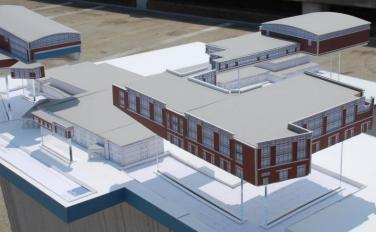


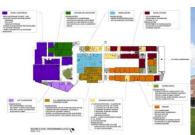
# Unionville High School

Kennett Square, PA















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marotta + main

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Unionville High School,

Kennett Square,
Pennsylvania, is at the
center of a vibrant and
rapidly growing
community located on
Route 82 outside the
town of Unionville.



2.

3.

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5.

1.







#### a. executive summary

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M M architects in collaboration with the Unionville-Chadds Ford School District overcame the community's discontent through the delivery of a 21st Century High School which blended the existing 1950's, 1990's and 2012 construction into a cohesive facility which services the Community in the Arts, Athletics, Science, Humanities and Technology.

The goals, simply stated by the School District at the first design conference was for the architects to deliver a 15-20 year solution to the over-utilized High School, Athletic Fields and District Offices that mirrored the community. The construction cost could not exceed \$50-60 Million (in 2006 dollars). The process would be overseen by a fiscally conservative Board and Community, while the needs included full renovations and additions to their High School, increasing the building capacity from 1200 to 1600, removing 14 modular classrooms, updating the facility to meet today's educational curriculum and planned flexibility for future changes to the curriculum. The work had to be completed while the school was more than fully occupied, extending over a three year time frame. At no point in the construction was the District required to forfeit programs or curriculum due to the construction occurring on the site.

The outcomes of the project provided a 1600 student High School with state of the art facilities responding to the educational needs through the replacement, renovation and reuse of outdated facilities including a total reorganization of the existing building.

While the District saw a turn over of several School Boards through the life of this project, all 18 Board Members that were involved were happy to stand behind the project at dedication.

"...[O]n each of our project teams, they assembled a very competent team of professionals who worked together very well and who were very thorough in their design... very responsive to our needs and they maintained open communications... demonstrate such a high level of expertise and professionalism"

Rick Hostetler, Supervisor of Buildings and Grounds, Unionville-Chadds Ford School District











## a. executive summary (continued)

# Unionville High School

### Unionville-Chadds Ford School District

198,091 sq. ft. renovations Area:

160,526 sq. ft. additions

\$54,808,755 Total Cost:

Completion: 2012

Location: Kennett Square, PA

Client Reference: Rick Hostetler

Buildings and Ground Supervisor

Phone: 610.347.0970 Dr. John C. Sanville

Superintendent of Schools

Phone: 610.347.0970

The Cafeteria, Auditorium and Gymnasium have been replaced. The building has been organized by department with adjacencies to promote team teaching activities and shared instructional areas.

The district offices were relocated to the ground floor of the new classroom wing, freeing its original location for high school administrative offices.



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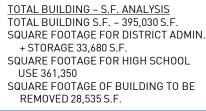






## b. scope of work



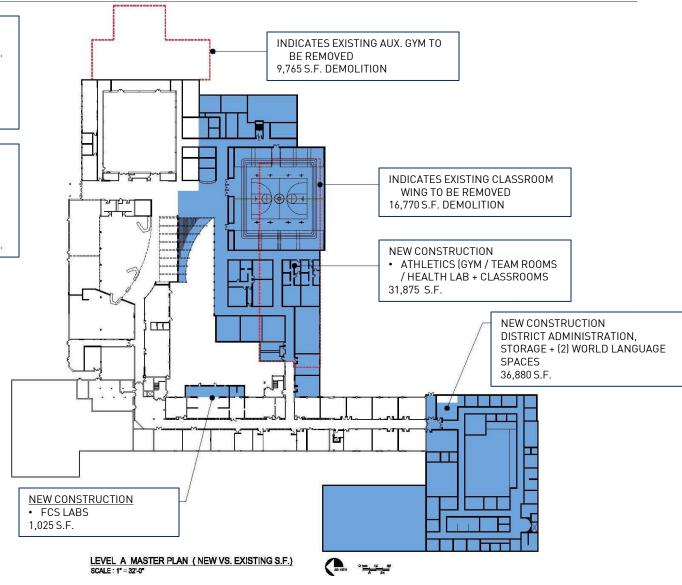


#### LEVEL A - S.F. ANALYSIS

TOTAL S.F. THIS LEVEL 164,490 S.F. EXISTING BUILDING 95,735 S.F. NEW CONSTRUCTION 88,755 S.F.

- ATHLETICS ADDITION
- FCS ADDITION
- DISTRICT OFFICES

AREA OF BUILDING REMOVED 28,535 S.F.

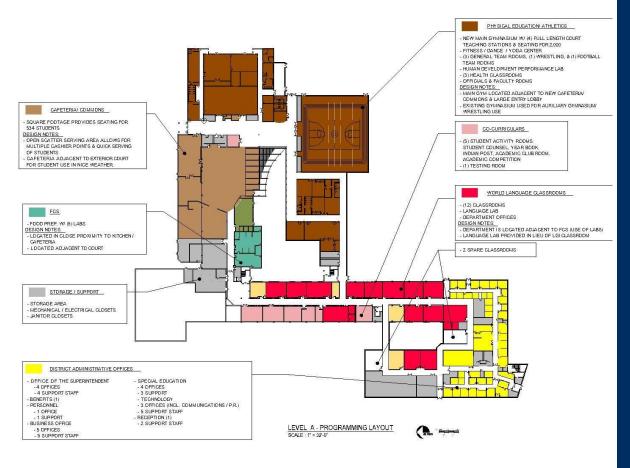


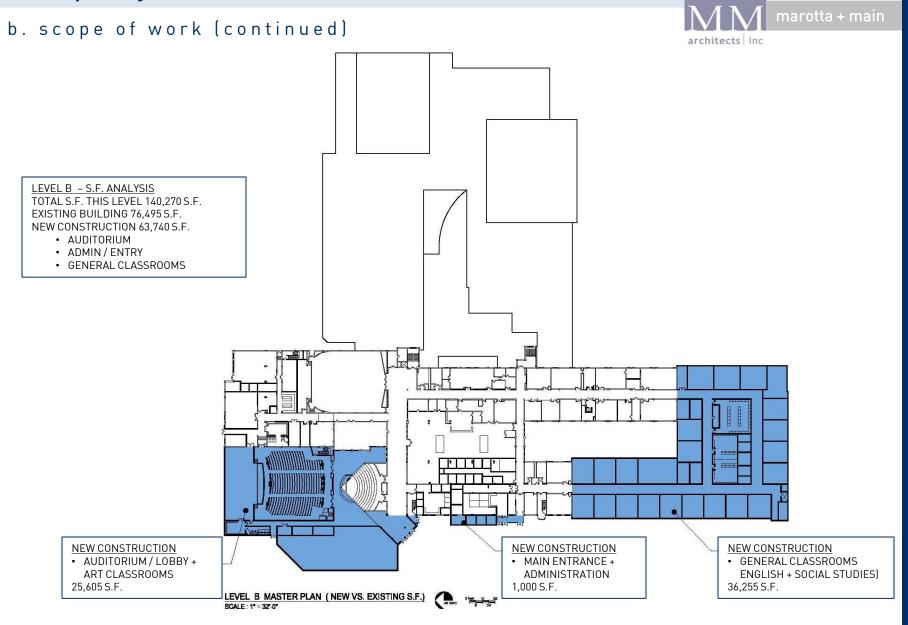
### b. scope of work (continued)

As the project scope was developed - the educational programs were reorganized. The new planning allowed for pairing of subject areas.

- 1st Floor houses Life Skills, Wellness Center, PE and Athletic Program Space, as well as the Student Commons and Café and District Offices tucked beneath the main High School Structure.
- Commons designed to seat 534 students as flex space for student dining, before and after school gatherings, evening by the Community, used in combination with Athletic activities.
- New Main Gym with 4 full court teaching stations, fitness center, yoga/dance lab, team rooms, locker rooms, 3 health classrooms and human development lab.
- Co-curriculum / student activity spaces.
- 12 World Language classrooms with language lab and department office.
- New District Offices located to allow for separate entry, yet easy access to the School High when need for interventions.





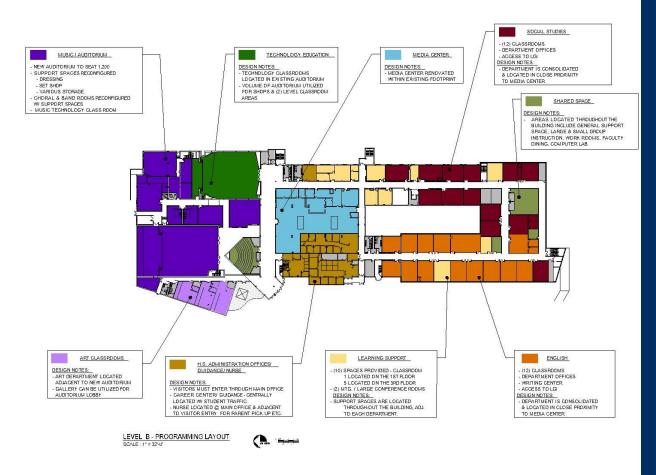


## b. scope of work (continued)

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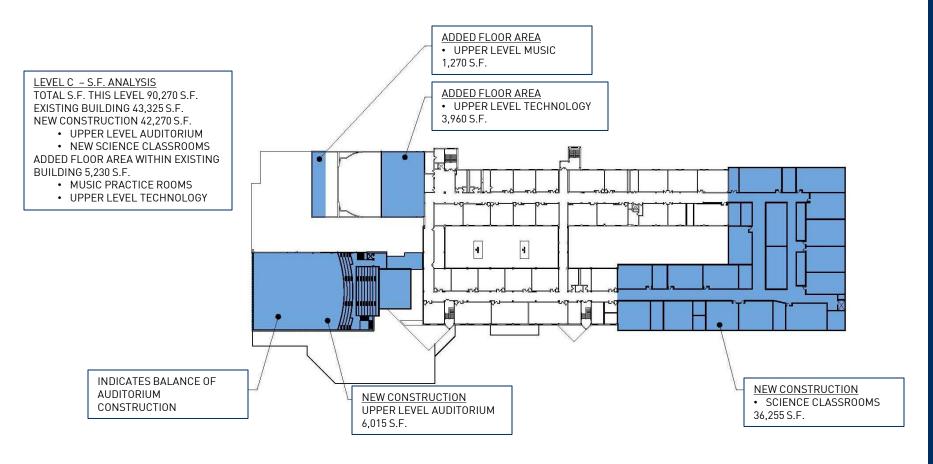
The 2nd floor is dedicated to the Humanities, Library, Visual and Performing Arts as well as the High School Offices.

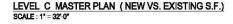
- 12 classrooms for each of the curriculums to include social studies and English
- A shared large group area adjacent to department offices
- Media Center reorganized to allow for research and team activities
- original auditorium floor was infilled to create a new technology center.
- new 1200 seat auditorium, with new dressing rooms, set shop and choral, band and instrumental instruction renovations
- 3 new art studio plus an outdoor studio adjacent to the sculpture and clay studio
- area outside between the performing and graphic provides an exhibit gallery



## b. scope of work (continued)









## b. scope of work (continued)

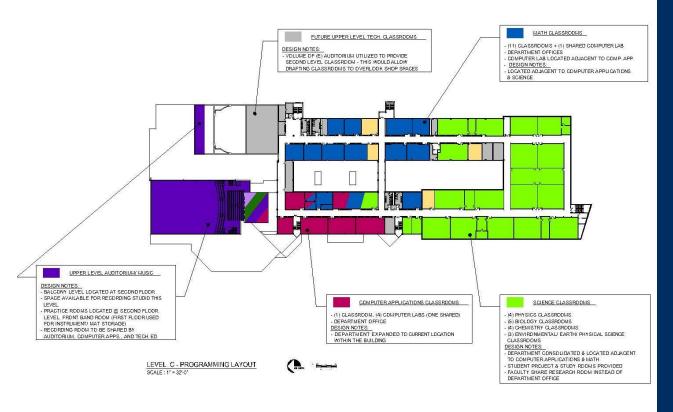


The 3<sup>rd</sup> floor supports the STEM Programs:

- 11 math classrooms
- 4 physics labs
- 5 biology labs
- 4 chemistry labs located around a central prep space which allow faculty to work together and share facilities at the core of this department
- 3 environments / earth / physical science labs, including an outdoor lab
- 3 computer application labs
- department offices and shared large group area

Distributed throughout the school are learning support classrooms, which keeps support adjacent to each of the curriculums and faculty teams.

Color coded plans were used with the District 's planning committee to confirm program location, number of classrooms, proximity of program space to each other.



## c. budget



MM architects worked with the Unionville-Chadds Ford School District to establish and maintain the Budget. As the project scope was developed, the Construction Budget was set at \$62 million. Because of the initial community concerns with the project budget, the District chose to phase some of the site work, which allowed athletic fields to be completed prior to the start of the building renovation / construction project. Constant and close scrutiny was given to the project budget. Even though the project bid under budget, continual collaboration between the District Professionals and Contractor created additional construction savings.

Delivering a final project at 85% of the approved Project Budget.

### Budget:

Phase 1 – 3 new athletic fields, Natural Turf:	\$ 524,190
Phase 2 - Synthetic High School Stadium and Practice Fields:	\$ 1,500,000
Phase 3 – Renovations and Additions	<u>\$ 59,975,810</u>
	\$62,120,074

#### Bid:

Phase 1 – 3 new athletic fields, Natural Turf:	\$ 460,750
Phase 2 - Synthetic High School Stadium and Practice Fields:	\$ 1,091,647
Phase 3 – Renovations and Additions	\$ <u>53,241,316</u>
	\$ 54 793 713

#### Final Construction Cost:

Phase 1 – 3 new athletic fields, Natural Turf:	\$ 495,546
Phase 2 - Synthetic High School Stadium and Practice Fields:	\$ 1,103,049
Phase 3 – Renovations and Additions	<u>\$ 53,210,160</u>
	\$ 57, 808 755

Value of project as reconciled

> under budget by

\$ 7,311,319



# marotta + main

## d. community engagement process

a successful project includes deliberate collaboration and communication...

identify stakeholders: students, faculty, staff, administrators, school board members, township and county officials and the general public and community of the Unionville-Chadds Ford School District along with the team of project professionals including architects, engineers, acousticians, food service designers.

name challenges: the project began in a state of community discontent with School Administrators and Board Members. Within months of the Architect selection, a new Superintendent was hired, Board Members changed with every election period. While the existing school facility was sorely undersized (14 modular classrooms were in use requiring students to go outside the building to attend classes), safety and security concerns were great, science instructors were delivering experiments to classrooms on carts because water was not available in the classrooms now being used as labs, visitors traveled into the center of the building before entering the High School Offices. The project failed 2 referendums at a time when the national economy was slipping into the worse financial slump in decades. The building had to remain in full operation during construction.

describe available assets: the project team (School, Design Professionals and Contractors) that supported this project worked proactively to deliver the project to the community ending with a project that the community has rallied around. Continuous review, communication, the ability to use a single prime contractor, use of District's Lead Custodian as Project Manager (knew everything about the existing building and building systems) who was on site all day, everyday during construction. The Administrative Team worked closely with the Design Team in responding to questions in a timely manner. In most cases, decisions could be delivered to the job site within 24 hours, if needed.

describe value of process and project to community at large: an integrated design process allowed the design team to incorporate the District's educational curriculum, safety, and capacity needs with building system and code compliance upgrades. By meeting with administration early in the building design the building systems and building phasing were incorporated into the programming requirements. With these requirements at the forefront, the building design lent itself to a logical movement of new construction, relocation then renovation of the facilities. U.S. News ranked Unionville High School 4<sup>th</sup> in the State while the school was under construction.

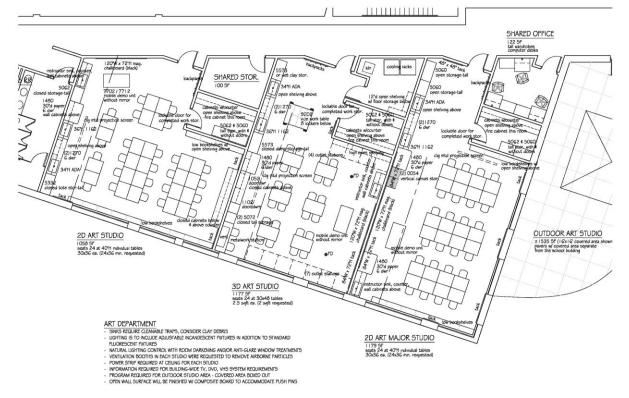
#### e. educational environment



#### describe + illustrate how the environment supports the curriculum

In developing the educational environment in response to the curriculum the project team developed learning centers which grouped curriculums that supported each other, while incorporating adjunct spaces for group instruction as well as one on one support. In addition, department offices are grouped to further support prep areas where instructors can collaborate. Each of the educational spaces were developed in response to charrettes involving the faculty and staff. Educational specifications were overlaid on the design plans to confirm that curricular needs were being met - including space adjacencies, room layouts, equipment needs, finishes, storage requirements, access to the outdoors (if needed), flexibility, specific system requirements. Once approved by the Administration, planning documents were reviewed with the faculty and staff for clear understanding of final design.

Sampling of the Art Department response to Educational Specifications and Faculty Charrette



### educational environment (continued)



14

#### describe + illustrate how the environment supports a variety of learning & teaching styles

Unionville High School's educational environment provides flexible space, allowing easy movement of desks to be grouped in various arrangements for individual learning, team learning as well as "sage on the stage lecturing". Smart technology is incorporated in every space and wireless networks set up to cover the Campus.

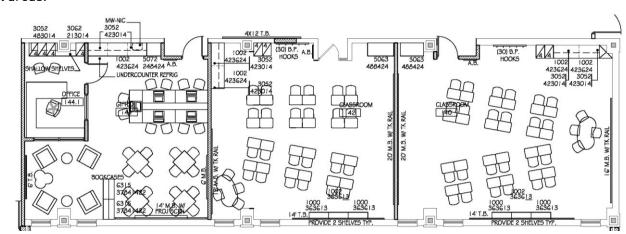
Support spaces are located within each of the curricular areas. These spaces provide additional support to students with one on one instruction, student to student tutoring or teaming, computer stations to provide remedial support and retesting.

Large group spaces have been located within each curricular grouping to provide space for co-teaching within a department or to incorporate co-curricular instruction. The building systems are designed to distribute air through multiple diffusers located in the ceiling of each classroom, in order to minimize noise levels, therefore maximizing auditory clarity.

The design team included an acoustician, who evaluated each space as well as the building systems to confirm that the spaces were designed to deliver educational environments that support education.

Sufficient writing and display surfaces allow both presentation and participation within each instructional space, as well as support spaces and public areas. Students and faculty use every portion of the building to support the educational process, from the classroom to the corridors to the outdoor environmental areas.

New outdoor instructional spaces provide for vegetable gardens to be developed outside the life skills. An outdoor reading area expands the Library into an enclosed courtyard. An outdoor art studio investigation allows for sculpture and raku.



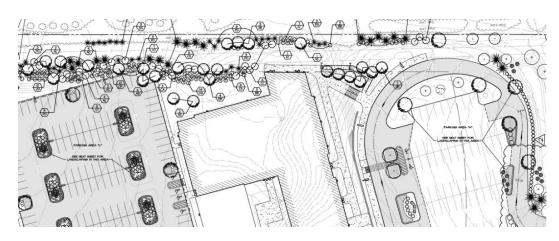
## f. physical environment

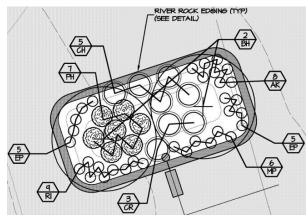


#### describe + illustrate the physical attributes of the environment

The school is situated on the eastern edge of Chester County in South Eastern Pennsylvania. The community is made up of landowners that have been a part of the community for over a century, along with who have recently joined the community as a result of several over-55 communities springing up in the countryside and families whose parents work in the community or commute into Philadelphia or other areas on the eastern edges of Philadelphia. This diverse community requires the School District to support all levels and avenues of education.

The Administrative Team felt it importantly that the school be designed and constructed to meet LEED Silver requirements, incorporating the communities strong ties to the environment.. The Design Team worked carefully with the local Township and County officials to improve the storm water management on all areas of the 115 acre site. A variation of infiltration, detention and bio-retention basins were planned through-out the site. Native plants were used in meeting the landscaping requirements for the site. Within the parking areas, river-rock edging was provided to allow run-off to enter slightly depressed basins used to filter and clean run-off prior to re-entering the aquifer.





As the site was developed to meet the educational needs, site safety was discussed as a significant issue. The site not only includes the High School and adjacent athletic facilities, but also the District's Middle School. Planning incorporated bussing patterns, walkers' routes, parent drop off routing to both schools, and student drivers who might also be dropping off siblings at the MS. Pathways and parking areas were developed with consideration of visitor adjacencies to the new District Offices, Athletic Venues, Performing Art Wing, and Central Offices.

## physical environment (continued)



#### describe + illustrate how the facility fits within the larger context of the community

Unionville-Chadds Ford School District is located in southeastern Chester County, a 77-square mile area which includes 7 townships and services approximately 4000 students. The rural environment is that of horse farms while the suburban environment includes a mixture of homes and retail on the outer limits for Philadelphian commuters. The community is made up of highly educated professionals and land owners who have supported the community and the education of their children, grandchildren and neighbors.

The Unionville High School represents the town center for this community, standing as an institutional anchor and providing the point of community gatherings from athletic events to performances to art shows, farm shows and community festivals.



The District has seen a small but consistent growth over the last 20 years. As a result the District began to huddle modular classrooms into the back of the U-shaped building, trying to keeping them out of public view. As the District cried out to the community with concerns regarding space for the educational programs, the community could not see the problems until they ran out of space in the back of the school and began to place modulars at the front of the building.

The community requires that the building be understated, but exemplify the community's demographics and economical stature.

## f. physical environment (continued)



#### describe + illustrate how the project inspires and motivates

The project has reached out to every segment of this varied and involved community. The priorities in the Educational Programs mirror the Community. As the project was programmed and reorganized, four key learning centers developed within the school:

- Science and Technology
- Performing and Visual Arts
- Health and Wellness
- The Humanities



#### Science and Technology:

With the New Bolton Center, the University of Pennsylvania's School of Veterinary Medicine, located within the District - the Science and Technology Curriculums take a serious step in the development of students, providing varied AP courses to prepare students for careers in Medical Professions. Labs are equipped to meet college level criteria, while faculty expectations are that students perform as if they were already in a College Curriculum. Team rooms provide areas for team research projects.



### f. physical environment (continued)

M marotta + main

describe + illustrate how the project inspires and motivates

#### Performing and Visual Arts:

The community is steeped in the arts and it was noted often during the development of the project that programs at the High School are always sold out. In addition the High School theater and gallery space is used by the community. An educational foundation is active in the community adding support to each of these programs.

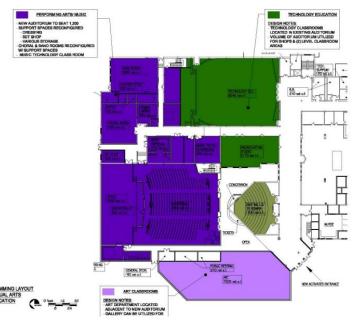
Events scheduled at the High School often show up in listings of performance programs in the Greater Philadelphia Area.

The **Wyeth Family** ties to the Chadds Ford Community has provided a strong base to the District's Visual Art Program.





architects inc



## f. physical environment (continued)



describe + illustrate how the project inspires and motivates

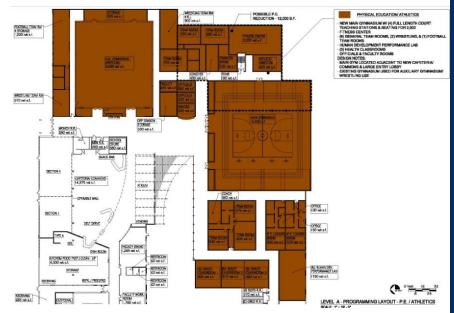
#### Health and Wellness:

The community believes that students need to have healthy choices available ranging from the food selections in the school cafeteria to involvement in the athletic programs of the District and community.

The District supports community intramural sports along with District run Athletic programs. The cafeteria and kitchen were completely revamped to create inviting serving venues and open while allowing students to eat indoor or outdoors in a protected courtyard. Facilities are provided at the perimeter of the building to support vending and restrooms for outdoor activities and large open common areas and lobbies support the indoor activities. A new gym was constructed which can seat the entire student body, adjacent classrooms allow for instruction in life skills and wellness. The existing gym has been broken into an auxiliary gym which houses the wresting program and rock climbing facility, a fitness lab, dance / yoga instruction along with OT/PT.



Rendered image of new Gym Addition



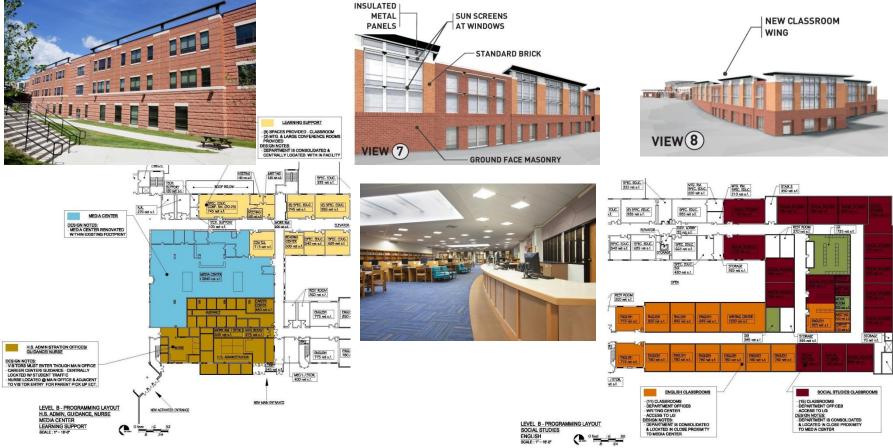
## f.physical environment (continued)



#### describe + illustrate how the project inspires and motivates

#### The Humanities:

The Humanities are the basis of the educational system and are therefore viewed and tied to every strand of education. With this noted the District provides English, Social Studies and Foreign Languages as core classes to their educational program. These Departments are very involved in the support of each of the programs already discussed, while also providing leadership in journalism through school publications, teaching researching techniques supported by the Media Center and Library facilities.



## ${\sf g. results}$ of the process + project



#### explain how the project achieves educational goals and objectives

Along with meeting the program and budgetary requirements set forth by the District and the Community, the building project had to be built on a phased construction schedule. The phasing was developed in the earliest of programming meetings so that the building logic in both layout and system design allowed for the educational program to continue throughout the life of the project.

The High School principals, Superintendent of Schools, administrative team, facilities and custodial staffs and the design team met providing invaluable information and guidelines to ensure that building systems would be operational, safe pathways and sufficient egress was maintained and educational programs could be relocated into feasible spaces as the renovations marched through the existing structure. Spaces that could not move (ie. the cafeteria) were renovated over summer months as well as moving major branches of the building systems during periods that few staff members would be affected by shut-downs.

The phasing requirements along with critical testing dates when noise levels had to be kept at a minimum were noted in the specifications. Contractors were presented the phasing strategies and concerns at the preconstruction conference. A total buy-in was necessary and was

maintained.

		Proof of			PARE 2
PHASING KE	Y:				raber - wi-
PHASE 1	22 JUNE, 2009 - 25 JUNE, 2010				
PHASE 2	28 JUNE, 2010 - 01 JULY, 2011	PROBLEM		-	
PHASE 2A	14 JUNE, 2010 - 15 AUGUST, 2010				
PHASE 2B	28 JUNE, 2010 - 31 DECEMBER, 2010	PHARE 4			
PHASE 2C	06 SEPTEMBER, 2010 - 31 DECEMBER, 2010				
PHASE 2D	03 JANUARY, 2011 - 01 JULY 2011				
PHASE 2E	03 JANUARY, 2011 - 21 JANUARY, 2011			SECOND FLOOR LEVEL MASTER PHASING PLAN	
PHASE 2F	24 JANUARY, 2011 - 11 FEBRUARY, 2011			SOAE PARE	
PHASE 2G	14 FEBRUARY, 2011 - 04 MARCH, 2011				
PHASE 2H	07 MARCH, 2011 - 25 MARCH, 2011				PIAMES
PHASE 2I	28 MARCH, 2011 - 15 APRIL, 2011		PASSE 2		
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PHASE 3	04 JULY, 2011 - 30 DECEMBER, 2011				a
PHASE 3A	13 JUNE, 2011 - 12 AUGUST, 2011			PAGE 16	
PHASE 4	02 JANUARY, 2012 - 28 SEPTEMBER, 2012		max 1 1 1		
PHASE 4A	18 JUNE, 2012 - 02 NOVEMBER, 2012				
PHASE 4B	05 NOVEMBER, 2012 - 28 DECEMBER, 2012	_			
	*	FIRST FLOOR LEVEL MASTER PHASING PLAN		THIRD FLOOR LEVEL MASTER PHASING PLAN	



Once the plans were developed (including what the school would look like in each phase) a final check was made to confirm the number of instructional spaces available to the District. The Building Principals were then able to manage their scheduling ahead of the construction project. The building logic was set to replace program areas prior to renovating existing spaces.

Student activities were monitored closely to ensure that safety measures were in place to separate construction from occupied areas, both inside and outside the buildings. With the help of the District's Project Manager, daily communication was kept between the Job Site and the High School Administration.

		2010								2011						
	START	25-Jun	2A 14-Jun	2A 15-Aug	2B 28-Jun	31-Dec	6-Sep	31-Dec	3-Jan	2D 1-Jul	3-Jan	21-Jan	24-Jan	11-Feb	2G 14-Feb	4-Mar
SPACE COUNT / PHASE	-	2	2A	2A	2B	2B	2C	2C	2D	2D	2E	2E	2F	2F	26	26
Modular Classrooms	18	[18]														
Science Labs, 1st Floor	6						[5]									
Science Labs, 2nd Floor	5		i				[4]				i		i i			
Science Labs, 3rd Floor		13	- i				i	3			1					
Art Classrooms	3															
Faculty Room	1						-!									
Instructional Planning, 1st Floor	1		1				1									
Instructional Planning, 2nd Floor		2	i				i									
Instructional Planning, 3rd Floor	3														(1)	
Gifted	1		- !				!	5			- 1		!			
Senior Lounge																
Tech Ed	4		- i				l i				i					
Life Skills	2		[2]	2			î									
General Classrooms, 1st Floor	9	5					- ;	8			- 1		-			
General Classrooms, 2nd Floor	5	17						6								
General Classrooms, 3rd Floor	22		- î			i	(6)	1			[9]	9	(3)	3	(2)	3
Writing Center	1		i			i	i				i					
Gym Stations	4															
LGI	1	2	- !													
Auditorium / Stage	1		T)				1						1			
Band Room	1		i				i		(1)	1	i		i			
Choral Room	1								[1]	1						
Music Classroom	П		- !				!			1						
Theater / LGI	1								[1]	1						
Library	1		i				i						T i			
Library Classroom	1		i	1			i									
Business Labs	3														[3]	3
(Not including planning spaces)	86	17	[2]	3	0	0	[15]	18	(3)	4	[9]	9	[3]	3	(5)	6
Running total, Instructional Spaces		103	101	104	104		89	107	104	108	99	108	105	108	103	109
Running gain / loss		14	12	15	15	15	0	18	15	19	10	19	16	19	14	20

Table used to track available classrooms

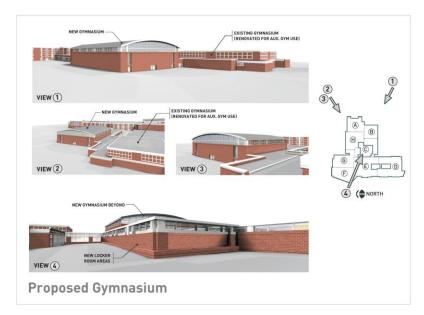




g.results of the process + project (continued)

#### explain how the project achieves community goals

MM architects facilitated the building process through the engagement of the District's community -local officials, administrators, staff, parents, students and community members. The Architects first ran public input meetings with the school community to collect the needs and requirements for the building project. The teaming of the project was passed from the school community to the design team, then continued into construction.









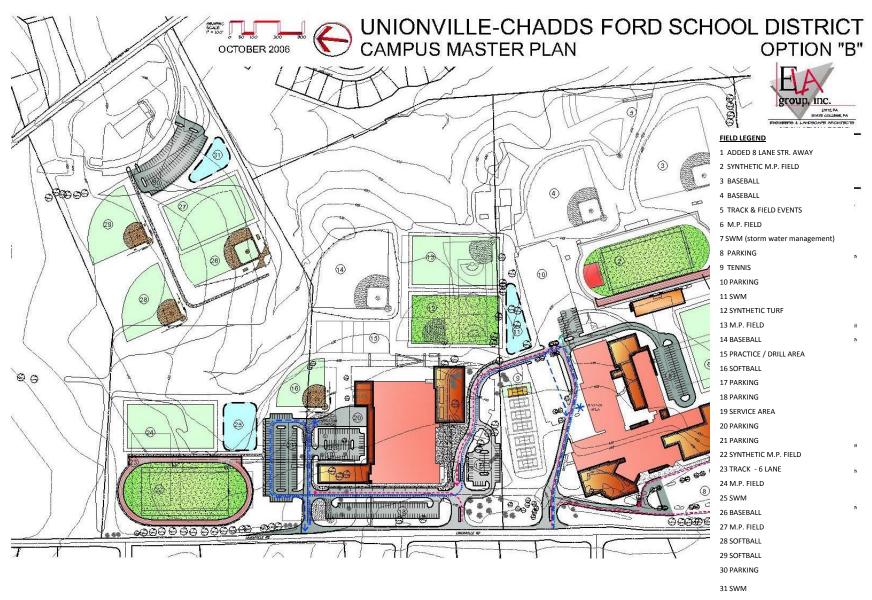




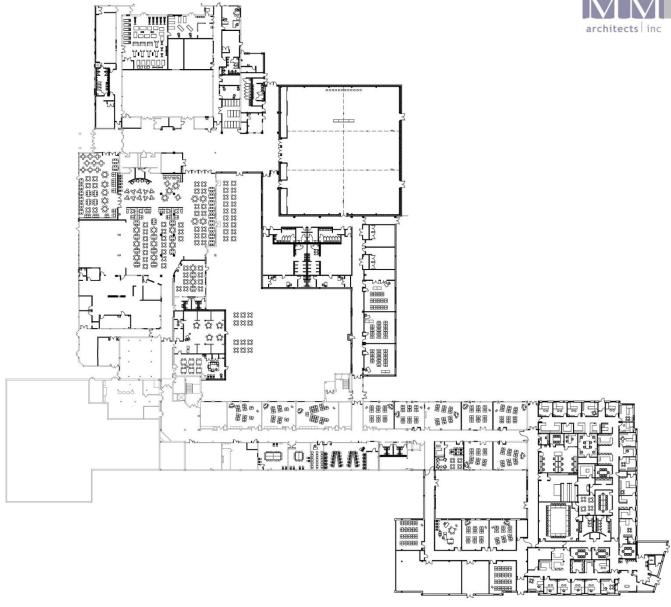


# 2. additional images







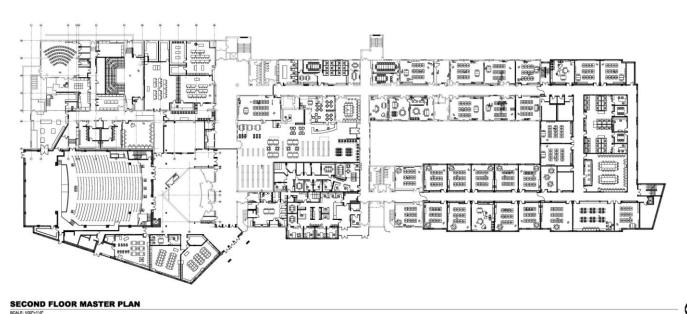


FIRST FLOOR MASTER PLAN
SCALE: 1/32\*=1'-0"



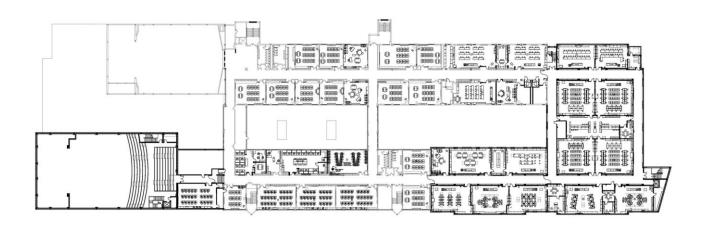
25











THIRD FLOOR MASTER PLAN







## budget analysis

- studies were completed to show how the school would be developed if a portion of the building program were eliminated
- thanks to the lower than budgeted construction bids, the entire project was able to be built

facade integration

- initial determination of what the owner values in existing façade
- initial determination of what problems exist in façade
- consideration of mass, materials, rhythm & rooflines



## 2013 James D. MacConnell Award Project Data: Confidential Information

Project Name	Unionville High School Renovations & Additions
School District Name	Unionville Chadds Ford School District
Project Address	750 Unionville Road
City/State/Zip/Country	Kennett Square, PA 19348 (USA)
Superintendent/President	Dr. John C. Sanville, Superintendent
Submitting Firm:	
Project Role (Architect, Planner,	
CM, Other)	Architect
Contact for this Award Application	Maryann Marotta
Title	President
Address	103 South Duke Street
City, State or Province, Country	Lancaster, PA 17602 (USA)
Phone	717.393.3211
Email Address	mm@mmaia.net
Joint Partner Firm:	
Project Role (Architect, Planner,	
CM, Other)	
Project Contact	
Title	
Address	
City, State or Province, Country	
Phone	
Email Address	
Other Firm:	
Project Role (Architect, Planner,	
CM, Other)	
Project Contact	
Title	
Address	
City, State or Province, Country	
Phone	
Email Address	

# 4. educational program or program of requirements



Educational Specifications or Program of Requirements document, including a short summary of state/provincial guidelines.

The Educational Specifications document is being sent electronically under separate cover.





#### 2013 James D. MacConnell Award

#### **Photo Release Form**

Please initial all that apply

Name of ProjectUnionville High School Renovations & Additions
Location of Project Kennett Square, PA
Occupancy Date, if applicable (Final Phase) September 2012
CEFPI has our permission to:
X Send photos electronically to jury members (required for entry).
X Display photos in the award winners' area of the website, if selected as a finalist.
X Display photos on other sections of the website as representative CEFPI projects.
X Print photos in CEFPI newsletters.
X Print photos on CEFPI marketing materials, i.e. brochures, awards, call for entries, etc.
X Print photos and project details in the CEFPI Design Portfolio, if selected as a finalist.
X Special projects with prior permission.
Please Note: CEFPI maintains an in-house archive of school designs as part of our research library. Your information will be entered and recorded as one of those designs.
FirmMM architects, inc.
Responsible Party/Photographer Nick Gould Photography
Signature // / / / /
Date of Release 3/30/2013