITE PLAN - OPTION A



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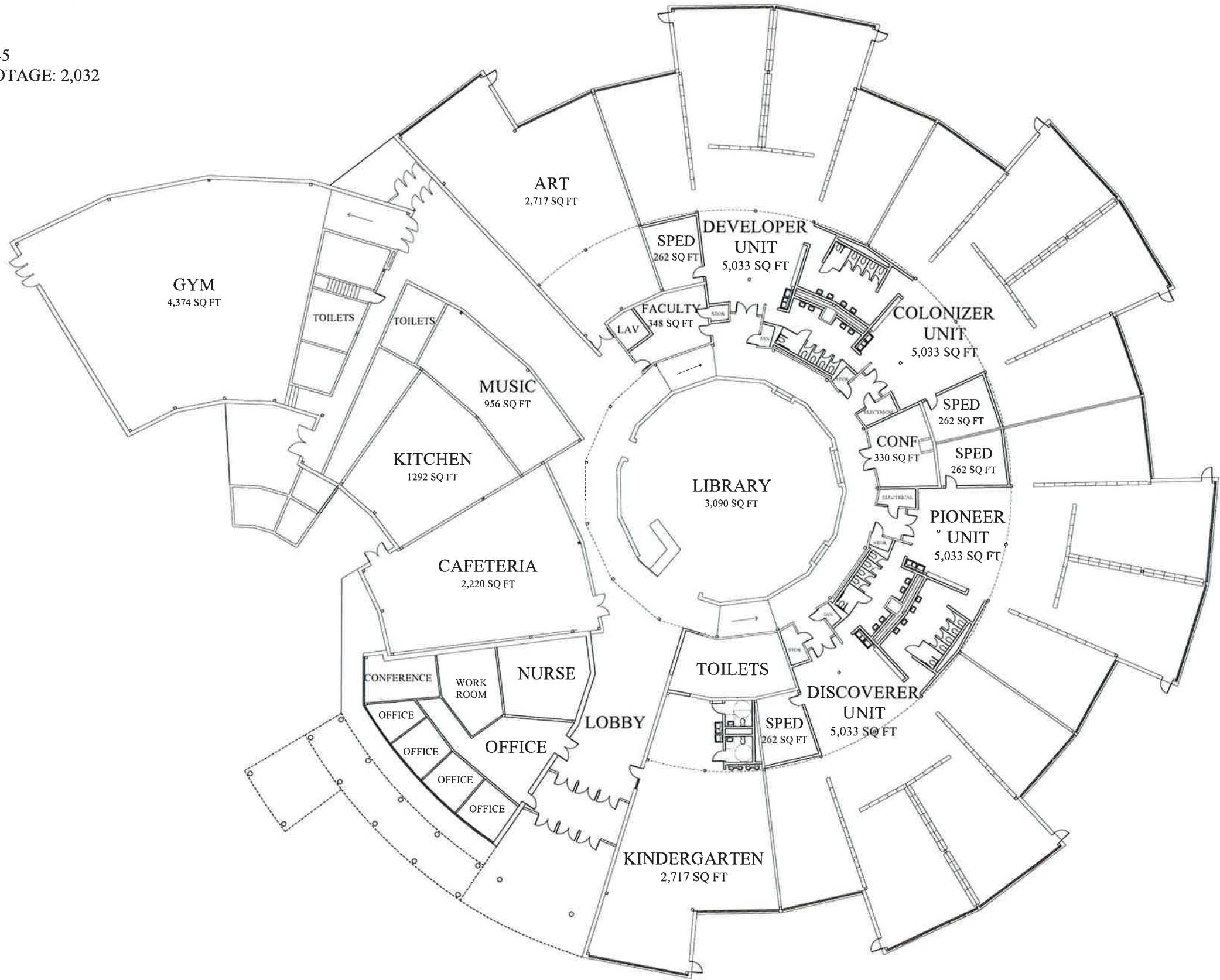


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Town of Hamden - School Studies

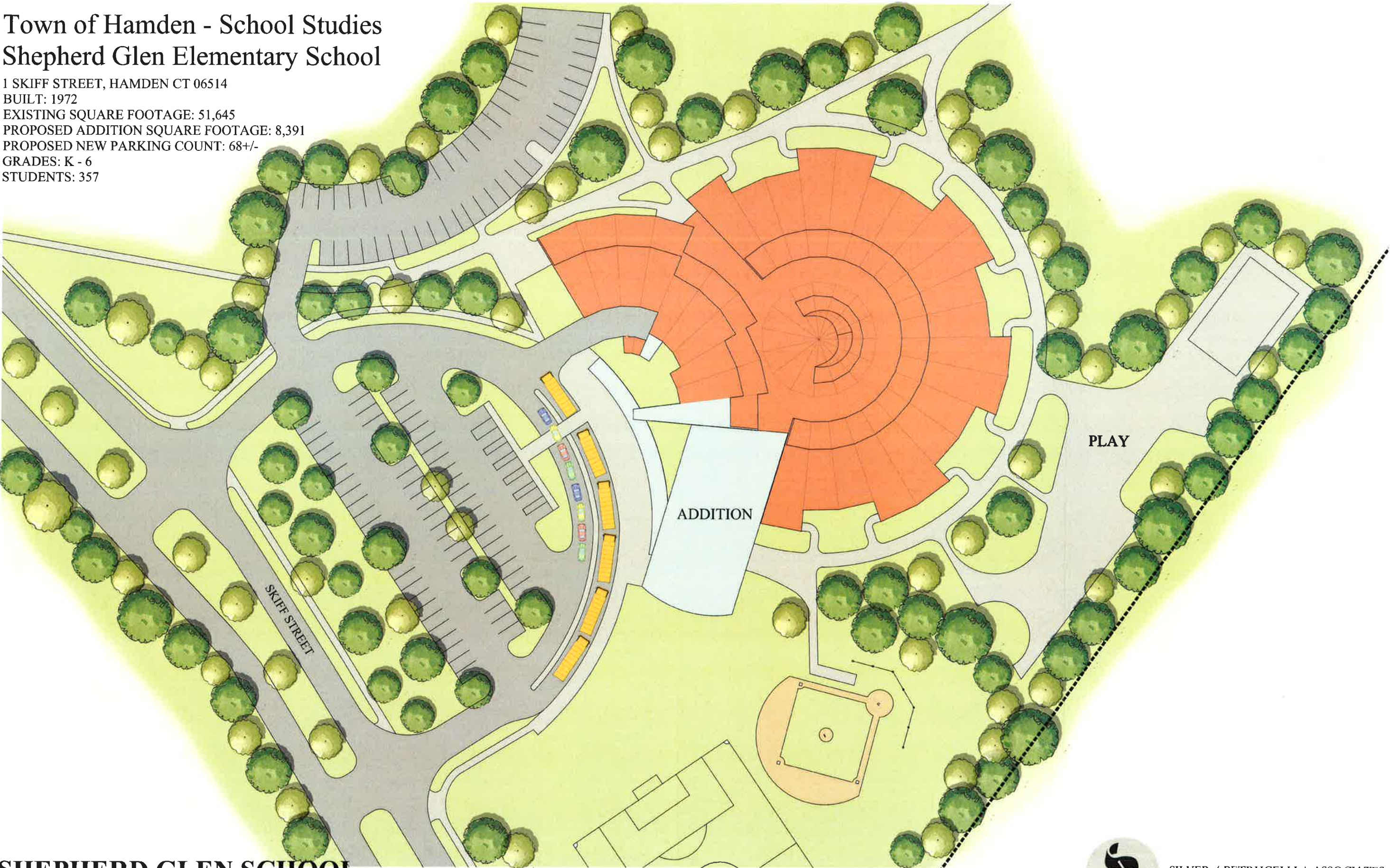
Shepherd Glen Elementary School

1 SKIFF STREET, HAMDEN CT 06514
BUILT: 1972
EXISTING SQUARE FOOTAGE: 51,645
PROPOSED ADDITION SQUARE FOOTAGE: 2,032
GRADES: K - 6
STUDENTS: 357



Town of Hamden - School Studies
Shepherd Glen Elementary School

1 SKIFF STREET, HAMDEN CT 06514
BUILT: 1972
EXISTING SQUARE FOOTAGE: 51,645
PROPOSED ADDITION SQUARE FOOTAGE: 8,391
PROPOSED NEW PARKING COUNT: 68+/-
GRADES: K - 6
STUDENTS: 357



SHEPHERD GLEN SCHOOL
SCHEMATIC SITE PLAN - OPTION B

 **DRAFT**
NORTH

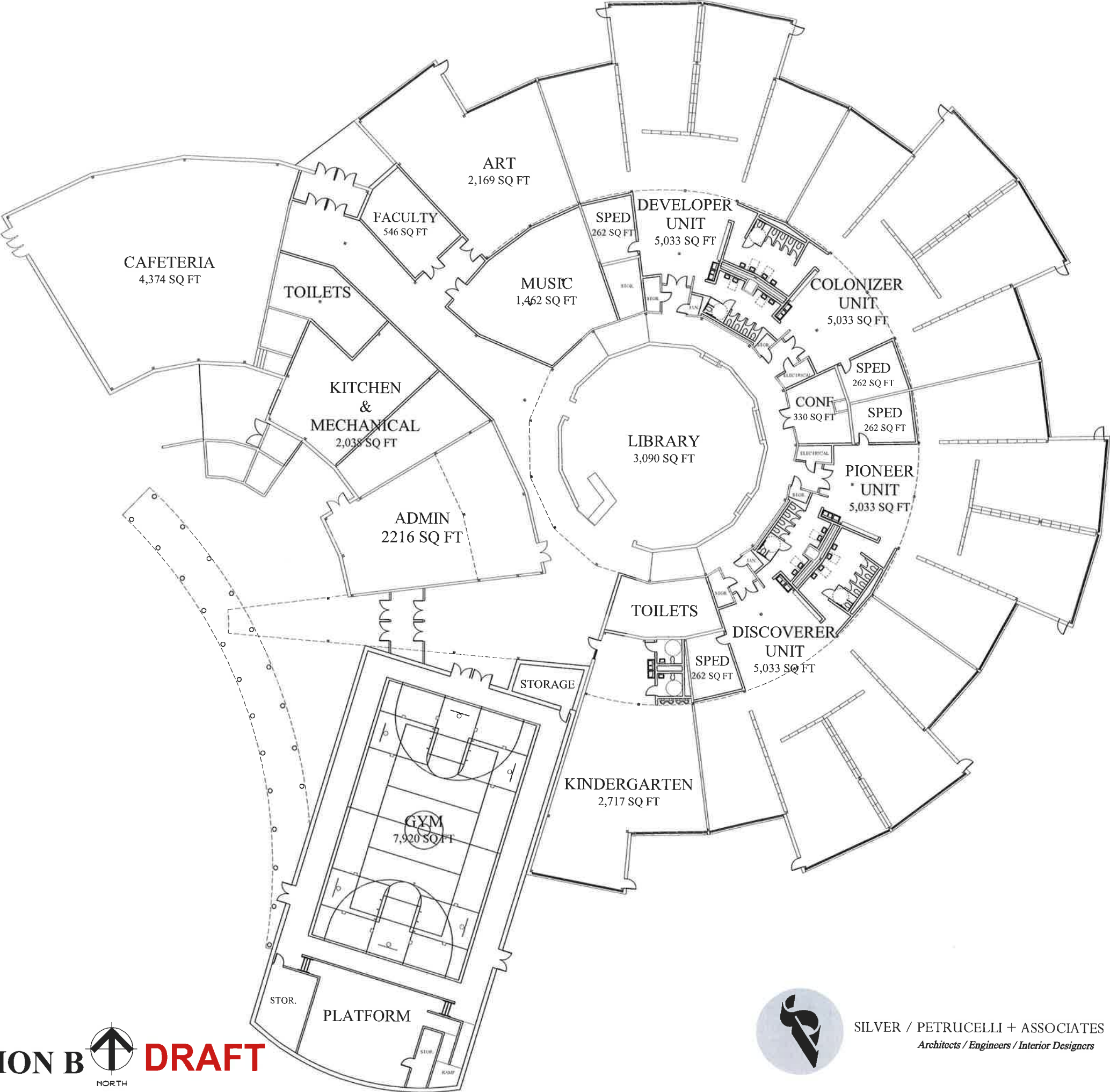


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Town of Hamden - School Studies

Shepherd Glen Elementary School

1 SKIFF STREET, HAMDEN CT 06514
BUILT: 1972
EXISTING SQUARE FOOTAGE: 51,645
PROPOSED ADDITION SQUARE FOOTAGE: 8,391
GRADES: K - 6
STUDENTS: 357



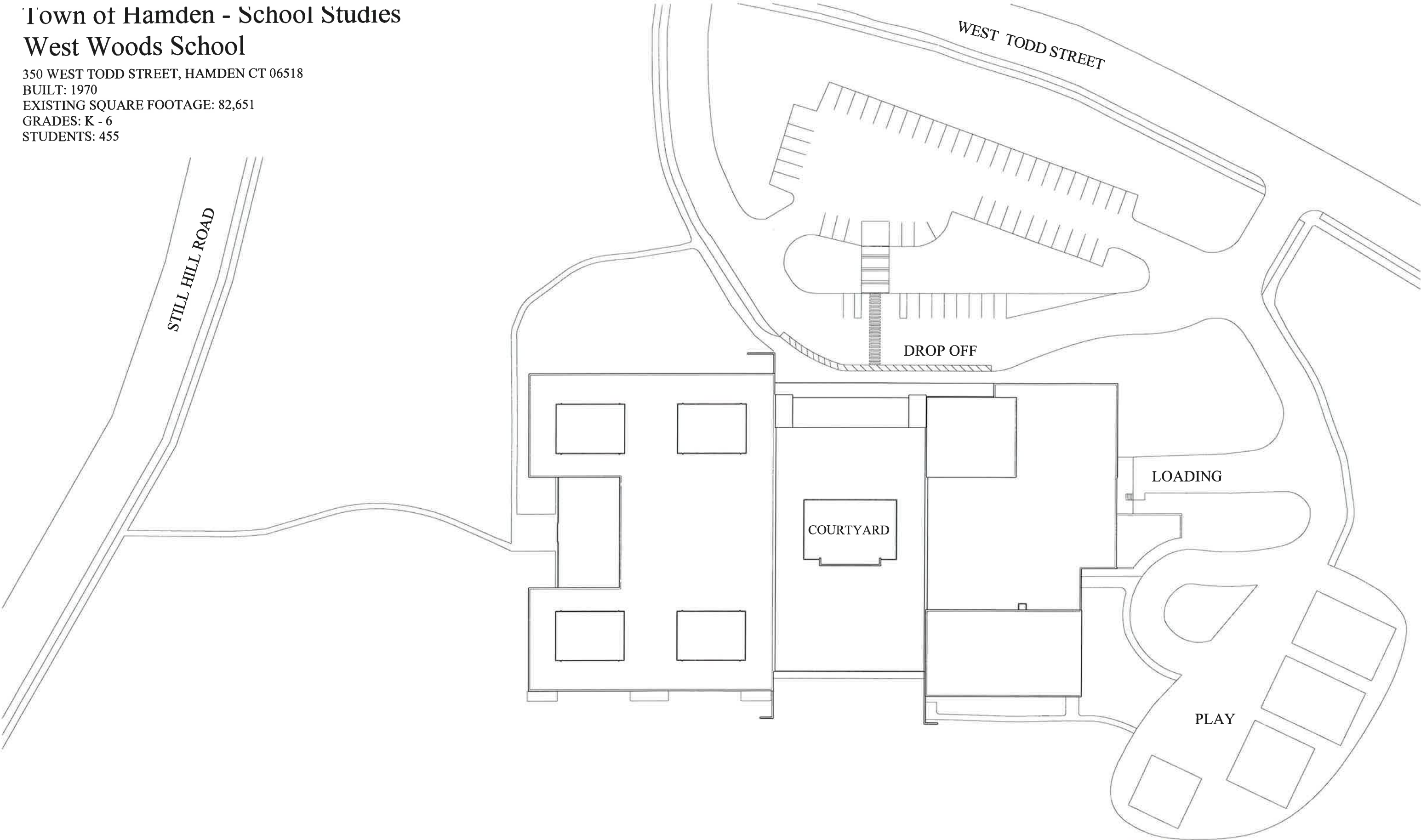
SHEPHERD GLEN SCHOOL
SCHEMATIC FLOOR PLAN - OPTION B



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Architects / Engineers / Interior Designers

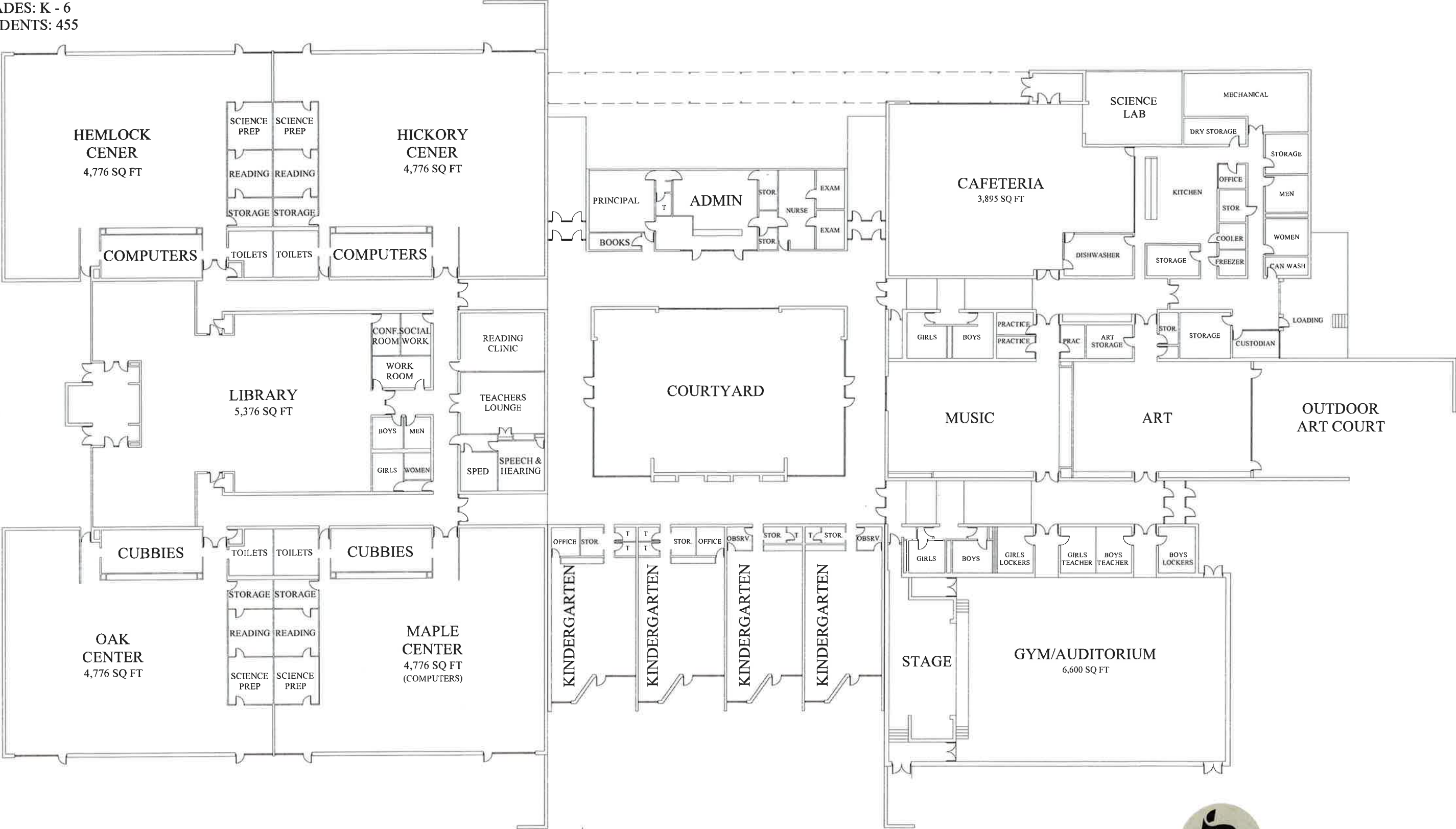
Town of Hamden - School Studies
West Woods School

350 WEST TODD STREET, HAMDEN CT 06518
BUILT: 1970
EXISTING SQUARE FOOTAGE: 82,651
GRADES: K - 6
STUDENTS: 455



Town of Hamden - School Studies
West Woods School

350 WEST TODD STREET, HAMDEN CT 06518
BUILT: 1970
EXISTING SQUARE FOOTAGE: 82,651
GRADES: K - 6
STUDENTS: 455

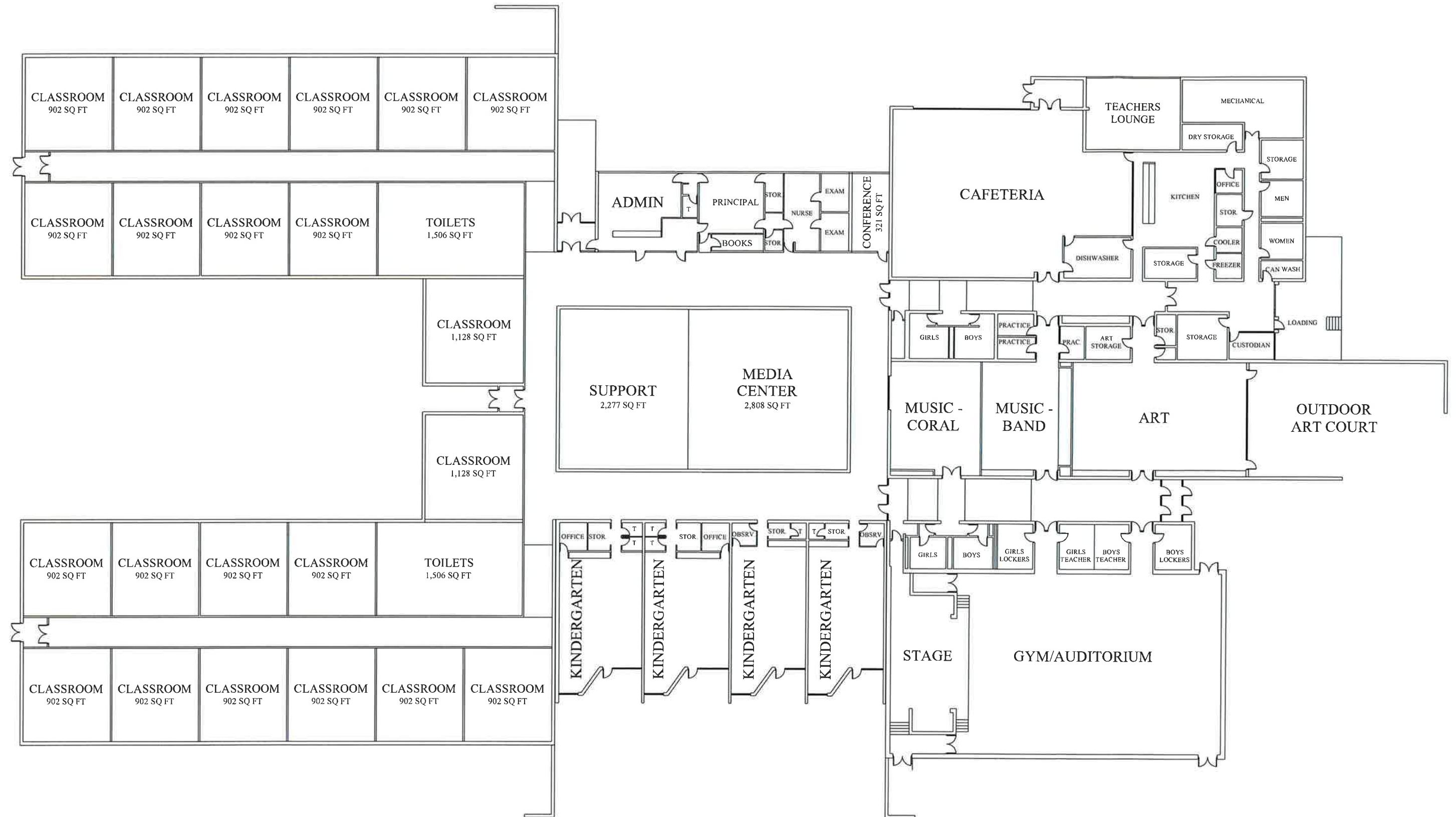


WEST WOODS SCHOOL
EXISTING SCHEMATIC FLOOR PLAN



SILVER / PETRUCCELLI + ASSOCIATES
Architects / Engineers / Interior Designers



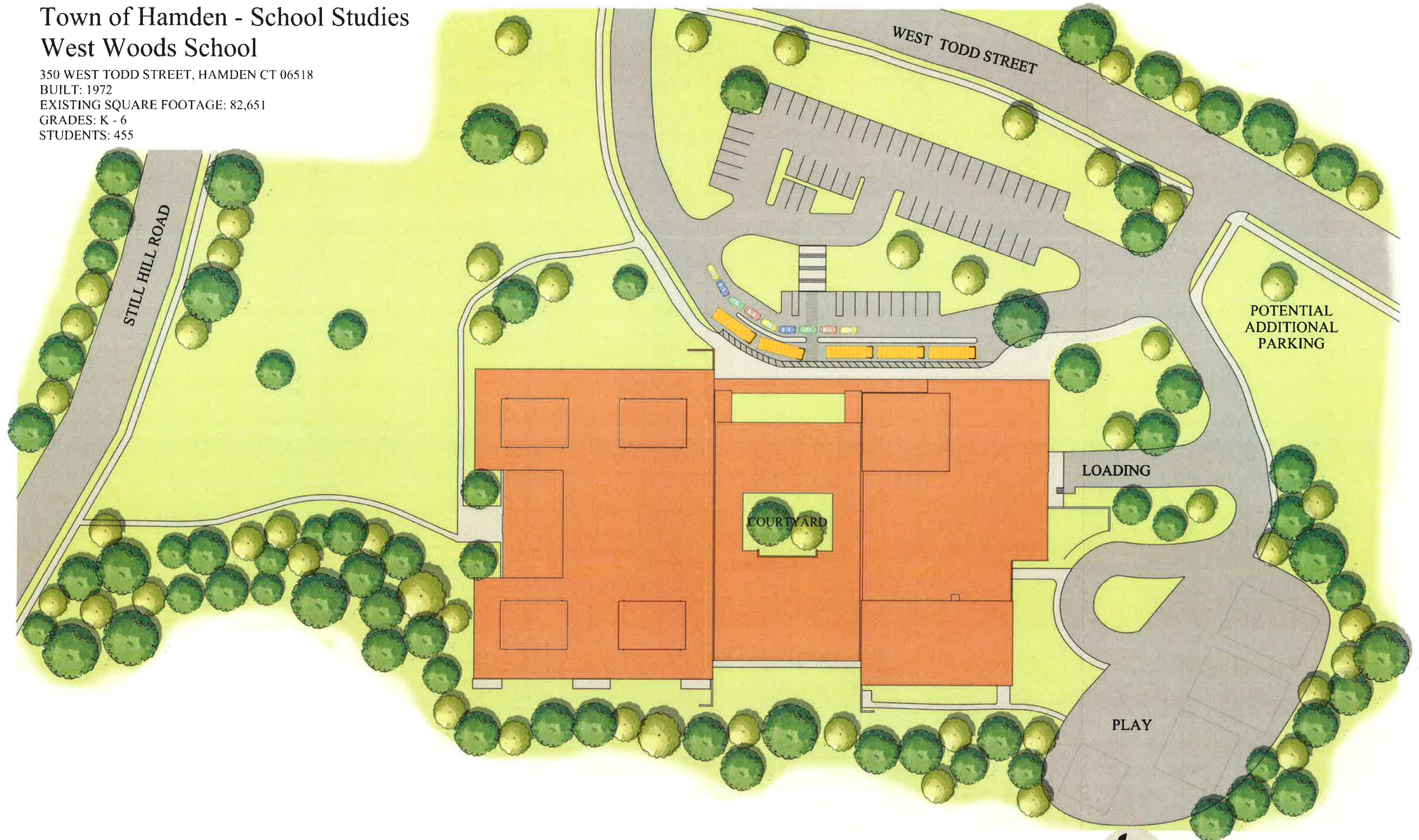


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Town of Hamden - School Studies

West Woods School

350 WEST TODD STREET, HAMDEN CT 06518
BUILT: 1972
EXISTING SQUARE FOOTAGE: 82,651
GRADES: K - 6
STUDENTS: 455



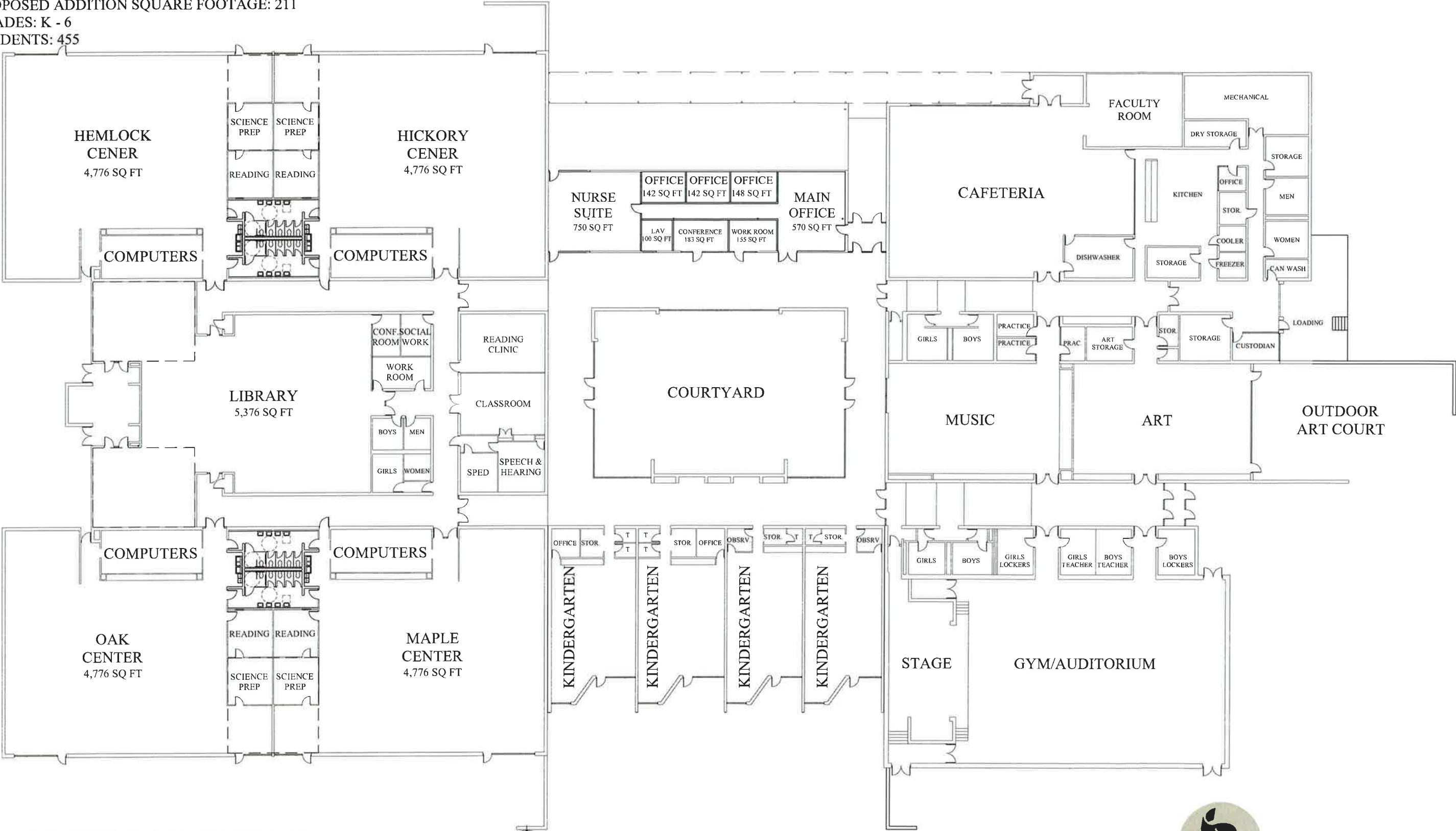
WEST WOODS SCHOOL
SCHEMATIC SITE PLAN OPTION



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Town of Hamden - School Studies
West Woods School

350 WEST TODD STREET, HAMDEN CT 06518
BUILT: 1972
EXISTING SQUARE FOOTAGE: 82,651
PROPOSED ADDITION SQUARE FOOTAGE: 211
GRADES: K - 6
STUDENTS: 455



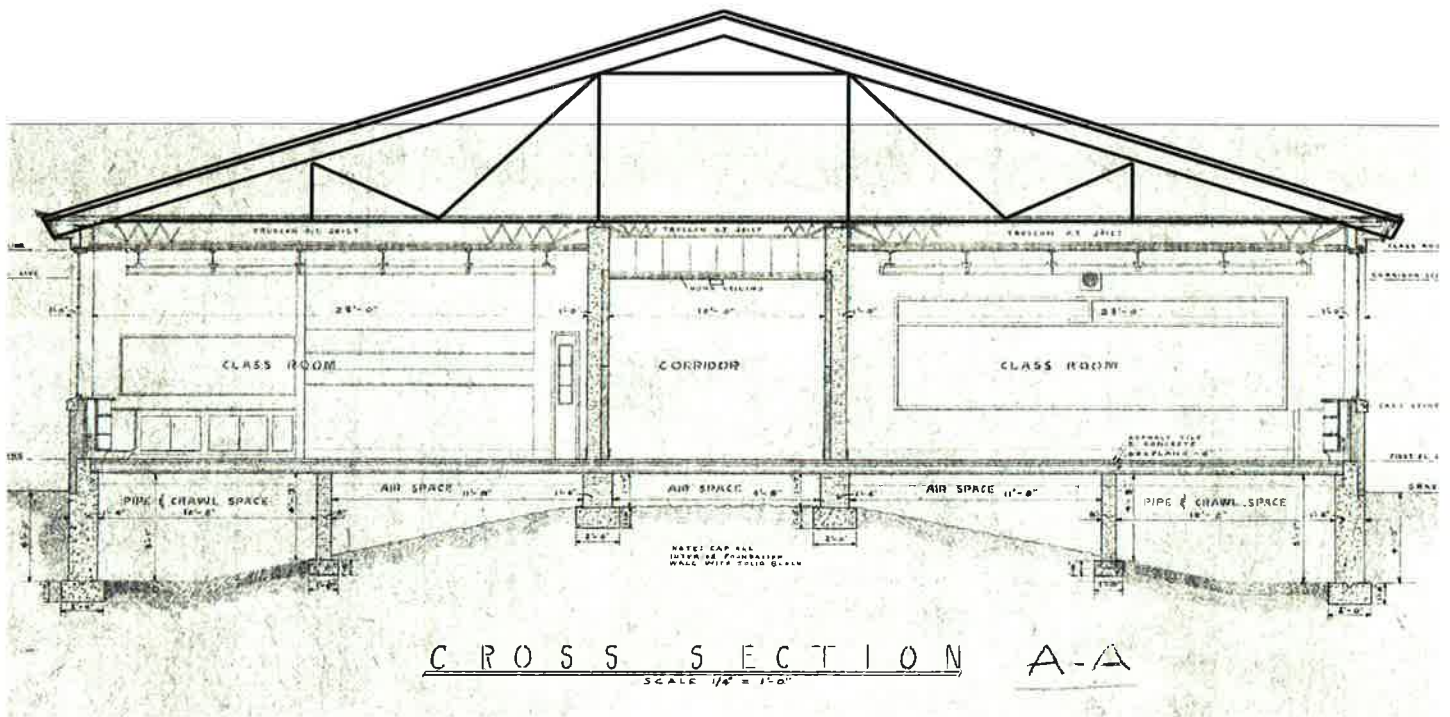
WEST WOODS SCHOOL
SCHEMATIC FLOOR PLAN OPTION



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Town of Hamden - School Studies

Alice Peck School



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ALICE PECK SCHOOL SCHEMATIC SECTION



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Section V – Project Costs

Construction and Project Cost Estimates

Preliminary cost estimates are included in this report based on the proposed Floor Plan Options, as well as the analysis in this study. We included three different formats, square foot costs, the four (4) Capitol Improvement list provided in the Appendix of the RFP and details cost estimating. At this stage of the process, these costs may vary +/- 10% since they are conceptual construction costs and are based on preliminary floor plans, narrative analysis, and average cost for similar school projects. Further, while there is an inflation factor, and contingency, the estimated costs may fluctuate over time given market and economic conditions of the construction industry, the State, the US and world economy in general, where escalation is difficult to predict.

The square foot and detailed estimates include the anticipated State reimbursement rate for eligible cost, which is shown as a percentage based on the decision to follow the Alteration or Renovate as New process. Previously issued during the course of this study, we discussed a matrix titled School Construction Cost per square feet for each of the two elementary schools. The matrix calculate the Renovate as New approach as well as the specified approach, including Alteration (limited and specific renovations) Code Violation, Roof Replacement, etc. The scale and complexity of the Shepherd Glen School project, suggests the Renovate as New approach may be the best approach for this projects. This coupled with a lower anticipated Town contribution, the PMBC determined to follow Renovate as New process. Please see Section I – Introduction for a more detailed and specific definition of the State defined Renovation aka Renovate as New process.

The state reimbursement percentage for the 2014-2015 ED Application year for the Town of Hamden is 66.79% for qualified school construction and 56.79% for qualified new school construction. The ultimate determination and calculation for reimbursement is determined through a formal application to the State Department of Administrative Services, the Department of Construction Services, the State Department of Education and Office of School Facilities for each project undertaken. The information provided herein is for discussion and determining the final approach to an anticipated Town referendum and the grant application to the State by the June 30 deadline. The process to determine final reimbursement for the average project ranges from one to two years from application to the commencement of construction.

These estimated costs are based on fundamental and basic Connecticut school “renovations”, additions, and alterations and are based on the gathered data. These estimates are also considered base-line starting points and should be reviewed and scrutinized. These estimates are derived from historical and industry data for similar projects. More extensive renovations and building improvements for the Renovate as New option will be generated as the process continues. The estimates should follow a similar updating process. The Town could elect to hire

a construction manager early in the process and these services would include estimating. At this stage of the process the estimates focus on the major elements of construction and identify other potential project costs. Not all of these cost have been included in the estimates.

The cost of ‘Renovation’ includes the costs to upgrade the existing building(s) and includes alterations to numerous partitions, spaces, all finishes and all building systems. This approach is considered to be heavy demolition work throughout the facility, effectively creating a 20 year lifespan (minimum) of the improved School. It should be noted that an entire ‘gutting’ of the existing building down to structural components, or foundation may well be new construction cost, and as noted above this determination will be made over time and through the State Grant application process. However, a project can only be classified as Renovate or New and not both.

The cost estimates presented are based on 2014/2015 rates and should be escalated at least 5% per year to the anticipated year of bidding and the start of construction. An annual 5% increase in the State has been typical of school constriction for approximately the last six years.

The first four matrices presented are square foot analysis for Alterations, Renovate as New, (Renovate) and New Construction as applicable to each School. These square foot cost are widely accepted in the school construction industry as well as the State DAS/OSF and the State grant database. They are used here for decision making purposes and to determine the project process moving forward. The square foot cost also reflect the State reimbursement rate for the Town of Hamden. Most project eligible for State funding use the State grant process. Finally, it should be noted that current statues have dropped the reimbursement rate for New Constriction by 10 percentage point’s state wide, and this is reflected in the square foot costs.

We prepared an estimated Construction Cost for each of the items identified in each of the four (4) “Attachment A - D” of Capital Improvements request in the RFP. These cost were requested as effectively standalone project numbers and do not anticipate any state reimbursement or economy of a total project cost. There is certainly overlap of the capital cost with the square foot cost and the matrices noted below. We sought to make the study as inclusive of options as possible.

The three detailed matrices are for two options (A & B) at Shepherd Glen School and the one concept at Alice Peck School. These estimates are for a standalone project with the scope general proposed on the architectural designs. These two are for decision making purposes and if any of these three standalone project were selected they could be included in a total project, most readily the Renovate-as-New projects.

The enclosed estimated construction cost do not consider current project or studies which may well refine, update or negate these estimated costs.

Hamden Public Schools - Feasibility Study

School Construction Cost per square foot

Shepherd Glen School

Compare 3 Options: Alterations, Renovate, & New

		Area	Totals
Alteration		51,645	
\$250	Average cost per square foot	51,645	\$12,911,250
Total estimated Construction Cost			\$12,911,250
Anticipated Reimbursement		66.79%	\$8,623,424
Anticipated Town of Hamden share			\$4,287,826
Renovate as New - Recommended			
\$350	Average cost per square foot	51,645	\$18,075,750
<i>SF cost still to be confirmed</i> Total estimated Construction Cost			\$18,075,750
Anticipated Reimbursement		66.79%	\$12,072,793
Anticipated Town of Hamden share			\$6,002,957
New Construction			
\$450	Average cost per square foot	49,462	\$22,257,900
Total estimated Construction Cost			\$22,257,900
Anticipated Reimbursement *		56.79%	\$12,640,261
Anticipated Town of Hamden share			\$9,617,639
* Space Standards area used to avoid possible reduction of reimbursement			

Hamden Public Schools - Feasibility Study

School Construction Cost per square foot

West Woods Schools

Compare 2 Options: Alterations & Renovate

		Area	Totals
Alteration - Recommended		82,650	
\$250	Average cost per square foot	82,650	\$20,662,500
Total estimated Construction Cost			\$20,662,500
Anticipated Reimbursement *		66.79%	\$13,800,484
Anticipated Town of Hamden share			\$6,862,016
Renovate as New			
\$350	Average cost per square foot	82,650	\$28,927,500
Total estimated Construction Cost			\$28,927,500
Anticipated Reimbursement *		66.79%	\$19,320,677
Anticipated Town of Hamden share			\$9,606,823
* Exceeds Space Standards, reduction possible			

Hamden Public Schools - Feasibility Study

School Construction Cost per square foot

West Woods Schools

Based on demolition, adding closed Classrooms

		Area	Totals
Renovate as New		44,750	
\$350	Average cost per square foot	44,750	\$15,662,500
Total estimated Construction Cost			\$15,662,500
Anticipated Reimbursement *		66.79%	\$10,460,984
Anticipated Town of Hamden share			\$5,201,516
Area of new construction		29,150	
\$450	Average cost per square foot	29,150	\$13,117,500
Total estimated Construction Cost			\$13,117,500
Anticipated Reimbursement *		56.79%	\$7,449,428
Anticipated Town of Hamden share			\$5,668,072
Totals combined			
Total estimated Construction Cost			\$28,780,000
Anticipated Reimbursement *			\$17,910,412
Anticipated Town of Hamden share			\$10,869,588
* Exceeds Space Standards, reduction possible			

Hamden Public Schools - Feasibility Study

School Construction Cost per square foot

Alice Peck School

Compare 2 Options: Alterations & Renovate

		Area	Totals
Alteration (recommended for selected improvements)		46,000	
\$250	Average cost per square foot	46,000	\$11,500,000
Total estimated Construction Cost			\$11,500,000
Anticipated Reimbursement		66.79%	\$7,680,850
Anticipated Town of Hamden share			\$3,819,150
Renovate as New (recommend for reuse as Elementary School)			
\$350	Average cost per square foot	46,000	\$16,100,000
Total estimated Construction Cost			\$16,100,000
Anticipated Reimbursement		66.79%	\$10,753,190
Anticipated Town of Hamden share			\$5,346,810

Attachment "A"
Shepherd Glen Proposed Capital Improvements

TASK		Estimated Construction Cost *
1	Replace all unit ventilators throughout building incl. A/C	\$240,000
2	Replace all windows and frames	\$260,000
2A	Repalce shingle siding with windows and frames	\$330,000
3	Implement traffic flow and parking improvements	
4	Replace deteriorated exterior doors (fall 2014 project)	\$67,233
5	Install automatic door closers on existing classroom fire doors	\$70,000
6	Upgrade telephone system (Fall 2014 by Facilities)	?
7	Replace drywell roof drainage system with permanent drains	\$96,000
8	Replace deteriorated asphalt sidewalks (use concrete)	\$400,000
9	Implement additional building security measures (need committee definition. Recent security grant implemented)	\$112,000
10	Upgrade gymnasium ventilation system to include air conditioning	\$150,000
11	Replace 1000 gallon water heater with smaller, energy efficient unit (fall 2014 project)	\$73,126
12	Replace perimeter lighting including driveway and parking lot	
13	Improve landscaping - allowance	\$75,000
13A	Fence perimeter with 4-foot high chain link - 3 perimeter lot lines	\$196,800
14	Upgrade kitchen area	
14A	Plumbing - Code Upgrades only; includes ADA prep sink/station	\$6,000
14B	Plumbing - Complete renovation-Demo/Roughs only; F&E: Line 14	\$17,000
15	Renovate all restrooms	\$158,760
15A	Plumbing fixtures, piping, etc. - ADA, IPC water conserving	\$171,000
16	Replace hallway dividers with permanent structures (demo, non code compliant)	\$25,000
17	Clean, paint or replace stained and damaged "tectum" ceiling tiles (10% allowance with roof replacement)	\$129,113
17A	Replace Roof and include Tectum deck allowance	\$1,291,125
18	Replace classroom water heaters with point-of-use units	
18A	Option 1: Small storage volume, 1.5 KW P-O-U units	\$15,000
18B	Option 2: Instantaneous units, no storage; incl. elec. upgrades	\$35,000
19	Re-torque all structural fasteners to specification (allowance)	\$25,000
20	Expand existing playground	\$250,000
21	Remodel faculty preparation room	\$45,000
22	Replace classroom furniture (Cubbies & desks, chairs)	\$275,100
23	Replace outdated sink in all classroom	\$150,000
24	Replace and/or repaint rotted and damaged cedar shingle siding	see 2A
25	Replace drinking fountains and classroom sinks	\$31,000
26	Install main water shutoff inside building	\$2,500
27	Install electric lift system to access loft storage area	\$50,000
28	Improve lighting at main entryway	\$15,000
29	Plumbing - Thermostatic mixing valve-each wtr heater (12 total)	\$10,000
30	Plumbing - Expansion tank-storage htr systems w/checks- Allow.	\$3,000
TOTAL ESTIMATED COST		\$4,774,757
<p><i>* Note: Estimated Construction Costs are shown as individual project cost and could be a stand along project. Combining projects may lower the profit and overhead if a general contractor approach to project delivery is used.</i></p>		

Attachement "B"

West Woods Proposed Capital Improvements

	TASK	Estimated Construction Cost *
1	Re-point/re-flash/reseal parapets and exterior walls	\$175,000
2	Expand intercom system to hallways and exterior of building (Facilities project)	\$5,500
3	Implement traffic flow and parking improvements	\$125,000
4	Replace exterior railings	\$25,000
5	Replace sidewalk at main entrance - Fall 2014 project	\$69,000
6	Renovate all restrooms	\$186,000
6A	Plumbing fixtures, piping, etc. ADA, water conserving	\$230,000
7	Replace all interior wooden doors	\$120,000
8	Replace outdated playground equipment (allowance)	\$250,000
9	Implement additional building security measures. (need committee definition. Recent security grant implemented)	\$365,000
10	Create additional computer labs in Maple and Oak	\$25,000
	Ceiling replacement Fall 2014	\$46,500
11	Replace HVAC system and incorporate dehumidification	\$450,000
12	Replace perimeter lighting including driveway and parking lot	\$125,000
13	Improve landscaping (allowance)	\$75,000
14	Upgrade cafeteria kitchen	\$50,000
14A	Plumbing- Code Issues only	\$3,000
14B	Plumbing- Complete renovation: Roughs only- F&E in Line 14	\$17,000
15	Replace roofing system (\$25.00 / sq-ft * 82000 sq-ft)	\$2,150,000
16	Replace "spline" ceiling with suspended ceiling	\$309,600
17	Replace septic system pump house (requires scope clarification)	
17A	Plumbing - Replace pumps and controls	\$15,000
18	Replace HVAC unit roof curbs	\$126,600
19	Replace classroom sinks & drinking fountains; add'l sinks	
19A	Plumbing fixtures, piping etc. ADA, water-conserving	\$65,000
20	Replace public area water coolers and drinking fountains	
20A	Plumbing fixtures, piping, etc	\$12,000
21	Plumbing - Provide AGRU on Pot Sink waste	\$10,000
22	Plumbing - Provide Exp. tanks on water heaters w/checks-Allow	\$4,000
23	Plumbing - Provide Thermostatic mixing valves on water heater systems	\$6,000
TOTAL ESTIMATED COST		\$4,943,200
<p><i>* Note: Estimated Construction Costs are shown as individual project cost and could be a stand along project. Combining projects may lower the profit and overhead if a general contractor approach to project delivery is used.</i></p>		

Attachment "C"
Alice Peck Proposed Capital Improvements

	TASK	Estimated Construction Cost *
1	Replace two 1953 Bigelow boilers with new, energy efficient gas-fired units	\$110,000
1A	Plumbing- Gas piping revisions	\$5,000
2	Replace all rooftop DX AC units	
2A	Plumbing - Gas piping revisions	\$5,000
3	Install new Building Management System (BMS) for HVAC and energy control	\$100,000
4	Install new sidewalks throughout property (use concrete)	\$400,000
5	Install energy-efficient exterior lighting	
6	Re-pave parking lot	\$875,000
7	Implement additional security measures (cameras, DVR, door access, etc.)	\$103,500
8	Install new roof and skylights in main building	\$1,242,000
9	Install new roof and skylights in media center (included in above)	
10	Renovate all restrooms	\$150,000
10A	Plumbing fixtures, piping, etc.	\$162,000
11	Replace all steam traps on unit ventilators	\$15,000
12	Redesign and upgrade crawlspace ventilation system	
13	Evaluate and replace/upgrade all unit ventilator controls	see item #3 BMS
14	Improve landscaping (allowance)	\$75,000
15	Upgrade kitchen area	\$25,000
15A	Plumbing - Code Issues Only (ADA and standard Prep sinks/tables)	\$10,500
15B	Plumbing - Complete Renovation-Roughs only F&E in Line 15	\$17,000
16	Patch all interior masonry and sheetrock walls, prime and paint	\$80,500
17	Service and replace, if necessary, all classroom sink units	
17A	Plumbing fixtures, piping, etc (new child/adult ADA fixtures)	\$102,000
18	Replace all hallway drinking fountains to meet ADA requirements	
18A	Plumbing fixtures, piping, etc.	\$9,000
19	Upgrade building PA system to meet current life-safety codes	
20	Replace classroom furniture	\$875,000
21	Replace and/or repaint rotted and damaged exterior woodwork by storage shed (allowance)	\$50,000
22	Remove and remediate existing 10,000 gal underground oil tank	\$54,000
23	Upgrade and install new HVAC system for media center	\$237,500
24	Install above-ground access to media center crawlspace (allowance)	\$125,000
25	Service all steam, water and sewer piping in crawlspaces	
25A	HVAC	
25B	Plumbing	\$18,000
26	Repair/replace insulation on all crawlspace piping, where required	
26A	HVAC	
26B	Plumbing - (Full reinsulation of tunnel domestic water piping	\$21,000
27	Install concrete floor in all building crawlspaces	\$250,000
28	Plumbing - Install expansion tank - each wtr heating system	\$2,000
29	system	\$2,300
TOTAL ESTIMATED COST		\$5,117,000
<i>* Note: Estimated Construction Costs are shown as individual project cost and could be a stand along project. Combining projects may lower the profit and overhead if a general contractor approach to project delivery is used.</i>		

Attachment "D"

Central Administration building Proposed Capital Improvements

	TASK	Estimated Construction Cost *
1	Replace two 1935 Bigelow boilers with new, energy efficient gas-fired units	\$180,000
1A	Plumbing - Gas Piping Revisions	\$5,000
2	Replace all rooftop DX HVAC units	\$280,000
2A	Plumbing - Gas Piping Revisions	\$10,000
3	Expand existing building management system to include HVAC, boiler and energy control	included in 1,2,9
4	Install new sidewalks throughout property	\$140,000
5	Re-grade and re-pave parking lot	\$750,000
6	Install energy-efficient exterior lighting	\$22,000
7	Implement additional security measures (cameras, DVR, door access, etc.)	\$52,500
8	Replace skylights in main building	\$60,000
9	Install gas-fired HVAC system in gymnasium	\$176,000
9A	Plumbing - New Gas Piping	\$30,000
10	Improve landscaping (allowance)	\$50,000
11	Patch and paint all interior walls	\$320,000
12	Replace and/or repaint rotted and damaged exterior woodwork	\$250,000
13	Remove and remediate existing 8,000 gal underground oil tank	\$54,000
14	Complete carpet replacement throughout building	\$142,222
15	Replace elevator with accessible unit	\$125,000
16	Repoint exterior brickwork	\$275,000
17	Replace exterior doors	\$33,000
18	Install new Low-E" windows throughout building	\$577,500
19	Plumbing: Provide expansion tank on water heater if Req'd	\$1,000
20	Plumbing: Provide thermostatic mixing valve for domestic water heater system	\$1,000
TOTAL ESTIMATED COST		\$3,532,222

** Note: Estimated Construction Costs are shown as individual project cost and could be a stand alone project. Combining projects may lower the profit and overhead if a general contractor approach to project delivery is used.*

Item 13 Note : underground storage tank cost does not include additional excavation, soil replacement, or site remediation required in the event that contamination is discovered

Item 2 Note : existing 3 rtus on roof are straight cooling with duct mounted reheat coils

**Town of Hamden
School Facilities Improvement Project**

Shepherd Glen School - Entry alterations		Element - Level 3				Level 2	Level 1
	Option A - Stand alone Project	Qty	Unit	Rate	Amount	Amount	Amount
A. SUBSTRUCTURE							\$343,096
	A10 Foundations					\$343,096	
	A1010 Standard Foundations	914	CY	\$225.00	\$205,600		
	A1020 Special Foundations	267	CY	\$350.00	\$93,333		
	A1030 Slab on Grade	4,206	SF	\$10.50	\$44,163		
					\$343,096		
	A20 Basement Construction					\$0	
B. SHELL							\$354,968
	B10 Superstructure					\$61,680	
	B1010 Floor Construction - stage	0	SF	\$50.00	\$0		
	B1011 Floor Construction - 2nd floor	0	SF	\$40.00	\$0		
	B1020 Roof Construction	2,056	SF	\$30.00	\$61,680		
	B1021 Gym Roof Construction	0	SF	\$45.00	\$0		
					\$61,680		
	B20 Exterior Closure					\$246,000	
	B2010 Exterior Walls - w/ structure	800	SF	\$175.00	\$140,000		
	B2020 Exterior Windows	0	SF	\$65.00	\$0		
	B2021 Exterior - glazed storefront	1,000	SF	\$85.00	\$85,000		
	B2030 Exterior Doors - pair 6' opening	6	EA	\$3,500.00	\$21,000		
					\$246,000		
	B30 Roofing					\$47,288	
	B3010 Roof Covering (New)	2,056	SF	\$23.00	\$47,288		
	B3020 Roof Openings	0	EA	\$1,500.00	\$0		
	B3040 Roofing recover	0	SF	\$15.00	\$0		
					\$47,288		
C. Interiors							\$186,376
	C10 Interior Construction					\$135,904	
	C1010 Partitions 8 -inch CMU	4,646	SF	\$24.00	\$111,504		
	C1011 Partitions - Gyp BD Admin	0	SF	\$10.00	\$0		
	C1020 Interior Doors Wood Solid core	12	EA	\$1,200.00	\$14,400		
	C1025 Interior Doors - pair 6' opening	4	EA	\$2,500.00	\$10,000		
	C1030 Specialties - toilet part't; accessory; etc.	0	EA RM	\$12,000.00	\$0		
					\$135,904		
	C20 Staircases					\$0	
	C30 Interior Finishes					\$50,472	
	C3010 Wall Finishes - ptd & tile, avg.	4,206	SF	\$3.00	\$12,618		
	C3020 Floor Finishes - avg.	4,206	SF	\$4.00	\$16,824		
	C3030 Ceiling Finishes	4,206	SF	\$5.00	\$21,030		
					\$50,472		
D. Services							\$1,135,850
	D10 Conveying Systems					\$0	
	D1010 Elevators		EA	\$125,000.00	\$0		
	D1020 Chairlift				\$0		
					\$0		
	D20 Plumbing					\$244,000	
	D2010 Plumbing Fixtures	1	LS	\$194,000.00	\$194,000		
	D2040 Domestic Water Heating	1	LS	\$50,000.00	\$50,000		
					\$244,000		
	D30 HVAC					\$275,000	
	D3020 Heat Generating Systems		LS				
	D3030 Cooling Generating Systems		LS				
	D3040 Distribution Systems		LS				

**Town of Hamden
School Facilities Improvement Project**

Shepherd Glen School - Entry alterations		Element - Level 3				Level 2	Level 1
		Qty	Unit	Rate	Amount	Amount	Amount
	Option A - Stand alone Project						
	D3060 Controls & Instrumentation		LS				
	D3070 Special HVAC Systems & Equipment	5,000	SF	\$55.00	\$275,000		
	D3080 Systems Testing & Balancing		LS				
					\$275,000		
	D40 Fire Protection					\$0	
					\$0		
	D50 Electrical					\$616,850	
	D5010 new Electrical Service & Distribution	1	LS	\$56,600.00	\$56,600		
	D5020 Lighting	1	LS	\$448,250.00	\$448,250		
	D5091 Security systems	1	LS	\$112,000.00	\$112,000		
					\$616,850		
	E. Equipment & Furnishings						\$0
	F. Special Construction & Demolition						\$79,860
	F20 Selective Building Demolition					\$79,860	
	F2010 Building Elements Demolition	3,150	SF	\$12.00	\$37,800		
	F2020 Hazardous Components Abatement	4,206	SF	\$10.00	\$42,060		
	F2030 Hazardous Abatement tunnels	0	LS	\$150,000.00	\$0		
					\$79,860		
	G. Building Sitework						\$1,967,250
	G10 Site Preparation					\$198,000	
	G1010 Site Clearing	25,500	SF	\$3.00	\$76,500		
	G1020 Site Demolition & Relocations	1	LS	\$15,000.00	\$15,000		
	G1030 Site Earthwork	25,500	SF	\$3.00	\$76,500		
	G1040 Hazardous Waste Remediation	1	ALLOW	\$30,000.00	\$30,000		
					\$198,000		
	G20 Site Improvements					\$1,424,250	
	G2010 Roadways	1	Per Acre	\$275,000.00	\$275,000		
	G2020 Parking Lots	1.25	Per Acre	\$275,000.00	\$343,750		
	G2030 Pedestrian Paving - Concrete	6,000	SF	\$8.00	\$48,000		
	G2040 Site Development	2.3	Per Acre	\$275,000.00	\$632,500		
	G2050 Landscaping	1	Per Acre	\$125,000.00	\$125,000		
					\$1,424,250		
	G30 Site Civil/Mechanical Utilities					\$345,000	
	G3010 Water Supply & Distribution Systems				\$0		
	G3020 Sanitary Sewer Systems				\$0		
	G3021 Septic System	0	LS	\$500,000.00	\$0		
	G3030 Storm Sewer Systems	2.3	Per Acre	\$150,000.00	\$345,000		
	G3040 Heating Distribution				\$0		
	G3050 Cooling Distribution				\$0		
	G3060 Fuel Distribution - new UST Oil	0	LS	\$125,000.00	\$0		
	G3070 Other Civil/Mechanical Activities				\$0		
					\$345,000		
	G40 Site Electrical Utilities					\$0	
	G4010 Electrical Distribution	0	LS	\$10,000.00	\$0		
	G4020 Site Lighting	0	LS	\$60,000.00	\$0		
	G4030 Site Communications & Security	0	LS	\$5,000.00	\$0		
					\$0		
	G50 Other Site Construction					\$0	
					\$0		

**Town of Hamden
School Facilities Improvement Project**

Shepherd Glen School - Entry alterations		Element - Level 3				Level 2	Level 1
	Option A - Stand alone Project	Qty	Unit	Rate	Amount	Amount	Amount
Building Trade Cost - Subtotal						\$4,067,400	\$4,067,400
Z10 Design Allowance						\$760,953	\$760,953
	Z10 Design A&E fee Allowance	4,067,400		6.00%	\$244,044		
	Z20 Testing, Special Inspections	4,067,400		2.75%	\$111,854		
	Z21 Design Contingency	4,067,400		5.00%	\$203,370		
	Z22 Specialty Consultants, Geo; Traffic;	4,067,400		2.50%	\$101,685		
	Z23 Commisioning Agent	1	LS	\$100,000.00	\$100,000		
					\$760,953		
Building Trade Cost - Design							\$4,828,353
Z20 Overhead & Profit						\$610,110	\$610,110
	Z2010 Overhead	4,067,400		3.00%	\$122,022		
	Z2020 Profit	4,067,400		7.00%	\$284,718		
	Z2021 Construction contingency	4,067,400		5.00%	\$203,370		
	Z2022 Construction Manager fee			2.00%	\$0		
	Z2023 Permits; Performance & Payment bonds				\$0		
					\$610,110		
Building Construction Cost without Other Allowances							\$5,438,463
Z30 Allowances						\$271,923	\$271,923
	Z30 Inflation Allowance	5,438,463		5.00%	\$271,923		
	Z31 Phasing, swing space, portables				\$0		
	Z32 Moving, storage				\$0		
	Z33 New Furniture, Fixtures & Equipment				\$0		
					\$271,923		
Total Project Cost							\$5,710,386
	Anticipated State Reimbursement - Renovate as New, grant application			66.79%			\$3,813,967
	Anticipated Town of Hamden share of total Project Cost						\$1,896,419
Additional Project Cost information							
	Gross Cost per square foot with site cost	4,206	SF	total project cost	\$5,710,386	Cost per SF	\$1,357.68

**Town of Hamden
School Facilities Improvement Project**

Shepherd Glen - Gym Addition		Element - Level 3				Level 2	Level 1
	Option B - Stand alone project	Qty	Unit	Rate	Amount	Amount	Amount
A. SUBSTRUCTURE							\$946,696
A10 Foundations						\$946,696	
	A1010 Standard Foundations	3,520	CY	\$225.00	\$792,000		
	A1020 Special Foundations	89	CY	\$350.00	\$31,111		
	A1030 Slab on Grade	11,770	SF	\$10.50	\$123,585		
					\$946,696		
A20 Basement Construction						\$0	
B. SHELL							\$1,036,560
B10 Superstructure						\$447,400	
	B1010 Floor Construction - stage	800	SF	\$50.00	\$40,000		
	B1011 Floor Construction - 2nd floor	0	SF	\$40.00	\$0		
	B1020 Roof Construction	1,700	SF	\$30.00	\$51,000		
	B1021 Gym Roof Construction	7,920	SF	\$45.00	\$356,400		
					\$447,400		
B20 Exterior Closure						\$407,000	
	B2010 Exterior Walls - w/ structure	3,000	SF	\$75.00	\$225,000		
	B2020 Exterior Windows	800	SF	\$65.00	\$52,000		
	B2021 Exterior - glazed storefront	1,200	SF	\$85.00	\$102,000		
	B2030 Exterior Doors - pair 6' opening	8	EA	\$3,500.00	\$28,000		
					\$407,000		
B30 Roofing						\$182,160	
	B3010 Roof Covering (New)	7,920	SF	\$23.00	\$182,160		
	B3020 Roof Openings	0	EA	\$1,500.00	\$0		
	B3040 Roofing recover	0	SF	\$15.00	\$0		
					\$182,160		
C. Interiors							\$509,704
C10 Interior Construction						\$188,904	
	C1010 Partitions 8 -inch CMU	6,646	SF	\$24.00	\$159,504		
	C1011 Partitions - Gyp BD Admin	0	SF	\$10.00	\$0		
	C1020 Interior Doors Wood Solid core	12	EA	\$1,200.00	\$14,400		
	C1025 Interior Doors pair 6' opening	6	EA	\$2,500.00	\$15,000		
	C1030 Specialties - toilet part's; accessory; etc.	0	EA RM	\$12,000.00	\$0		
					\$188,904		
C20 Staircases						\$55,000	
	C2010 Stair Construction - new @ stage	2	EA	\$10,000.00	\$20,000		
	C2010 Stair Construction - rebuild inside out	0	EA	\$15,000.00	\$0		
	C2020 Stair Finishes	0	EA	\$12,000.00	\$0		
	C2030 Ramp Construction	1	LS	\$35,000.00	\$35,000		
					\$55,000		
C30 Interior Finishes						\$265,800	
	C3010 Wall Finishes - ptd & tile, avg.	22,150	SF	\$3.00	\$66,450		
	C3020 Floor Finishes - avg.	22,150	SF	\$4.00	\$88,600		
	C3030 Ceiling Finishes	22,150	SF	\$5.00	\$110,750		
					\$265,800		
D. Services							\$2,079,100
D10 Conveying Systems						\$0	
D20 Plumbing						\$244,000	
	D2010 Plumbing Fixtures	1	LS	194000	\$194,000		
	D2040 Domestic Water Heating	1	LS	50000	\$50,000		
					\$244,000		
D30 HVAC						\$1,218,250	
	D3020 Heat Generating Systems		LS		\$0		

**Town of Hamden
School Facilities Improvement Project**

Shepherd Glen - Gym Addition				Element - Level 3		Level 2	Level 1
		Qty	Unit	Rate	Amount	Amount	Amount
Option B - Stand alone project							
	D3030 Cooling Generating Systems		LS		\$0		
	D3040 Distribution Systems		LS		\$0		
	D3060 Controls & Instrumentation		LS		\$0		
	D3070 Special HVAC Systems & Equipment	22,150	SF	\$55.00	\$1,218,250		
	D3080 Systems Testing & Balancing		LS		\$0		
					\$1,218,250		
D40 Fire Protection						\$0	
					\$0		
D50 Electrical						\$616,850	
	D5010 Electrical Service & Distribution	1	LS	\$56,600.00	\$56,600		
	D5020 Lighting & Branch Wiring	1	LS	\$448,250.00	\$448,250		
	D5030 Communication & Security Systems	1	LS	\$112,000.00	\$112,000		
E. Equipment & Furnishings							\$140,500
E10 Equipment						\$87,750	
	E1010 Commercial Equipment - Kitchen	0	LS	\$125,000.00	\$0		
	E1020 Institutional Equipment - gym, stage	1	Allow	\$35,000.00	\$35,000		
	E1040 Smart Boards	0	EA	\$2,000.00	\$0		
					\$35,000		
E20 Furnishings						\$52,750	
	E2010 Fixed Furnishings - Casework	125	LF	\$70.00	\$8,750		
	E2020 Movable Furnishings - storage	1	LS	\$35,000.00	\$35,000		
	E2021 Signage	30	EA	\$300.00	\$9,000		
					\$52,750		
F. Special Construction & Demolition							\$289,300
F10 Special Construction						\$0	
F20 Selective Building Demolition						\$289,300	
	F2010 Building Elements Demolition	5,650	SF	\$12.00	\$67,800		
	F2020 Hazardous Components Abatement	22,150	SF	\$10.00	\$221,500		
	F2030 Hazardous Abatement tunnels	0	LS	\$90,000.00	\$0		
					\$289,300		
G. Building Sitework							\$1,937,250
G10 Site Preparation						\$168,000	
	G1010 Site Clearing	25,500	SF	\$3.00	\$76,500		
	G1020 Site Demolition & Relocations	1	LS	\$15,000.00	\$15,000		
	G1030 Site Earthwork	25,500	SF	\$3.00	\$76,500		
	G1040 Hazardous Waste Remediation	0	ALLOW	\$30,000.00	\$0		
					\$168,000		
G20 Site Improvements						\$1,424,250	
	G2010 Roadways	1	Per Acre	\$275,000.00	\$275,000		
	G2020 Parking Lots	1.25	Per Acre	\$275,000.00	\$343,750		
	G2030 Pedestrian Paving - Concrete	6,000	SF	\$8.00	\$48,000		
	G2040 Site Development	2.3	Per Acre	\$275,000.00	\$632,500		
	G2050 Landscaping	1	Per Acre	\$125,000.00	\$125,000		
					\$1,424,250		
G30 Site Civil/Mechanical Utilities						\$345,000	
	G3010 Water Supply & Distribution Systems				\$0		
	G3020 Sanitary Sewer Systems				\$0		
	G3021 Septic System	0	LS	\$500,000.00	\$0		
	G3030 Storm Sewer Systems	2.3	Per Acre	\$150,000.00	\$345,000		
	G3040 Heating Distribution				\$0		

**Town of Hamden
School Facilities Improvement Project**

Shepherd Glen - Gym Addition		Element - Level 3				Level 2	Level 1
		Qty	Unit	Rate	Amount	Amount	Amount
	Option B - Stand alone project						
	G3050 Cooling Distribution				\$0		
	G3060 Fuel Distribution - new UST Oil	0	LS	\$125,000.00	\$0		
	G3070 Other Civil/Mechanical Activities				\$0		
					\$345,000		
	G40 Site Electrical Utilities					\$0	
	G4010 Electrical Distribution	0	LS	\$12,000.00	\$0		
	G4020 Site Lighting	0	LS	\$55,000.00	\$0		
	G4030 Site Communications & Security	0	LS	\$5,000.00	\$0		
					\$0		
	G50 Other Site Construction					\$0	
	Building Trade Cost - Subtotal					\$6,939,110	\$6,939,110
	Z10 Design Allowance					\$1,019,432	\$1,019,432
	Z10 Design A&E fee Allowance	6,939,110		6.00%	\$416,347		
	Z20 Testing, Special Inspections	6,939,110		2.25%	\$156,130		
	Z21 Design Contingency	6,939,110		5.00%	\$346,956		
	Z22 Specialty Consultants, Geo; Traffic;				\$0		
	Z23 Commisioning Agent	1	LS	\$100,000.00	\$100,000		
					\$1,019,432		
	Building Trade Cost - Design						\$7,958,542
	Z20 Overhead & Profit					\$1,040,867	\$1,040,867
	Z2010 Overhead	6,939,110		3.00%	\$208,173		
	Z2020 Profit	6,939,110		7.00%	\$485,738		
	Z2021 Construction contingency	6,939,110		5.00%	\$346,956		
	Z2022 Construction Manager fee			2.00%	\$0		
	Z2023 Permits; Performance & Payment bonds				\$0		
					\$1,040,867		
	Building Construction Cost without Other Allowances						\$8,999,409
	Z30 Allowances					\$449,970	\$449,970
	Z30 Inflation Allowance	8,999,409		5.00%	\$449,970		
	Z31 Phasing, swing space, portables				\$0		
	Z32 Moving, storage				\$0		
	Z33 New Furniture, Fixtures & Equipment				\$0		
					\$449,970		
	Total Building Construction Cost						\$9,449,379
	Anticipated State Reimbursement - Renovate as New, grant application			66.79%			\$6,311,240
	Anticipated Town of Hamden share of total Project Cost						\$3,138,139
	Additional Project Cost information						
	Gross Cost per square foot with site costs	22,150	SF	total project cost	\$9,449,379	Cost per SF	\$427

**Town of Hamden
School Facilities Improvement Project**

Alice Peck School - Roof addition				Element - Level 3		Level 2	Level 1
Alteration				Qty	Unit	Rate	Amount
A. SUBSTRUCTURE							
A10 Foundations							\$70,000
A20 Basement Construction							\$0
B2010 Basement Excavation					SF	\$40.00	\$0
B2020 Basement Walls					LF	\$350.00	\$0
B2040 Interior Foundation rebuild				1	Allow/LS	\$20,000.00	\$20,000
B2500 Allowance for crawl space/tunnels				1	Allow/LS	\$50,000.00	\$50,000
							\$70,000
B. SHELL							\$1,627,000
B10 Superstructure							\$874,000
B1010 Floor Construction - stage				0	SF	\$50.00	\$0
B1011 Floor Construction - 2nd floor				0	SF	\$40.00	\$0
B1020 Roof Construction				0	SF	\$30.00	\$0
B1021 Roof Construction				46,000	SF	\$19.00	\$874,000
							\$874,000
B20 Exterior Closure							\$0
B30 Roofing							\$753,000
B3010 Roof Covering (New)				46,000	SF	\$15.00	\$690,000
B3020 Roof Openings				14	EA	\$4,500.00	\$63,000
B3040 Roofing recover				0	SF	\$15.00	\$0
							\$753,000
C. Interiors							\$0
D. Services							\$2,530,000
D30 HVAC							\$2,530,000
D3020 Heat Generating Systems					LS		
D3030 Cooling Generating Systems					LS		
D3040 Distribution Systems					LS		
D3060 Controls & Instrumentation					LS		
D3070 Special HVAC Systems & Equipment				46,000	SF	\$55.00	\$2,530,000
D3080 Systems Testing & Balancing					LS		
							\$0
D50 Electrical							\$0
D5010 Electrical Service & Distribution				0	SF	\$4.00	
D5020 Lighting & Branch Wiring				0	SF	\$8.00	
D5030 Communication & Security Systems				0	SF	\$4.00	
D5040 Special Electrical Systems				0	SF	\$6.00	
				0	SF	\$2.00	
D5090 Other Electrical Systems				1	LS	\$125,000.00	
D5091 Other Electrical/Low Voltage systems				1	LS	\$40,000.00	
							\$0
E. Equipment & Furnishings							\$0
F. Special Construction & Demolition							\$954,430
F20 Selective Building Demolition							\$954,430
F2010 Building Elements Demolition				46,000	SF	\$12.00	\$552,000
F2020 Hazardous Components Abatement				40,243	SF	\$10.00	\$402,430
F2030 Hazardous Abatement tunnels				0	LS	\$90,000.00	\$0
							\$954,430
G. Building Sitework							\$0
Building Trade Cost - Subtotal							\$5,181,430
							\$5,181,430

**Town of Hamden
School Facilities Improvement Project**

Alice Peck School - Roof addition		Element - Level 3				Level 2	Level 1
	Alteration	Qty	Unit	Rate	Amount	Amount	Amount
	Z10 Design Allowance					\$725,400	\$725,400
	Z10 Design A&E fee Allowance	5,181,430		6.00%	\$310,886		
	Z20 Testing, Special Inspections	5,181,430		3.00%	\$155,443		
	Z21 Design Contingency	5,181,430		5.00%	\$259,072		
	Z22 Specialty Consultants, Geo; Traffic;				\$0		
	Z23 Commissioning Agent	0	LS	\$100,000.00	\$0		
					\$725,400		
Building Trade Cost - Design							\$5,906,830
	Z20 Overhead & Profit					\$777,215	\$777,215
	Z2010 Overhead	5,181,430		3.00%	\$155,443		
	Z2020 Profit	5,181,430		7.00%	\$362,700		
	Z2021 Construction contingency	5,181,430		5.00%	\$259,072		
	Z2022 Construction Manager fee			2.00%	\$0		
	Z2023 Permits; Performance & Payment bonds				\$0		
					\$777,215		
Building Construction Cost without Other Allowances							\$6,684,045
	Z30 Allowances					\$334,202	\$334,202
	Z30 Inflation Allowance	6,684,045		5.00%	\$334,202		
	Z31 Phasing, swing space, portables				\$0		
	Z32 Moving, storage				\$0		
	Z33 New Furniture, Fixtures & Equipment				\$0		
					\$334,202		
Total Building Construction Cost							\$7,018,247
	Anticipated State Reimbursement - Renovate as New, grant application			66.79%			\$4,687,487
	Anticipated Town of Hamden share of total Project Cost						\$2,330,760
Additional Project Cost information							
	Gross Cost per square foot	46,000	SF	total project cost	\$7,018,247	Cost per SF	\$153

Section VI – Appendix

Enrollment

Projected Elementary School population, 2011 – 2016 from BOE/Town RFP
District Map, MMI 2012 Enrollment Balancing presentation.

Hazardous Material

Inspection and Support Services for Facility Study for Asbestos, Lead-Based
Paint, and other Hazardous Materials Three Reports, one each school by
EnviroMed, Inc.
EPA Fact Sheet PCBs

State Grant

State Reimbursable Percentages Hamden, 2013 to 2015
Memorandum – Applicability of SSIC standards, dated 2-19-14
ED049 Submission Checklist
Cost Analysis for Renovation projects, BSF

Projected Elementary School Classroom Utilization

2011-
2012

Projected Class Room Utilization by Year
2011-2012 School Year

School	PreK	K	1	2	3	4	5	6	Total Classrooms
Bear Path School		3	4	3	3	3	3	4	23
Church Street School		3	3	3	3	3	3	3	21
Dunbar Hill School		3	3	2	2	2	2	2	16
Helen Street School		3	3	2	2	2	2	2	16
Ridge Hill School		4	2	3	3	3	2	2	19
Shepherd Glen School		3	4	3	2	2	2	2	18
Spring Glen School		3	3	3	4	2	2	2	19
West Woods School		4	4	5	5	3	3	4	28
TOTAL	0	26	26	24	24	20	19	21	160

2012-
2013

Projected Class Room Utilization by Year
2012-2013 School Year

School	PreK	K	1	2	3	4	5	6	Total Classrooms
Bear Path School		3	4	4	3	3	3	3	23
Church Street School		3	4	3	3	3	3	3	22
Dunbar Hill School		3	3	2	2	2	2	2	16
Helen Street School		3	3	3	2	1	2	2	16
Ridge Hill School		3	3	2	2	2	3	2	17
Shepherd Glen School		3	3	3	3	2	2	2	18
Spring Glen School		4	3	3	3	3	2	2	20
West Woods School		4	4	4	5	4	3	4	28
TOTAL	0	26	27	24	23	20	20	20	160

Projected Elementary School Classroom Utilization

2011-
2012

Projected Class Room Utilization by Year									
2013-2014 School Year									
School	PreK	K	1	2	3	4	5	6	Total Classrooms
Bear Path School		3	3	4	4	3	3	3	23
Church Street School		3	4	3	3	3	3	3	22
Dunbar Hill School		3	3	3	2	2	2	2	17
Helen Street School		3	2	3	2	2	1	2	15
Ridge Hill School		3	3	3	2	2	2	3	18
Shepherd Glen School		3	3	3	3	3	2	2	19
Spring Glen School		4	4	3	3	3	3	2	22
West Woods School		4	4	4	4	4	4	3	27
TOTAL	0	26	26	26	23	22	20	20	163

2012-
2013

Projected Class Room Utilization by Year									
2014-2015 School Year									
School	PreK	K	1	2	3	4	5	6	Total Classrooms
Bear Path School		3	3	3	4	3	3	3	22
Church Street School		3	4	4	3	3	3	3	23
Dunbar Hill School		3	3	3	3	2	2	2	18
Helen Street School		3	3	2	2	2	2	1	15
Ridge Hill School		3	3	3	3	2	2	2	18
Shepherd Glen School		3	3	3	3	3	3	2	20
Spring Glen School		4	3	4	3	3	2	3	22
West Woods School		4	4	4	4	3	4	4	27
TOTAL	0	26	26	26	25	21	21	20	165

Projected Elementary School Classroom Utilization

Projected Class Room Utilization by Year									
2015-2016 School Year									
School	PreK	K	1	2	3	4	5	6	Total Classrooms
Bear Path School		3	3	3	3	3	4	3	22
Church Street School		3	3	3	4	3	3	3	22
Dunbar Hill School		3	3	3	3	2	2	2	18
Helen Street School		3	2	3	2	2	2	2	16
Ridge Hill School		3	3	3	3	3	2	2	19
Shepherd Glen School		3	3	3	3	2	3	3	20
Spring Glen School		4	3	3	4	2	2	2	20
West Woods School		4	4	4	4	3	3	4	26
TOTAL	0	26	24	25	26	20	21	21	163

2015-
2016

Elementary School Net Capacity Findings

Projected Net School Capacity by Year						
Elementary School District	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	
Bear Path School	2	2	2	3	3	
Church Street School	3	2	2	1	2	
Dunbar Hill School	2	2	1	0	0	
Helen Street School	4	4	5	5	4	
Ridge Hill School	4	4	3	3	2	
Shepherd Glen School	1	0	-1	-2	-2	
Spring Glen School	3	2	0	0	2	
West Woods School	0	0	0	0	0	
Total Net Capacity:	19	16	12	10	11	

Elementary Projections 2011 - 2012 School Year

Deer Path School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	
Students in a Class	21	20	21	21	20	21	21	
Students in a Class	21	20	21	21	20	20	20	
Students in a Class	21	20	21	20	19	20	20	
Students in a Class		19					20	School Totals
Number of Students	63	72	63	62	59	61	61	468
Number of Classes	3	4	3	3	3	3	4	23
Average Class Size	21	20	21	21	20	20	20	20

Classrooms Available 25

Classrooms Needed 23

Net Capacity 2

Church Street School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	
Students in a Class	19	21	19	18	22	19	21	
Students in a Class	18	21	19	18	21	18	21	
Students in a Class	18	20	18	18	21	18	20	
Students in a Class								School Totals
Number of Students	55	62	56	54	64	55	62	408
Number of Classes	3	3	3	3	3	3	3	21
Average Class Size	18	21	19	18	21	18	21	19

Classrooms Available 21

Classrooms Needed 21

Net Capacity 3

Dunbar Hill School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	
Students in a Class	17	15	17	21	22	21	26	
Students in a Class	17	14	17	20	21	21	26	
Students in a Class	16	14						
Students in a Class								School Totals
Number of Students	50	43	34	41	43	42	52	305
Number of Classes	3	3	2	2	2	2	2	16
Average Class Size	17	14	17	21	22	21	26	19

Classrooms Available 18

Classrooms Needed 16

Net Capacity 2

Helen Street School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	
Students in a Class	19	18	20	12	16	16	17	
Students in a Class	18	18	19	12	16	16	16	
Students in a Class	18	17						
Students in a Class								School Totals
Number of Students	55	53	39	24	32	32	33	268
Number of Classes	3	3	2	2	2	2	2	16
Average Class Size	18	18	20	12	16	16	17	17

Classrooms Available 20

Classrooms Needed 16

Net Capacity 4

Ridge Hill School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	
Students in a Class	16	21	22	21	19	21	26	
Students in a Class	16	21	22	22	19	21	25	
Students in a Class	16				19			
Students in a Class								School Totals
Number of Students	64	42	44	43	57	42	51	343
Number of Classes	4	2	2	2	3	2	2	17
Average Class Size	16	21	22	22	19	21	26	20

Classrooms Available 21

Classrooms Needed 17

Net Capacity 4

Shoreland Glen School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	
Students in a Class	19	21	18	20	22	19	26	
Students in a Class	19	22	18	19	21	19	25	
Students in a Class	18	22	18					
Students in a Class								School Totals
Number of Students	56	65	54	39	43	38	51	346
Number of Classes	3	3	3	2	2	2	2	17
Average Class Size	19	22	18	20	22	19	26	20

Classrooms Available 11

Classrooms Needed 17

Net Capacity 1

Surfing Glen School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	
Students in a Class	20	20	19	18	24	22	15	
Students in a Class	20	20	19	17	23	22	14	
Students in a Class	19	20	18	17				
Students in a Class								School Totals
Number of Students	59	60	56	69	47	44	29	364
Number of Classes	3	3	3	4	2	2	2	19
Average Class Size	20	20	19	17	24	22	15	19

Classrooms Available 22

Classrooms Needed 19

Net Capacity 3

West Woods School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	
Students in a Class	17	19	21	21	25	26	20	
Students in a Class	16	18	21	21	24	26	20	
Students in a Class	16	18	21	22	24	26	20	
Students in a Class	16	18	22	22			19	
Students in a Class								School Totals
Number of Students	65	73	85	86	73	78	79	539
Number of Classes	4	4	4	4	3	3	4	26
Average Class Size	16	18	21	22	24	26	20	21

Classrooms Available 26

Classrooms Needed 26

Net Capacity 6

*This includes part of the Media Center that is currently utilized as two additional classrooms.

Elementary System Class Distribution & Staffing Summary

Summary	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	School Totals
Gr Level Student Totals	467	477	431	418	410	392	433	3,041
Gr Level Class Totals	26	26	22	22	20	19	21	156
Average Class Size	18	19	20	19	21	21	21	20
BOE Class Size	20	20	20	20	25	25	25	

Total Net Capacity 19

Elementary Projections 2012-2013 School Year

Beart Path School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	
Students in a Class	17	18	20	20	22	21	20	
Students in a Class	17	18	20	20	21	20	20	
Students in a Class	17	18	20	20	21	20	19	
Students in a Class		17	19					School Totals
Number of Students	51	71	79	60	81	61	59	445
Number of Classes	3	4	4	3	3	3	3	23
Average Class Size	17	18	20	20	21	20	20	19

Classrooms
Available
25

Classrooms

Needed 23 Net Capacity 2

Church Street School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	
Students in a Class	20	16	20	10	21	22	19	
Students in a Class	20	16	20	13	21	22	18	
Students in a Class	19	16	20	13	20	22	18	
Students in a Class		16						School Totals
Number of Students	59	64	60	54	62	66	55	420
Number of Classes	3	4	3	3	3	3	3	22
Average Class Size	20	16	20	18	21	22	18	19

Classrooms
Available
24

Classrooms
Needed 22 Net Capacity 2

Dunkin Hill School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	
Students in a Class	17	17	20	17	20	21	20	
Students in a Class	17	17	19	17	20	21	20	
Students in a Class	16	17						School Totals
Students in a Class								
Number of Students	50	51	39	34	40	42	40	296
Number of Classes	3	3	2	2	2	2	2	16
Average Class Size	17	17	20	17	20	21	20	19

Classrooms
Available
10

Classrooms

Needed 16 Net Capacity 2

Helen Street School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	
Students in a Class	17	16	17	16	25	15	17	
Students in a Class	16	16	16	16		15	16	
Students in a Class	16	15	16					School Totals
Students in a Class								
Number of Students	49	47	49	32	25	30	33	265
Number of Classes	3	3	3	2	1	2	2	16
Average Class Size	16	16	16	16	25	15	17	17

Classrooms
Available
20

Classrooms

Needed 16 Net Capacity 4

Ridge Hill School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	
Students in a Class	19	19	21	21	24	18	22	
Students in a Class	19	19	21	21	24	10	22	
Students in a Class	19	10				17		School Totals
Students in a Class								
Number of Students	57	56	42	42	40	53	44	342
Number of Classes	3	3	2	2	2	3	2	17
Average Class Size	19	19	21	21	24	18	22	20

Classrooms
Available
21

Classrooms

Needed 17 Net Capacity 4

Stanford Glen School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	
Students in a Class	20	19	20	10	21	21	20	
Students in a Class	20	18	20	10	20	20	19	
Students in a Class	19	18	19	17				School Totals
Students in a Class								
Number of Students	59	55	59	53	41	41	39	347
Number of Classes	3	3	3	3	2	2	2	18
Average Class Size	20	18	20	10	21	21	20	19

Classrooms
Available
10

Classrooms

Needed 18 Net Capacity 0

Spring Glen School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	
Students in a Class	21	17	19	21	21	22	22	
Students in a Class	21	17	19	20	20	22	21	
Students in a Class	21	17	19	20	20			School Totals
Students in a Class	20							
Number of Students	83	51	57	61	61	44	43	400
Number of Classes	4	3	3	3	3	2	2	20
Average Class Size	21	17	19	20	20	22	22	20

Classrooms
Available
22

Classrooms

Needed 20 Net Capacity 2

West Woods School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	
Students in a Class	17	22	19	23	21	24	21	
Students in a Class	17	22	18	23	21	23	20	
Students in a Class	16	23	18	23	21	23	20	
Students in a Class	16		18	23	21		20	School Totals
Students in a Class								
Number of Students	66	67	73	92	84	70	81	533
Number of Classes	4	3	4	4	4	3	4	26
Average Class Size	17	22	18	23	21	23	20	21

Classrooms
Available
26

Classrooms

Needed 26 Net Capacity 0

*This includes part of the Media Center that is currently utilized as two additional classrooms.

Elementary System Class Distribution & Staffing Summary

Summary	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	School Totals
Gr Level Student Totals	474	462	450	420	425	407	394	3,010
Gr Level Class Totals	26	26	24	22	20	20	20	158
Average Class Size	18	18	19	19	21	20	20	19
BOE Class Size	20	20	20	20	25	25	25	

Total Net Capacity
16

Elementary Projections 2013-2014 School Year

Boar Path School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6		Classrooms Available		
Students in a Class	19	19	18	19	21	22	20		25		
Students in a Class	19	19	18	19	21	22	20				
Students in a Class	18	19	18	19	20	22	19				
Students in a Class			17	18				School Totals	Classrooms		
Number of Students	56	57	71	75	62	66	59	446	Needed	23	Net Capacity
Number of Classes	3	3	4	4	3	3	3	23			2
Average Class Size	19	19	18	19	21	22	20	19			
Church Street School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6		Classrooms Available		
Students in a Class	19	18	21	20	21	22	22		24		
Students in a Class	19	17	21	19	21	21	22				
Students in a Class	10	17	20	19	20	21	22				
Students in a Class		17						School Totals	Classrooms		
Number of Students	56	69	62	50	62	64	66	437	Needed	22	Net Capacity
Number of Classes	3	4	3	3	3	3	3	22			2
Average Class Size	19	17	21	19	21	21	22	20			
Dunbar Hill School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6		Classrooms Available		
Students in a Class	18	17	16	20	17	20	20		30		
Students in a Class	17	17	15	19	16	19	20				
Students in a Class	17	17	15					School Totals	Classrooms		
Number of Students	52	51	46	39	33	39	40	300	Needed	17	Net Capacity
Number of Classes	3	3	3	2	2	2	2	17			1
Average Class Size	17	17	15	20	17	20	20	18			
Helen Street School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6		Classrooms Available		
Students in a Class	19	21	15	20	17	24	16		20		
Students in a Class	19	21	15	20	16		15				
Students in a Class	19		14					School Totals	Classrooms		
Number of Students	57	42	44	40	33	24	31	271	Needed	15	Net Capacity
Number of Classes	3	2	3	2	2	1	2	15			5
Average Class Size	19	21	15	20	17	24	16	18			
Ridge Hill School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6		Classrooms Available		
Students in a Class	17	17	19	21	24	22	19		21		
Students in a Class	16	17	19	20	23	22	19				
Students in a Class	16	16	18				18	School Totals	Classrooms		
Number of Students	49	50	56	41	47	44	56	343	Needed	10	Net Capacity
Number of Classes	3	3	3	2	2	2	3	10			3
Average Class Size	16	17	19	21	24	22	19	19			
Shepherd Glen School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6		Classrooms Available		
Students in a Class	18	20	17	20	19	20	22		30		
Students in a Class	17	19	17	19	18	19	21				
Students in a Class	17	19	16	19	18			School Totals	Classrooms		
Number of Students	52	58	50	50	55	39	43	355	Needed	19	Net Capacity
Number of Classes	3	3	3	3	3	2	2	19			1
Average Class Size	17	19	17	19	18	20	22	19			
Spring Glen School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6		Classrooms Available		
Students in a Class	19	18	17	21	18	19	22		22		
Students in a Class	18	18	16	21	18	19	21				
Students in a Class	17	18	16	20	18	19		School Totals	Classrooms		
Number of Students	20	72	19	62	54	57	43	407	Needed	22	Net Capacity
Number of Classes	4	4	3	3	3	3	2	22			0
Average Class Size	10	18	16	21	18	19	22	19			
West Woods School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6		Classrooms Available		
Students in a Class	19	17	22	20	23	20	24		26		
Students in a Class	19	17	22	20	23	20	24				
Students in a Class	18	17	23	20	22	20	24				
Students in a Class	18	17		19	22	20		School Totals	Classrooms		
Number of Students	74	60	67	79	90	80	72	530	Needed	26	Net Capacity
Number of Classes	4	4	3	4	4	4	3	26			0
Average Class Size	19	17	22	20	23	20	24	20			

*This includes part of the Media Center that is currently utilized as two additional classrooms.

Elementary System Class Distribution & Staffing Summary

Summary	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	School Totals	Total Net Capacity
Gr Level Student Totals	466	467	445	452	436	413	410	3,089	12
Gr Level Class Totals	26	26	25	23	22	20	20	162	
Average Class Size	18	18	18	20	20	21	21	19	
ROE Class Size	20	20	20	20	25	25	25		

Elementary Projections 2014- 2015 School Year

Beaumont School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6		Classrooms Available	
Students in a Class	15	21	19	17	26	22	22		25	
Students in a Class	14	21	19	17	26	21	21			
Students in a Class	14	21	19	17	25	21	21			
Students in a Class				17				School Totals	Classrooms	
Number of Students	48	63	57	60	77	64	64	436	Needed	Net Capacity
Number of Classes	3	3	3	4	3	3	3	22	22	3
Average Class Size	14	21	19	17	26	21	21	20		
Church Street School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6		Classrooms Available	
Students in a Class	16	17	17	20	23	22	22		74	
Students in a Class	15	16	17	20	22	21	21			
Students in a Class	15	16	17	20	22	21	21			
Students in a Class								School Totals	Classrooms	
Number of Students	46	65	67	60	67	64	64	433	Needed	Net Capacity
Number of Classes	3	4	4	3	3	3	3	23	23	1
Average Class Size	15	16	17	20	22	21	21	19		
Dunbar Hill School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6		Classrooms Available	
Students in a Class	16	18	16	16	19	16	19		18	
Students in a Class	16	18	15	15	19	16	18			
Students in a Class	15	17	15	15						
Students in a Class								School Totals	Classrooms	
Number of Students	47	53	46	46	30	32	37	299	Needed	Net Capacity
Number of Classes	3	3	3	3	2	2	2	18	18	8
Average Class Size	16	18	15	15	19	16	19	17		
Helen Street School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6		Classrooms Available	
Students in a Class	17	17	20	18	21	16	25		20	
Students in a Class	16	16	19	18	21	15				
Students in a Class	16	16								
Students in a Class								School Totals	Classrooms	
Number of Students	49	49	39	36	42	31	25	271	Needed	Net Capacity
Number of Classes	3	3	2	2	2	2	1	15	15	5
Average Class Size	16	16	20	18	21	16	25	18		
Ridgely Hill School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6		Classrooms Available	
Students in a Class	20	15	17	18	23	22	23		21	
Students in a Class	20	14	17	18	23	21	23			
Students in a Class	19	14	16	18						
Students in a Class								School Totals	Classrooms	
Number of Students	59	43	50	54	46	49	46	341	Needed	Net Capacity
Number of Classes	3	3	3	3	2	2	2	18	18	3
Average Class Size	20	14	17	18	23	22	23	19		
Shepherd Glen School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6		Classrooms Available	
Students in a Class	21	17	18	17	20	18	21		18	
Students in a Class	21	17	18	16	20	18	20			
Students in a Class	20	17	17	16	20	17				
Students in a Class								School Totals	Classrooms	
Number of Students	62	51	53	49	60	53	41	369	Needed	Net Capacity
Number of Classes	3	3	3	3	3	3	2	20	20	2
Average Class Size	21	17	18	16	20	18	21	18		
Spring Glen School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6		Classrooms Available	
Students in a Class	18	21	18	18	19	26	19		77	
Students in a Class	18	20	17	18	18	25	19			
Students in a Class	17	20	17	18	18		18			
Students in a Class			17					School Totals	Classrooms	
Number of Students	70	61	69	54	56	51	56	416	Needed	Net Capacity
Number of Classes	4	3	4	3	3	2	3	22	22	0
Average Class Size	18	20	17	18	18	26	19	19		
West Woods School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6		Classrooms Available	
Students in a Class	18	19	22	19	26	22	21		21	
Students in a Class	18	19	23	18	26	22	21			
Students in a Class	18	19	23	18	25	21	21			
Students in a Class				18		21	20			
Students in a Class								School Totals	Classrooms	
Number of Students	72	76	60	73	77	66	63	535	Needed	Net Capacity
Number of Classes	4	4	3	4	3	4	4	26	26	0
Average Class Size	18	19	23	18	26	22	21	21		

*This includes part of the Media Center that is currently utilized as two additional classrooms.

Elementary System Class Distribution & Staffing Summary

Summary	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	School Totals
Gr Level Student Totals	448	461	449	440	462	424	416	3,100
Gr Level Class Totals	26	26	25	25	21	21	20	164
Average Class Size	17	18	18	18	22	20	21	19
BOE Class Size	20	20	20	20	25	25	25	

Total Net Capacity
10

Elementary Projections 2015-2016 School Year

Barb Paul School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	
Students in a Class	17	16	21	18	24	20	21	
Students in a Class	17	16	21	18	23	20	21	
Students in a Class	17	16	21	18	23	20	20	
Students in a Class						20		School Totals
Number of Students	51	48	63	54	70	60	62	428
Number of Classes	3	3	3	3	3	3	3	22
Average Class Size	17	16	21	18	23	20	21	19

Classrooms
Available
25

Classrooms

Needed 22 Net Capacity 3

Church Street School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	
Students in a Class	17	18	21	17	23	23	22	
Students in a Class	17	18	21	16	23	23	21	
Students in a Class	17	18	21	16	23	23	21	
Students in a Class				16				School Totals
Number of Students	51	54	63	65	69	69	67	435
Number of Classes	3	3	3	4	3	3	3	22
Average Class Size	17	18	21	16	23	23	21	20

Classrooms
Available
24

Classrooms

Needed 22 Net Capacity 2

Dunbar Hill School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	
Students in a Class	17	16	16	16	23	19	15	
Students in a Class	16	16	16	15	22	18	15	
Students in a Class	16	16	16	15				
Students in a Class								School Totals
Number of Students	49	48	48	46	45	37	30	303
Number of Classes	3	3	3	3	2	2	2	18
Average Class Size	16	16	16	15	23	19	15	17

Classrooms
Available
18

Classrooms

Needed 18 Net Capacity 0

Helen Street School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	
Students in a Class	18	21	16	16	19	20	16	
Students in a Class	18	21	15	16	19	20	16	
Students in a Class	17		15					
Students in a Class								School Totals
Number of Students	53	42	46	32	38	40	32	283
Number of Classes	3	2	3	2	2	2	2	16
Average Class Size	18	21	15	16	19	20	16	18

Classrooms
Available
20

Classrooms

Needed 16 Net Capacity 4

Ridge Hill School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	
Students in a Class	20	18	15	16	21	21	23	
Students in a Class	20	17	14	16	20	21	22	
Students in a Class	20	17	14	16	20			
Students in a Class								School Totals
Number of Students	60	52	43	48	61	42	45	351
Number of Classes	3	3	3	3	3	2	2	19
Average Class Size	20	17	14	16	20	21	23	18

Classrooms
Available
21

Classrooms

Needed 19 Net Capacity 2

Sherpherd Glen School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	
Students in a Class	20	21	16	18	26	28	19	
Students in a Class	20	20	16	17	25	19	18	
Students in a Class	19	20	15	17		19	18	
Students in a Class								School Totals
Number of Students	59	61	47	52	51	58	55	383
Number of Classes	3	3	3	3	2	3	3	20
Average Class Size	20	20	16	17	26	19	18	19

Classrooms
Available
18

Classrooms

Needed 20 Net Capacity 2

Spring Glen School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	
Students in a Class	18	21	20	19	24	26	25	
Students in a Class	18	20	19	19	24	26	25	
Students in a Class	18	20	19	19				
Students in a Class	17			19				School Totals
Number of Students	71	61	58	76	48	52	50	416
Number of Classes	4	3	3	4	2	2	2	20
Average Class Size	18	20	19	19	24	26	25	21

Classrooms
Available
22

Classrooms

Needed 20 Net Capacity 2

West Woods School	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	
Students in a Class	18	19	19	19	21	25	23	
Students in a Class	17	19	19	19	24	25	22	
Students in a Class	17	18	19	18	23	24	22	
Students in a Class	17	18	19	18				School Totals
Number of Students	69	74	76	71	71	74	69	527
Number of Classes	4	4	4	4	3	3	4	26
Average Class Size	17	19	19	18	24	25	22	20

Classrooms
Available*
26

Classrooms

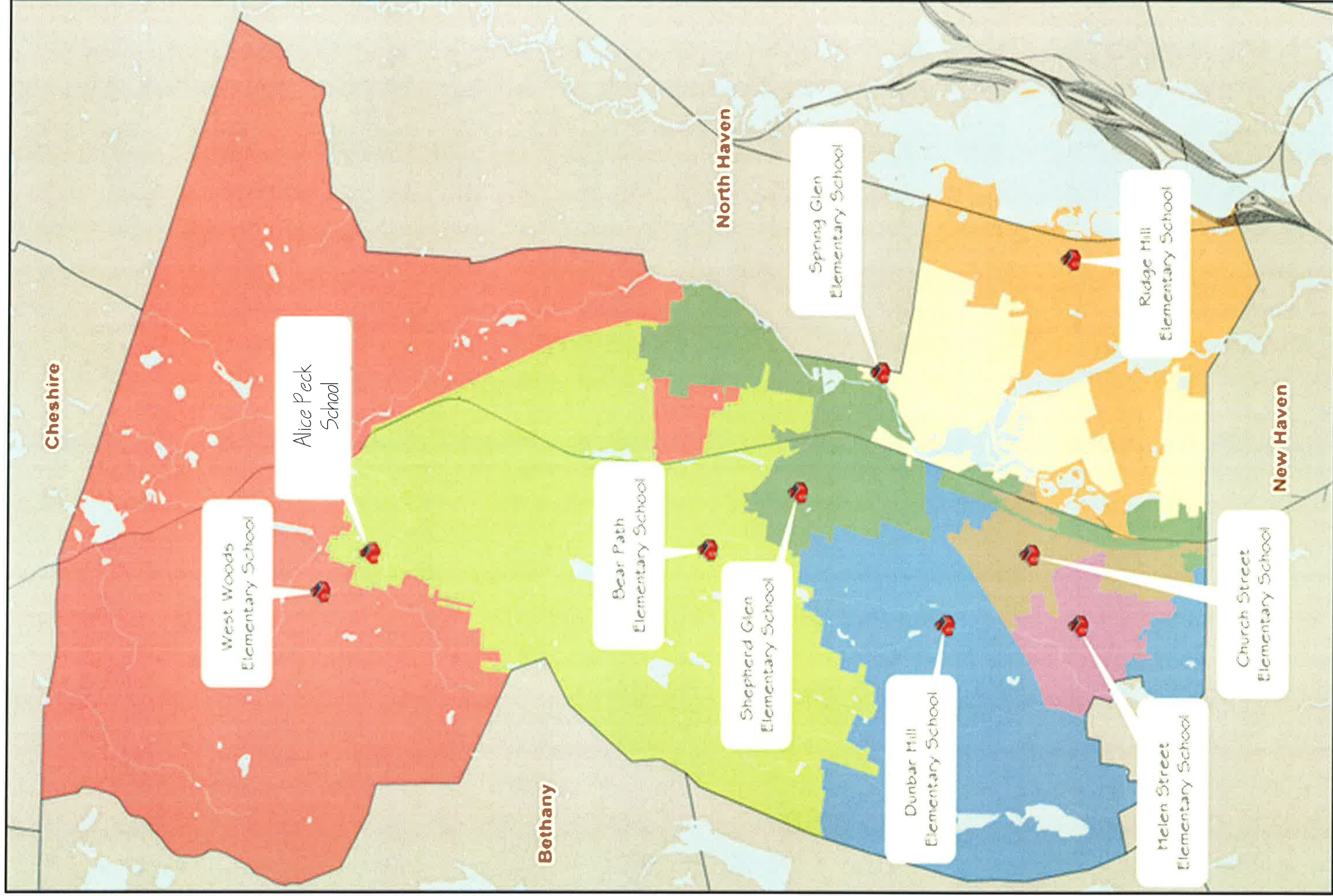
Needed 26 Net Capacity 0

*This includes part of the Media Center that is currently utilized as two additional classrooms.

Elementary System Class Distribution & Staffing Summary

Summary	Gr. K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	School Totals
Gr Level Student Totals	463	440	444	447	453	452	427	3,126
Gr Level Class Totals	26	24	25	26	24	21	21	183
Average Class Size	18	18	18	17	23	22	20	19
BOE Class Size	20	20	20	20	25	25	25	

Total Net Capacity
11



EXECUTIVE SUMMARY

Hamden Board of Education Shepherd Glen Elementary School

Introduction

In schools, any exposed and friable asbestos-containing building material (ACBM) may become damaged by impact and/or water release at any time, owing to the student and maintenance activities. Incidents of damage may result in a significant release of asbestos fibers, which endangers students and staff of the school facility.

Such episodes are always imminent as long as the friable and exposed ACBM remains in the facility, so the most cost-effective long-term plan would include the eventual removal of the asbestos-containing material located in accessible areas. In the meantime; however, every effort should be made to limit the immediate exposure of students and staff to airborne asbestos fibers.

This report complies with the federal and state requirements for asbestos-containing materials in schools. Under no circumstances is this report to be utilized as the sole inspection report for planned construction and/or renovation activities.

EnviroMed Services Inc. of Meriden, Connecticut has been retained by the Hamden Board of Education to perform a reinspection for Shepherd Glen Elementary School, 1 Skiff Street Ext., Hamden, Connecticut.

Summary

The Inspection Report and Management Plan are combined into one table which includes functional space identification, homogeneous material identification, present condition and potential for future damage along with the recommended response action and the factors used to determine the proper action (i.e. water damage, friability, accessibility and exposure).

On February 24, 2012, an inspector from EnviroMed Services, Inc., conducted a reinspection of Shepherd Glen Elementary School, 1 Skiff Street Ext., Hamden, Connecticut. The purpose of this inspection is to reassess the condition of all previously identified asbestos containing materials, identify any new suspect materials, and recommend appropriate actions for these materials.

The following materials have been sampled previously in this building and were found to contain no asbestos:

- Blue/Gray Carpet Glue
- Wallboard
- 4" gray cove base
- glue behind 4" gray cove base
- glue underneath black carpet
- white window caulking
- brown window caulking
- Wallboard compound
- Black sink undercoating

Previous AHERA inspection and/or abatement records may be found in the Hamden Board of Education Offices located at 60 Putnam Avenue, Hamden, Connecticut 06517.

Based on this inspection and previous bulk sampling data the following are the asbestos containing and/or assumed asbestos-containing materials:

- 12" white with gray streaks and 12" dark blue with light blue streaks vinyl floor tiles (pattern) and flooring mastic
- 12" beige mottled vinyl floor tile and flooring mastic
- 12" blue mottled vinyl floor tile and flooring mastic
- 9" orange vinyl floor tile and flooring mastic
- 9" white with gray vinyl floor tile and flooring mastic*
- 1"x 1" white ceramic floor tile with grout and setting compound
- 6"x 6" brown/red ceramic floor tile with grout and setting compound
- black carpet glue
- gray/brown carpet glue
- 4" black cove molding and glue
- 4" gray cove molding and glue*
- black transite threshold* and glue
- ceiling board and ceiling board joint compound
- 2'x4' pin holes and bird feet pattern suspended ceiling tile
- 1'x1' fixed ceiling tile (locked-in)*
- wallboard joint compound*
- transite pegboard*

- gray transite acoustic board panel
- transite board panel and black caulking
- black sink undercoating
- black flexible duct connector
- fire door core insulation
- brown window frame caulking
- white window glazing
- gray door frame caulking
- white column caulking*
- black column caulking*
- windowsill caulking
- wall patching*

(*) - previously discovered suspect material

In areas with fixed walls and/or ceilings (i.e. sheetrock, ceiling plaster, fixed ceiling tile), the possibility exists for asbestos-containing materials to be present (i.e. pipe insulation, caulking, etc.) within/behind the walls and ceilings, (especially in areas with bathrooms, sinks, laboratories, locker rooms, shower rooms, water fountains, radiators).

Prior to any disturbance in these areas, an asbestos survey should be conducted by a Connecticut licensed asbestos inspector.

The Table A located on the following pages entitled "Homogeneous Areas" lists the locations and quantities of the asbestos-containing/ assumed asbestos-containing materials located in this school.

EXECUTIVE SUMMARY

Hamden Board of Education West Woods Elementary School

Introduction

In schools, any exposed and friable asbestos-containing building material (ACBM) may become damaged by impact and/or water release at any time, owing to the student and maintenance activities. Incidents of damage may result in a significant release of asbestos fibers, which endangers students and staff of the school facility.

Such episodes are always imminent as long as the friable and exposed ACBM remains in the facility, so the most cost-effective long-term plan would include the eventual removal of the asbestos-containing material located in accessible areas. In the meantime; however, every effort should be made to limit the immediate exposure of students and staff to airborne asbestos fibers.

This report complies with the federal and state requirements for asbestos-containing materials in schools. Under no circumstances is this report to be utilized as the sole inspection report for planned construction and/or renovation activities.

EnviroMed Services Inc. of Meriden, Connecticut has been retained by the Hamden Board of Education to perform a reinspection for West Woods Elementary School, 350 West Todd Street, Hamden, Connecticut.

Summary

The Inspection Report and Management Plan are combined into one table which includes functional space identification, homogeneous material identification, present condition and potential for future damage along with the recommended response action and the factors used to determine the proper action (i.e. water damage, friability, accessibility and exposure).

On January 23, 2012, an inspector from EnviroMed Services, Inc., conducted a reinspection of West Todd Elementary School, 350 West Todd Street, Hamden, Connecticut. The purpose of this inspection is to reassess the condition of all previously identified asbestos containing materials, identify any new suspect materials, and recommend appropriate actions for these materials.

The following materials have been sampled previously in this building and were found to contain no asbestos:

- 2'x2' heavy texture suspended ceiling tile
- Wallboard
- Green carpet glue
- Wallboard compound
- 2'x4' heavy texture suspended ceiling tile
- Brown door frame caulking
- 4" brown cove base
- 4" brown cove base glue

Previous AHERA inspection and/or abatement records may be found in the Hamden Board of Education Offices located at 60 Putnam Avenue, Hamden, Connecticut 06517.

Based on this inspection and previous bulk sampling the following are the containing and/or assumed asbestos-containing materials:

- 2'x2' grooves with pin holes pattern suspended ceiling tile
- 2'x2' bird feet with pin holes pattern suspended ceiling tile
- 2'x4' bird feet with pin holes pattern suspended ceiling tile
- 2'x4' grooves with pin holes pattern suspended ceiling tile
- 2'x4' large grooves with pin holes pattern suspended ceiling tile
- 2'x4' white plain suspended ceiling tile
- 2'x4' white dimpled suspended ceiling tile
- ceiling board and ceiling board compound
- ceiling plaster skim coat and ceiling plaster base coat
- popcorn ceiling
- wallboard joint compound *
- 4" brown cove molding and associated glue
- 4" dark gray cove molding and associated glue
- 4" black cove molding and associated glue
- 6" brown cove molding and associated glue
- grout and setting compound for 1"x1" brown ceramic floor tile
- grout and setting compound for 1"x1" blue ceramic floor tile
- grout and setting compound for 1"x1" yellow ceramic wall tile
- grout and setting compound for 0.5"x0.5" red ceramic wall tile

- grout and setting compound for 0.5"x0.5" orange ceramic wall tile
- grout and setting compound for 0.5"x0.5" blue ceramic wall tile
- grout and setting compound for 4"x4" yellow ceramic wall tile
- 12" royal blue vinyl floor tile and flooring mastic
- 12" blue mottled vinyl floor tile and flooring mastic
- 12" red vinyl floor tile and flooring mastic *
- 12" beige with brown smudges vinyl floor tile and flooring mastic
- 12" olive vinyl floor tile and flooring mastic
- 12" orange vinyl floor tile and flooring mastic
- gray carpet glue
- green carpet glue
- multicolor carpet glue
- blue carpet glue
- dark blue carpet glue
- purple carpet glue
- brown/red carpet glue
- transite soffit for display
- brown door frame caulking *
- black window glazing
- mudded fitting on 1" fiberglass insulated pipe
- mudded fitting on 2" fiberglass insulated pipe
- mudded fitting on 4" fiberglass insulated pipe
- mudded fitting on 6" fiberglass insulated pipe
- mudded fitting on 8" fiberglass insulated pipe
- green terrazo
- pegboard glue dots
- chalkboard glue dots
- white sink undercoating
- 18"x18" rubber floor tile glue
- wall plaster skim coat and wall plaster base coat

(*) - previously discovered suspect material

In areas with fixed walls and/or ceilings (i.e. sheetrock, ceiling plaster, fixed ceiling tile), the possibility exists for asbestos-containing materials to be present (i.e. pipe insulation, caulking, etc.) within/behind the walls and ceilings, (especially in areas with bathrooms, sinks,

laboratories, locker rooms, shower rooms, water fountains, radiators).

Prior to any disturbance in these areas, an asbestos survey should be conducted by a Connecticut licensed asbestos inspector.

The Table A located on the following pages entitled "Homogeneous Areas" lists the locations and quantities of the asbestos-containing/ assumed asbestos-containing materials located in this school.

EXECUTIVE SUMMARY

Hamden Board of Education

Central Administration Office/Reach and Steps Program

Introduction

In schools, any exposed and friable asbestos-containing building material (ACBM) may become damaged by impact and/or water release at any time, owing to the student and maintenance activities. Incidents of damage may result in a significant release of asbestos fibers, which endangers students and staff of the school facility.

Such episodes are always imminent as long as the friable and exposed ACBM remains in the facility, so the most cost-effective long-term plan would include the eventual removal of the asbestos-containing material located in accessible areas. In the meantime; however, every effort should be made to limit the immediate exposure of students and staff to airborne asbestos fibers.

This report complies with the federal and state requirements for asbestos-containing materials in schools. Under no circumstances is this report to be utilized as the sole inspection report for planned construction and/or renovation activities.

EnviroMed Services Inc. of Meriden, Connecticut has been retained by the Hamden Board of Education to perform a reinspection for Central Administration Office/Reach and Steps Program, 60 Putnam Avenue, Hamden, Connecticut.

Summary

The Inspection Report and Management Plan are combined into one table which includes functional space identification, homogeneous material identification, present condition and potential for future damage along with the recommended response action and the factors used to determine the proper action (i.e. water damage, friability, accessibility and exposure).

On February 21, 2012, an inspector from EnviroMed Services, Inc., conducted a reinspection of Central Administration Office/Reach and Steps Program, 60 Putnam Avenue, Hamden, Connecticut. The purpose of this inspection is to reassess the condition of all previously identified asbestos containing materials, identify any new suspect materials, and recommend appropriate actions for these materials.

The following materials have been sampled previously in this building and were found to contain no asbestos:

- beige cove molding and glue
- boiler insulation front left side
- ceiling plaster in boiler room

(Federal and state law require the cove molding and glue materials to be individually described/quantified/located by dimension and color. Therefore these materials were added to the list of newly identified materials in this manner.)#

- mastic under 9" brown vinyl floor tile
- sheetrock and joint compound
- plaster

(Federal and state law require to sample at least two or three samples per suspect material according to the type of material. Therefore the mastic, sheetrock and joint compound, plaster were added to the list of newly identified materials in this manner.)*

The following areas and asbestos-containing materials have been abated since the last AHERA reinspection:

- None

Previous inspection and/or abatement records may be found in the Hamden Board of Education Offices located at 60 Putnam Avenue, Hamden, Connecticut 06517.

The following materials have been previously sampled in this building and found to contain asbestos:

- 9" brown vinyl floor tile
- boiler insulation
- aircell pipe insulation

(Federal and state law require the pipe insulation material to be individually described/quantified/located by diameter. Therefore this material was added to the list of newly identified materials in this manner.)^

During this inspection, the following newly identified suspect materials were identified by EnviroMed Services, Inc. and are assumed to be asbestos-containing:

- mastic under 9" brown vinyl floor tile*
- 9" light green with black streaks vinyl floor tile and flooring mastic
- 12" light beige mottled vinyl floor tile and flooring mastic
- 12" light yellow mottled vinyl floor tile and flooring mastic
- 12" tan and brown with beige vinyl floor tile and flooring mastic
- 12" green mottled vinyl floor tile and flooring mastic
- 12" beige and gray mottled vinyl floor tile and flooring mastic
- green carpet glue
- purple carpet glue
- brown carpet glue
- olive green carpet glue
- yellow/black carpet glue
- green/black carpet glue
- grout and setting compound for 2"x2" purple ceramic floor tile
- grout and setting compound for 2"x2" pink ceramic floor tile
- grout and setting compound for 18"x18" green ceramic floor tile
- 4" cream cove molding and associated glue
- 4" beige cove molding and associated glue #
- 4" mauve cove molding and associated glue
- 4" purple cove molding and associated glue
- 4" brown cove molding and associated glue
- 4" chocolate cove molding and associated glue
- 4" dark green cove molding and associated glue
- 6" mauve cove molding and associated glue
- exposed glue on wall
- grout and setting compound for 2"x2" purple ceramic wall tile
- wall plaster skim coat and wall plaster base coat*
- wall plaster rough coat*
- wallboard and wallboard joint compound*
- ceiling plaster skim coat and ceiling plaster base coat*
- pressboard
- ceiling plaster rough coat*
- ceiling board and ceiling board joint compound*
- 2'x2' heavy texture suspended ceiling tile
- 2'x2' small grooves and pinholes pattern suspended ceiling tile

- 2'x2' large grooves and pinholes pattern suspended ceiling tile
- 2'x4' bird feet and pinholes pattern suspended ceiling tile
- 2'x4' large grooves and pinholes pattern suspended ceiling tile
- 1'x1' heavy texture fixed ceiling tile and glue
- 1'x1' pin holes pattern fixed ceiling tile and glue
- 18"x18" white fixed ceiling tile and glue
- fire door core insulation
- red refractory caulk
- gray sink undercoating
- gray window caulking
- burner gasket
- rib rope insulation
- end cap compound
- boiler door insulation
- aircell insulation on 8" pipe^
- aircell insulation on 6" pipe^
- aircell insulation on 4" pipe^
- mudded fitting on 8" aircell insulated pipe
- mudded fitting on 6" aircell insulated pipe
- mudded fitting on 4" aircell insulated pipe

In areas with fixed walls and/or ceilings (i.e. sheetrock, ceiling plaster, fixed ceiling tile), the possibility exists for asbestos-containing materials to be present (i.e. pipe insulation, caulking, etc.) within/behind the walls and ceilings, (especially in areas with bathrooms, sinks, laboratories, locker rooms, shower rooms, water fountains, radiators).

Prior to any disturbance in these areas, an asbestos survey should be conducted by a Connecticut licensed asbestos inspector.

The Table A located on the following pages entitled "Homogeneous Areas" lists the locations and quantities of the asbestos-containing/ assumed asbestos-containing materials located in this school.

EXECUTIVE SUMMARY

Hamden Board of Education Alice Peck Elementary School

Introduction

In schools, any exposed and friable asbestos-containing building material (ACBM) may become damaged by impact and/or water release at any time, owing to the student and maintenance activities. Incidents of damage may result in a significant release of asbestos fibers, which endangers students and staff of the school facility.

Such episodes are always imminent as long as the friable and exposed ACBM remains in the facility, so the most cost-effective long-term plan would include the eventual removal of the asbestos-containing material located in accessible areas. In the meantime; however, every effort should be made to limit the immediate exposure of students and staff to airborne asbestos fibers.

This report complies with the federal and state requirements for asbestos-containing materials in schools. Under no circumstances is this report to be utilized as the sole inspection report for planned construction and/or renovation activities.

EnviroMed Services Inc. of Meriden, Connecticut has been retained by the Hamden Board of Education to perform a reinspection for Alice Peck Elementary School, 35 Hillfield Road, Hamden, Connecticut.

Summary

The Inspection Report and Management Plan are combined into one table which includes functional space identification, homogeneous material identification, present condition and potential for future damage along with the recommended response action and the factors used to determine the proper action (i.e. water damage, friability, accessibility and exposure).

On May 24, 2012, an inspector from EnviroMed Services, Inc., conducted a reinspection of Alice Peck Elementary School, 35 Hillfield Road, Hamden, Connecticut. The purpose of this inspection is to reassess the condition of all previously identified asbestos containing materials, identify any new suspect materials, and recommend appropriate actions for these materials.

Previous AHERA inspection and/or abatement records may be found in the Hamden Board of Education Offices located at 60 Putnam Avenue, Hamden, Connecticut 06517.

Based on this inspection and previous bulk sampling the following are the containing and/or assumed asbestos-containing materials:

- 9" beige vinyl floor tile* and flooring mastic *
- 9" grey, white and black vinyl floor tile and flooring mastic
- 12" white with black dots vinyl floor tile and flooring mastic
- 12" light beige mottled vinyl floor tile and flooring mastic
- 12" beige mottled vinyl floor tile and flooring mastic
- 12" beige with white spots vinyl floor tile* and flooring mastic *
- 12" grey, white and black dots vinyl floor tile and flooring mastic
- 12" pink mottled vinyl floor tile and flooring mastic
- 12" light green mottled vinyl floor tile and flooring mastic
- 12" green mottled vinyl floor tile and flooring mastic
- 12" dark green mottled vinyl floor tile and flooring mastic
- 12" blue mottled vinyl floor tile and flooring mastic
- 12" burgundy mottled vinyl floor tile and flooring mastic
- 12" green mottled vinyl floor tile and flooring mastic
- 12" dark blue mottled vinyl floor tile and flooring mastic
- 12" brown mottled vinyl floor tile and flooring mastic
- exposed flooring mastic
- tar paper under hardwood floor *
- grout and setting compound for 1"x 1" blue, brown, grey mosaic ceramic floor tile
- grout and setting compound for 6"x 6" brown pattern ceramic floor tile
- grout and setting compound for 6"x 6" red ceramic floor tile
- grout and setting compound for 1"x 1" green, dark green, and brown mosaic ceramic floor tile
- grout and setting compound for 1"x 1" grey, dark grey, and orange mosaic ceramic floor tile
- grout and setting compound for 1"x 1" green, light green, and brown mosaic ceramic floor tile
- beige carpet glue
- grey carpet glue

- green carpet glue
- dark green carpet glue
- multicolor carpet glue
- blue carpet glue on wall
- dark blue carpet glue on wall
- 4" beige cove molding and glue
- 6" black cove molding and glue
- 6" beige cove molding and glue
- 4" black cove molding and glue
- exposed cove molding glue
- grout and setting compound for 1"x 1" pink ceramic wall tile
- grout and setting compound for 2"x 2" white ceramic wall tile
- grout and setting compound for 4"x 4" white ceramic wall tile
- grout and setting compound for 4"x 4" beige ceramic wall tile
- grout and setting compound for 4"x 4" light grey ceramic wall tile
- grout and setting compound for 4"x 4" pink ceramic wall tile
- grout and setting compound for 4"x 4" light green ceramic wall tile
- grout and setting compound for 4"x 4" yellow ceramic wall tile
- wallboard* and wallboard joint compound *
- wall plaster skim coat* and wall plaster base coat *
- pegboard glue
- chalkboard glue
- grey window frame caulking
- white window frame caulking
- white door frame caulking
- blue sink undercoating
- black sink undercoating
- black transite windowsill * and glue
- fire door core insulation
- boiler breeching insulation *
- boiler insulation *
- layered paper insulation on 8" pipe *
- white flexible duct connector *
- ceiling board and ceiling board joint compound
- ceiling plaster skim coat* and ceiling plaster base coat *

- 1'x1' dotted fixed ceiling tile and glue
- 1'x1' heavy texture fixed ceiling tile and glue
- 2'x2' dotted suspended ceiling tile
- 2'x2' white pitted suspended ceiling tile
- 2'x2' bird feet suspended ceiling tile
- 2'x2' heavy texture suspended ceiling tile
- 2'x4' bird feet suspended ceiling tile

(*) - previously discovered suspect material

In areas with fixed walls and/or ceilings (i.e. sheetrock, ceiling plaster, fixed ceiling tile), the possibility exists for asbestos-containing materials to be present (i.e. pipe insulation, caulking, etc.) within/behind the walls and ceilings, (especially in areas with bathrooms, sinks, laboratories, locker rooms, shower rooms, water fountains, radiators).

Prior to any disturbance in these areas, an asbestos survey should be conducted by a Connecticut licensed asbestos inspector.

The Table A located on the following pages entitled "Homogeneous Areas" lists the locations and quantities of the asbestos-containing/ assumed asbestos-containing materials located in this school.

EXECUTIVE SUMMARY

Hamden Board of Education Alice Peck Elementary School

Introduction

In schools, any exposed and friable asbestos-containing building material (ACBM) may become damaged by impact and/or water release at any time, owing to the student and maintenance activities. Incidents of damage may result in a significant release of asbestos fibers, which endangers students and staff of the school facility.

Such episodes are always imminent as long as the friable and exposed ACBM remains in the facility, so the most cost-effective long-term plan would include the eventual removal of the asbestos-containing material located in accessible areas. In the meantime; however, every effort should be made to limit the immediate exposure of students and staff to airborne asbestos fibers.

This report complies with the federal and state requirements for asbestos-containing materials in schools. Under no circumstances is this report to be utilized as the sole inspection report for planned construction and/or renovation activities.

EnviroMed Services Inc. of Meriden, Connecticut has been retained by the Hamden Board of Education to perform a reinspection for Alice Peck Elementary School, 35 Hillfield Road, Hamden, Connecticut.

Summary

The Inspection Report and Management Plan are combined into one table which includes functional space identification, homogeneous material identification, present condition and potential for future damage along with the recommended response action and the factors used to determine the proper action (i.e. water damage, friability, accessibility and exposure).

On May 24, 2012, an inspector from EnviroMed Services, Inc., conducted a reinspection of Alice Peck Elementary School, 35 Hillfield Road, Hamden, Connecticut. The purpose of this inspection is to reassess the condition of all previously identified asbestos containing materials, identify any new suspect materials, and recommend appropriate actions for these materials.



Fact Sheet for Schools: Caulk containing PCBs may be present in older schools and buildings

Between 1950 and 1978, caulk containing potentially harmful PCBs (polychlorinated biphenyls) was used in many buildings, including schools. Although PCBs were banned in the United States in 1978, contaminated caulk still exists in older establishments that have not had the caulk replaced. PCB bioaccumulation in children can damage immune, reproductive, nervous, and endocrine systems.

Children can be exposed to PCBs by:

- Breathing in dust contaminated with PCBs
- Touching caulk and contaminated soil directly
- Putting their hands into their mouths after touching the caulk, soil, and surrounding building materials.

PCBs were not added to caulk after 1978. Therefore, in general, schools built after 1978 do not contain PCBs in caulk.

What are PCBs?

PCBs are organic chemicals that were used in construction materials and electrical products produced before 1978. Caulk containing these chemicals may still be present in older schools and buildings, sometimes at high levels. With increased awareness and cleanup efforts, PCB levels in the United States have decreased substantially.

How are people exposed to PCBs?

People whose workplaces and jobs involve working with PCB-laden objects or in PCB cleanup are at the highest risk for elevated exposure. Most people have some accumulation of PCBs in their bodies. Fish, meat, and dairy contain small amounts of PCBs. In fact, most people's exposure to PCBs is via the food chain. When products containing PCBs are disposed of improperly, PCBs can enter waterways and contaminate fish and other animals. Indoor air has been found to contain PCBs from some types of caulk in building materials. People can also be exposed to PCBs when handling PCB-containing products such as caulk.

Does the caulk in my home or other places contain PCBs?

PCBs in caulk have not been found in single-family homes. EPA has only found the chemical in caulk in large, older apartment complexes and some older buildings, such as schools.

What can I do about PCBs in schools?

If caulk containing PCBs is discovered, you should avoid direct contact with caulk and nearby porous materials, if possible. If caulk-containing PCBs are discovered, be sure to limit exposure to the caulk until it has been safely removed. Here are some ways for decreasing exposure:

- Keep children from touching caulk or surfaces near caulk.
- Clean frequently to reduce dust.
- Use wet cloths to clean surfaces.
- Use vacuums with HEPA filters.
- Wash children's hands with soap and water before eating.
- Wash children's toys often.
- Wash surfaces, window sills, walls, and objects often in rooms known to have PCB-containing caulk.
- Consider testing the air for PCBs or test the caulk if it is peeling or visibly deteriorating.
- Follow safe work practices when renovating.
- Improve ventilation by opening windows or adding exhaust fans.



What NOT to Do:

- Do not attempt to remove PCB-containing caulk by yourself. PCBs should be removed by personnel wearing protective equipment who follow procedures to minimize the spread of PCBs.
- Do not sweep with dry brooms or use dusters because they spread dust.

Are children in direct danger if their school has caulk containing PCBs?

PCBs accumulate in the body in high levels only after prolonged exposure to the chemical. Follow the recommended procedures to reduce exposure. Restricting children from areas where PCB-containing caulk is located, promoting safe work practices during renovation activities in schools, and removing caulk safely as part of a PCB removal or renovation project reduces the potential for exposure.

EPA is helping to address the issue of PCBs in caulk

EPA is conducting research on how the public is exposed to PCBs in caulk and on the best approaches for reducing exposure and potential risks associated with PCBs in caulk. Where PCBs have been found in caulk, EPA is committed to helping schools and communities enact plans to reduce exposure. Please contact your regional PCB coordinator at 888-835-5372 for help with assessing contamination and exposure and developing cleanup plans.

Contact

Call EPA's PCBs in Caulk Hotline: 888-835-5372 to learn more about PCBs in caulk and to get information on PCB professionals in your area.



EPA-747-F-09-003

2014-2015 Reimbursement Percentages**Status of data: Preliminary**

Kevin Chambers (860) 713-6455

Select Year

Print

Download (CSV)

Data Notes

Send E-Mail

Town Name	DRG	Wealth AENGLC Rank	Adult Education (0-65%) [1]	Transportation (0-60%) [2]	School Construction (20-80%) [3]	New School Construction (10-70%) [4]	Health Services (10-90%) [5]
54 GLASTONBURY	B	39	14.70	8.34	33.57	23.57	28.10
56 GRANBY	B	56	21.28	15.10	39.64	29.64	36.19
57 GREENWICH	B	1	0.00	0.00	20.00	10.00	10.00
58 GRISWOLD	F	145	55.71	50.46	71.43	61.43	80.00
59 GROTON	G	109	41.79	36.16	58.57	48.57	61.43
60 GUILFORD	B	30	11.22	4.77	30.36	20.36	23.81
62 HAMDEN	G	132	50.68	45.30	66.79	56.79	80.00
63 HAMPTON	E	112	42.95	37.35	59.64	49.64	62.86
64 HARTFORD	I	169	65.00	60.00	80.00	70.00	90.00
65 HARTLAND	E	101	38.69	32.98	55.71	45.71	57.62
67 HEBRON	C	97	37.14	31.39	54.29	44.29	55.71
68 KENT	E	24	8.90	2.38	28.21	18.21	20.95
69 KILLINGLY	G	150	57.65	52.45	73.21	63.21	80.95
71 LEBANON	E	118	45.27	39.74	61.79	51.79	65.71
72 LEDYARD	D	120	46.04	40.53	62.50	52.50	66.67
73 LISBON	E	113	43.33	37.75	60.00	50.00	63.33
74 LITCHFIELD	E	48	18.18	11.92	36.79	26.79	32.38
76 MADISON	B	25	9.29	2.78	28.57	18.57	21.43
77 MANCHESTER	G	133	51.07	45.70	67.14	57.14	80.00
78 MANSFIELD	C	154	59.20	54.04	74.64	64.64	82.86
79 MARLBOROUGH	C	79	30.18	24.24	47.86	37.86	47.14
80 MERIDEN	H	158	60.74	55.63	76.07	66.07	84.76
83 MIDDLETOWN	G	131	57.80	44.90	66.43	56.43	80.00
84 MILFORD	D	87	33.27	27.42	50.71	40.71	50.95



Page:

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2013-2014 Reimbursement Percentages**Status of data: Final**

Kevin Chambers (860) 713-6455

Select Year	Print	Download (CSV)		Data Notes		Send E-Mail	
		<u>Wealth</u> AENGLC Rank	Adult Education (0-65%) [1]	Transportation (0-60%) [2]	School Construction (20-80%) [3]	New School Construction (10-70%) [4]	Health Services (10-90%) [5]
Town Name	DRG						
54 GLASTONBURY	B	39	14.70	8.34	33.57	23.57	28.10
56 GRANBY	B	66	25.15	19.07	43.21	33.21	40.95
57 GREENWICH	B	1	0.00	0.00	20.00	10.00	10.00
58 GRISWOLD	F	147	56.49	51.26	72.14	62.14	80.00
59 GROTON	G	102	39.08	33.38	56.07	46.07	58.10
60 GUILFORD	B	30	11.22	4.77	30.36	20.36	23.81
62 HAMDEN	G	128	49.14	43.71	65.36	55.36	80.00
63 HAMPTON	E	126	48.36	42.91	64.64	54.64	69.52
64 HARTFORD	I	169	65.00	60.00	80.00	70.00	90.00
65 HARTLAND	E	105	40.24	34.57	57.14	47.14	59.52
67 HEBRON	C	104	39.85	34.17	56.79	46.79	59.05
68 KENT	E	19	6.96	0.40	26.43	16.43	18.57
69 KILLINGLY	G	150	57.65	52.45	73.21	63.21	80.95
71 LEBANON	E	112	42.95	37.35	59.64	49.64	62.86
72 LEDYARD	D	114	43.72	38.15	60.36	50.36	63.81
73 LISBON	E	109	41.79	36.16	58.57	48.57	61.43
74 LITCHFIELD	E	45	17.02	10.73	35.71	25.71	30.95
76 MADISON	B	25	9.29	2.78	28.57	18.57	21.43
77 MANCHESTER	G	129	49.52	44.11	65.71	55.71	80.00
78 MANSFIELD	C	159	61.13	56.03	76.43	66.43	85.24
79 MARLBOROUGH	C	83	31.73	25.83	49.29	39.29	49.05
80 MERIDEN	H	155	59.58	54.44	75.00	65.00	83.33
83 MIDDLETOWN	G	132	58.18	45.30	66.79	56.79	80.00
84 MILFORD	D	85	32.50	26.62	50.00	40.00	50.00



DEPARTMENT OF ADMINISTRATIVE SERVICES



STATE OF CONNECTICUT

165 Capitol Avenue
Hartford, CT 06106-1658

MEMORANDUM

TO: Senator Andrea Stillman & Representative Andrew Fleischmann

FROM: Donald DeFronzo, Commissioner of the Department of Administrative Services (DAS) *DD*

DATE: February 19, 2014

RE: Applicability of SSIC standards

The School Safety Infrastructure Council (SSIC) submitted its school safety infrastructure standards to your committee on January 1, 2014, as required by Public Act 2013-3. In connection with these standards, the Department of Administrative Services ("DAS"), has heard from a number of school districts questioning the applicability of those standards. DAS has been asked whether school districts submitting school construction grant applications prior to July 1, 2014, are required to comply with the safety infrastructure standards established by the SSIC.

We have advised these districts that Subsection (a) of section 10-284 of the Connecticut General Statutes, as amended by section 81 of Public Act 13-3, gives the Commissioner of DAS the authority to review and approve applications for state school construction grants and allow said commissioner to disapprove any application if "on or after July 1, 2014, the application does not comply with the school safety infrastructure standards..." Applications received prior to July 1, 2014, therefore, would not be required to comply with such safety infrastructure standards. In fact, as the filing deadline for annual grant approvals is June 30th of each year, some of the applications submitted in anticipation of the June 30, 2014, deadline could have been submitted before the SSIC submitted its standards to the legislature on January 1, 2014.

We are sharing the question and our response should the committee face the same questions. Please note that if the committee's intention was to require grant applications submitted by the June 30, 2014 deadline (for this year's school priority list) to comply with the standards, then a legislative change is needed. Please be advised, however, that any change now would likely impact the ability of a school district to meet the requirement as districts that have submitted applications may have done so without anticipating this requirement and may not be able to meet it. For example, some districts that have submitted an application may have passed a local referendum based on a cost estimate that does not include the added safety infrastructure standards. Also, in practice, the application does not comprise design elements sufficient to address such standards,

but, as with other statutorily required design requirements and standards, each district will be required to certify at the time of the application that such safety infrastructure standards will be considered.

The OLR Bill Analysis of Public Act 13-3 further supports this conclusion:

§§ 81 & 82 — SCHOOL CONSTRUCTION PROJECTS AND THE NEW
SCHOOL SAFETY STANDARDS

Under the school construction project law, a school district can receive state reimbursement for the eligible parts of a school construction or renovation project if its application meets certain criteria. The act additionally requires DCS, starting July 1, 2014, to review each local school construction grant application for compliance with the SSIC-developed school safety infrastructure standards. It gives DCS the authority to disapprove any application submitted on or after July 1, 2014 that does not comply with these new school safety standards.

It also requires school superintendents to affirm on the school construction application form, also starting July 1, 2014, that the district considered the SSIC-developed infrastructure standards.

Grant applications submitted prior to June 30, 2014, are used to develop the 2014/2015 priority list that the General Assembly would act upon in January, 2015 and grant applications submitted on or after July 1, 2014, and on or before June 30, 2015, are used to develop the 2015/2016 priority list, which the General Assembly would address in January, 2016. Therefore, the first group of school construction grant recipients that would be required to consider the school safety infrastructure standards in their designs would be grant recipients on the 2015/2016 priority list. Notwithstanding the above, we have encouraged all potential applicants to review the new standards and where feasible, incorporate those standards into their design plans.

GRANT APPLICATION (FORM ED049) SUBMISSION CHECKLIST*Revised April 2008*

All documentation listed below must be included in the grant application package submitted in order for the application to be considered complete. Although Form ED049 is required to be submitted electronically via the School Construction Grant Management System (SCGMS), the supplemental documentation listed below is required as indicated in order to complete the electronic application.

1. ☐ Form ED049 electronically submitted via SCGMS at www.csde.state.ct.us.
2. ☐ Certified copy of resolutions from the local legislative body (*not* the Board of Education):
 - (i) establishing a building committee;
 - (ii) authorizing at least the preparation of schematic drawings and outline specifications; and
 - (iii) authorizing the filing of the grant application.
3. ☐ Complete educational specifications for the project.
4. ☐ Board of Education's written approval of educational specifications.
5. ☐ Documentation of locally authorized funding (i.e. certified referendum language and vote count; budget page(s) containing funding for the project and date budget was passed, etc.) in an amount sufficient to cover the local share. Where locally authorized funding references more than one project, a cover letter providing an allocation of the funding also needs to be provided.
6. ☐ Enrollment projection in support of the highest eight-year projected enrollment for all projects *except* code violation, roof replacement, Board of Education space, and certified indoor air quality emergency projects.
7. ☐ Vo-Ag equipment list, if applicable.
8. ☐ Formal approval from the appropriate SDE programmatic office for vo-ag projects (equipment and/or construction), interdistrict magnet projects, and regional special education center projects.
9. ☐ Completed cost estimating worksheet Part B for any project with costs in excess of \$2 million.
10. ☐ This checklist signed by contact person listed on Form ED049.

 Contact Person's Name

 Signature

 Phone

Notes: *For Priority List projects, the local resolutions, Board of Education approval of educational specifications, and locally authorized funding need to all be executed prior to the June 30 deadline.*

Incomplete grant applications will only be assigned a temporary project number. No state grant commitments can be given for grant applications with temporary project numbers.

CONNECTICUT STATE DEPARTMENT OF EDUCATION
Bureau of School Facilities

COST ANALYSIS FOR PROPOSED RENOVATION PROJECTS

School District: _____

School: _____

State Project No.: _____

To qualify for renovation status, Section 10-286(a)(8) of the Connecticut General Statutes (C.G.S.) requires a cost savings to the state and the school district of such renovation project in comparison to alternative construction options.

A project could lose its eligibility under the provisions of C.G.S. Section 10-286(a)(8) if the project costs increase to the point where there is no longer the required savings.

Please complete the following chart. Costs should be based on total project costs **exclusive of any site acquisition** but inclusive of all other fees and costs including: construction costs, A/E design fees, construction management fees, FFE (furniture, fixtures, and equipment), and swing space costs.

The Number of Square Feet and Estimated Cost should match values in the current cost estimate and ED049(R).

	Number of Square Feet	Estimated Cost	Cost per Square foot
Building acquisition (if applicable)			
Square footage to be renovated			
Square footage to be added			
Sub-Totals			
Square footage untouched (if any)		0	0
Total for facility			

Note: Average total cost for new construction from state school construction records is approximately \$400 to \$450 per square foot depending on location within the State and exclusive of site acquisition costs. Also, when comparing costs to that of a new facility, the Bureau of School Facilities will base its comparison on the maximum number of square feet eligible for reimbursement, not necessarily that of the facility to be renovated. In other words, if the facility to be renovated is oversized, our cost comparison will not be based on building a similarly oversized facility but rather to a new facility of the maximum area eligible for reimbursement.

Design Professional providing data:

Signature

Date

Printed Name

Superintendent of Schools:

Signature

Date

Printed Name



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