DRAFT 11.03.2017

SECTION III – FACILITY PROGRAM AND UTILIZATION

School Utilization

How effectively is Weston using the school spaces for education? Silver Petrucelli and Milone and MacBroom acknowledges that there are numerous methodologies available to answer this question, and that each have relevance in specific applications. The most widely used in Connecticut is the square footage per student (aka space standards) created by the State Legislature to control grant funding and to track the conditions of the school facilities. The other methods are the ratio of core educational space to the spaces necessary to support it, the teacher per pupil, and the number of seats available.

The square foot per student method is simple in concept, however the "devil is in the details." Numerous variables are typical in square foot area calculations, such as net area (inside the walls or useable space) verses gross total area, space allowance by age of student, the age of school, the grade section models needed, and the overall building layout and its efficiencies. The State of Connecticut, DAS, Office of School Construction Grants currently use a 20-year-old matrix to set the space standards and thus the level of funding. The State has changed this formula and it effectively decreases the allowable space per student. We believe this will make it more difficult for districts to achieve their desired program goals, based on finite limits. Since this is solely dedicated to the Connecticut School Construction Grants it is only appropriate to compare like grants for significant projects such as Alteration, Renovations, Additions, and New Construction. We do not recommend applying this methodology to the Weston Public Schools now, nor should it be the basis for decision making, especially to determine an effective utilization of your schools.

A variation on the square foot per student is the classroom utilization method. While scheduling can be a factor in this method we recommend that the "General Classrooms" be compared to the "Allowable" total students per classroom. While this homeroom method is a straight line in the approach at the Elementary, Intermediate, and some of the Middle School, it is more subjective at the High School where an assigned reporting room is designated. This method relies on the classification of core classrooms and special education classrooms into their respective hierarchy and then assessing the "correct" range of students per classroom. WPS provided SP+A with the accepted range of students per classroom. The Weston Board of Education class size guidelines are established to create a benchmark that works exceptionally well. The standards are 18 to 20 students in Kindergarten and Grade 1 while it increases to 20 to 24 students in Grades 2 through Grade 12.

While it is often argued that students can be added into a classroom up to the maximum allowable, the ratio of instructional time per student is thus lowered. Too many students in a classroom limits the time the teachers and staff can spend with each student. The ideal number in each classroom is often debated. Research indicates that while too many students or too few students in a classroom are counterproductive. The ideal ratio of students collaboration and teaching support is a conjunction of the number. However, it is impossible

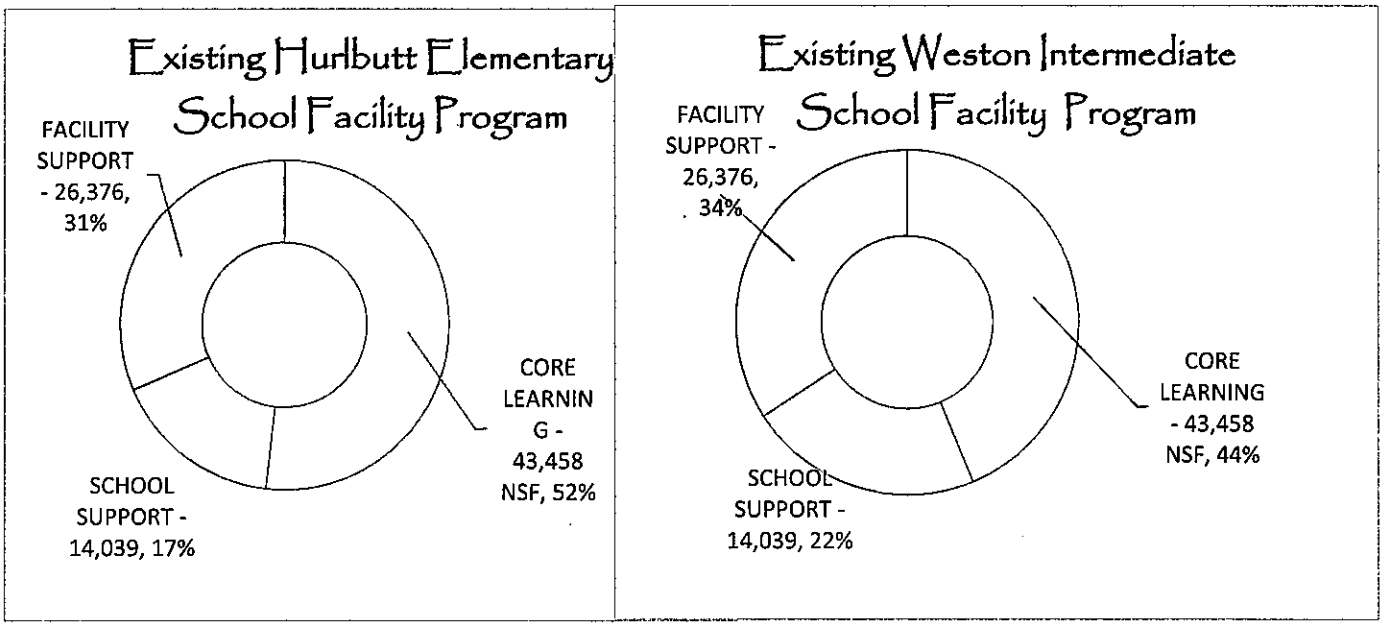
to define in an applicable formula. This method is not favored and, the Weston Public Schools are functioning at optimum levels and this formula is not needed.

Another key matrix to review is the teacher per student ratio. The Weston Public School system employs 350 full time staff and part time at all 4 schools. Like the number of students in each classroom the ratio of staff to student is not an effective tool for school facilities utilization and is best left to the school administrators.

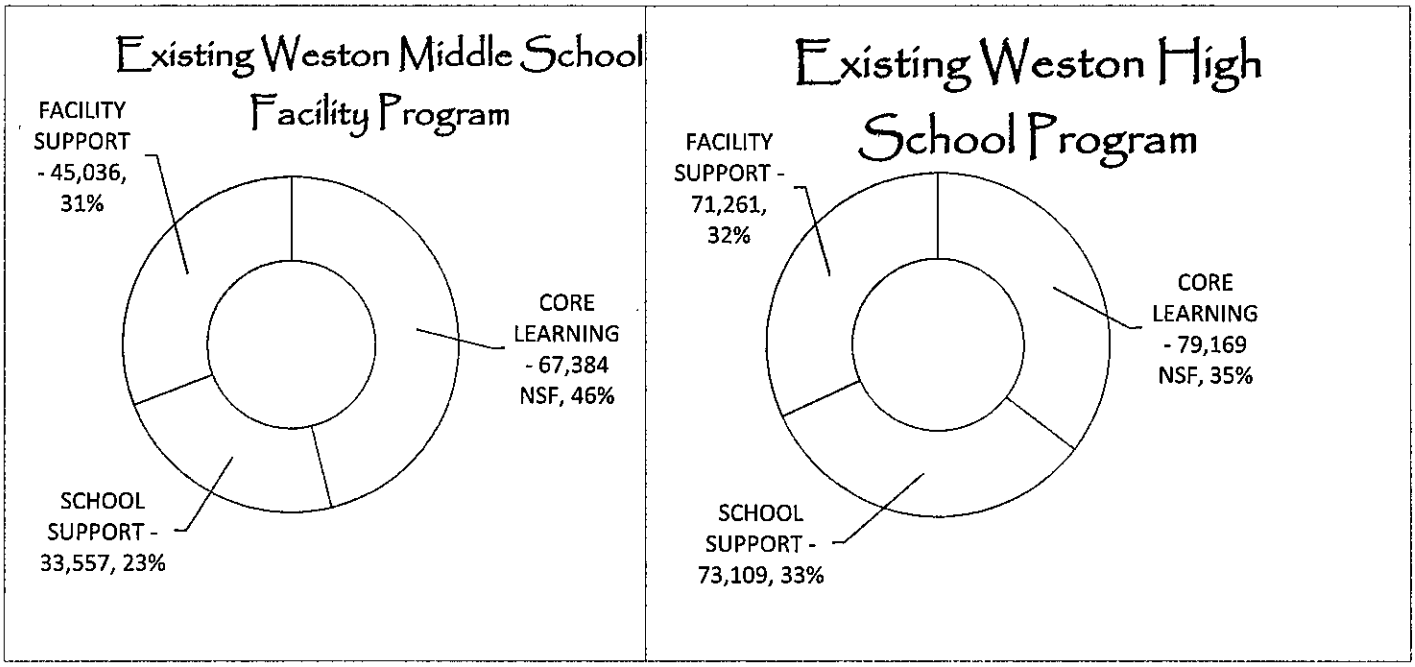
Silver Petrucelli suggests that an effective gauge to evaluate and answer the utilization question is the ratio of educational space to support spaces. We have broken these ratios into three sets (and subsets for more detailed analysis). First, circulation and building infrastructure, the areas need to make the building functional. Second, are the support spaces, administration, cafeteria, physical education, and auditorium. Third and most important are the core and secondary educational spaces such as the general classrooms, specials, and the Media Center. This method is presented herein and compares the ratio of the useable space to the core education and support space in each school.

We recommend first comparing the elementary and intermediate schools and then the middle and high schools. The designation of home room at the middle school and high school as well as the additional support required in the upper grade floor plans makes this grouping of the two sets of schools a more effective comparison.

The combined 69% Core Learning and School Support at Hurlbutt Elementary School is remarkable given the extended floor plan with three wings and central administrative/learning center. Compare this to WIS at 66% and the rectilinear compact floor plan. This is most evident when you look at the Campus plan and see the two very different floor plans. We believe this may be attributed to WIS as the only two-story school on the campus, and the floor plan was designed with several single loaded corridors.



The Middle and High School are compared here with a closer correlation between the 69% and 68% ratios of the educational space. The floor plans are much larger in scale and include more school support spaces, such as an auditorium and two gymnasiums, however based on this analysis there is an efficient use of educational space at these two similar schools.



Finally, the Facility Support spaces at each of the four school is – 31%, 34%, 31%, and 32%, which is remarkably consistent and demonstrative of an effective utilization of school space. The educational spaces are fully utilized.

Facility Program

The purpose of the Facility Program section of this report is to evaluate each school's present program and determine their future facility program needs to support the educational requirements. Silver/Petrucelli + Associates will prioritize the future needs and project them over a five- and ten-year schedule. While the Facility Conditions section of the report reviews the physical conditions of the building, the Program section looks at the educational needs first and then the building infrastructure needs of each school facility.

Many different factors play a role in the facility program beginning with the overall educational vision for the future of these schools and continues into the detail of school capacity and projections, classroom utilization, size and adjacencies, and areas of program growth or decline. There is the potential to explore consolidation, reconfigurations, and in some cases, expansion of the school campus. Potential new configurations will be evaluated to see if they are viable options to meet the defined need. Programming will assess how the current facility and its spaces are working to support the curriculum and how well the space is used based on the enrollment projections, class size policies and scheduling. This will help determine the future needs of each of the district's school facilities.

Silver/Petrucelli + Associates takes great pride in the collaborative effort of building the facility program of each given school. This is the first and one of the most important tasks of the architect. This research and decision-making process identifies the scope of work to be designed. This helps to plan the building. A well thought out program will lead to a better-quality design. It is important to identify the scope of the design early in the process. Here, we like to gather and analyze data so the design can start with comprehensive decisions. The program is best when developed in a collective effort between the client, the users, the community and the architect.

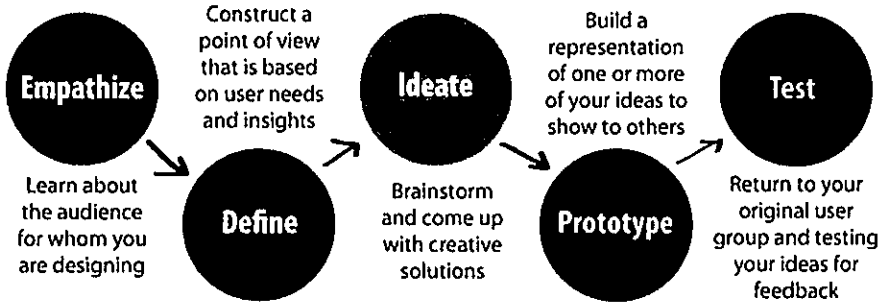


Figure 1 Program & Design Process - http://www.irdg.ie/wp-content/uploads/2014/07/IRDG-DT.png

For planning purposes, the existing buildings were explored and their current program uses evaluated. Classrooms were reviewed and the floor plans were updated to reflect the current usage. Typically, the components that form a school facility are divided into 3 sections: Core Learning Spaces, School Support spaces and Facility Support. These sections are broken into program categories: General Classrooms, Special Education, Specials (Art, Music, TechEd), Media Center, Physical Education, Cafeteria, Auditorium, Administration, Building Infrastructure and Circulation. Each category is represented in a different color and depicted on the floor plans, spreadsheets and charts that follow.

Not only was each school reviewed and evaluated by the design team, but meetings and tours were also held with each of the Principals to review each school's existing program. They described how they use the building and the current programs. The pros and cons were discussed along with their needs and objectives for the future of these schools. The subsequent pages describe and analyze the existing program at Weston's four schools. Following the assessment of the existing program we bring all the analysis, requests, recommendations and enrollment projections together to create the ideal program for the school buildings in greatest need.

Existing Hurlbutt Elementary School Facility Program

Hurlbutt Elementary School currently serves the Pre-K through Grade 2 population of Weston with 429 students and approximately 81 staff members. The school building is 83,873 net square feet with the 10,625 net square feet removed from this total for the Senior Center portion of South House. The Connecticut State Space Standards bases the size a school on the highest 8-year enrollment projections and grade levels. The state, therefore, would determine that this building is appropriately sized at 54,960 net square feet. However, this is a basis for limiting the sizes of schools to receive reimbursement on construction projects. It is only criteria to meet if the goal is to maximize state funding.

Existing Hurlbutt Elementary School Facility Program

Existing Enrollment: 429 Students

Space Division	Quantity	Square footage	Subtotal	Average	Percentage
GENERAL CLASSROOMS					
TOTAL	25	805-1218	22,643	906	27%
SPECIAL EDUCATION					
TOTAL	16	198-972	10,187	637	12%
MEDIA CENTER					
TOTAL	4	136-4145	5,464	1366	7%
PHYSICAL EDUCATION					
TOTAL	1		2,530	2530	3%
CAFETERIA					
TOTAL	2		3,061		4%
ADMINISTRATION					
TOTAL	8	115-805	6,092	762	7%
BUILDING INFRASTRUCTURE					
TOTAL			4,865		6%
CIRCULATION + STRUCTURE					
			21,511		26%
TOTAL			83,873		100%

After reviewing the building, understanding it's functions and discussing issues with staff members it is evident that Hurlbutt works well with the space it has. The following description highlights some of the major issues and concerns. For additional information, refer to the Hurlbutt Elementary School Interview Meeting Minutes from February 28, 2017.

The gymnasium is rather small and mechanical concerns make it very uncomfortable. The lack of fresh air and ventilation create an uncomfortable atmosphere to the point where the floor itself begins to fill up and bubble with moisture. Accessibility is also challenging with the lift and no ramp. The two cafeterias work well with the prime and satellite kitchens, but storage is difficult. Specifically, in South House if an event is occurring there is nowhere to store the tables and chairs. Unfortunately, they are just temporarily put outside in the courtyard. These events do not include the entire school as there is nowhere big enough to gather together. Instead, the bus drop-off is closed and the school community gathers outside.

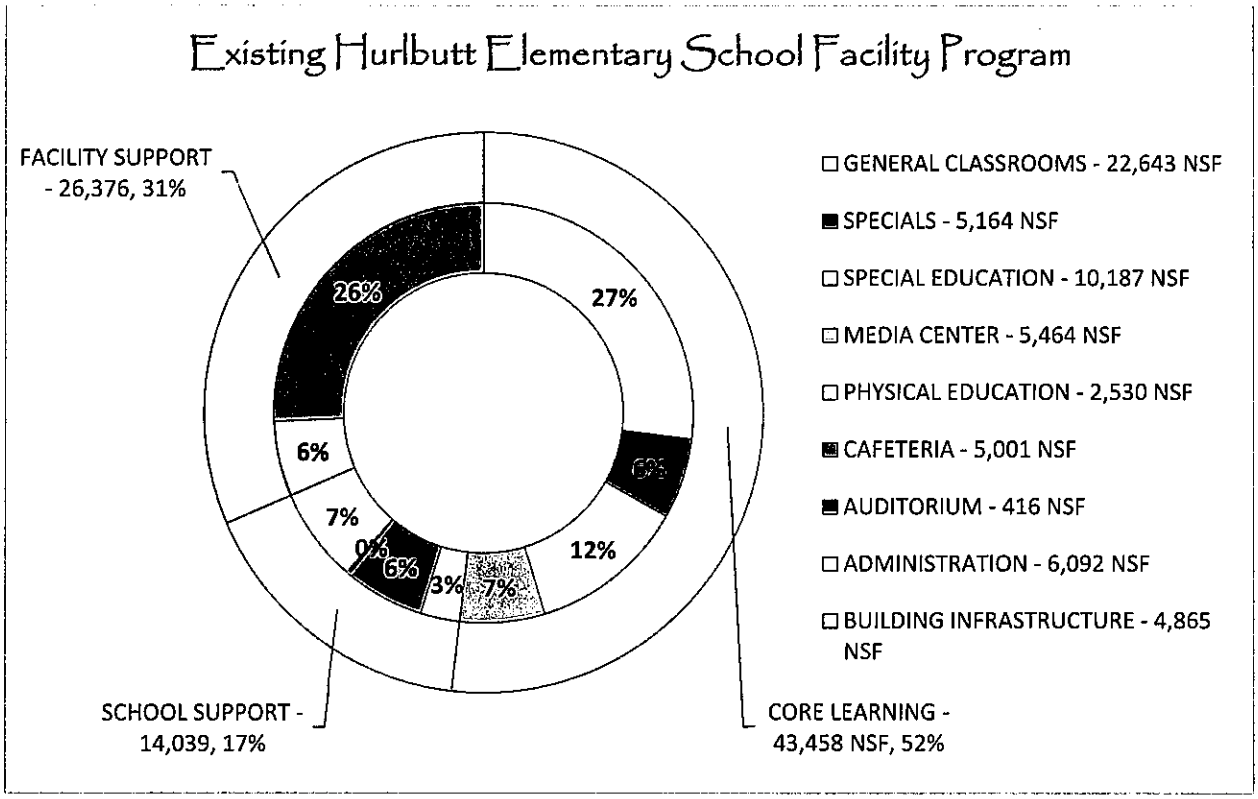
Standard classrooms at this school consist of a variety of sizes ranging from 805 to 1,218 net square feet. The classrooms in the 800 net square foot range are for grade 1, 2 and some special education services. The larger rooms are for the Early Learning Center and the Kindergarten population. Today the standard classroom size is in the 800-900 net square foot range with Kindergarten and Pre-K usually between 1000 to 1200 net square feet. The Hurlbutt classrooms in all the houses are sufficiently sized. The storage in these classrooms are lacking or inadequate. Teacher storage is in antiquated closets. Classroom storage such as casework and shelving is narrow, low or insufficient. The connected bathrooms to these classrooms are also not code compliant and need upgrades. Other classrooms are used for Special Education. Their sizes have quite a range, 198 net square feet to 972 net square feet. While some classrooms need to be large, others would benefit from being a little smaller such as speech to limit other noise and distractions.

Hurlbutt Elementary School - General Classroom Utilization

Existing Enrollment: 429 Students

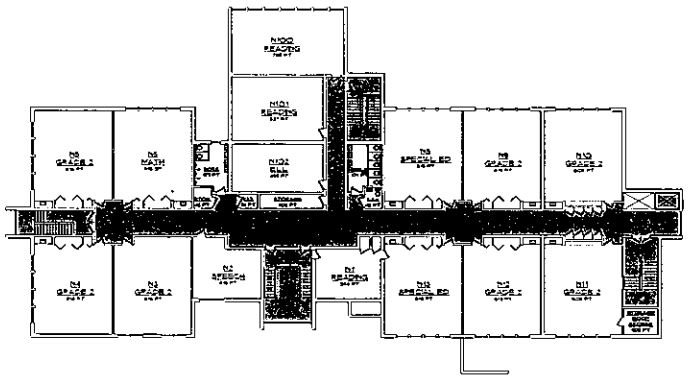
Grade Level	Oct. 2017 Enrollement Total	Projected 2022-2023 Enrollement	Maximum Class Size Policy	Current Classroom Quantity	Projected Minimum Classroom Quantity	Projected Students Per Classroom
Pre Kindergarden	27	45	15*	3.00	4.00	11.3
Kindergarden	113	125	20	7.00	6.25	17.9
Grade 1	142	130	20	8.00	6.50	18.6
Grade 2	147	138	24	7.00	5.75	23.0
TOTAL	**429**	**438**		**25**	**24**	

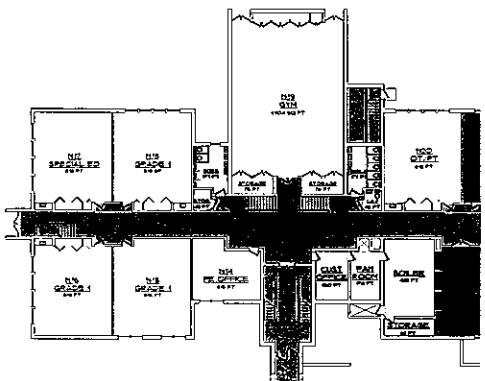
To further investigate the utilization of the school, the general classroom quantities were reviewed. Here we evaluate the quantity of classrooms needed to adequately support the student population per grade level. Each grade level is reviewed in accordance to the districts maximum class size policy or the student to teacher ratio. The Weston Board of Education has established classroom size guidelines. Kindergarten through Grade 1 have a range between 18 to 20 students per class. Grade 2 through Grade 12 have a range between 20 to 24 students per class. Using the maximum class size, we can determine the minimum quantity of general classrooms needed to serve the school. The chart above examines both the current and projected enrollment of each grade and it determines the classroom quantities needed. At Hurlbutt, we can see that they are currently on target. The 5-year projections indicate 1 available classroom. The population increases primarily due to the Prekindergarten and Kindergarten population. The Pre-Kindergarten program does not have dictated maximum class size policies, but 15 is the maximum desired. With a population of 45 being so close to the max, one extra is accounted for. Additionally, reviewing the projections into the 10-year window indicate slight growth at this school. Hurlbutt General Classrooms are right on target where they should be.



The chart above analyzes the percentage of all the program categories and then analyzes them within their three sections. The core learning section occupies just over half of the building which is fairly standard, but slightly more than typical. The numerous large Special Education classrooms and various Specials that are offered at the elementary level contribute to that total. The larger Media Center also adds to the increase. However, these are elements that make Hurlbutt unique and helps to set it apart from other districts. With Core Learning on the larger side some of the program categories within School Support are smaller than typical such as the Auditorium and Physical Education. The gym is rather small however for the age group that it caters to, but it works. The stage at the South House Cafeteria is also undersized and lacks accessibility. Again, with this age group it may be sufficient. More space at Hurlbutt is used towards Core Learning which is the most important need within any given school. Overall the space supports the programmatic needs of the school with some limited areas in need of enhancements.

While some upgrades have been made over the decades, the school is still in need of improvements. Some recommendations would be to add air conditioning and to replace dropped ceilings and lighting in the process. Renovation of the gymnasium is desired. Some of the Special Education rooms could also be converted into smaller rooms which would allow for greater flexibility and improved spaces for Speech and Reading. It could also be an opportunity to increase storage, something staff feels the building falls short on. Additional recommendations are to renovate the antiquated undersized bathrooms and replace inefficient dated classroom casework. Overall, Hurlbutt Elementary School is a beautiful and well taken care of school.



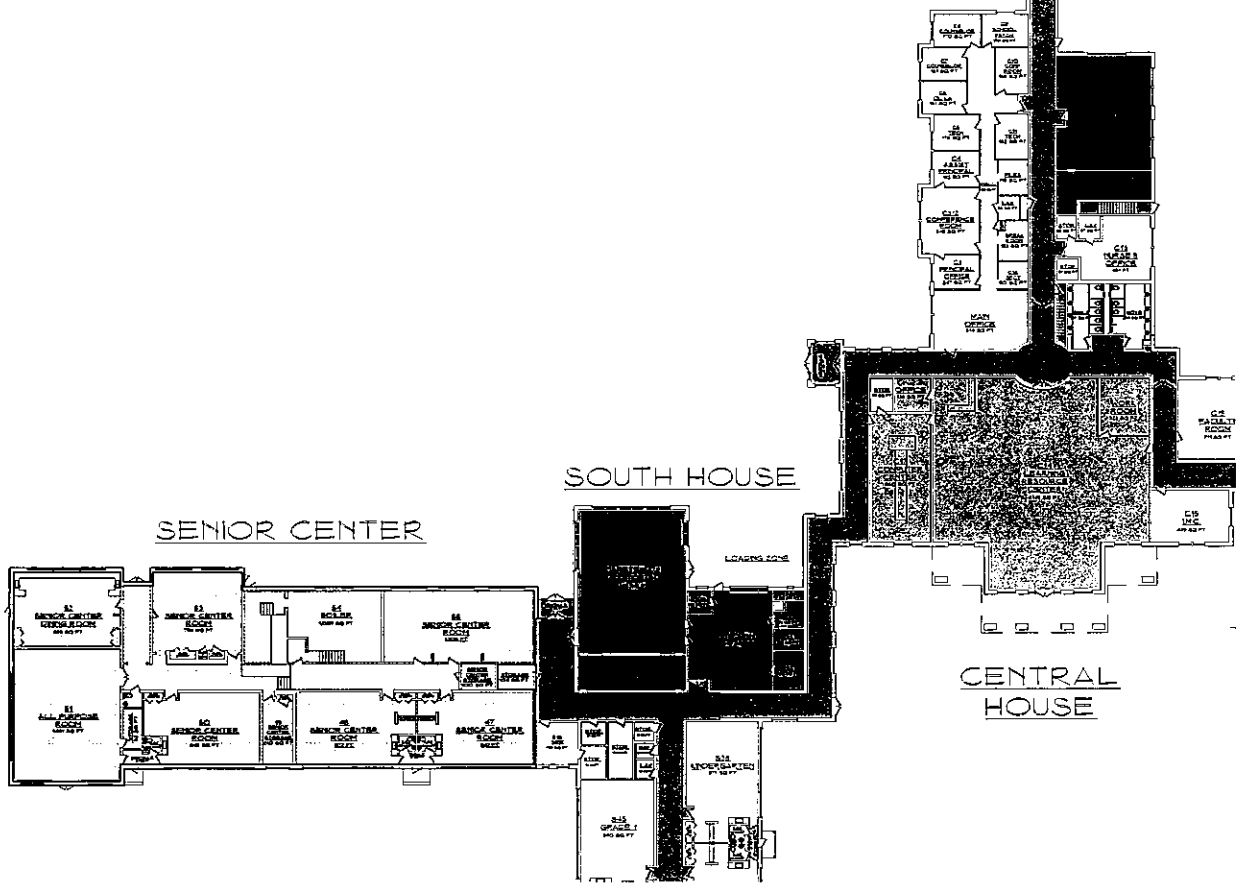


NORTH

SECOND FLOOR PLAN

SCALE: NTS

2
HES7



SOUTH HOUSE

SENIOR CENTER

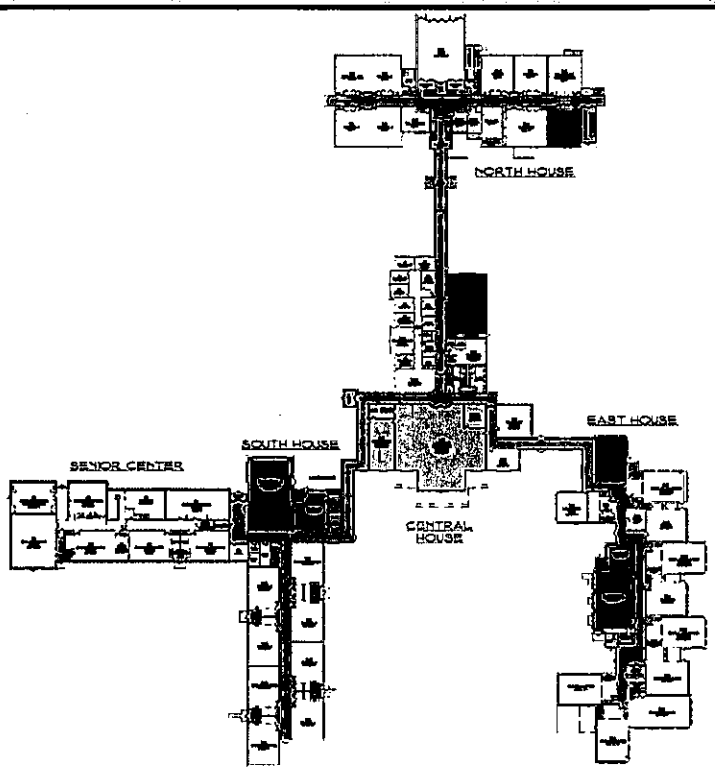
CENTRAL HOUSE

Hurlbutt Elementary School

9 School Road Weston CT

Student Population:	429
Staff Total:	81
School Type:	Elementary-Primary
Grades:	Pre K-2
Original Construction:	1950
Significant Alterations:	1997
Total Area (net)	83,873 NSF

Floor Plan



PROGRAM LEGEND	
CLASSROOMS	24,551 NSF
SPECIALS	3,256 NSF
SPECIAL ED.	10,187 NSF
MEDIA CENTER	5,464 NSF
PHYSICAL ED.	2,530 NSF
CAFETERIA	5,001 NSF
AUDITORIUM	416 NSF
ADMINISTRATION	5,092 NSF
BUILDING INFRA	4,565 NSF
CIRCULATION	21,611 NSF
SENIOR CENTER	10,628 NSF
SCHOOL TOTAL	83,873 NSF

Building Information	
Construction Type	2B
No. of Floors	2
Foundation	partial

Classroom Counts	
Standard Classroom	27
Special Ed. Classroom	16
Portable Classroom	0

Existing Condition		
Ext. Envelope	brick	
Roof	age:	1997+/-
	type:	Ballast, asphalt and EPDM
Security	staffed security desk, lockable doors, vestibule	
Heating	varies per house - dual and steam: 10+/- years	
Sprinklered	no	n/a
AC	partial	

Priority Projects	
Add Air Conditioning & Ventilation	$3,397,500
Air conditioning,ventilation, ceilings & electrical to support	
Restroom upgrades	$1,250,000
Includes cost for all singles and North gang restrooms	
Emergency Lighting	$110,000
Install code approved emergency lighting system	

Capital Needs Prioritization -	$ 10,233,300	
Discipline	Total	Priority 1&2
Site	*$621,000*	$407,000
Architectural	*$4,295,800*	$1,478,000
Plumbing & FP	*$626,000*	$48,500
Mechanical	*$3,410,000*	$2,422,000
Electrical	*$1,280,500*	$130,500
Total:	*$10,233,300*	$4,486,000

SILVER/PETRUCELLI+ASSOCIATES
Architects / Engineers / Interior Designers

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: **Weston Schools Facilities Feasibility Study**

CLIENT: Weston Public Schools

MEETING PLACE: Weston Public Schools

DATE AND TIME: February 28, 2017 @ 1:00 pm

ATTENDEES:

Laura Kaddis	Hurlbutt Elementary School Principal
Kim Kus	Hurlbutt Elementary School Assistant Principal
Michelle Miller	Silver Petrucelli + Associates

Purpose: Program Needs

---

1. Air Conditioning/Climate
    - Numerous areas throughout the school get too hot and in September and June these rooms often need to be vacated: North House – northwest upstairs, East house – east side, South house – courtyard side
    - Air conditioning is strongly desired
    - Climates are very unbalanced from one classroom to the next
2. Gym
    - Small yet workable
    - HVAC concerns – damp and humid
    - Lack of ventilation - dirty
    - Floor bubbles and becomes slippery
3. Cafeteria
    - Desire trough sinks for student hand washing
    - Not large enough for full assembly/stage not often used
    - No storage for tables and chairs – move them outside when needed
4. Storage
    - Lacking throughout the school

- Nowhere to store the music risers
- Classroom storage is old and dated – many of the doors are missing

5. Parking
    - Limited parking on a day to day basis since shared with Senior Center
    - School events – lack of parking creates havoc
    - Teachers park remotely
6. Site
    - Due to school location there are a lot of access points
    - Need a barrier at North House playground and School Road
    - East House playground fence is too close
7. Special Education
    - Not all special education rooms need to be in full-sized rooms – work with what's available
    - Breaking up some of the classrooms could be an option but they would need access to restrooms

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

Distribution:

Existing Weston Intermediate School Facility Program

Weston Intermediate School currently serves the Grade 3 through Grade 5 population of Weston, with 507 students and approximately 78 staff members. The school building is 110,450 net square feet. The Connecticut State Space Standards bases the size a school on the highest 8-year enrollment projections and grade level. The state therefore would determine that this building is appropriately sized at 66,248 net square feet. However, this is a basis for limiting the sizes of schools to receive reimbursement on construction projects. It is only criteria to meet if the goal is to maximize state funding. It is not the best comparison for this school.

Existing Weston Intermediate School Facility Program

Existing Enrollment: 507 Students

Space Division	Quantity	Square footage	Subtotal	Average	Percentage
GENERAL CLASSROOMS					
TOTAL	27	893-945	23,245	861	21%
SPECIAL EDUCATION					
TOTAL	13	258-917	7,662	589	7%
MEDIA CENTER					
TOTAL	5	136-4145	18,117	1623	7%
PHYSICAL EDUCATION					
TOTAL	3		6,789	2263	6%
CAFETERIA					
TOTAL			6,912		6%
ADMINISTRATION					
TOTAL	22	86-1076	8,926	406	8%
BUILDING INFRASTRUCTURE					
TOTAL			7,308		7%
CIRCULATION & STRUCTURE					
			30,448		28%
TOTAL			110,450		100%

After reviewing the building, understanding it's functions and discussing issues with staff members it is evident that Weston Intermediate School works well with the space it has. The description below highlights some of the major issues and concerns. For additional information, refer to the Weston Intermediate School Interview Meeting Minutes from March 7, 2017.

First, the staff is happy with the 12-year-old building. Some minor issues and drawbacks of the building were discussed. The gymnasium is highly used, but lacks exterior egress doors. The hallway gets very congested where the cafeteria, gym and music rooms collide. It causes issues especially if indoor recess coincides with the lunch waves. A few issues where noted with the general classrooms. For instance, entry at the front of the classroom isn't favorable. Classrooms with shared doors are often too loud and can be distracting. Additionally, there are some HVAC concerns with varying conditions from room to room. It was noted that the southeast area of the second floor gets very hot. The additional conference room within the administration suite is missed. Unfortunately, some offices lack natural light. The outdoor recreation area is rather small including the playground and the open grass play area. Overall, the building functions very well for its users.

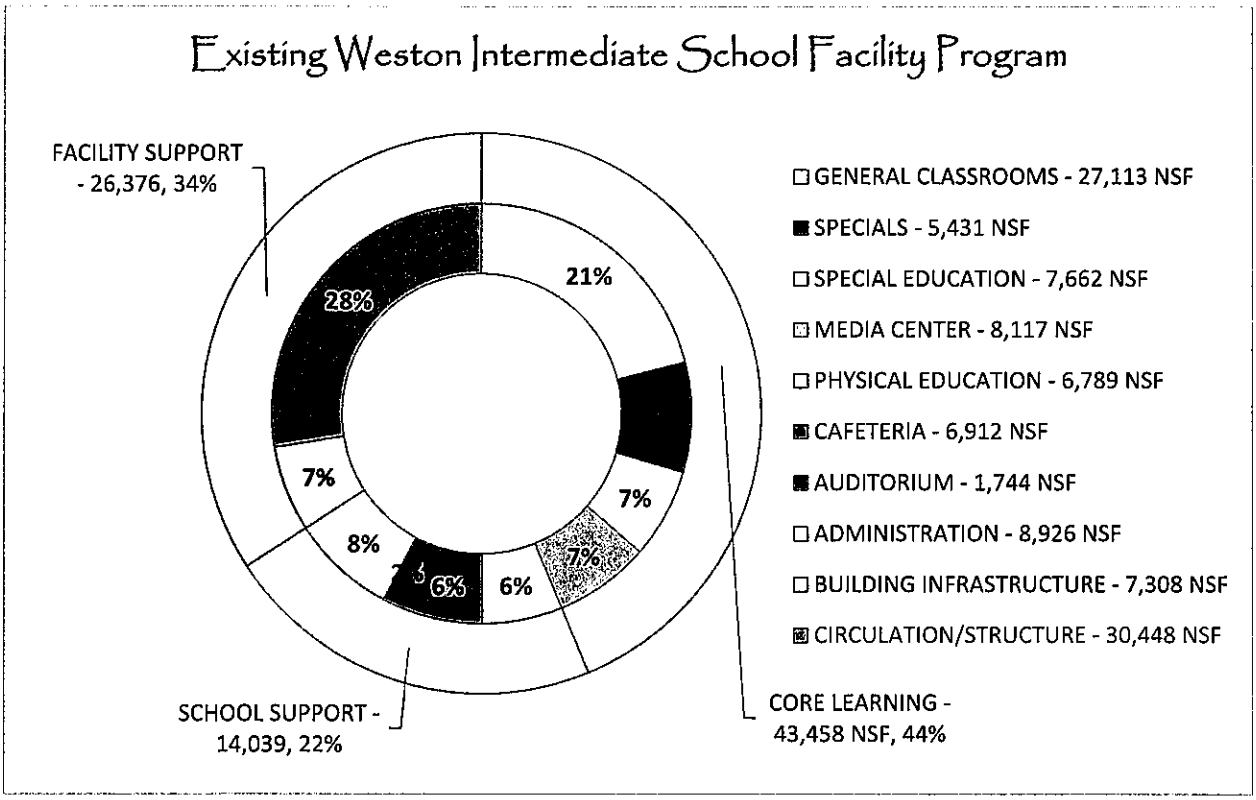
Standard classrooms at this school hover around 900 net square feet. The Intermediate classrooms are all sufficiently sized and comfortable. The storage in these classrooms is also sufficiently designed. Other classrooms are used for some Specials and for Special Education. The special education rooms have a variety of full and half sized classrooms which is ideal.

Weston Intermediate School - General Classroom Utilization

Existing Enrollment: 507 Students

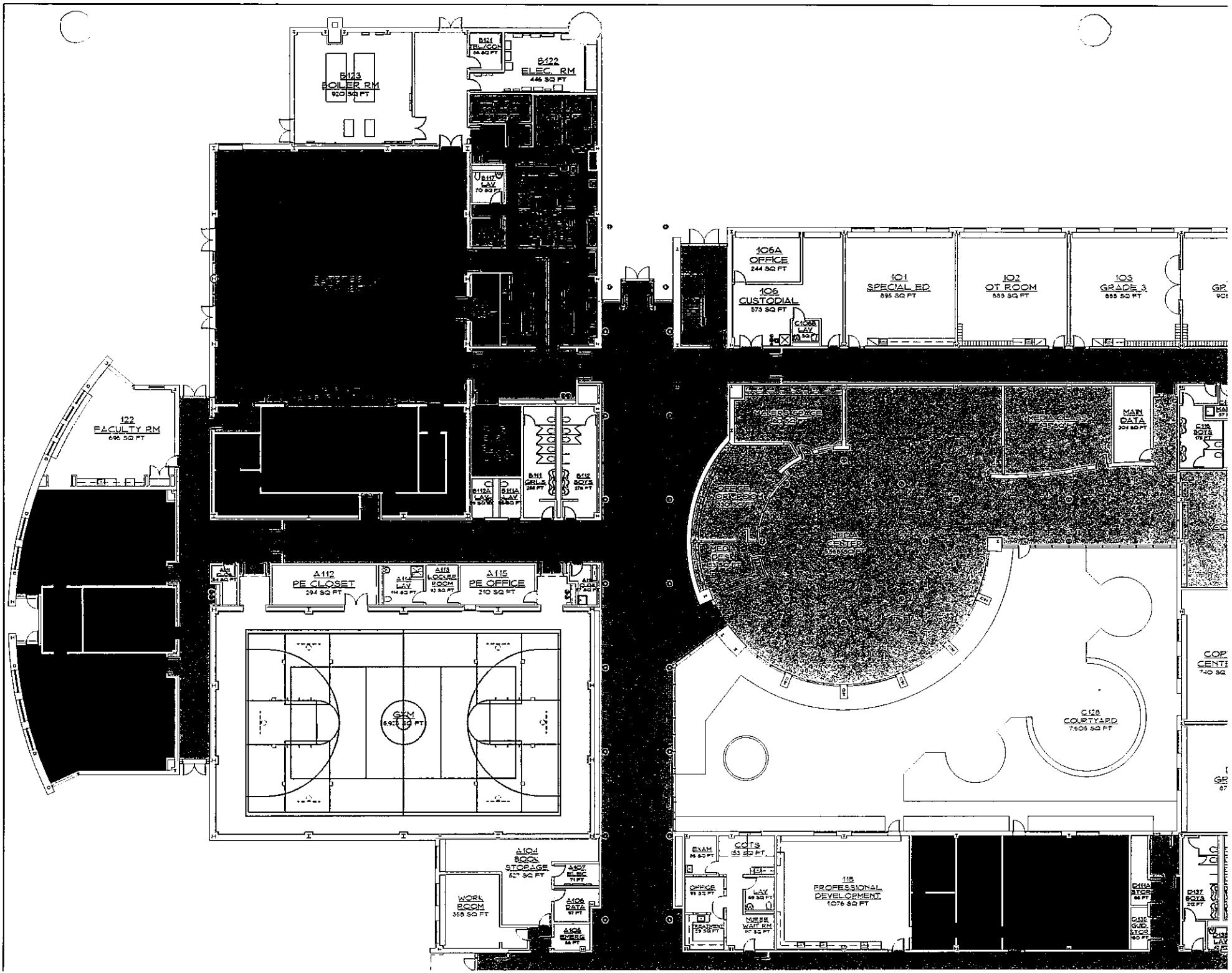
Grade Level	Oct. 2017 Enrollement Total	Projected 2022-2023 Enrollement	Maximum Class Size Policy	Current Classroom Quantity	Projected Minimum Classroom Quantity	Projected Students Per Classroom
Grade 3	153	158	24	7	6.58	22.6
Grade 4	174	153	24	9	6.38	21.9
Grade 5	180	148	24	11	6.17	21.1
TOTAL	**507**	**459**		**27**	**21**	

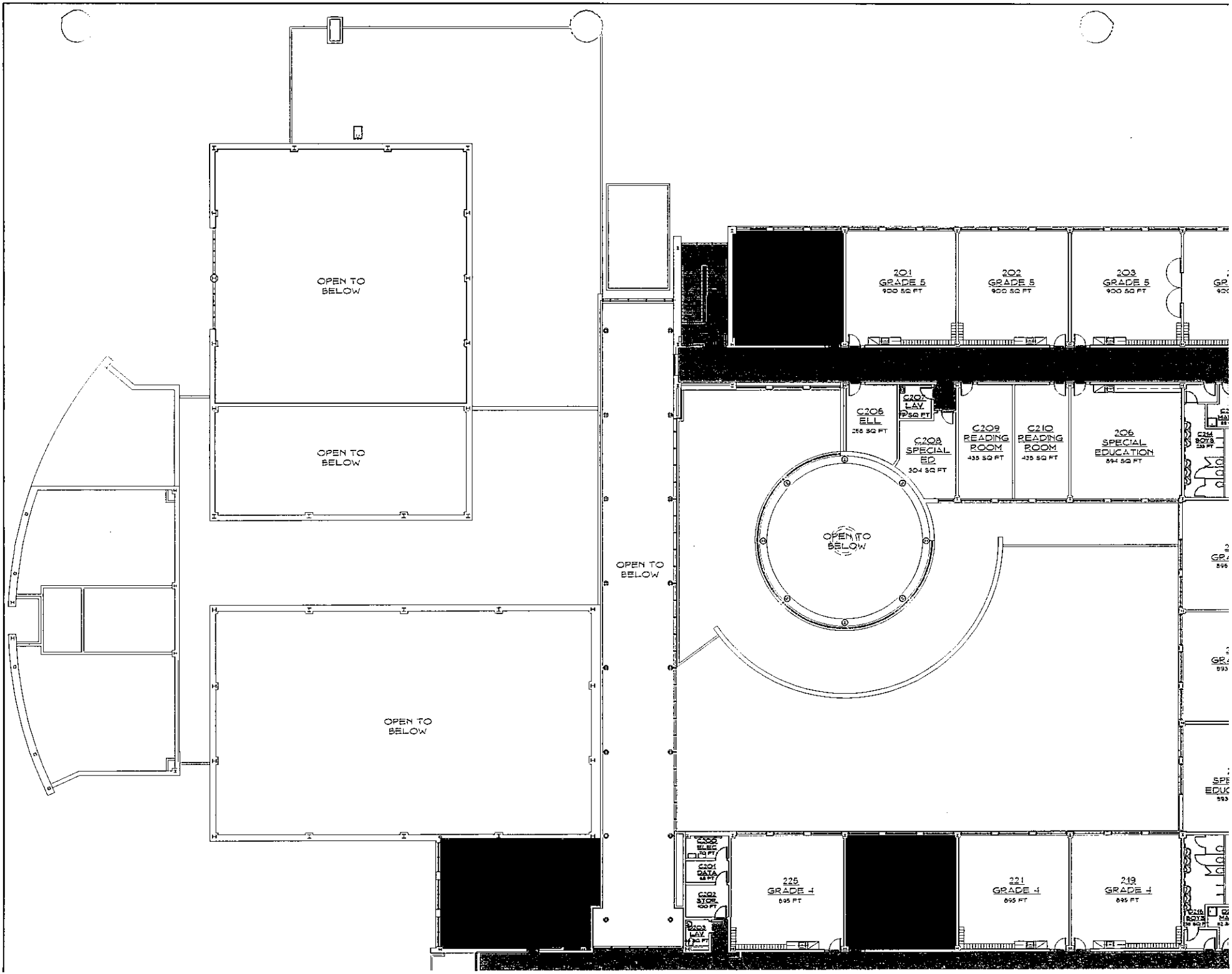
To further investigate the utilization of the school the general classroom quantities were reviewed. Here we evaluate the quantity of classrooms needed to adequately support the student population per grade level. Each grade level is reviewed in accordance to the districts maximum class size policy or the student to teacher ratio. The Weston Board of Education has established classroom size guidelines. Grade 2 through Grade 12 have a range between 20 to 24 students per class. Using the maximum class size, we can determine the minimum quantity of general classrooms needed to serve the school. The chart above examines both the current and projected enrollment of each grade and it determines the classroom quantities needed. At Weston Intermediate, we can see that they are currently very comfortable. Currently, Grade 3 seems to be at its maximum while Grade 4 is operating closer to the minimum range of 20 students per classroom and Grade 5 doesn't necessarily appear to need all their classrooms. With the projected enrollment dropping to 459 students, if the district chooses to work with the maximum class size policy there will be approximately 6 available classrooms at this school.



The chart above analyzes the percentage of all the program categories and then analyzes them within their three sections. The core learning section occupies just under half of the building which is fairly standard. Again, similar to Hurlbutt, there are numerous special education rooms and a large amount of space dedicated to specials. The Media Center here is also rather large. Again, these are some of the qualities that make this school great. Here School Support has evened out with the addition of a full-sized stage in the Cafetorium and full-sized gymnasium. This school is well balanced in its proportions. The building provides ample space to support the programmatic needs of this school.

Overall, Weston Intermediate School is a beautiful and well taken care of school. The layout and sizes of each space adequately support the educational needs. The school has been well maintained and should continue to support the community for years to come.


B123
BOILER RM
920 SQ FT
B122
ELEC. RM
446 SQ FT
B117
LAV
70 SQ FT
106A
OFFICE
244 SQ FT
106
CUSTODIAL
573 SQ FT
101
SPECIAL ED
895 SQ FT
102
OT ROOM
883 SQ FT
103
GRADE 3
883 SQ FT
122
FACULTY RM
696 SQ FT
B111
GIRLS
B112
BOYS
B112A
LAV
B111A
LAV
MAIN
DATA
A112
PE CLOSET
294 SQ FT
A113
LOCKER
ROOM
A115
PE OFFICE
210 SQ FT
GYM
C128
COURTYARD
7605 SQ FT
A104
BOOK
STORAGE
A107
ELEC
A106
DATA
A105
WORK
ROOM
358 SQ FT
EXAM
COTS
153 SQ FT
OFFICE
118
PROFESSIONAL
DEVELOPMENT
1076 SQ FT
LAV
NURSE
WAIT RM
TREATMENT

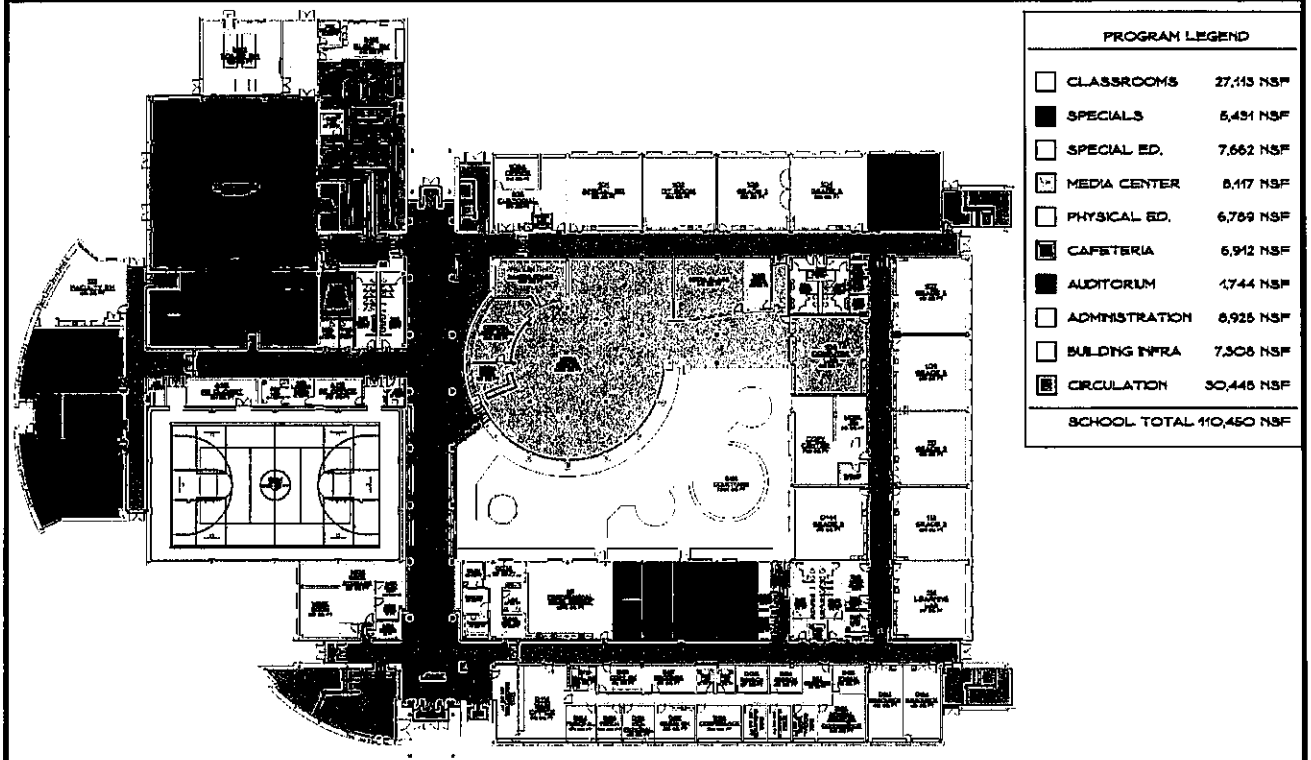

OPEN TO BELOW
OPEN TO BELOW
OPEN TO BELOW
OPEN TO BELOW
OPEN TO BELOW
201 GRADE 5 900 SQ FT
202 GRADE 5 900 SQ FT
203 GRADE 5 900 SQ FT
C206 ELL 256 SQ FT
C207 LAV. 75 SQ FT
C208 SPECIAL ED 304 SQ FT
C209 READING ROOM 435 SQ FT
C210 READING ROOM 435 SQ FT
206 SPECIAL EDUCATION 894 SQ FT
C200 ELEC. 103 FT
C201 DATA 68 FT
C202 STOR. 100 FT
C203 LAV. 140 FT
225 GRADE 4 895 FT
221 GRADE 4 895 FT
219 GRADE 4 895 FT

Weston Intermediate School

95 School Road Weston CT

Student Population:	507
Staff Total:	78
School Type:	Elementary-Secondary
Grades:	Grade 3-5
Original Construction:	2005
Significant Alterations:	n/a
Total Area (net)	110,452 NSF

Floor Plan



Building Information	
Construction Type	2B
No. of Floors	2
Foundation	none

Classroom Counts	
Standard Classroom	27
Special Ed. Classroom	13
Portable Classroom	0

Existing Condition		
Ext. Envelope	brick and metal panel	
Roof	age:	2005
	type:	Ballast
Security	staffed security desk, lockable doors, vestibule	
Heating	dual flame - 20 year life expectancy remaining	
Sprinklered	yes	
AC	yes	

5-year Priority Projects	
Gymnasium knee wall	$264,000
Repair and reconstruct	
Add exterior doors at Gymnsaium	$25,000
Demo wall and ad double door	
New Flooring at Cafetorium	$81,180
Remove, prepare slab and replace	

Capital Needs Prioritization - $ 1,379,342

Discipline	Total	Priority 1&2
Site	*$33,000*	$0
Architectural	*$499,030*	$387,430
Plumbing & FP	*$20,500*	$500
Mechanical	*$51,600*	$35,900
Electrical	*$775,212*	$110,000
Total:	*$1,379,342*	$533,830

SILVER/PETRUCELLI+ASSOCIATES
Architects / Engineers / Interior Designers

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: **Weston Facilities Feasibility Study**

CLIENT: Weston Public Schools

MEETING PLACE: Weston Intermediate School Conference Room

DATE AND TIME: March 7, 2017 @ 11:30 pm

ATTENDEES:

Patricia Falber	WIS Principal
Nicole Wilhelm	WIS Assistant Principal
John Ireland	Silver Petrucelli
Michelle Miller	Silver Petrucelli

Purpose: Program Needs

Overall there are not many issues with the school building, as it is on its 12th year. The building works well and supports the three grade levels. It has good flow and nice natural light. Specific room labels were reviewed as some had changed.

The following issues were noted:

1. Gym
    - There is no direct exterior access/egress
    - Space is highly used – prefer to shut off remainder of building during night and weekend use
    - Congestion is main hallway outside of gym and cafeteria can cause a traffic jam especially during lunch and indoor recess
2. General Classrooms
    - Entry at the front of the room is not favorable
    - HVAC concerns, vary from room to room
    - Southeast portion of 2nd floor gets very hot
    - Sound issues, some classrooms have shared doors between rooms and it doesn't always work well as the transfer of sound can be distracting

- Tennis balls are being added to furniture as the moving of desk and chairs is load to the rooms below
- Windows don't allow for egress and that may be desired with the modern day security needs

3. Administration
    - Some offices lack natural light
    - Conference room between offices has been eliminated and is missed
    - Wall covering or wallpaper is beginning to fail
4. Play area
    - Small area - landlocked
    - Limited grass play
5. Music
    - Rooms are small – band has to rehearse on the stage
    - Stage lighting, sound and curtains have been upgraded
6. Media
    - Recently renovated
    - Added makers space and green room
    - Added an additional PC computer lab (now there are 2)

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

Distribution: Weston Schools, Silver Petrucelli

Existing Weston Middle School Facility Program

Weston Middle School currently serves the Grade 6 through Grade 8 population of Weston, with 584 students and approximately 80 staff members. The school building is 145,977 net square feet. This calculation removes the lower level with the town pool and associated locker rooms portion. The Connecticut State Space Standards bases the size a school on the highest 8-year enrollment projections and grade level. The state therefore would determine that this building is appropriately sized at 98,112 net square feet. However, this is a basis for limiting the sizes of schools to receive reimbursement on construction projects. It is only criteria to meet if the goal is to maximize state funding. It is not the best comparison for this school.

Existing Weston Middle School Program

Existing Enrollment: 584 Students

Space Division	Quantity	Square footage	Subtotal	Average	Percentage
GENERAL CLASSROOMS					
TOTAL	33	756-1309	34,317	1040	24%
SPECIAL EDUCATION					
TOTAL	13	258-917	8,940	688	6%
MEDIA CENTER					
TOTAL	5	1364145	10,343	2069	7%
PHYSICAL EDUCATION					
TOTAL	15		19,967	1331	14%
CAFETERIA					
TOTAL			4,973		3%
ADMINISTRATION					
TOTAL	22	86-1076	4,917	224	3%
BUILDING INFRASTRUCTURE					
TOTAL			7,038		5%
CIRCULATION + STRUCTURE					
			37,908		26%
TOTAL			145,977		100%

After reviewing the building, understanding it's functions and discussing issues with staff members it is evident that Weston Middle School has not seen a lot of updating in its lifetime and needs some programmatic improvements. The description below highlights some of the major issues and concerns. For additional information, refer to the Weston Middle School Interview Meeting Minutes from March 21, 2017.

Many issues and deficiencies were discussed regarding the Middle School. First of all, there is a great need for building infrastructure improvements. A need for air conditioning has been a large concern. Other mechanical issues are poor ventilation, noisy air handler in science rooms and unaesthetically pleasing low ductwork in corridors. Plumbing issues consist of failing sinks and a lack of hot water in bathrooms. Electrical concerns are the lack of emergency lighting and power and the lack of exterior lighting. The intercom and bell system also do not always function properly. Lockers throughout the school are in disrepair. Largely many issues were discussed about the Science labs. They are old dated interior bound spaces with terrible sightlines. They lack technology and are not conductive to learning. The casework is old and dated. This also applies to the art rooms. Many of the classrooms also have cabinetry that is dated and in need of replacement. These spaces need renovations. The old gym is also in need of renovations including retractable basketball hoops. It should also be mentioned that this building lacks and Auditorium or functioning stage or a space large enough for full school assemblies. Additionally, the administration portion of this building is undersized and lacking. Aside from the mentioned needs and concerns, the building functions well for its users.

Standard classrooms at this school vary by wing. The largest are in A and B wing with all over 900 net square feet. The smallest are in G wing and vary in size, most smaller than 800 net square feet. While tolerable, 800 or more is ideal. Classrooms used for Special Education consist of a variety. Science classrooms are not only in poor condition and landlocked without daylight, they are also undersized.

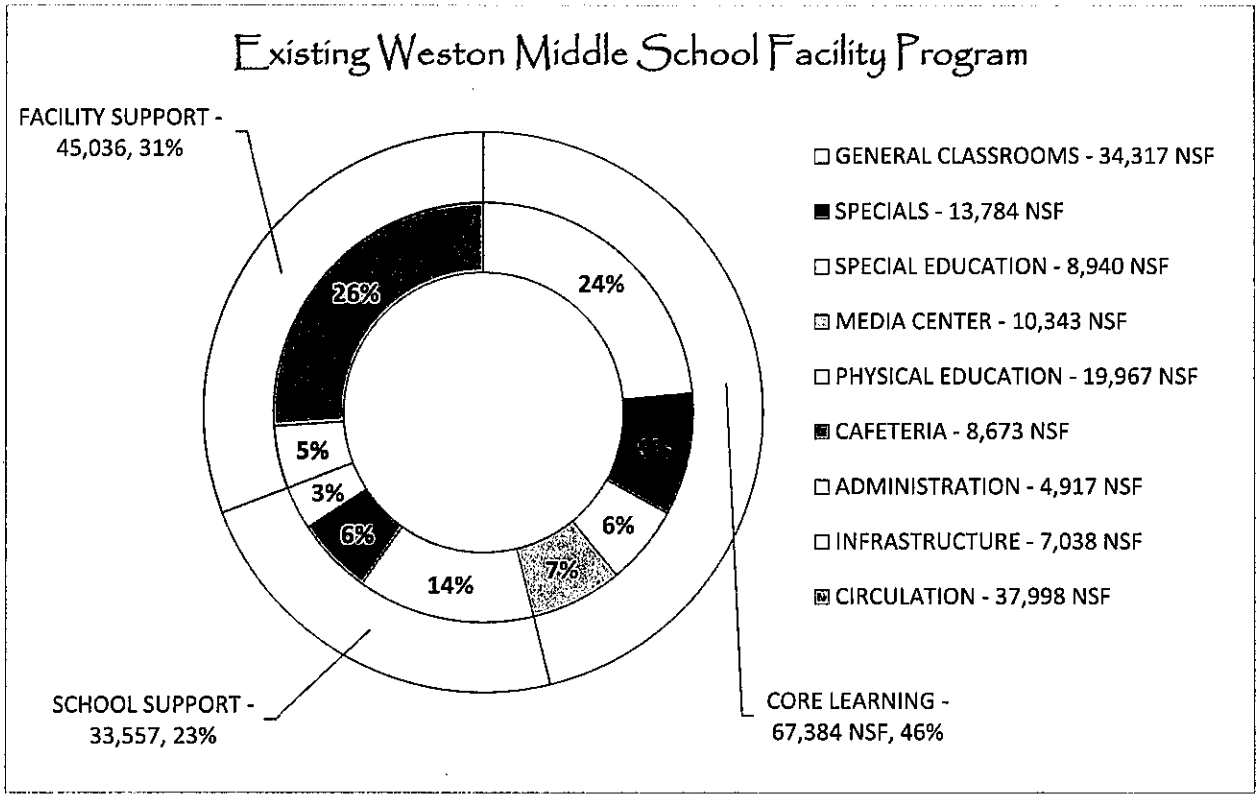
Weston Middle School - General Classroom Utilization

Existing Enrollment: 584 Students

Grade Level	Oct. 2017 Enrollement Total	Projected 2022-2023 Enrollement	Maximum Class Size Policy	Current Classroom Quantity *	Projected Minimum Classroom Quantity	Projected Students Per Classroom
Grade 6	196	173	24	11.00	7.21	21.6
Grade 7	190	179	24	11.00	7.46	22.4
Grade 8	198	175	24	12.00	7.29	21.9
TOTAL	**584**	**527**		**34**	**24**	

*Count includes the science labs, language rooms, health, project challenge

To further investigate the utilization of the school, the general classroom quantities were reviewed. Here we evaluate the quantity of classrooms needed to adequately support the student population per grade level. Each grade level is reviewed in accordance to the districts maximum class size policy or the student to teacher ratio. The Weston Board of Education has established classroom size guidelines. Grade 2 through Grade 12 have a range between 20 to 24 students per class. Using the maximum class size, we can determine the minimum quantity of general classrooms needed to serve the school. The chart above examines both the current and projected enrollment of each grade and it determines the classroom quantities needed. As we transition from the Intermediate School to the Middle School we now have a school where students move from different classrooms geared to specialized instruction throughout the day, so simple math does not apply here. The evaluation of this chart does not reflect the accuracy of the grade organization and the two teams that occupy the general classrooms. Each grade level has 8 classrooms dedicated to their core learning while the remaining classrooms support world language, health, and project challenge classrooms. If we look at the 8 core learning classrooms per grade we can see that the school is on target for today. Looking at the projections, the decrease in students will still require the 8 core classrooms. Weston Middle School general classrooms are on target of where they should be and may have some future flexibility.



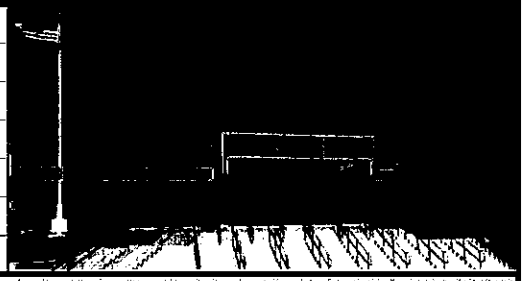
The chart above analyzes the percentage of all the program categories and then analyzes them within their three sections. The core learning section occupies just under half of the building which is fairly standard. The percentages of the three sections end up very similar to the Intermediate school. Core Learning category percentages are very comparable and conceivably expected in a middle school. However, there is one category completely missing in this middle school - an auditorium, Cafetorium or stage. The cafeteria was once a Cafetorium and the old gym once had a stage. They were no longer needed; perhaps the adjacent High School Auditorium is sufficient. Another category to point out is physical education. Just like the high school, this drastically increases due to two gymnasiums and a fitness center. Although it is not unheard of for a school to have two gyms it does take away from other elements within School Support section. For instance, the Administration at this school appears to be undersized. The office suite and the guidance office comingle. The nurse's suite is small with no access to natural light. This school is well balanced and has the overall square footage to be able to support the programmatic needs, it just needs some improvements and modifications.

Overall, Weston Middle School is a well taken care of school, but its age and layout create a need for improvement. Most of the layout and sizes of each space adequately support the educational needs however areas such as the science, art and music rooms need improvements. There are a few options to address these issues. The science labs can be renovated like new in their existing locations but that would not change their interior location with a lack of natural light and their size. Perhaps there is another program that would work better in this location and new Science labs can be created within other more appropriately sized existing spaces. Another solution is to demolish them and replace it with a courtyard or Auditorium. A science lab addition could then be built. Air conditioning is a high priority at this school and therefore would also involve the needed ceiling and light replacements. Many of the rest rooms and lockers are in disrepair and need renovations and replacements. There are many improvements to be made that would help advance the middle school to a higher standard to improve the educational experience of its students.

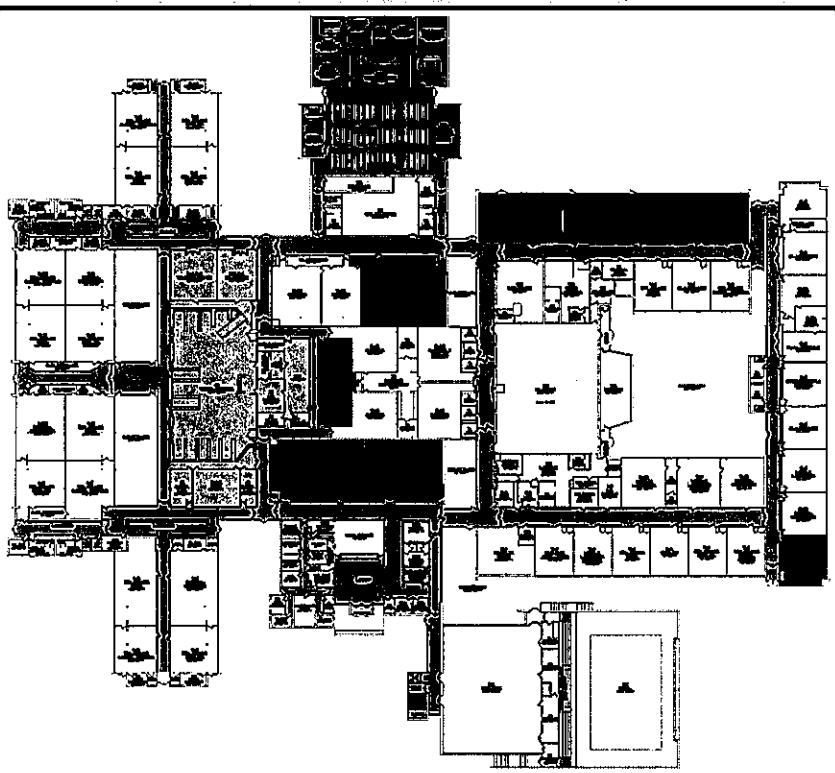
Weston Middle School

135 School Road Weston CT

Student Population:	584
Staff Total:	80
School Type:	Middle
Grades:	6-8
Original Construction:	1960
Significant Alterations:	1970 & 2000
Total Area (net)	155,622



Floor Plan



PROGRAM LEGEND	
CLASSROOMS	34,317 NSF
SPECIALS	13,764 NSF
SPECIAL ED.	8,940 NSF
MEDIA CENTER	10,343 NSF
PHYSICAL ED.	30,988 NSF
CAFETERIA	6,673 NSF
AUDITORIUM	0 NSF
ADMINISTRATION	4,917 NSF
BUILDING INFRA	7,036 NSF
CIRCULATION	38,622 NSF
SCHOOL TOTAL	155,622 NSF

Building Information	
Construction Type	2B
No. of Floors	2
Foundation	partial

Classroom Counts	
Standard Classroom	33
Special Ed. Classroom	10
Portable Classroom	0

Existing Condition		
Ext. Envelope	brick	
Roof	age:	2000+/-
	type:	Ballast and EPDM
Security	security desk, lockable doors, vestibule	
Heating	dual fuel - boilers: nearing end of useful life	
Sprinklered	no	n/a
AC	partial	

Priority Projects	
Add Air Conditioning & Ventilation	$3,680,000
Add throughout the building (NIC electrical)	
Replace ceilings	$2,100,000
Replace all old sagging dropped ceilings	
Emergency lighting	$50,000
Install a code approved emergency lighting system	

Capital Needs Prioritization -	$ 17,298,474	
Discipline	Total	Priority 1&2
Site	*$660,000*	$0
Architectural	*$9,096,064*	$2,392,500
Plumbing & FP	*$788,110*	$0
Mechanical	*$5,476,000*	$266,000
Electrical	*$1,278,300*	$88,300
Total:	*$17,298,474*	$2,746,800

SILVER/PETRUCELLI+ASSOCIATES
Architects / Engineers / Interior Designers