FANNING HOWEY

Physical Building Assessment and Educational Assessment

Physical Building and Educational Assessment
Yellow Springs Schools
Yellow Springs, Ohio

Project No. 219001.00

May 22, 2019

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YELLOW SPRINGS SCHOOLS
Yellow Springs, Ohio

Physical Building and Educational Assessment

- *Yellow Springs High School/McKinney Middle School*
- *Mills Lawn School*

May 22, 2019

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1. Facilities Task Force Meeting Presentation – May 15, 2019
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YELLOW SPRINGS HIGH SCHOOL/ MIDDLE SCHOOL

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YELLOW SPRINGS HIGH SCHOOL/MCKINNEY MIDDLE SCHOOL

EXECUTIVE SUMMARY

Since 1963, over 56 years, Yellow Springs High School/McKinney Middle School has served the students and community of Yellow Springs well. In that time, many educational delivery models have been tested. Some have realized strong success, while others have fallen by the wayside. The bottom line is that educational facilities need to be able to be flexible enough to support the demands of a fluid educational delivery continuum and not restrict educational delivery it by the building's inherent rigidity. Building components and systems have continued to evolve as well, requiring building owners to find a balance between performance, ease of maintenance, cost, durability, and efficiency. Systems of the past have served well, however with a renewed focus on sustainability, the industry has developed more efficient, consistent, comfortable, and healthier systems that again support a more learner-centered system rather than take away from the educational process.

Generally, with respect to educational facility evaluations, if the cost to bring an existing facility's physical components up to a level comparable with current practices and standards exceeds 2/3 (66%) of the cost of building new, a strong consideration for building new facilities should be considered. This is especially relevant given that with a new facility, not only do the physical components get updated to current technology and practices, but the opportunity to have a significant impact on the educational process can be realized through implementing planning and design approaches that result in a more flexible building environment supporting a myriad of education delivery methods and having major impact on the results of the educational process at the same time.

In evaluating these issues, the Yellow Springs High School/McKinney Middle School is 74,229 SF. The total renovation costs to provide a comparable learning environment to a new building today would be approximately $19,798,360. A new building of this size would cost approximately $19,192,650 at today's cost of $258.56 per square foot. When comparing these two costs, the result to renovate Yellow Springs High School/McKinney Middle School to provide a facility equitable to a new school today it would cost approximately 103 percent of the cost of a new building. This is well above the 2/3 rule for wise investments of new construction. For these reasons, serious consideration should be given to retiring part of or all of the Yellow Springs High School/McKinney Middle School and rebuilding portions or an entirely new facility.

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YELLOW SPRINGS HIGH SCHOOL/MCKINNEY MIDDLE SCHOOL

ASSESMENT

The building assessment reviewed the existing conditions of the physical building components at the Yellow Springs High School/McKinney Middle School to identify conditions and make recommendations in the following areas:

1. 1988 Building Area
2. Building Envelope
3. Building Interior
4. Building Accessibility
5. Hazardous Materials
6. Furnishings
7. HVAC/Plumbing
8. Electrical
9. Technology
10. Site

The Yellow Springs High School/McKinney Middle School serves grades 7-12 and is located on a site of 37.82 acres. The current enrollment is approximately 346 students with a capacity of approximately 412 students.

Yellow Springs High School/McKinney Middle School was originally constructed in 1963 with additions made in 1988, 1999, and 2002. It is a 3-story, 74,229 square foot (SF) building, comprised of many different exterior building systems including: brick, painted corrugated Galbestos panels, exterior insulating finishing system (EIFS), insulated metal panels, and painted concrete building. There are several building structural systems present including load bearing masonry, concrete columns with brick veneer, load bearing masonry interior walls, load bearing masonry with EIFS veneer, and even brick veneer on wood frame type exterior wall construction located at traditionally temporary modular type classroom buildings incorporated into the overall school facility building.

1. 1988 Building Area

   The 1988 building area is comprised of modular classrooms surrounded by an attempt to transform these structures into a more permanent type structure. Although this approach may have covered over the temporary nature of these structures, the bones underneath are still of a significantly lesser nature than would be expected in a 50+ year life facility. The very nature of these structures is intended to temporarily address student classroom needs until a more permanent, or longer-lifespan structure can be provided, as recommended by the Modular Building Institute. These structures are comprised of inexpensive wood structure walls, roofs and floors and as they have been modified in this instance, they are over an inadequately conditioned crawlspace, which could lead to very expensive remediation efforts. These facilities have served well over their intended lifespan and should be totally removed and replaced with new facilities.

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2. Building Envelope

The building envelope is comprised of all systems that separate the interior of the building from the environmental conditions at the exterior of the buildings. Given this description, the following general systems make up the building envelop at Yellow Springs High School/McKinney Middle School: roofing, windows, foundation, exterior walls and exterior doors.

There are various roofing systems installed ranging from 10 to 25 years of age including: built-up roofing with and without gravel ballast, and modified bitumen roofing. Other components of the roofing system include metal cap flashings and copings, roof drains, and other miscellaneous items. Although the School District does not report any instances of continuous current leaks, the roof system over the entire facility should be replaced due to its age and expected remaining life.

Window systems include typical windows as well as transom and sidelight glazing at entry doors. The window systems throughout the facility are a double glazed, insulated glazing type window in good to poor condition, which primarily need replaced in the 1963 addition. There are operable and inoperable windows throughout. Non-code-compliant interior glazing exists in the 1963 building area that should be replaced with safety glass. The windows in the 2002 addition area are an aluminum framed, thermally-broken window system which are in good condition and do not need replacement at this time; however, the surface-mounted window blinds in this area are in fair to poor condition and should be considered for replacement. The glazing of the 2 greenhouses (1963 and 2002) is in very poor condition or actually broken and should be replaced.

The foundation is in relatively good condition; however, there are various areas of cracked concrete wall, and/or open joints that should be addressed, as well as addressing the leaks at the exterior walls of the mechanical room.

The exterior walls are comprised of painted concrete columns, brick veneer, EIFS, corrugated Galbestos panels, insulated metal panels and aluminum-framed curtain walls, which are in fair to poor condition in many locations. Exterior walls of the 2002 addition, although the newest and in probably the best condition, are considered good to fair, with several locations indicating a lack of adequate control/expansion joint spacing, resulting in cracked mortar joints and brick requiring tuck-pointing and veneer replacements. Exposed concrete structure and steel lintels are showing signs of deterioration and need to be prepped and painted, and exterior railings need to be replaced with code-compliant railing systems. There are several locations where stone sills are cracked and should be replaced or in some cases just repointed. And finally control/expansion joints should be replaced to provide a weathertight condition.

Exterior doors are Fiber Reinforced Plastic (FRP) and hollow-metal type construction installed in aluminum and hollow-metal frames, all in good to poor condition with some compliant and non-ADA compliant hardware. All exterior doors in the 1963 and 1999 buildings should be replaced due to age, condition, and non-compliance with applicable building code requirements.

YELLOW SPRINGS HIGH SCHOOL/MCKINNEY MIDDLE SCHOOL

3. Building Interior

The building interior is comprised of all of the systems that are used daily by the building occupants and also helps to set the tone of the activities within the building. Over the course of the last 17 to 56 years, the building interiors have served the occupants well, but many are well past their intended lifespan. A total replacement of finishes and casework is needed throughout the entire facility. In addition, toilet partitions and accessories should be replaced. Interior doors, frames and hardware should be replaced with new due to age, condition and code compliance. Demountable partitions exist in the 1963 building area, but do not appear to have ever been relocated as intended for these systems; as such they do not provide adequate acoustical performance given that the benefit of demountable partitions is the flexibility that comes from being able to relocate the walls as needed to address changing educational delivery methods. If the course ahead is not to adapt to changing education delivery methods, then these walls should be replaced with gypsum wallboard (GWB) partitions that remain in place and provide improved acoustical performance between teaching stations. The 1963 area of the building has very little, if any, insulation at the exterior walls leading to a very inefficient building envelope and thereby increasing operating costs for heating and cooling. The kitchen equipment has served well but is at the end of its life in general and should be replaced as well. Stage equipment in the black box theater is in poor condition or is inadequate for the needs and should be replaced. And finally, improving the acoustical environment in the gymnasium, media center, and student dining will serve to provide a more effective environment in those spaces.

4. Building Accessibility

Accessibility throughout the building by a person with disabilities presents a challenge. An automatic door operator (ADO), providing assistance at the main entry, at a minimum is needed. Although one is available, it is only in fair condition and is in need of replacement, and multiple entrances could benefit from an ADO. Doors throughout the building, except for the 2002 addition, are either not recessed from the corridor and provide obstacles or do not have ADA-compliant hardware, or both. The restrooms within the kitchen do not meet ADA-compliant circulation areas or space allocations, and there is not a restroom provided within the clinic that meets these requirements either. Additional science lab sinks are needed to meet ADA requirements and many restroom mirrors need to be adjusted or replaced to meet required guidelines. Signage throughout the building should be replaced to comply with mounting location requirements and braille identification requirements of the current building code.

YELLOW SPRINGS HIGH SCHOOL/MCKINNEY MIDDLE SCHOOL

5. Hazardous Materials

Throughout history, building components have been manufactured through different processes and made from various materials. Some of these materials have been found to pose a health risk to the building's occupants. In many cases, these materials have been deemed acceptable as long as they are not disturbed. However, through the course of any building renovation process, the likelihood of these materials being disturbed expands significantly, and it has generally been determined that prior to any major renovation effort, hazardous materials should be abated and removed from the building being renovated. Yellow Springs Schools has an Asbestos Hazard Emergency Response Act (AHERA) report and has re-inspection every 3 years which identifies the major hazardous materials that are assumed and suspected to be within the facility and which provides the basis of our assessment costs. It would be recommended that a full hazardous material abatement survey be conducted to identify any other suspected hazardous materials present prior to renovation efforts.

6. Furnishings

Fanning Howey utilizes an assessment tool originally developed by the Association for Learning Environments (A4LE, formerly the Council of Educational Facility Planners, International). This tool evaluates the conditions of various aspects of an educational facility. One of the key areas is student and staff furnishings, desks, chairs, tables, etc. that are used constantly by those groups and which must help to support the educational process. This tool rates the furnishings from 10 (excellent) to 1 (poor). We would place the furnishings at Yellow Springs High School/McKinney Middle School overall at a 3 or below, which would indicate within the time of a potential project the furnishings throughout the facility would be at the end of their service life and would need to be replaced completely.

7. HVAC/Plumbing

There is currently no fire protection system within the overall facility, although none is required by the Ohio Building Code. If a fire protection system is included, then a new water service, of adequate capacity will also be needed.

The existing domestic water piping, comprised of both copper and galvanized piping, has exceeded its useful life and should be replaced with new copper piping. The existing sanitary piping is in fair to poor condition and has also exceeded its useful life. Water heater and storage tanks should be replaced due to age and condition.

Overall plumbing systems and fixtures have served this building and its occupants well since being installed, but should be replaced in their entirety for today's standards and efficiencies.

The modular heating water boilers should be replaced with new condensing heating water boilers for higher efficiency and performance. The overall heating system should be replaced to provide up-to-date insulation, piping, pumps, specialties, energy recovery and be able to pre-treat the outdoor air, as well as provide individual space control and improved indoor air quality. In general, cooling is not provided throughout the overall facility, except in very limited locations, and this should be incorporated into an overall HVAC system to provide cooling in all spaces. Building exhaust is original to the building and should be replaced.

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8. Electrical

The fire alarm system was installed in the 1990's. Some devices have been replaced throughout the years. The system currently consists of a horn/strobe. The current standard is voice evacuation for Type E occupancy, thus the system would need to be replaced in a renovation.

There is an old 800-amp switchboard from 1963 that powers the original building as well as some newer HVAC equipment. This switchboard needs to be replaced. Two other distribution panels in the building, both 800-amp, will also need to be replaced.

A total of 16 panelboards in the original building need to be replaced. They appear to be original to the building. Newer panels in this area were provided to power the elevator and new HVAC. These panels are in good condition and can remain in place.

The 1600-amp main distribution panel is much newer than the building and is in good condition. There is no 480-volt power in the building; everything is 208-volt. With mechanical upgrades to the building, 208-volt 1600-amp will likely be inadequate, and thus a service upgrade may be required.

Lighting throughout consists of a variety of T8 fluorescent light fixtures. Very few spaces have fixtures that are in good condition. All light fixtures in the building should be upgraded to new LED fixtures. Emergency light fixtures are also all old and/or damaged and should be replaced.

All exit signs are aged, and some are damaged. All exit signs should be upgraded as well.

Half of the receptacles in the building are in need of replacement due to age.

Half of the lighting switches in the building are in need of replacement due to age.

9. Technology

The existing Dukane paging system has reached the end of its life. Replacement parts and support are not available for the existing system since the manufacturer is no longer in business. It is recommended that a new paging system be provided for the entire building. This would include a new head end, new speakers, and new cabling.

There is currently no synchronous clock system. It is recommended the entire building be provided with a synchronous clock system that is tied into other systems within the building.

The existing phone system functions but consistently drops out multiple times a month. It is recommended that a new Internet protocol (IP) phone system be provided. This would include a new phone switch or managed system, and all new IP phones.

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The data cabling in the building is currently a mixture of Category 5E and 6. It is recommended that the cabling to support wireless access points be upgraded to shielded Category 6A to support higher bandwidth. This will allow the wireless network to support more wireless devices at higher speeds. It is also recommended that all the Category 5e cabling in the building be replaced with Category 6 cabling. This will also support higher bandwidth.

The existing fiber backbone is currently 62.5 multi-mode fiber optic cable. This will only support a 1 gigabyte (Gb) backbone for the network. It is recommended that this cable be replaced with 50 micron multi-mode fiber optic cable. This will support a 10 Gb backbone to support higher bandwidth speeds and more devices on the network.

A majority of the data cabling and video input cabling is exposed and not properly supported. There are many locations where the cabling is coming straight down from the ceiling to the device it's connected to. It is recommended that all new pathways be provided to support the horizontal data cabling and video input cabling.

The existing audio/video (AV) cabling in classrooms is analog VGA cabling. When computers are refreshed, the newer computers will no longer support analog VGA video. It is recommended that the classrooms be upgraded with digital HDMI cabling between the teacher's computer and video display.

There is a mixture of new Ultra Short-throw projectors and older discontinued LCD projectors in the building. It is recommended that the older LCD projectors be replaced with the new ultra-short throw projectors.

There are currently no classroom sound systems. It is recommended that, at a minimum, a new small amplifier and 2 ceiling speakers be provided in each room for the audio from the teacher's computer (PC) to be evenly distributed in the room.

It is recommended that the network switches be replaced to support a 10 Gb network. There are also currently no uninterrupted power supplies (UPS) installed in the building, and there have been power issues. It is recommended that new UPSs be provided in each technology cabinet/rack.

The existing wireless network was installed in the summer of 2018. The existing wireless network does not need to be replaced

Currently there is no access control system in the school. An access control system is recommended to be provided with card readers at 7 doors.

The security camera system was recently upgraded 2 years ago. There is adequate coverage at the school.

There is currently some intrusion detection installed in the school. A new intrusion detection system is recommended for the entire first floor. This would be accomplished by providing door contacts on all exterior doors and motion detectors on the first floor.

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10. Site

The site assessment reviewed the existing conditions of physical improvements at the Yellow Springs High School/McKinney Middle School to assess current conditions and make recommendations in the following areas:

1. Accessibility
2. Security and Safety
3. Site Design

For comparison purposes only, the Ohio School Design Manual (OSDM) states that a High School site is to be 35 acres plus 1 acre per 100 students. This would set the appropriate site size at 39.12 acres. The current site is very near the OSDM suggested site size.

The High School and Middle School are located adjacent to and south of the Greene County Educational Services Center (GCESC). The GCESC is located on a 2.85 acre out lot, with several acres of the High School/Middle School site located to the north and west of the GCESC facility. The School District bus maintenance facility is also located on the site directly west of the GCESC.

Contextually speaking, the site is located on the west edge of the Village of Yellow Springs, Ohio. The adjacent land uses include a residential neighborhood across the street to the east, large lot residential to the south, and farmland to the west. The site is bordered on the east by a moderately traveled local road with multiple entrances onto the site. Access to the site is unrestricted by fences and gates.

On-site circulation is a big factor when considering the success and safety of a school site. At Yellow Springs High School/Middle School, vehicular circulation is a bit confusing and not intuitive. During student arrival and dismal times, parent vehicles are directed to enter the site from the north by means of the GCESC entry drive and to exit by the central exit drive directly east of the music room and aligned with East South College Street. For morning drop-off and afternoon pick-up, buses line up in the large parking lot on the west side of the site. Students exit from the corridor connecting the school to the music room. During the day visitors are directed to enter the site from the south most entry drive. This drive is one way and directs vehicles to exit the site by the central exit drive directly east of the music room and aligned with East South College Street. There is minimal parking available for visitors, with no handicap accessible spots identified. Staff generally park in the lot located south and east of the 3-story academic building. Students park in the large lot located north of the school building. There is a fair degree of separation between bus and other vehicular traffic. One way bus traffic is provided with student loading and unloading adjacent to the building.

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Parking for staff, visitors, and students is provided in several at-grade asphalt parking lots in fair to poor condition. The student parking lot is located north of the school building and directly east of the stadium. This lot is accessed by the GCESC entry drive and the central entry drive that is aligned with East South College Street. The student parking lot is shared with the GCESC. There are 116 parking spaces in this lot. How many of these spaces are used by the GCESC staff and students is not known. Staff parking is predominately in the parking lots located east and south of the 3-story academic wing. The lot to the east holds 20 cars, and the lot to the south holds 12 cars. These 32 parking spaces do not meet all of the teacher and staff parking requirements. There are a total of 168 parking spaces on site, which provides adequate parking for staff members, visitors, and students, as shown in the OSDM parking worksheet below. Adequate parking is not provided for the disabled. The student parking lot is being shared with the GCESC and it is not known if this affects the parking needs for the school.

DESCRIPTION

High School Student Enrollment		**412**
Teaching Stations		**19**
Staff Parking		
Teachers		19
Ancillary Staff		5
Administration		6
Custodial/Maintenance		3
Food Service		4
Total Staff Parking		**37**
Other		30
Total Visitor		9
High School Parking		82
TOTAL RECOMMENDED HS PARKING		**158**

The asphalt pavement in the student parking lot is in fair condition. No major deterioration is noted. Crack sealing, seal coating, and repainting the pavement markings is suggested. The asphalt pavements in the primary access drive and the staff parking are in poor condition. These require milling and resurfacing or complete reconstruction. The pavement providing access for trash pick-up and service deliveries is in poor condition. The dumpster is set on a concrete pad, but the pad does not extend far enough to allow for the garbage truck's load bearing wheels to find support on the concrete rather than the asphalt. The pad should be extended. The concrete walks are in poor physical condition, have poor drainage, and provide limited refuge from vehicular traffic.

YELLOW SPRINGS HIGH SCHOOL/MCKINNEY MIDDLE SCHOOL

Accessible pathways to the school facility from the public right-of-way are limited. The one walk is located on the north side of the center entry drive. This walk terminates without a crosswalk to the walkway adjacent to the school. There are no sidewalks in the public right-of-way. For students being dropped off by private vehicles, the walkway adjacent to the school leading to the main entry doors is blocked by the bicycle parking area. All of the walkways and curbs on site are set essentially flush with the adjacent asphalt drives. This presents some safety concerns as well as drainage concerns addressed later in this report. There are no marked accessible designated parking spaces on the site. Adequate handicap parking is not provided. Americans with Disabilities Act (ADA) signage is not provided on the exterior of the building. There is no designated accessible route from the school building to the track and field. Pedestrians must navigate amongst the parked cars in the parking lot. Not all of the exterior egress doors are served by paved pathways leading away from the exits. This is primarily on the west side of the school building. There are limited instances where stairs or steep ramps prevent access from the parking/drop-off area to the building entries.

From a safety and security standpoint, the 10-foot chain link fence separating the student parking lot from the stadium is damaged and needs to be repaired. A mid-rail should be installed to provide added stability to this fence. All of the pedestrian walkways are adjacent to and flush with the asphalt drives. This severely limits the degree of separation between vehicles and pedestrians. Exterior concrete steps provide access into the basement boiler room. The steps are in good condition. The steel guardrails and handrails provided are in good condition, but do not comply with the Ohio Building Code. The railings should be replaced with guardrails.

The 37.82-acre site is relatively flat and is dependent on gravity flow for dispersion of surface storm water. The student parking located north of the school drains north with storm water flowing over the ground and spilling into the drainage swale located just west of the parking lot. The entry drive located east of the school drains to the north into a lawn area that disperses storm water into a road side ditch along East Enon Road. The parking lots located east and south of the 3-story academic wing drain into the adjacent lawn areas. The roof drains for the 3-story academic spaces and the south and west facing portions of the remainder of the building are directed by subsurface piping to a distribution box located on the southern property line. This distribution box has an indeterminate outlet. The north and east facing portions of the building drain to a manhole in the green space located directly east of the school. This manhole has an indeterminate outlet. Overall, site drainage is inadequate. New storm facilities are required in the east lawn of the campus. It will be difficult to establish grade separation between the walks and drives since the building is set just above pavement elevations, and the walks and pavements are dependent on gravity flow away from the building and continuing into the lawn. The site was observed during a rain event, there are numerous areas where water is standing on the pavements and walks.

The competition athletic facilities include a track and field stadium that is fenced for security. Multi-purpose athletic fields are located south of the track and field as well as to the north of the track and field and north the GCESC building.

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The outbuildings on site include: one small storage shed; several small animal pens and raised plant beds; a natural gas utility meter building; an athletic facility building with ticket booth, a press box; a bus garage with stadium concession, storage; and a bus fueling tank.

Requirement Forecast Report - Summary

Yellow Springs Schools
Yellow Springs High School/McKinney Middle School
Detailed Assessment with Costs
May 9, 2019

Revised: TBD

Subtotal Construction Cost		**13,422,617**
Design Contingency	10.0%	1,342,262
Contractor General Conditions	5.0%	671,131
Project Contingency	7.0%	939,583
Phasing Costs	3.0%	402,679
Total Estimate of Probable Construction Costs		**16,778,271**
Project Soft Costs	18.0%	3,020,089
TOTAL Estimate of Probable Project Costs		**19,798,360**

TOTAL AREA (SF)		74,229
TOTAL RENOVATION COSTS	$	19,798,360
TOTAL COST PER SF (NEW CONSTRUCTION)	$	258.56
TOTAL REPLACEMENT COSTS FOR SAME BUILDING AREA	$	19,192,650
RENOVATE TO REPLACE RATIO		103.16%

Architectural	**$**	**7,324,566**
HVAC/Plumbing	**$**	**3,655,297**
Electrical	**$**	**1,249,330**
Technology	**$**	**600,999**
Site	**$**	**592,425**

	Critical	Priority	Deferred
	$ 2,898,523	$ 2,507,728	$ 1,918,315
	$321,916	$3,142,208	$191,174
	$222,687	$424,567	$602,076
	$279,842	$261,466	$59,692
	$276,486	$284,127	$31,812
Subtotal Construction Cost	**$ 3,999,453**	**$ 6,620,096**	**$ 2,803,068**
Design Contingency (10%)	$ 399,945	$ 662,010	$ 280,307
Contractor General Conditions (5%)	$ 199,973	$ 331,005	$ 140,153
Project Contingency (7%)	$ 279,962	$ 463,407	$ 196,215
Phasing Costs (3%)	$ 119,984	$ 198,603	$ 84,092
Total Estimate of Probable Construction Costs	**$ 4,999,317**	**$ 8,275,120**	**$ 3,503,835**
Project Soft Costs (18%)	$ 899,877	$ 1,489,522	$ 630,690
Total Estimate of Probable Project Costs	**$ 5,899,193**	**$ 9,764,642**	**$ 4,134,525**

Check (all phases) $19,798,360

Requirement Forecast Report - Architectural

Ratings to be based on the following scoring system

Client:	Yellow Springs School		1. End of useful life
Campus:	Yellow Springs HS/MMS		2. In need of Repair/Replacement
Asset:	Yellow Springs HS/MMS		3. Condition is satisfactory
Building Area:	74,229 sf		4. Recently replaced
			5. New work is Recommended

Prioritization Category
1. Critial - Life Safety, Code, Technology, Security
2. Priority - Infrastructure, Maintenance, Roof, Envelope
3. Deferred - Finishes, Furnishings, Fixtures

							Prioritization				
Building Envelope (less 1988, see below)	**Quantity**		**Detail (models, sizing, etc.)**	**Condition**	**Unit Cost**	**Total Cost**	**Yes**	**No**	**Critical**	**Priority**	**Deferred**
Roofing	67,315	sf	Replace overall roof system due to current age and anticipated remaining life. This includes cap flashings/copings, gutters and downspouts, roof drains, piping, insulation and roof access/safety systems.	1	$ 15.01	$ 1,010,398	X			$ 1,010,398	
Windows	67,315	sf	Provide new dual-glazed insulated windows with integral blinds or roller shades, as well as transoms and sidelights throughout the 1963 original building. Replace interior glazing above lockers in corridors. In addition, replace the greenhouse in the 1963 addition.	1	$ 4.84	$ 325,805	X			$ 325,805	
Foundation	67,315	sf	Repair various locations of cracked foundation wall or open joints in the 1963 and 1988 buildings, repair leaks at walls of mechanical room.	2	$ 0.06	$ 4,241	X		$ 4,241		
Exterior walls	67,315	sf	Tuckpoint several areas of mortar joint deterioration; clean, seal and caulk overall facility where required. Prep and paint exposed steel lintels. Replace damaged exterior wall panels, provide infill masonry where needed, and replace railings to meet code. Repoint stone sills, and replace control/expansion joints, and wood soffits.	2	$ 12.93	$ 870,383	X		$ 870,383		
Exterior Doors	18	ea	Replace exterior doors in 1963 and 1999 buildings.	1	$ 2,500.00	$ 45,000	X			$ 45,000	
Building Interior (less 1988, see below)											
Structure: Floors and Roofs - 1963 Original Building	900	sf	Address structural concerns (exterior wall separation) at east end of intermediate floors of 1963 building.	2	$ 109.00	$ 98,100	X		$ 98,100		
Complete replacement of finishes and casework throughout facility	67,315	sf	Replace all finishes due to age and condition.	1	$ 19.33	$ 1,301,199					$ 1,301,199
Toilet partitions	24	stall	Replace all toilet partitions due to age and condition.	1	$ 1,000.00	$ 24,000					$ 24,000
Toilet accessories	67,315	sf	Replace all toilet accessories due to age and condition.	1	$ 0.20	$ 13,463					$ 13,463
Doors, frames, and hardware (non-ADA)	136	ea	Replace doors, frames and hardware due to age, condition and non-compliance with ADA guidelines.	1	$ 1,300.00	$ 176,800	X		$ 176,800		
Art program kiln replacmenet	2	ea	Replace art kilns due to age and condition.	1	$ 2,750.00	$ 5,500	X		$ 5,500		
Remove demountable partitions, install new GWB partitions	440	sf	Replace demountable partitions due to age, condition, acoustical values and non-use.	1	$ 9.00	$ 3,960				$ 3,960	
Additional wall insulation	23,578	sf	Provide additional wall insulation for improved building envelope performance.	2	$ 6.00	$ 141,468	X			$ 141,468	
Total kitchen equipment replacement	1,728	sf	Replace food service equipment due to age and condition.	1	$ 190.00	$ 328,320	X			$ 328,320	
Kitchen hood and cooler/freezer replacement	2	unit	Replace kitchen exhaust hood and cooler/freezer due to age and condition.	1	$ 42,909.00	$ 85,818	X			$ 85,818	
Replace stage equipment	1	ls	Replace stage equipment due to age and condition in black box theater room.	1	$ 34,880.00	$ 34,880					$ 34,880
Acoustical control	12,833	sf	Provide acoustical surface treatments in the gymnasium, student dining and media center.	2	$ 3.11	$ 39,911					$ 39,911
New systems due to hazardous material removals	1	ls	Replacement of gypsum board, acoustical panels/tile ceilings, and lab tables/countertops due to removal by hazardous material abatement.	2	$ 39,184.00	$ 194,034	X			$ 194,034	
Replace non-code-compliant handrails/guardrails	6	level	Provide new guardrail and handrails to comply with the OBC.	2	$5,000.00	$30,000	X		$30,000		
Interior stairwell closure	6	level	Provide fire-rated closure around stair towers.	2	$5,000.00	$30,000	X		$30,000		
Rework non-compliant stair	6	level	Enclose open treads at stairways.	2	$10,000.00	$60,000	X		$60,000		
Building Accessibility (less 1988, see below)											
Address accessibility issues within the building	67,315	sf	Remove and replace (or provide new) signage, toilet fixtures (for accessiblity only), lift at the stage, automatic door operator at main entry, accessible showers, science classroom lab stations, and toilet facilities.	2	$ 1.20	$ 80,778	X		$ 80,778		
Hazardous Materials (less 1988, see below)											
Abatement of known and suspected hazardous materials present	67,315	sf	AHERA three-year reinspection reports dated January 2017 indicate several known, assumed and suspected hazardous materials throughout the facility that should be abated.	2	$ 5.54	$ 372,925	X			$ 372,925	
Furnishings (less 1988, see below)											
Student and Staff Furnishings	67,315	sf	The loose furnishings in this facility overall rate at a 3 or below on a scale of 10 (excellent) to 1 (poor) and, therefore, should be replaced.	1	$ 7.50	$ 504,863					$ 504,863
Building General											
Replacement of 1988 Building Area	6,914	sf	The 1988 building is comprised of temporary modular classrooms, sourrounded by masonry veneer. The original intent of these type classrooms is for temporary facilities, not extended service over decades. At this point, these facilities have served 31 years, well over their useful life, and should be replaced with facilities comparable to a permanent educational facility structure.	1	$ 223.13	$ 1,542,721	X		$ 1,542,721		

			Critical	Priority	Deferred
Subtotal Project Cost		**$ 7,324,566**	**$2,898,523**	**$2,507,728**	**$1,918,315**
Estimate Contingency	10.0%	$ 732,457	$289,852	$250,773	$191,832
Contractor General Conditions	5.0%	$ 366,228	$144,926	$125,386	$95,916
Project Contingency	7.0%	$ 512,720	$202,897	$175,541	$134,282
Phasing Costs	3.0%	$ 219,737	$86,956	$75,232	$57,549
Estimate of Probable Construction Costs		**$ 9,155,707**	**$3,623,153**	**$3,134,660**	**$2,397,894**
Project Soft Costs	18.0%	$ 1,648,027	$652,168	$564,239	$431,621
TOTAL Project Estimate of Probable Costs		**$ 10,803,734**	**$4,275,321**	**$3,698,899**	**$2,829,515**

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Requirement Forecast Report - Plumbing/HVAC

Client:	Yellow Springs School		
Campus:	Yellow Springs HS/MMS		
Asset:	Yellow Springs HS/MMS		
Building Area:	74,229	sf	

Ratings to be based on the following scoring system
1. End of useful life
2. In need of Repair/Replacement
3. Condition is satisfactory
4. Recently replaced
5. New work is recommended

Prioritization Category
1. Critial - Life Safety, Code, Technology, Security
2. Priority - Infrastructure, Maintenance, Roof, Envelope
3. Deferred - Finishes, Furnishings, Fixtures

	Quantity		Detail (models, sizing, etc.)	Condition	Unit Cost	Total Cost	Prioritization Yes	Prioritization No	Critical	Priority	Deferred
Fire Protection											
Sprinkler	74,229	sf	No sprinkler system currently exists. Consider adding sprinkler system throughout entire building.	5	$ 4.00	296,916		X	296,916		
Plumbing											
Sanitary Piping - 1963, 1988, 1999	59,096	sf	Original sanitary piping is in fair to poor condition and has exceeded it's useful life. Replace all original sanitary piping.	1	$ 3.50	206,836	X			$ 206,836	
Sanitary Piping - 2002 Addition	15,133	sf	Existing sanitary piping in the 2002 addition is in good condition.	3	$ -	-		X			-
Domestic Water Piping - 1963, 1988, 1999	59,096	sf	Original domestic water piping is a mix of copper and galvanized and should be replaced with copper piping as it has exceeded its useful life.	1	$ 3.50	206,836	X			206,836	
Domestic Water Piping - 2002 Addition	15,133	sf	Existing domestic water piping in the 2002 addition is in good condition.	3	$ -	-		X			-
Domestic Water Heater - 1963, 1999, 2002	1	ls	75.1 MBH/98 Gallon Storage - 2018 with separate original 250 gallon storage tank. The storage tank needs to be replaced.	2	$ 15,000.00	15,000	X			15,000	
Domestic Water Heater - 1988	1	ls	40 Gallon Electric water heater should be replaced due to age.	1	$ 5,000.00	5,000	X			5,000	
Incoming Water Service	74,229	ls	Existing water service is adequate for current usage. If the existing High School/Junior High is sprinklered, a new water service will be required.	5	$ 25,000.00	25,000		X	25,000		
Plumbing Fixtures - 1963, 1988, 1999	82	ea	24 Water Closets, 7 Urinals, 4 Drinking Water Coolers, 21 Sinks, 3 Custodial Sinks, 2 Eyewash/Shower, 17 Showers, 4 Exterior Wall Hydrants need replaced/added.	1	$ 1,500.00	123,000	X			123,000	
Plumbing Fixtures - 2002 Addition	1	ea	1 Custodial Sink need replaced/added.	1	$ 1,500.00	1,500	X			1,500	
HVAC											
Boiler Plant	4,000	mbh	Modular heating water boilers installed in 1998, should be replaced with new condensing heating water boilers.	1	$ 100,000.00	100,000	X			$ 100,000	
Heating Water Supply and Return System - 1963	51,738	sf	Black Steel and Galvanized piping, fin-tube, supplemental heat, insulation, specialties, etc. should be replaced with a new heating water system.	1	$ 5.60	289,733	X			$ 289,733	
Heating Water Supply/Return System - 1988, 1999, 2002	22,491	sf	Consideration could be given to adding heating water systems to serve these areas of the building.	5	$ 8.50	191,174		X			$ 191,174
Classroom Unit Ventilators/VRF/Mini-Splits - 1963	51,750	cfm	The exisitng heating only classroom unit ventilators have exceeded their useful life and should be replaced with either new heating/cooling unit ventilators or a new ducted HVAC system incorporating energy recovery to pre-treat outdoor air. Consideration could be given to reusing the existing VRF/Mini-Splits and provide new 100% OA system to provide required outdoor air ventilation.	1	$ 20.00	1,035,000	X			1,035,000	
Rooftop Units - 1988	7,000	cfm	The exisitng rooftop units serving the 1988 addition have exceeded their useful life and should be replaced.	1	$ 20.00	140,000	X			$ 140,000	
Rooftop Units - 2002	15,250	cfm	The VAV rooftop unit and VAV terminals were installed in 2002 and are in good condition. Consideration should be given to replacing these units in the next 5-10 years due to age.	3	$ -	-		X			-
Administration Unit	3,000	cfm	The administration rooftop unit was installed in 2002 and is in good condition. Consideration should be given to replacing this unit in the next 5-10 years due to age.	3	$ -	-		X			-
Gymnasium Unit	14,000	cfm	The exisitng heating and ventilating gymnasium air-handling unit has exceeded its life and should be replaced with a new heating and cooling air-handling unit.	1	$ 20.00	280,000	X			280,000	
Music Area Units	3,000	cfm	The exisitng heating and ventilating music air-handling units have exceeded their life and should be replaced with new heating and cooling air-handling units.	1	$ 20.00	60,000	X			60,000	
Window/Portable Air-Conditioning Units	2	ea	The existing window air-conditioning units are in fair condition, but are not very efficient. They should be removed and replaced with chilled water systems or VRF/Mini-Splits.	5	$ -	-		X		-	
Exhaust Systems - 1963, 1988, 1999	59,096	sf	The toilet room and general exhaust fans are original and should be replaced.	1	$ 0.25	7,387	X			7,387	
Exhaust Systems - 2002 Addition	15,133	sf	The toilet room and general exhaust fans were installed in 2002 and are in good condition.	3	$ -	-		X			-
Temperature Controls	74,229	sf	Existing temperature controls consist of a combination of pneumatic and DDC. The system needs to be replaced completely.	1	$ 4.00	296,916	X			296,916	
Chilled Water System	250	tons	Consideration could be given to replacing the VRF/Mini-Split cooling systems with a new chilled water system including (2) outdoor, air-cooled chillers, pumps, piping, specialties, etc. depending on what HVAC selection is made.	5	$ 1,500.00	375,000		X		$ 375,000	

			Critical	Priority	Deferred
Subtotal Project Costs		**3,655,297**	**$321,916**	**$3,142,208**	**$191,174**
Design Contingency	10.0%	365,530	$32,192	$314,221	$19,117
Contractor General Conditions	5.0%	182,765	$16,096	$157,110	$9,559
Project Contingency	7.0%	255,871	$22,534	$219,955	$13,382
Phasing Costs	3.0%	109,659	$9,657	$94,266	$5,735
Estimate of Probable Construction Costs		4,459,463	**$402,395**	**$3,927,760**	**$238,967**
Project Soft Costs	18.0%	802,703	$72,431	$706,997	$43,014
TOTAL Project Estimate of Probable Costs		**5,262,166**	**$474,826**	**$4,634,757**	**$281,981**

Requirement Forecast Report - Electrical

Ratings to be based on the following scoring system
1. End of useful life
2. In need of Repair/Replacement
3. Condition is satisfactory
4. Recently replaced
5. New work Recommended

Prioritization Category
1. Critical - Life Safety, Code, Technology, Security
2. Priority - Infrastructure, Maintenance, Roof, Envelope
3. Deferred - Finishes, Furnishings, Fixtures

Client:	Yellow Springs School	
Campus:	Yellow Springs HS/MMS	
Asset:	Yellow Springs HS/MMS	
Building Area:	74,229	sf

	Quantity		Detail (models, sizing, etc.)	Condition	Unit Cost	Total Cost	Prioritization Yes	Prioritization No	Critical	Priority	Deferred
Electrical											
New Generator (if sprinker piping is added)	1	ea	Generator, transfer switches, panels, & wiring		50,000.00	50,000		X			50,000
Switchboards	1	ea	Newer existing to remain distribution panels (serving as switchgear). 1600A.	3	-	-		X		-	
	1	ea	Older 800A switchgear. Needs replaced.	2	12,000.00	12,000	X			12,000	
	2	ea	Older 800A distribution panel. Needs replaced.	2	12,000.00	24,000	X			$ 24,000	
Panelboards	16	ea	Old/Damaged Panelboards. Need Replaced. Assume 42 ckt. 225A.	1	5,325.00	85,200		X		85,200	
		ea	Newer Undamaged Panelboards. Average of >15 year life remaining.	3	-	-		X			-
Interior Lighting	74,229	sf	Circuiting as needed for new lighting fixtures denoted below	2	2.00	148,458		X			148,458
Classrooms	180	ea	T8 troffers. Upgrade to LED (number assumes 12 fixtures per classroom)	2	310.00	55,800		X			55,800
Labs	96	ea	T8 troffers. Upgrade to LED (number assumes 16 fixtures per Lab)	2	310.00	29,760		X			29,760
Corridors	91	ea	T8 troffers (primarily). Upgrade to LED	2	310.00	28,210		X			28,210
	62	ea	4' Direct T8 suspended fixtures. Replace with LED.	2	400.00	24,800		X			24,800
Gymnasium	32	ea	Metal halide high bay fixtures. Upgrade to LED.	2	775.00	24,800		X			24,800
Cafeteria	48	ea	4' Direct/Indirect T8 suspended fixtures. Replace with LED.	2	400.00	19,200		X			19,200
Kitchen	78	ea	Shop Lights. Upgrade to LED.	2	310.00	24,180		X			24,180
Media Center	35	ea	T8 Troffers. Upgrade all to LED.	2	310.00	10,850		X			10,850
Administration	6	ea	T8 troffers. Upgrade to LED.	2	310.00	1,860		X			1,860
	70	ea	4' Direct T8 suspended fixtures. Replace with LED.	2	400.00	28,000		X			28,000
Restroom	22	ea	T8 troffers (18). T8 suspended direct/indirect lights (4). Upgrade to LED.	2	350.00	7,700		X			7,700
Lighting Controls	74,229	sf	Low voltage wiring, occupancy sensors, etc.		2.00	148,458		X			148,458
Switching (2 per classroom & lab, all else 1)	64	ea	Good Condition.	3	-	-		X			-
	64	ea	Damaged/Aged. (50%)	2	120.00	7,680		X		7,680	
Classroom Receptacles	60	ea	Good Condition.	3	-	-		X			-
	60	ea	Damaged/Aged. (50%)	2	250.00	15,000		X		15,000	
Lab Receptacles	48	ea	Good Condition.	3	-	-		X			-
	48	ea	Damaged/Aged. (50%)	2	250.00	12,000		X		12,000	
Corridor Receptacles	30	ea	Good Condition.	3	-	-		X			-
	30	ea	Damaged/Aged. (50%)	2	250.00	7,500		X		7,500	
Receptacles - All other areas (average of 4 per area)	154	ea	Good Condition.	3	-	-		X			-
	154	ea	Damaged/Aged. (50%)	2	250.00	38,500		X		38,500	
Receptacle Circuiting	74,229	sf	Replacement circuits as needed for receptacles	2	1.50	111,344		X		111,344	
Mechanical Equipment Power	74,229	sf	Disconnect and reconnect HVAC systems	2	1.50	111,344		X		111,344	
Fire Alarm System	74,229	sf	Provide new voice evacuation style as currently required by code.	2	2.00	148,458	X		148,458		
Exit/Emergency Lighting	74,229	sf	All exit signs and emergency lights should be replaced.	2	1.00	74,229	X		74,229		

		Total Cost	Critical	Priority	Deferred
Project Subtotal		**1,249,330**	**$222,687**	**$424,567**	**$602,076**
Design Contingency	10.0%	124,933	$22,269	$42,457	$60,208
Contractor General Conditions	5.0%	62,467	$11,134	$21,228	$30,104
Project Contingency	7.0%	87,453	$15,588	$29,720	$42,145
Phasing Costs	3.0%	37,480	$6,681	$12,737	$18,062
Estimate of Probable Construction Costs		**1,561,663**	**$278,359**	**$530,709**	**$752,595**
	18.0%	281,099	$50,104.58	$95,527.58	$135,467
TOTAL Project Estimate of Probable Costs		**1,842,762**	**$328,463**	**$626,236**	**$888,062**

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Requirement Forecast Report - Technology

Ratings to be based on the following scoring system

Client:	Yellow Springs School		1. End of useful life
Campus:	Yellow Springs HS/MMS		2. In need of Repair/Replacement
Asset:	Yellow Springs HS/MMS		3. Condition is satisfactory
Building Area:	74,229	sf	4. Recently replaced
			5. New work Recommended

Prioritization Category
1. Critical - Life Safety, Code, Technology, Security
2. Priority - Infrastructure, Maintenance, Roof, Envelope
3. Deferred - Finishes, Furnishings, Fixtures

Technology	Quantity		Detail (models, sizing, etc.)	Condition	Unit Cost	Total Cost	Prioritization Yes	Prioritization No	Critical	Priority	Deferred
Technology											
Paging System and Speakers	74,229	sf	The existing Dukane paging system has reached the end of it's life. Replacement parts and support are not available for the existing system since the manufacturer is no longer in business. It is recommended that a new paging system be provided for the entire building. This would include a new headend, new speakers, and new cabling.	1	$ 0.75	55,672	X		$ 55,672		
Clock System	74,229	sf	There is currently no synchronous clock system. It is recommended the entire building be provided with a synchronous clock system that is tied into other systems within the building.	1	$ 0.40	29,692		X			29,692
Phone System and Phones	60	ea	The existing phone system functions but consistently drops out multiple times a month. It is recommended that a new IP phone system be provided. This will include a new phone switch or managed system, and all new IP phones.	2	$ 675.00	40,500	X		40,500		
Horizontal Cabling Infrastructure	74,229	sf	The data cabling in the building is currently a mixture of Category 5E and 6. It is recommended that the cabling to support wireless access points be upgraded to shielded Category 6A to support higher bandwidth. This will allow the wireless network to support more wireless devices at higher speeds. It is also recommended that all the Category 5e cabling in the building be replaced with Category 6 cabling. This will also support higher bandwidth.	3	$ 1.80	133,612		X		133,612	
Fiber Backbone Cabling Infrastructure	1,100	lf	The existing fiber backbone is currently 62.5 multi-mode fiber optic cable. This will only support a 1 Gb backbone for the network. It is recommended that this cable be replaced with 50 micron multi-mode fiber optic cable. This will support a 10 Gb backbone to support higher bandwidth speeds and more devices on the network.	1	$ 8.00	8,800	X		8,800		
Pathways for Horizontal Data Cabling	74,229	sf	A majority of the data cabling and video input cabling is exposed and not properly supported. There are many locations where the cabling is coming straight down from the ceiling to the device it's connected to. It is recommended that all new pathways be provided to support the horizontal data cabling and video input cabling.	2	$ 1.00	74,229		X		74,229	
Classroom AV Cabling	25	ea	The existing AV cabling is classrooms is analog VGA cabling. When computers are refreshed, the newer computers will no longer support analog VGA video. It is recommended that the classrooms be upgraded with digital HDMI cabling between the teacher's computer and video display.	2	$ 495.00	12,375	X			12,375	
Classroom Displays	15	ea	There is a mixture of new Ultra Short-throw projectors and older discontinued LCD projectors in the building. It is recommended that the older LCD projectors be replaced with the new ultra-short throw projectors.	2	$ 2,750.00	41,250	X			41,250	
Classroom Sound Systems	25	ea	There are currently no Classroom Sound Systems. It is recommended that at a minimum a new small amplifier and 2 ceiling speakers be provided in each room for the audio from the teacher's PC to be evenly distributed in the room.	1	$ 1,200.00	30,000		X			$ 30,000
Network Switching	74,229	sf	It is recommended that the network switches be replaced to support a 10 Gb network. There are also currently no UPS's installed in the building and there have been power issues. It is recommended that new UPS's be provided in each technology cabinet/rack.	2	$ 1.10	81,652	X		$ 81,652		
Wireless Network	74,229	sf	The existing wireless network was installed in the summer of 2018. The existing wireless network does not need to be replaced	4	$ 1.25	-		X			-
Security											
Access Control	7	ea	Currently there is no Access Control System in the school. An access control system is recommended to be provided with card readers at 7 doors.	1	$ 6,000.00	42,000	X		42,000		
Video Surviellance	0	ea	The security camera system was recently upgraded 2 years ago. There is adequate coverage at the school.	4	$ 1,300.00	-		X			-
Intrusion Detection	74,229	sf	There is currently some intrusion detection installed in the school. A new intrusion detection system is recommended for the entire first floor. This would be accomplished by providing door contacts on all exterior doors and motion detectors on the first floor.	2	$ 0.69	51,218	X		51,218		
				Subtotal Project Costs		**600,999**			**$279,842**	**$261,466**	**$59,692**
				Design Contingency	10.0%	60,100			$27,984	$26,147	$5,969
				Contractor General Conditions	5.0%	30,050			$13,992	$13,073	$2,985
				Project Contingency	7.0%	42,070			$19,589	$18,303	$4,178
				Phasing Costs	3.0%	18,029.98			$8,395	$7,844	$1,791
				TOTAL Estimate of Probable Costs		**751,249**			**$349,802**	**$326,833**	**$74,615**
				Project Soft Costs	18.0%	135,225			$62,964	$58,830	$13,431
				TOTAL Project Estimate of Probable Costs		**886,474**			**$412,766**	**$385,663**	**$88,045**

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Requirement Forecast Report - Site

Ratings to be based on the following scoring system

Client:	Yellow Springs School		1. End of useful life
Campus:	Yellow Springs HS/MMS		2. In need of Repair/Replacement
Asset:	Yellow Springs HS/MMS		3. Condition is satisfactory
Site Area:	34.97	acre	4. Recently replaced
			5. New work Recommended

Prioritization Category
1. Critial - Life Safety, Code, Technology, Security
2. Priority - Infrastructure, Maintenance, Roof, Envelope
3. Deferred - Finishes, Furnishings, Fixtures

							Prioritization				
Drives and Parking	**Quantity**		**Detail (models, sizing, etc.)**	**Condition**	**Unit Cost**	**Total Cost**	**Yes**	**No**	**Critical**	**Priority**	**Deferred**
Provide off-street ADA Parking	6	ea	Construct parking on site with access to the main entry for three ADA parking spaces and three spaces with access to either the main entrance or an alterantive accessible entrance.	5	$ 4,000.00	24,000	X		24,000		
Provide improved student drop-off lane	2,000	sf	Provide designated student drop off lane that is clearly marked with and unobstructed walkway to the main entrance.	5	$ 7.22	14,444	X		14,444		
Crack and seal coat student parking lot	63,623	sf	Crack Seal, seal coat and pavement markings	3	$ 0.50	31,812		X			31,812
Reconstruct main entry parking, staff parking and access drive.	30,260	sf	Full resconstruction with standard duty asphalt pavement.	2	$ 7.22	218,477	X			218,477	
Extend the concrete dumpster pad	300	sf	6" steel reinforced concrete thicked at the edges	2	$ 8.00	2,400	X			$ 2,400	
Walks and Access											
Remove and replace front walks and walks directly adjacent to the building.	5,300	sf	Remove exisiting walk and prepare base for new 8' wide 4" thick concrete walk.	1	$ 6.00	31,800	X			31,800	
Install vertical curb to provide separation between vehicles and pedestrians where possible. This will require draiange improvments, see drainage section.	400	lf	Install integral vertical curb as part of sidewalk replacement at main entry and student drop off areas.	5	$ 20.00	8,000	X		$ 8,000		
Install concrete walk for egress from all exit doors.	1,765	sf	Prepare base and install new 6' wide 4" thick concrete walk.	5	$ 6.00	10,590	X		10,590		
Remove and replace concrete in the courtyard as part of the reconstruction of the 1988 addition.	5,084	sf	Concrete walks, ramps and steel handrails with plantings.	1	$ 12.00	61,008	X		61,008		
Site Safety and Security											
Replace steel hand rail at basment stiars	35	lf	Painted steel guardrail	2	$ 60.00	2,100	X		$ 2,100		
Fence at stadium has been damaged and needs to be repaired or replaced.	370	lf	10' tall chain link fence with midrail	2	$ 85.00	31,450	X			31,450	
Site Drainage											
Provide subsurface draiange with stormwater inlets as part of drive and walkway seperation work	1	ls	To provide veritcal seperation between pedestrians and vehicles at the front entry and student drop off areas, the access drive must be lowered and a storm drianage system installed.	5	$ 45,000.00	45,000	X		45,000		
Base Site Work Allowance											
Site Work Allowance	74,229	sf	Provide $1.50 per building square footage.	2	$ 1.50	111,344	X		111,344		
					Subtotal Project Cost	**592,425**			**$276,486**	**$284,127**	**$31,812**
				Estimate Contingency	10.0%	59,242			$27,649	$28,413	$3,181
				Contractor General Conditions	5.0%	29,621			$13,824	$14,206	$1,591
				Project Contingency	7.0%	41,470			$19,354	$19,889	$2,227
				Phasing Costs	3.0%	17,773			$8,295	$8,524	$954
					Estimate of Probable Construction Costs	**740,531**			**$345,607**	**$355,159**	**$39,764**
				Project Soft Costs	18.0%	133,296			$62,209	$63,929	$7,158
					TOTAL Project Estimate of Probable Costs	**873,826**			**$407,817**	**$419,088**	**$46,922**

MILLS LAWN SCHOOL

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MILLS LAWN SCHOOL

EXECUTIVE SUMMARY

Since 1952, over 67 years, Mills Lawn School has served the students and community of Yellow Springs well. In that time, many educational delivery models have been tested. Some have realized strong success, while others have fallen by the wayside. The bottom line is that educational facilities need to be flexible enough to support the demands of a fluid educational delivery continuum and not restrict educational delivery by the building's inherent rigidity. Building components and systems have continued to evolve as well, requiring building owners to find a balance between performance, ease of maintenance, cost, durability, and efficiency. Systems of the past have served well, however with a renewed focus on sustainability, the industry has developed more efficient, consistent, comfortable, and healthier systems that again support a more learner-centered system rather than take away from the educational process.

Generally, with respect to educational facility evaluations, if the cost to bring an existing facility's physical components up to a level comparable with current practices and standards exceeds 2/3 (66%) of the cost of building new, a strong consideration for building new facilities should be considered. This is especially relevant given that with a new facility, not only do the physical components get updated to current technology and practices, but the opportunity to have a significant impact on the educational process can be realized through implementing planning and design approaches that result in a more flexible building environment supporting a myriad of education delivery methods and having major impact on the results of the educational process at the same time.

In evaluating these issues, the Mills Lawn School is 47,324 SF. The total renovation costs to provide a comparable learning environment to a new building today would be approximately $11,784,798. A new building of this size would cost approximately $12,242,246 at today's cost of $258.69 per square foot. When comparing these two costs, to renovate Mills Lawn School to provide a facility equitable to a new school today it would cost approximately 96 percent of the cost of a new building. This is well above the 2/3 rule for wise investments of new construction. For these reasons, serious consideration should be given to retiring part of or all of the Mills Lawn School and rebuilding portions or an entirely new facility.

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ASSESMENT

The building assessment reviewed the existing conditions of the physical building components at the Mills Lawn School to identify conditions and make recommendations in the following areas:

1. Building Envelope
2. Building Interior
3. Building Accessibility
4. Hazardous Materials
5. Furnishings
6. HVAC/Plumbing
7. Electrical
8. Technology
9. Site

The school serves grades K-6 and is located on a site that is 8.84 acres. The current enrollment at Mills Lawn School is approximately 361 with a school capacity of approximately 378 students.

Mills Lawn School was originally constructed in 1952 with additions made in 1957 and 2002. It is predominately a one story brick and stone building comprised of 47,324 square feet. There is one modular building on site used for classroom space, and it is not included in this physical assessment.

1. Building Envelope

   The building envelope is comprised of all systems that separate the interior of the building from the environmental conditions at the exterior of the buildings. Given this description, the following general systems make up the building envelop at Mills Lawn School: roofing, windows, foundation, exterior walls and exterior doors.

   The roofing system for all three areas of the building is a built-up system with gravel ballast, and it is at least 17 years old. Other components of the roofing system include metal cap flashings and copings, roof drains, and other miscellaneous items. Although the School District does not report any instances of continuous current leaks, the roof system over the entire facility should be replaced due to its age and expected remaining life.

   Window systems include typical windows as well as transom and sidelight glazing at entry doors. The window systems in the 1952 original building are of a single-pane aluminum framed system, providing no thermal break; the windows installed in the 1957 building area are of a dual-glazed aluminum frame system. Both systems are in poor condition and in need of replacement. The windows in the 2002 addition area are an aluminum framed, thermally-broken window system; these are in good condition and do not need replacement at this time; however, the surface-mounted window blinds in this area are in fair condition and should be considered for replacement. The glazing of the greenhouse is in very poor condition and should be replaced.

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The foundation is in relatively good condition; however there are various areas of cracked or spalled concrete wall, and/or open joints that should be addressed.

The exterior walls are comprised of brick and stone masonry. Several areas of movement have created mortar joints that need to be tuck pointed or cracked brick that should be taken out and replaced. Steel lintels are showing signs of deterioration and need to be prepped and painted, and exterior railings need to be replaced with code-compliant railing systems. There are several locations where stone sills are cracked and should be replaced or in some cases just repointed. And finally, control/expansion joints should be replaced to provide a weathertight condition.

Exterior doors are Fiber reinforced plastic (FRP), hollow-metal and wood type construction installed in aluminum, hollow-metal and wood frames, all are in fair to poor condition and non-ADA compliant hardware. All exterior doors, frames, and hardware should be replaced due to age, condition, and non-compliance with applicable building code requirements.

2. Building Interior

The building interior is comprised of all of the systems that are used daily by the building occupants and also helps to set the tone of the activities within the building. Over the course of the last 17 to 67 years, the building interiors have served the occupants well, but many are well passed their intended lifespan. A total replacement of finishes and casework is needed throughout the entire facility. In addition, toilet partitions and accessories should be replaced. Interior doors, frames, and hardware should be replaced with new due to age, condition, and code compliance. The 1952 and 1957 areas of the building have very little, if any, insulation at the exterior walls leading to a very inefficient building envelope and thereby increasing operating costs for heating and cooling. The kitchen equipment has served well but is at the end of its life in general and should be replaced as well. And finally, improving the acoustical environment in the media center will serve to provide a more effective educational environment in that space.

3. Building Accessibility

Accessibility to, and throughout, the building, by a person with disabilities, presents a challenge. An automatic door operator, providing assistance at the main entry, at a minimum is needed. Although one is available, it is only in fair condition and is in need of replacement. There are two separate areas of the building (1957 and 2002 areas) where there is no access to different floor areas, and elevators should be installed. Many interior doors throughout the 1952 and 1957 areas of the building are either not recessed from the corridor and provide obstacles, or do not have ADA-compliant hardware, or both. The restroom within the clinic does not meet ADA-compliant circulation areas or space allocations. Many restroom mirrors need to be adjusted or replaced to meet required guidelines and signage throughout to comply with mounting location requirements and braille identification requirements.

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4. Hazardous Materials

Throughout history, building components have been manufactured through different processes and made from various materials. Some of these materials have been found to pose a health risk to the building's occupants. In many cases, these materials have been deemed acceptable as long as they are not disturbed. However, through the course of any building renovation process, the likelihood of these materials being disturbed expands significantly, and it has generally been determined that prior to any major renovation effort hazardous materials should be abated and removed from the building being renovated. Yellow Springs Schools has an Asbestos Hazard Emergency Response Act (AHERA) report and has re-inspection every three years which identifies the major hazardous materials that are assumed and suspected to be within the facility and which provides the basis of our assessment costs. It would be recommended that a full hazardous material abatement survey be conducted to identify any other suspected hazardous materials present prior to renovation efforts.

5. Furnishings

Fanning Howey utilizes an assessment tool originally developed by the Association for Learning Environments, (A4LE, formerly the Council of Educational Facility Planners, International). This tool evaluates the conditions of various aspects of an educational facility. One of the key areas is student and staff furnishings, desks, chairs, tables, etc. that are used constantly by those groups and which must help to support the educational process. This tool rates the furnishings from 10 (excellent) to 1 (poor). We would place the furnishings at Mills Lawn School overall at a 3 or below, which would indicate within the time of a potential project the furnishings throughout the facility would be at the end of their service life and would need to be replaced completely.

6. HVAC/Plumbing

There is currently no fire protection system within the overall facility, although none is required by the Ohio Building Code. If a fire protection system is included, then a new water service, of adequate capacity will also be needed.

The existing domestic water piping, comprised of both copper and galvanized piping, has exceeded its useful life and should be replaced with new copper piping. The existing sanitary piping is in fair to poor condition and has also exceeded its useful life.

Overall plumbing systems and fixtures have served this building and its occupants well since being installed, but should be replaced in their entirety for today's standards and efficiencies.

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The copper-fin type heating water boilers should be replaced with new condensing heating water boilers for higher efficiency and performance. The overall heating system should be replaced to provide up-to-date insulation, piping, pumps, specialties, energy recovery and to be able to pre-treat the outdoor air, as well as provide individual space control and improved indoor air quality. In general, cooling is not provided throughout the overall facility, except in very limited locations, and this should be incorporated into an overall HVAC system to provide cooling in all spaces. Building exhaust is original to the building and should be replaced.

7. Electrical

The fire alarm system was installed in the 1990's. Some devices have been replaced through the years. The system currently consists of horn/strobe. The current standard is voice evacuation for Type E occupancy, thus the system would need to be replaced in a renovation.

There are a total of 10 panelboards in the building. Four pushmatic panelboards original to the building should be replaced. A panelboard in the new portion of the building is in poor condition and should be replaced.

The original 400-amp distribution panel in the building, Panel SDP, is in need of replacement.

The 1200-amp main distribution panel is much newer than the building and is in good condition. There is no 480-volt power in the building, everything is 208-volt. With mechanical upgrades to the building, 208-volt 1200-amp panels will likely be inadequate, and thus a service upgrade may be required.

Lighting throughout consists of a variety of T8 fluorescent light fixtures. All light fixtures in the building should be upgraded to new LED fixtures. Exit signs and emergency light fixtures should be considered for LED upgrades as well.

Most of the receptacles in the building are in need of replacement due to age.

Most of the lighting switches in the building are in need of replacement due to age.

8. Technology

The existing Dukane paging system has reached the end of its life. Replacement parts and support are not available for the existing system since the manufacturer is no longer in business. It is recommended that a new paging system be provided for the entire building. This would include a new head-end, new speakers, and new cabling.

There is currently no synchronous clock system. It is recommended the entire building be provided with a synchronous clock system that is tied into other systems within the building.

The existing phone system functions but consistently drops out multiple times a month. It is recommended that a new Internet protocol (IP) phone system be provided. This would include a new phone switch or managed system, and all new IP phones.

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The data cabling in the building is currently a mixture of Category 5E and 6. It is recommended that the cabling to support wireless access points be upgraded to shielded Category 6A to support higher bandwidth. This will allow the wireless network to support more wireless devices at higher speeds. It is also recommended that all the Category 5e cabling in the building be replaced with Category 6 cabling. This will also support higher bandwidth.

The existing fiber backbone is currently 62.5 multi-mode fiber optic cable. This will only support a 1 Gigabyte (Gb) backbone for the network. It is recommended that this cable be replaced with 50 micron multi-mode fiber optic cable. This will support a 10 Gb backbone to support higher bandwidth speeds and more devices on the network.

A majority of the data cabling and video input cabling is exposed and not properly supported. There are many locations where the cabling is coming straight down from the ceiling to the device it is connected to. It is recommended that all new pathways be provided to support the horizontal data cabling and video input cabling.

The existing audio/video (AV) cabling is classrooms is analog VGA cabling. When computers are refreshed, the newer computers will no longer support analog VGA video. It is recommended that the classrooms be upgraded with digital HDMI cabling between the teacher's computer and video display.

There is a mixture of new ultra short-throw projectors and older discontinued LCD projectors in the building. It is recommended that the older LCD projectors be replaced with new ultra-short throw projectors.

There are currently no classroom sound systems. It is recommended that, at a minimum, a new small amplifier and 2 ceiling speakers be provided in each room for the audio from the teacher's computer (PC) to be evenly distributed in the room.

It is recommended that the network switches be replaced to support a 10 Gb network. There are also currently no uninterrupted power supplies (UPS) installed in the building, and there have been power issues. It is recommended that new UPSs be provided in each technology cabinet/rack.

The existing wireless network was installed in the summer of 2018. The existing wireless network does not need to be replaced

Currently there is no access control system in the school. An access control system is recommended to be provided with card readers at 7 doors.

The security camera system was recently upgraded 2 years ago. There is adequate coverage at the school.

There is currently some intrusion detection installed in the school. A new intrusion detection system is recommended for the entire first floor. This would be accomplished by providing door contacts on all exterior doors and motion detectors on the first floor.

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9. Site

The site assessment reviewed the existing conditions of physical improvements at the Mills Lawn Elementary School to assess current conditions and make recommendations in the following areas:

1. Accessibility
2. Security and Safety
3. Site Design

The school serves grades K-6 and is located on a site that is 8.84 acres. For reference only, the Ohio School Design Manual (OSDM) sets guidelines for elementary school site size by the number of students. The current enrollment at Mills Lawn Elementary School is 361 with a school capacity of 378 students. The OSDM states that an elementary school site should be 10 acres plus 1 acre per 100 students. This would set the appropriate site size at 13.78 acres. The current site does not meet the OSDM site size recommendations. Due to the size of the site, building expansion will be challenging without significant impact to the numerous large trees on the site.

For context, the school is located on a site in the center of the Village of Yellow Springs, Ohio. The site is surrounded by residential single-family homes as well as two churches and the School District offices. There is one modular building on site used for classroom space.

The property and playgrounds are not fenced, and access onto the site is unrestricted.

With respect to site circulation at Mills Lawn School, site circulation for pedestrians is fair. Vehicular circulation is considered poor. The single entry drive onto the site does not provide the recommended level of separation between bus and other vehicular traffic. There is curbside loading and unloading zones in front of the school and on the two adjacent side streets. None of which is separated from other vehicular traffic.

On Site parking is comprised of 2 joined lots on the west side of the school building. These lots are accessed off of East Limestone Street. The larger of the 2 parking lots is a circular configuration and exhibits limited efficiency with narrow drive aisles. This parking lot contains 34 designated parking stalls. There is an adjacent parking area to the south that is comprised of a single row of 8 parking spaces along the west side of the access drive. Additional private vehicles were observed to be parking in the sunken paved area directly adjacent to the school building. This is the same area used for bus drop-off and pick-up. The total number of on-site parking spaces is 42. There are an additional 16 curb side parking spaces on the west side of South Walnut Street. Three of these spaces are marked as reserved for Americans with Disabilities Act (ADA) access and are the only accessible parking spaces serving the school. The OSDM provides guidance on parking space allocation at elementary schools as detailed in the table below.

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DESCRIPTION

Elementary Student Enrollment		**378**
Teaching Stations		**15**
Staff Parking		
Teachers		16
Ancillary Staff		8
Administration		6
Custodial/Maintenance		3
Food Service		4
Total Staff Parking		**37**
Other		15
Total Visitor		8
High School Parking		N/A
TOTAL RECOMMENDED ES PARKING		**60**

The bus drop-off area is located directly west of the school building in the sunken paved area at the end of the access drive coming off of East Limestone St. Three busses service the school using this location for unloading and loading students. The student drop-off and pick-up by parents/guardians is conducted using the curb side lanes of the adjacent streets (East Limestone Street to the south, South Walnut Street to the east and Elm Street to the north). This arrangement requires students to cross tree lawns to reach sidewalks unless they are dropped-off at the 2 walks providing direct access to the school entries on the east side of the building. There is a well used designated drop-off lane on East Limestone Street. This drop-off space is not considered to be ADA compliant and is used by more vehicles than it can currently accommodate.

The single entry drive onto the site, off of East Limestone Street, does not provide separation between bus and other vehicular traffic.

The asphalt access drive off of East Limestone Street is in poor condition and has been patched with repairs completed in recent years. The asphalt pavement of the parking area on the west side of the access drive is in good condition. The asphalt pavement of the large circular lot to the north is in good condition. The bus loading zone at the end of the access drive is also in good condition. Access for trash pick-up and service personnel is gained by the one entry drive off of East Limestone Street. The dumpster area is not equipped with a concrete pad.

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There are concrete and asphalt walks on the site. The sidewalks along the adjacent streets are 4-foot wide concrete and in fair condition. They are separated from the side streets with 8-foot wide tree lawns. The walk to the main entry doors from South Walnut Street is asphalt over concrete. It is 15 feet wide. This walk is in fair to poor condition. The walk to entry doors located south of the main entry is concrete and 8 feet wide. This walk is in fair condition. The walk from East Limestone Street to the egress/entry doors is concrete and is 5 feet wide. This walk is in fair condition. The walk from East Limestone Street to the west side of the 1957 addition is asphalt and is 5 feet wide. This walk is in poor condition. The walkways in the playground on the north side of the building are concrete and 6 feet wide from the classroom wing and 4 feet wide from the front of the building. These walks are in fair condition. The walk linking the west existing doors of the north academic wing to Elm Street are concrete and 4 feet wide. This walk is in poor condition directly adjacent to the school building and in fair condition to the north leading to Elm Street. The asphalt path to the tennis courts is 5 feet wide and is in good condition. Lawns adjacent to walks were observed to be trampled by students and eroding.

The overall site has some access ways that are non-compliant with ADA accessibility requirements. Access to the front entry doors is by an asphalt walk that appears to have been placed over an older concrete walk. This walk is an accessible route from the public right-of-way and from the passenger unloading area. The accessible parking areas located on the street are not in accordance with ADA guidelines in that an accessible route separate from the travel lane is not provided. Three ADA compliant parking spaces should be provided on site with access to the main entrance. There is an accessible route connecting the egress doors located south of the main entry doors to the public right-of-way. There is an accessible route from the public right-of way along East Limestone Street to the entry/egress doors located at the end of the hallway. The entry doors in the bus loading zone provide an accessible route. The modular classroom is equipped with an accessible ramp to the entry/egress doors. The accessible route to the playgrounds from the north side of the school is made by 2 wood ramps in poor condition. These ramps should be replaced with permanent concrete ramps. The egress doors from the classrooms exit west out of the 1957 addition onto wood ramps that are in poor condition. These ramps should be replaced with permanent concrete ramps.

With respect to site safety and security, site fencing is not provided, except for around the tennis courts. The fencing around the tennis courts is in poor condition and should be replaced. Fencing to separate the playgrounds from the adjacent streets is recommended. The 1952 original construction features an exterior cantilevered concrete walkway with steps and a steel handrail. The concrete and the railing are in poor condition and should be replaced. The 1952 original construction features exterior concrete steps with a steel handrail leading out from the basement boiler room. This railing is in poor condition and should be replaced. The railing at pavement level is not a guardrail as is required and should be replaced. There are concrete steps with a steel handrail leading out of the gymnasium (part of the 2002 addition) that is in good condition.

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Drainage on the site is predominately conducted via sheet flow of storm water to strategically placed storm water inlets. While this appears to provide adequate protection from storm water intrusion into the school building, it does not prevent numerous areas of standing water on the site following storm events. No serious water ponding problems were observed in the parking lots. The site design features no curbing which allows sheet drainage of storm water off of the pavements to storm inlets. In the case of the circular shaped staff parking lot, this pavement drains east towards the school, spilling over the concrete retaining wall defining the bus loading zone where it deposits into 2 catch basins located within the bus area pavement. There are numerous areas within the playground areas where standing water was observed. These areas should be filled to eliminate areas of standing water in the play areas.

The site houses several playground areas. The primary play area is located at the northeast corner of the site. This area is comprised of commercial playground equipment. The access to this play space is provided by concrete walks in good condition. There are sufficient fall clear zones and wood fiber protective surfacing below the play equipment. Accessible curbs are provided to gain access into the play areas. The lawn areas in this section and to the north contain areas where standing water is present following rain events. Wear areas created by student use and the apparent removal of large trees has created areas of standing water after rain events. Soil fill and reseeding is recommended to eliminate standing water. An older swing set in this area has wood curbing without a ramp that makes the area inaccessible. The concrete culvert pipe tunnels do not have the required fall zone clearance and required depth of soft surfacing. A secondary play area is located directly north of the building. This area is comprised of a galvanized steel climbing apparatus, multiple swings, and a composite play structure. The play equipment areas have distinct fall clear zones and the required wood fiber soft surfacing. There are no curbs making the areas readily accessible. Routine maintenance of the wood fiber soft surface in areas of high traffic such as, swings, access points and the bottom of slides will help ensure the maintenance of the required depth of soft surfacing and help eliminate areas of standing water. A third play area is located north and west of the school building. This area is comprised of galvanized metal playground equipment including a slide and swings. This playground equipment does not have the required fall clear zones nor the required soft surface. A paved area with painted surface games and basketball courts is provided in the area of the bus loading zone. The physical education space consists of an open grass area on the north end of the site with bordering shade trees. The area is equipment with soccer goals, and there is a gaga pit located closer to the school. In addition, there is a disc golf course that has been established on the site. There are numerous playground spaces scattered across the site offering a variety of outdoor play and learning experiences. The site has features that are suitable for outdoor educational opportunities and is graced with large open lawn areas and numerous large shade trees as well as many memorial trees established by the community.

The outbuildings on site include two small storage sheds.

Requirement Forecast Report - Summary

Yellow Springs Schools
Mills Lawn School
Detailed Assessment with Costs
May 9, 2019

Revised: TBD

Subtotal Construction Cost		**7,989,694**
Design Contingency	10.0%	798,969
Contractor General Conditions	5.0%	399,485
Project Contingency	7.0%	559,279
Phasing Costs	3.0%	239,691
Total Estimate of Probable Construction Costs		**9,987,117**
Project Soft Costs	18.0%	1,797,681
TOTAL Estimate of Probable Project Costs		**11,784,798**

TOTAL AREA (SF)		47,324
TOTAL RENOVATION COSTS	$	11,784,798
TOTAL COST PER SF (NEW CONSTRUCTION)	$	258.69
TOTAL REPLACEMENT COSTS FOR SAME BUILDING AREA	$	12,242,246
RENOVATE TO REPLACE RATIO		96.26%

Architectural	**$**	**4,213,322**
HVAC/Plumbing	**$**	**2,108,044**
Electrical	**$**	**743,319**
Technology	**$**	**459,090**
Site	**$**	**465,919**

	Critical	Priority	Deferred
	$ 733,730	$ 2,266,095	$ 1,213,497
	$ 259,296	$ 1,496,748	$ 352,000
	$ 141,972	$ 202,011	$ 399,336
	$ 206,703	$ 203,457	$ 48,930
	$ 274,834	$ 128,334	$ 62,752
Subtotal Construction Cost	**$ 1,616,534**	**$ 4,296,645**	**$ 2,076,515**
Design Contingency (10%)	$ 161,653.42	$ 429,664.48	$ 207,651.47
Contractor General Conditions (5%)	$ 80,826.71	$ 214,832.24	$ 103,825.73
Project Contingency (7%)	$ 113,157.40	$ 300,765.13	$ 145,356.03
Phasing Costs (3%)	$ 48,496.03	$ 128,899.34	$ 62,295.44
Total Estimate of Probable Construction Costs	**$ 2,020,668**	**$ 5,370,806**	**$ 2,595,643**
Project Soft Costs (18%)	$ 363,720.20	$ 966,745.08	$ 467,215.80
Total Estimate of Probable Project Costs	**$ 2,384,388**	**$ 6,337,551**	**$ 3,062,859**

Check (all phases) $ 11,784,798

Requirement Forecast Report - Architectural

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Ratings to be based on the following scoring system

Client:	Yellow Springs School
Campus:	Mills Lawn School
Asset:	Mills Lawn School
Building Area:	47,324 sf

1. End of useful life
2. In need of Repair/Replacement
3. Condition is satisfactory
4. Recently replaced
5. New work is recommended

Prioritization Category
1. Critial - Life Safety, Code, Technology, Security
2. Priority - Infrastructure, Maintenance, Roof, Envelope
3. Deferred - Finishes, Furnishings, Fixtures

	Quantity		Detail (models, sizing, etc.)	Condition	Unit Cost	Total Cost	Prioritization Yes	Prioritization No	Critical	Priority	Deferred
Building Envelope											
Roofing	47,324	sf	Replace overall roof system due to current age and anticipated remaining life. This includes cap flashings/copings, gutters and downspouts, roof drains, piping, insulation, and roof access/safety systems.	1	$ 19.58	$ 926,604	X			$ 926,604	
Windows	47,324	sf	Provide new dual-glazed insulated windows with integral blinds or roller shades, as well as transoms and sidelights throughout 1952 and 1957 buildings. Replace glass block and single-pane exterior door vision panels in the 1952 building, as well as the greenhouse, insulated panels and single-pane exterior transom and sidelight glazing in the 1957 building. Single-pane exterior door vision panels and window blinds should be replaced in the 2002 building.	1	$ 7.44	$ 352,091	X			$ 352,091	
Foundation	47,324	sf	Repair various locations of cracked and spalling foundation wall or open joints throughout the overall facility.	2	$ 1.02	$ 48,270	X		$ 48,270		
Exterior walls	47,324	sf	Tuckpoint several areas of mortar joint deterioration; clean, seal, and caulk overall facility where required. Prep and paint exposed steel lintels. Provide infill masonry where needed and replace railings to meet code. Repoint stone sills and replace control/expansion joints, and Tectum soffits.	2	$ 7.37	$ 348,778	X		$ 348,778		
Exterior Doors	25	ea	Replace exterior doors in 1952 and 1957 buildings.	1	$ 2,500.00	$ 62,500	X			$ 62,500	
Building Interior											
Complete replacement of finishes and casework throughout facility	47,324	sf	Replace all finishes due to age and condition.	1	$ 17.25	$ 816,339					$ 816,339
Toilet partitions (1952 building only)	9	stall	Replace all toilet partitions due to age and condition.	1	$ 1,000.00	$ 9,000					$ 9,000
Toilet accessories	47,324	sf	Replace all toilet accessories due to age and condition.	1	$ 0.20	$ 9,465					$ 9,465
Doors, frames, and hardware (1952 and 1957 building areas only)	85	ea	Replace doors, frames and hardware due to age, condition and non-compliance with ADA guidelines.	1	$ 1,300.00	$ 110,500	X		$ 110,500		
Art program kiln replacmenet	1	ea	Replace art kilns due to age and condition.	1	$ 2,750.00	$ 2,750	X		$ 2,750		
Additional wall insulation (1952 and 1957 building areas)	10,717	sf	Provide additional wall insulation for improved building envelope performance.	2	$ 6.00	$ 64,302	X			$ 64,302	
Total kitchen equipment replacement	665	sf	Replace food service equipment due to age and condition.	1	$ 190.00	$ 126,350	X			$ 126,350	
Kitchen hood and cooler/freezer replacement	3	unit	Replace kitchen exhaust hood and cooler/freezer due to age and condition.	1	$ 38,545.00	$ 115,635	X			$ 115,635	
Replace stage equipment	1	ls	Replace stage equipment due to age and condition.	1	$ 14,608.00	$ 14,608					$ 14,608
Acoustical control	2,925	sf	Provide acoustical surface treatments in the media center.	2	$ 3.13	$ 9,155					$ 9,155
New systems due to hazardous material removals	1	ls	Replacement of hard plaster, gypsum board, acoustical panels/tile ceilings, door and window panels, and fire doors due to removal by hazardous material abatement.	2	$ 181,340.00	$ 181,340	X			$ 181,340	
Replace non-code-compliant handrails/guardrails	2	level	Provide new guardrail and handrails to comply with the OBC.	2	$ 5,000.00	$ 10,000	X		$ 10,000		
Building Accessability											
Address accessibility issues within the building	47,324	sf	Remove and replace (or provide new) signage, ramps, elevators, automatic door operator at main entry, accessible toilet accessories, science classroom lab stations and toilet facilities.	2	$ 4.51	$ 213,431	X		$ 213,431		
Hazardous Material											
Abatement of known and suspected hazardous materials present	47,324	sf	AHERA three-year reinspection reports dated January 2017 indicate several known, assumed and suspected hazardous materials throughout the facility that should be abated.	2	$ 9.24	$ 437,274	X			$ 437,274	
Furnishings											
Student and Staff Furnishings	47,324	sf	The loose furnishings in this facility overall rate at a 3 or below on a scale of 10 (excellent) to 1 (poor) and therefore should be replaced.	1	$ 7.50	$ 354,930					$ 354,930
					Subtotal Project Costs	**$ 4,213,322**			**$ 733,730**	**$ 2,266,095**	**$ 1,213,497**
					Design Contingency 10.0%	$ 421,332			$ 73,373	$ 226,610	$ 121,350
					Contractor General Conditions 5.0%	$ 210,666			$ 36,686	$ 113,305	$ 60,675
					Project Contingency 7.0%	$ 294,933			$ 51,361	$ 158,627	$ 84,945
					Phasing Costs 3.0%	$ 126,400			$ 22,012	$ 67,983	$ 36,405
					Estimate of Probable Construction Costs	**$ 5,140,253**			**$ 917,162**	**$ 2,832,619**	**$ 1,516,871**
					Project Soft Costs 18.0%	$ 925,245			$ 165,089	$ 509,871	$ 273,037
					TOTAL Project Estimate of Probable Costs	**$ 6,065,498**			**$ 1,082,251**	**$ 3,342,490**	**$ 1,789,908**

Requirement Forecast Report - Plumbing/HVAC

Ratings to be based on the following scoring system

Client:	Yellow Springs School		1. End of useful life
Campus:	Mills Lawn School		2. In need of Repair/Replacement
Asset:	Mills Lawn School		3. Condition is satisfactory
Building Area:	47,324	sf	4. Recently replaced
			5. New work is recommended

Prioritization Category
1. Critial - Life Safety, Code, Technology, Security
2. Priority - Infrastructure, Maintenance, Roof, Envelope
3. Deferred - Finishes, Furnishings, Fixtures

	Quantity		Detail (models, sizing, etc.)	Condition	Unit Cost	Total Cost	Prioritization Yes	Prioritization No	Critical	Priority	Deferred
Fire Protection											
Sprinkler - Entire Building	47,324	sf	No sprinkler system currently exists. Consider adding sprinkler system throughout entire building.	5	$ 4.00	189,296		X	$ 189,296		
						-					
Plumbing						-					
Sanitary Piping - 1955 and 1957	34,063	sf	Original sanitary piping is in fair to poor condition and has exceeded it's useful life. Replace all original sanitary piping.	1	$ 3.50	119,221	X			$ 119,221	
Sanitary Piping - 2002 Addition	13,261	sf	Existing sanitary piping in the 2002 addition is in good condition.	3	$ -	-		X			$ -
Domestic Water Piping - 1955 and 1957	34,063	sf	Original domestic water piping is a mix of copper and galvanized and should be replaced with copper piping as it has exceeded its useful life.	1	$ 3.50	119,221	X			$ 119,221	
Domestic Water Piping - 2002 Addition	13,261	sf	Existing domestic water piping in the 2002 addition is in good condition.	3	$ -	-		X			$ -
Domestic Water Heater	1	ls	75.1 MBH/74 Gallon Storage - 2017	4	$ -	-		X			$ -
Incoming Water Service	1	ls	Existing water service is adequate for current usage. If the existing building is sprinklered, a new water service will be required.	5	$ 25,000.00	25,000		X	$ 25,000		
Plumbing Fixtures - 1955 and 1957	101	ea	23 Water Closets, 43 Lavatories, 3 Drinking Water Coolers, 15 Sinks, 13 Sinks with Bubblers, 1 Eyewash/Shower, 3 Exterior Wall Hydrants need to be replaced/added.	2	$ 1,500.00	151,500	X			$ 151,500	
Plumbing Fixtures - 2002 Addition	15	ea	6 Sinks, 9 Sinks with Bubblers need to be replaced/added.	2	$ 1,500.00	22,500	X			$ 22,500	
HVAC											
Boiler Plant	2,400	mbh	Copper-fin type heating water boilers, should be replaced with new condensing heating water boilers.	1	$ 100,000.00	100,000	X			$ 100,000	
Heating Hot Water Supply/Return System - 1955 and 1957	34,063	sf	Black Steel and Galvanized piping, supplemental heat, insulation, specialties, etc. should be replaced with new heating water piping, pumps, etc.	1	$ 5.60	190,753	X			$ 190,753	
Heating Hot Water Supply/Return System - 2002 Addition	13,261	sf	Copper heating water piping, insulation, pumps, specialties, etc. are in fair to good condition.	3	$ -	-		X			$ -
Classroom Unit Ventilators	30,000	cfm	The exisitng heating only classroom unit ventilators have exceeded their useful life and should be replaced with either new heating/cooling unit ventilators or new ducted HVAC system incorporating energy recovery to pre-treat outdoor air.	1	$ 20.00	600,000	X			$ 600,000	
Gymnasium/Stage Unit	5,600	cfm	Existing rooftop heating/cooling unit was installed in 2002 and is in good condition. Consideration should be given to replace this unit in the next 5-10 years due to age.	3	$ 20.00	112,000		X			$ 112,000
Administration Area	2,000	cfm	Existing DX mini-split and fan coil units should be replaced with new systems that incorporate individual space control and code required outdoor air.	2	$ 20.00	40,000		X	$ 40,000		
Window/Portable Air-Conditioning Units	15	ea	The existing window air conditioning units are in fair condition, but are not very efficient. They should be removed and replaced with the chilled water systems as noted above.	5	$ -	-		X		$ -	
2002 Addition VAV Rooftop Units	13,250	cfm	The VAV rooftop unit and VAV terminals were installed in 2002 and are in good condition. Consideration should be given to replacing these units in the next 5-10 years due to age.	3	$ -	-		X			$ -
Exhaust Systems - High School/Junior High	34,063	sf	The toilet room and general exhaust fans are original and should be replaced.	1	$ 0.25	4,258	X			$ 4,258	
Exhaust Systems - 2002 Addition	13,261	sf	The toilet room and general exhaust fans were installed in 2002 and are in good condition.	3	$ -	-		X			$ -
Kiln Exhaust System	1	ea	A new kiln exhaust system should be provided.	5	$ -	5,000	X		$ 5,000		
Temperature Controls	47,324	sf	Existing temperature controls consist of older DDC controls. The system needs to be replaced completely.	1	$ 4.00	189,296	X			$ 189,296	
Chilled Water System	160	tons	A new chilled water system including two (2) outdoor, air-cooled chillers, pumps, piping, specialties, etc. shall be installed to serve the existing DX and un-air-conditioned spaces.	5	$ 1,500.00	240,000		X			$ 240,000
					Subtotal Project Costs	**2,108,044**			**$ 259,296**	**$ 1,496,748**	**$ 352,000**
					Design Contingency	10.0% 210,804			$ 25,930	$ 149,675	$ 35,200
					Contractor General Conditions	5.0% 105,402			$ 12,965	$ 74,837	$ 17,600
					Project Contingency	7.0% 147,563			$ 18,151	$ 104,772	$ 24,640
					Phasing Costs	3.0% 63,241			$ 7,779	$ 44,902	$ 10,560
					Estimate of Probable Construction Costs	2,571,813			**$ 324,120**	**$ 1,870,935**	**$ 440,000**
					Project Soft Costs	18.0% 462,926			58341.6	336768.2269	79200
					TOTAL Project Estimate of Probable Costs	**3,034,740**			**$ 382,462**	**$ 2,207,703**	**$ 519,200**

Requirement Forecast Report - Electrical

Ratings to be based on the following scoring system

Client:	Yellow Springs School			1. End of useful life		
Campus:	Mills Lawn School			2. In need of Repair/Replacement		
Asset:	Mills Lawn School			3. Condition is satisfactory		
Building Area:	47,324	sf		4. Recently replaced		
				5. New work Recommended		

Prioritization Category
1. Critial - Life Safety, Code, Technology, Security
2. Priority - Infrastructure, Maintenance, Roof, Envelope
3. Deferred - Finishes, Furnishings, Fixtures

	Quantity		Detail (models, sizing, etc.)	Condition	Unit Cost	Total Cost	Prioritization Yes	Prioritization No	Critical	Priority	Deferred
Electrical											
New Generator	1	ea	Generator, transfer switch, panel, & wiring	5	50,000.00	50,000		X			$ 50,000
Switchboards		ea	Newer, existing to remain, distribution panel (serving as switchgear) - 1200A	3	-	-		X		$ -	
	1	ea	Older 400A distribution panel SDP. Needs replaced.	2	12,000.00	12,000	X			$ 12,000	
Panelboards	5	ea	Old/Damaged Panelboards. Need Replaced. Assume 42 ckt. 225A.	1	5,325.00	26,625		X		$ 26,625	
	5	ea	Newer Undamaged Panelboards. Average of >15 year life remaining.	3	-	-		X			$ -
Interior Lighting	47,324	sf	Circuiting as needed for new lighting fixtures denoted below	2	2.00	94,648		X			$ 94,648
Classrooms	216	ea	T8 troffers. Upgrade to LED (number assumes 12 fixtures per classroom)	2	310.00	66,960		X			$ 66,960
Labs	64	ea	T8 troffers. Upgrade to LED (number assumes 16 fixtures per Lab)	2	310.00	19,840		X			$ 19,840
Corridors	65	ea	T8 troffers (primarily). Upgrade to LED	2	310.00	20,150		X			$ 20,150
	18	ea	6" Downlights.	2	250.00	4,500		X			$ 4,500
Gymnasium/Cafeteria	36	ea	4 lamp T8 2x4 troffer . Upgrade to LED.	2	310.00	11,160		X			$ 11,160
Auditorium (Back of House)	8	ea	Shop lights. Upgrade to LED	2	150.00	1,200		X			$ 1,200
Kitchen	10	ea	T8 troffers (4-lamp). Upgrade to LED.	2	310.00	3,100		X			$ 3,100
Media Center	16	ea	T8 troffers. Upgrade to LED.	2	310.00	4,960		X			$ 4,960
Administration	30	ea	T8 troffers. Upgrade to LED.	2	310.00	9,300		X			$ 9,300
Restroom	7	ea	T8 surface fixtures. Upgrade to LED	2	310.00	2,170		X			$ 2,170
	10	ea	T8 troffers. Upgrade to LED.	2	310.00	3,100		X			$ 3,100
	8	ea	Residential incandescent bowl fixture. Upgrade to LED.	2	150.00	1,200		X			$ 1,200
General	40	ea	T8 Troffers. Upgrade to LED.	2	310.00	12,400		X			$ 12,400
Lighting Controls	47,324	sf	Low voltage wiring, occupancy sensors, etc.	5	2.00	94,648		X			$ 94,648
Switching (2 per classroom & lab, all else 1)	24	ea	Good Condition.	3	-	-		X			$ -
	70	ea	Damaged/Aged. (75%)	2	120.00	8,400		X		$ 8,400	
Classroom Receptacles	36	ea	Good Condition.	3	-	-		X			$ -
	108	ea	Damaged/Aged. (75%)	2	250.00	27,000		X		$ 27,000	
Lab Receptacles	16	ea	Good Condition.	3	-	-		X			$ -
	48	ea	Damaged/Aged. (75%)	2	250.00	12,000		X		$ 12,000	
Corridor Receptacles	10	ea	Good Condition.	3	-	-		X			$ -
	30	ea	Damaged/Aged. (75%)	2	250.00	7,500		X		$ 7,500	
Receptacles - All other areas	50	ea	Good Condition.	3	-	-		X			$ -
	150	ea	Damaged/Aged. (75%)	2	250.00	37,500		X		$ 37,500	
Mechanical Equipment Power	47,324	sf	Disconnect and reconnect HVAC systems	2	1.50	70,986		X		$ 70,986	
Fire Alarm System	47,324	sf	Provide new voice evacuation style as currently required by code.	2	2.00	94,648	X		$ 94,648		
Exit/Emergency Lighting	47,324	sf	Exit signs and emergency fixtures are in fair condition but should be replaced.	3	1.00	47,324	X		$ 47,324		
					Project Subtotal	**743,319**			**$ 141,972**	**$ 202,011**	**$ 399,336**
					Design Contingency 10.0%	74,332			$ 14,197	$ 20,201	$ 39,934
					Contractor General Conditions 5.0%	37,166			$ 7,099	$ 10,101	$ 19,967
					Project Contingency 7.0%	52,032			$ 9,938	$ 14,141	$ 27,954
					Phasing Costs 3.0%	22,300			$ 4,259	$ 6,060	$ 11,980
					Estimate of Probable Construction Costs	**929,149**			**$ 177,465**	**$ 252,514**	**$ 499,170**
					18.0%	167,247			$ 31,943.70	$ 45,452.48	$ 89,850.6
					TOTAL Project Estimate of Probable Costs	**1,096,396**			**$ 209,409**	**$ 297,966**	**$ 589,021**

Requirement Forecast Report - Technology

Ratings to be based on the following scoring system

Client:	Yellow Springs School			1. End of useful life	
Campus:	Mills Lawn School			2. In need of Repair/Replacement	
Asset:	Mills Lawn School			3. Condition is satisfactory	
Building Area:	47,324	sf		4. Recently replaced	
				5. New work Recommended	

Prioritization Category
1. Critial - Life Safety, Code, Technology, Security
2. Priority - Infrastructure, Maintenance, Roof, Envelope
3. Deferred - Finishes, Furnishings, Fixtures

	Quantity		Detail (models, sizing, etc.)	Condition	Unit Cost	Total Cost	Prioritization Yes	Prioritization No	Critical	Priority	Deferred
Technology											
Paging System and Speakers	47,324	sf	The existing Dukane paging system has reached the end of it's life. Replacement parts and support are not available for the existing system since the manufacturer is no longer in business. It is recommended that a new paging system be provided for the entire building. This would include a new headend, new speakers, and new cabling.	1	$ 0.75	35,493	X		$ 35,493		
Clock System	47,324	sf	There is currently no synchronous clock system. It is recommended the entire building be provided with a synchronous clock system that is tied into other systems within the building.	1	$ 0.40	18,930		X			$ 18,930
Phone System and Phones	60	ea	The existing phone system functions but consistently drops out multiple times a month. It is recommended that a new IP phone system be provided. This will include a new phone switch or managed system, and all new IP phones.	2	$ 675.00	40,500	X		$ 40,500		
Horizontal Cabling Infrastructure	47,324	sf	The data cabling in the building is currently a mixture of 5E and 6. It is recommended that the cabling to support wireless access points be upgraded to shielded Category 6A to support higher bandwidth. This will allow the wireless network to support more wireless devices at higher speeds. It is also recommended that all the Category 5e cabling in the building be replaced with Category 6 cabling. This will also support higher bandwidth.	3	$ 1.80	85,183		X		$ 85,183	
Fiber Backbone Cabling Infrastructure	500	lf	The existing fiber backbone is currently 62.5 multi-mode fiber optic cable. This will only support a 1 Gb backbone for the network. It is recommended that this cable be replaced with 50 micron multi-mode fiber optic cable. This will support a 10 Gb backbone to support higher bandwidth speeds and more devices on the network.	1	$ 8.00	4,000	X		$ 4,000		
Pathways for Horizontal Data Cabling	47324	sf	A majority of the data cabling and video input cabling is exposed and not properly supported. There are many locations where the cabling is coming straight down from the ceiling to the device it's connected to. It is recommended that all new pathways be provided to support the horizontal data cabling and video input cabling.	2	$ 1.00	47,324		X		$ 47,324	
Classroom AV Cabling	60	ea	The existing AV cabling in classrooms is analog VGA cabling. When computers are refreshed, the newer computers will no longer support analog VGA video. It is recommended that the classrooms be upgraded with digital HDMI cabling between the teacher's computer and video display.	2	$ 495.00	29,700	X			$ 29,700	
Classroom Displays	15	ea	There is a mixture of new Ultra Short-throw projectors and older discontinued LCD projectors in the building. It is recommended that the older LCD projectors be replaced with the new ultra-short throw projectors.	2	$ 2,750.00	41,250	X			$ 41,250	
Classroom Sound Systems	25	ea	There are currently no Classroom Sound Systems. It is recommended that at a minimum a new small amplifier and 2 ceiling speakers be provided in each room for the audio from the teacher's PC to be evenly distributed in the room.	1	$ 1,200.00	30,000		X			$ 30,000
Network Switching	47,324	sf	It is recommended that the network switches be replaced to support a 10 Gb network. There are also currently no UPS's installed in the building and there have been power issues. It is recommended that new UPS's be provided in each technology cabinet/rack.	2	$ 1.10	52,056	X		$ 52,056		
Wireless Network	47,324	sf	The existing wireless network was installed in the summer of 2018. The existing wireless network does not need to be replaced	4	$ 1.25	-		X			$ -
Security											
Access Control	7	ea	Currently there is no Access Control System in the school. An access control system is recommended to be provided with card readers at 7 doors.	1	$ 6,000.00	42,000	X		$ 42,000		
Video Surviellance	0	ea	The security camera system was recently upgraded 2 years ago. There is adequate coverage at the school.	4	$ 1,300.00	-		X			$ -
Intrusion Detection	47,324	sf	There is currently some intrusion detection installed in the school. A new intrusion detection system is recommended for the entire first floor. This would be accomplished by providing door contacts on all exterior doors and motion detectors on the first floor.	2	$ 0.69	32,654	X		$ 32,654		
					Subtotal Project Costs	**459,090**			**$ 206,703**	**$ 203,457**	**$ 48,930**
					Design Contingency 10.0%	45,909			$ 20,670	$ 20,346	$ 4,893
					Contractor General Conditions 5.0%	22,954			$ 10,335	$ 10,173	$ 2,446
					Project Contingency 7.0%	32,136			$ 14,469	$ 14,242	$ 3,425
					Phasing Costs 3.0%	13,772.69			$ 6,201	$ 6,104	$ 1,468
					TOTAL Estimate of Probable Costs	**573,862**			**$ 258,379**	**$ 254,322**	**$ 61,162**
					Project Soft Costs 18.0%	103,295			$ 46,508	$ 45,778	$ 11,009
					TOTAL Project Estimate of Probable Costs	**677,157**			**$ 304,887**	**$ 300,099**	**$ 72,171**

FANNING
HOWEY

Requirement Forecast Report - Site

Client:	Yellow Springs School		
Campus:	Mills Lawn School		
Asset:	Mills Lawn School		
Site Area:	8.84	Acre	

Ratings to be based on the following scoring system

1. End of useful life
2. In need of Repair/Replacement
3. Condition is satisfactory
4. Recently replaced
5. New work is Recommended

Prioritization Category

1. Critial - Life Safety, Code, Technology, Security
2. Priority - Infrastructure, Maintenance, Roof, Envelope
3. Deferred - Finishes, Furnishings, Fixtures

							Prioritization				
Drives and Parking	**Quantity**		**Detail (models, sizing, etc.)**	**Condition**	**Unit Cost**	**Total Cost**	**Yes**	**No**	**Critical**	**Priority**	**Deferred**
Provide off-street ADA Parking	3	ea	Construct parking on site with access to the front entry for three ADA parking spaces.	**5**	$ 4,000.00	12,000	X		$ 12,000		
Provide off-street parking with adequate drive aisles and circulation	5,000	sf	Expand Exisiting parking lot to provide improved circulation and safety	**5**	$ 7.22	36,100	X		$ 36,100		
Improve student drop-off along Limestone Street	1,506	sf	Reconstruct and expand the current drop off to make it a safer and more accessible.	**5**	$ 7.22	10,877	X		$ 10,877		
Mill and Resurface entry drive off of Limestone Street	5,465	sf	Mill and reaplace asphalt, 1.5" surface course	**2**	$ 4.33	23,682	X			$ 23,682	
Walks and Access											
Widened Sidewalks on adjacent streets for Student Drop-Off	13,047	sf	Remove exisiting walk and prepare base for new 8' wide 4" thick concrete walk.	**5**	$ 6.00	78,282	X			$ 78,282	
Replace concrete walk at west end of north academic wing entry	395	sf	Remove exisiting walk and prepare base for new 6' wide 4" thick concrete walk.	**1**	$ 6.00	2,370	X			$ 2,370	
Provide handicap accessible egress from north exit doors to playground.	1	ls	Replace wood ramp with concrete ramp	**1**	$ 1,200.00	1,200	X		$ 1,200		
Provide handicap accessible egress from west exit doors.	4	ls	Replace wood ramp with concrete ramp	**1**	$ 1,200.00	4,800	X		$ 4,800		
Replace concrete walk at main entry	1,792	sf	Remove exisiting walk and prepare base for new 15' wide 4" thick concrete walk.	**2**	$ 6.00	10,752		X			$ 10,752
Site Safety and Security											
Fence at playground to keep children off of adjacent streets	907	lf	4' tall black PVC coated chanin link fence	**5**	$ 48.00	43,536	X		$ 43,536		
Replace exterior metal handrails	100	lf	Existing metal hand rails do not meet current standards for safety.	**1**	$ 65.00	6,500	X		$ 6,500		
Replace concrete stairs	425	sf	Concrete stairs are in disrepair and require replacment.	**1**	$ 105.00	44,625	X		$ 44,625		
Site Drainage											
Fill low spots and depressions in playground to eliminate areas of stabnding water. Where required, provide draiange tile to remove excess water.	37,000	sf	Topsoil and grass seed. Drainage tile as needed.	**2**	$ 1.00	37,000	X		$ 37,000		
Fill low spots adjacent to walks to eliminate standing water	500	sf	Topsoil and grass seed.	**2**	$ 2.50	1,250	X		$ 1,250		
Playgrounds											
Provide plyground soft surface at slide and swings	66	cy	Provide engineered wood fiber play surface meeting fall height requirements at the slide and the swings along Limestone Street.	**1**	$ 90.00	5,960	X		$ 5,960		
Provide new fencing at the tennis/basketbal courts	400	lf	Remove and Replace 10' tall chain link fence	**1**	$ 60.00	24,000	X			$ 24,000	
Mill and Resurface Tennis/Basketball Courts	12,000	sf	Mill and replace asphalt, 1.5" surface course	**1**	$ 4.33	52,000		X			$ 52,000
Base Site Work Allowance											
Site Work Allowance	47,324	sf	Provide $1.50 per building square footage.	**2**	$ 1.50	70,986	X		$ 70,986		
				Subtotal Project Cost		**465,919**			**$ 274,834**	**$ 128,334**	**$ 62,752**
				Estimate Contingency	10.0%	46,592			$ 27,483	$ 12,833	$ 6,275
				Contractor General Conditions	5.0%	23,296			$ 13,742	$ 6,417	$ 3,138
				Project Contingency	7.0%	32,614			$ 19,238	$ 8,983	$ 4,393
				Phasing Costs	3.0%	13,978			$ 8,245	$ 3,850	$ 1,883
				Estimate of Probable Construction Costs		**582,399**			**$ 343,542**	**$ 160,417**	**$ 78,440**
				Project Soft Costs	18.0%	104,832			$ 61,838	$ 28,875	$ 14,119
				TOTAL Project Estimate of Probable Costs		**687,231**			**$ 405,380**	**$ 189,292**	**$ 92,559**

APPENDIX

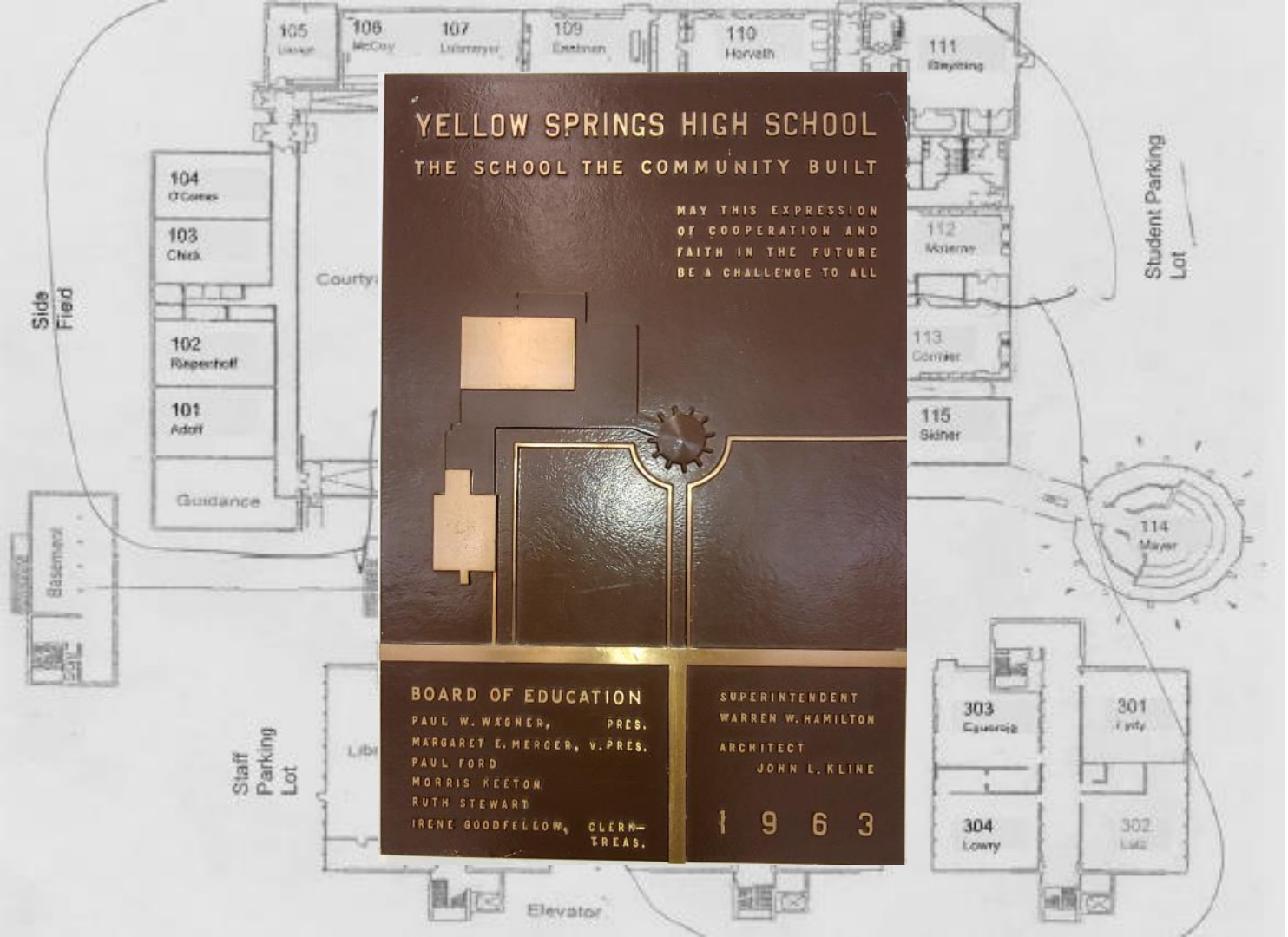
Yellow Springs

Exempted Village School District

FACILITIES TASK FORCE MEETING

FANNING HOWEY

May 15, 2019



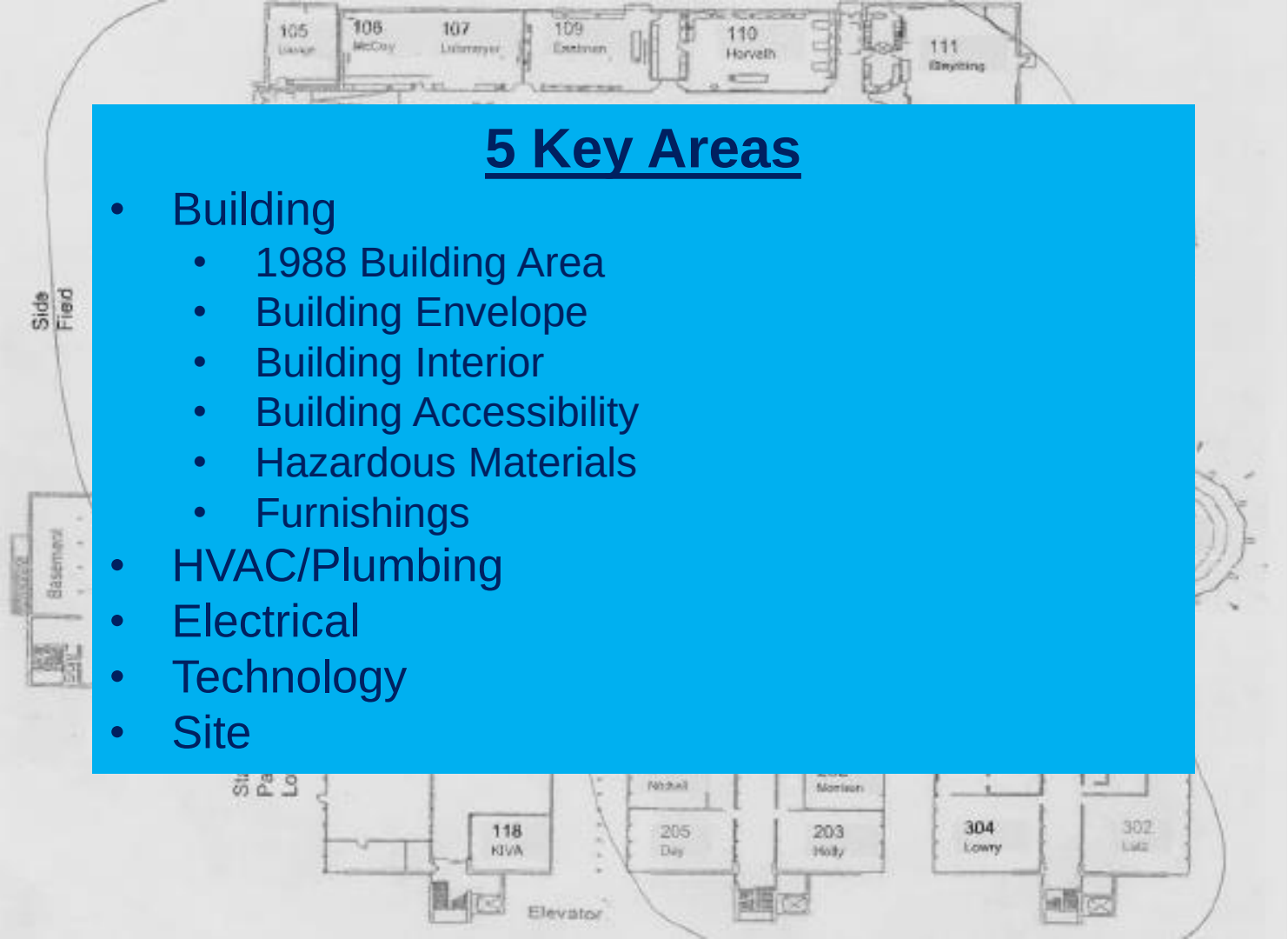
YELLOW SPRINGS SCHOOLS

FANNING HOWEY

YELLOW SPRINGS MIDDLE SCHOOL AND HIGH SCHOOL

PHYSICAL ASSESSMENT

OBSERVATIONS



5 Key Areas

- Building
  - 1988 Building Area
  - Building Envelope
  - Building Interior
  - Building Accessibility
  - Hazardous Materials
  - Furnishings
- HVAC/Plumbing
- Electrical
- Technology
- Site

YELLOW SPRINGS SCHOOLS

FANNING HOWEY

YELLOW SPRINGS MIDDLE SCHOOL AND HIGH SCHOOL

PHYSICAL ASSESSMENT

KEY AREAS

1988 Modular Building Area

Concerns:

- **Age - 31 years**
- **IAQ**
- **Structure (wood), crawlspace**

Modular Building Institute (MBI) recommends:

- **If the need is truly 1-5 years**
- **Over 1-5 years, additions or renovations**
- **Prior to 1990 are not as energy efficient, quiet or accommodating**
- **Process to “phase out” any over 20 years old.**

YELLOW SPRINGS SCHOOLS

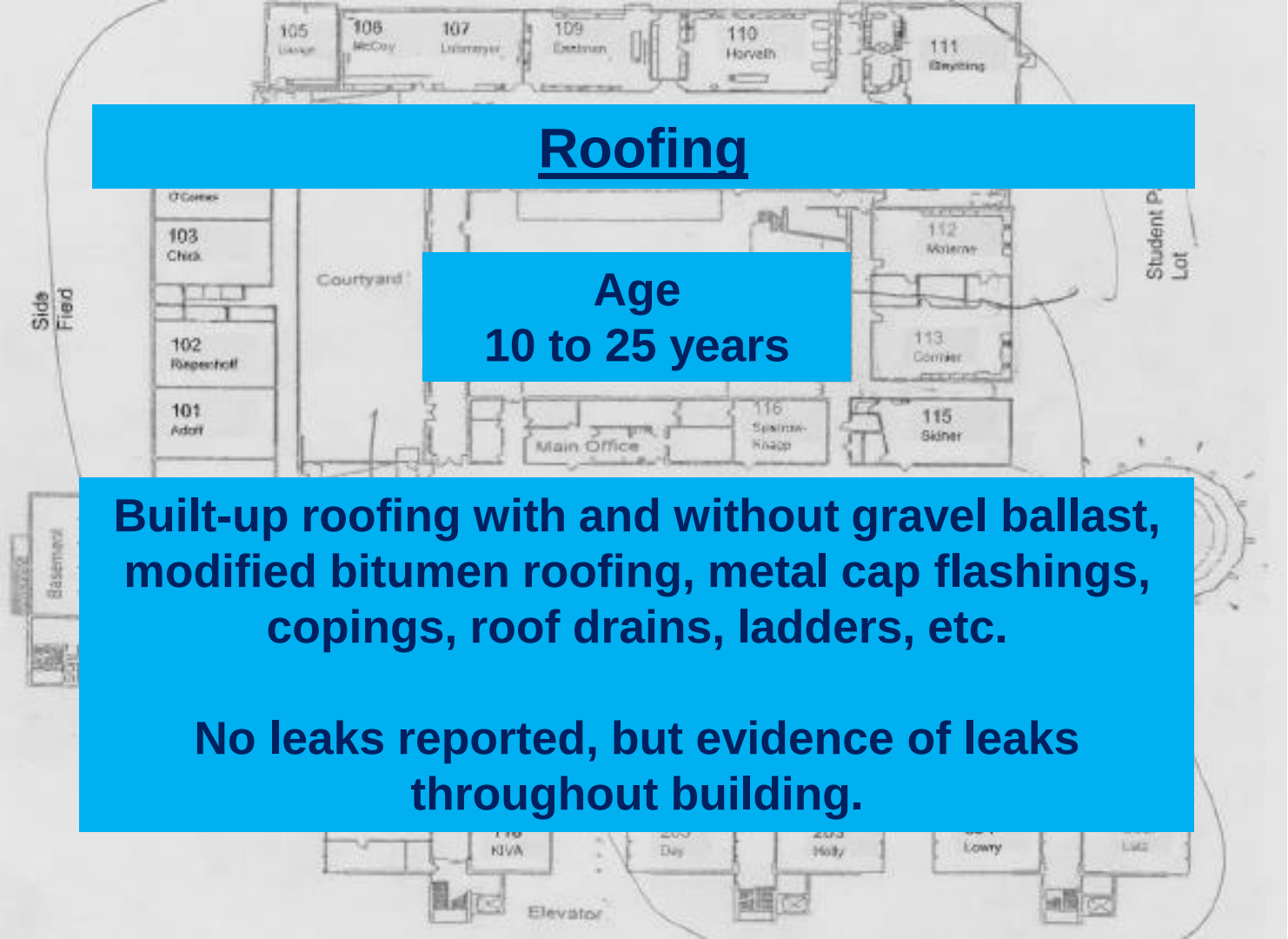
FANNING HOWEY

YELLOW SPRINGS MIDDLE SCHOOL AND HIGH SCHOOL

PHYSICAL ASSESSMENT

OBSERVATIONS

1988 BUILDING AREA



Roofing

Age
10 to 25 years

Built-up roofing with and without gravel ballast, modified bitumen roofing, metal cap flashings, copings, roof drains, ladders, etc.

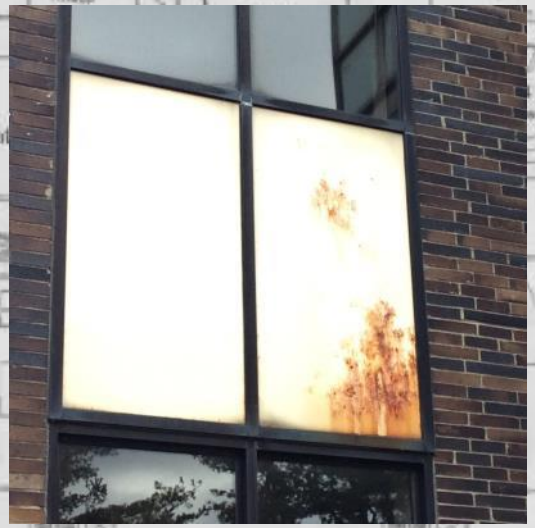
No leaks reported, but evidence of leaks throughout building.

YELLOW SPRINGS MIDDLE SCHOOL AND HIGH SCHOOL

PHYSICAL ASSESSMENT

OBSERVATIONS

BUILDING ENVELOPE

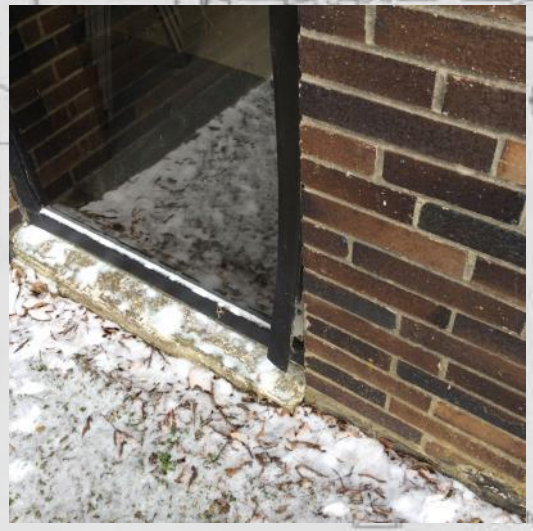


YELLOW SPRINGS MIDDLE SCHOOL AND HIGH SCHOOL

PHYSICAL ASSESSMENT

OBSERVATIONS

BUILDING ENVELOPE



YELLOW SPRINGS SCHOOLS

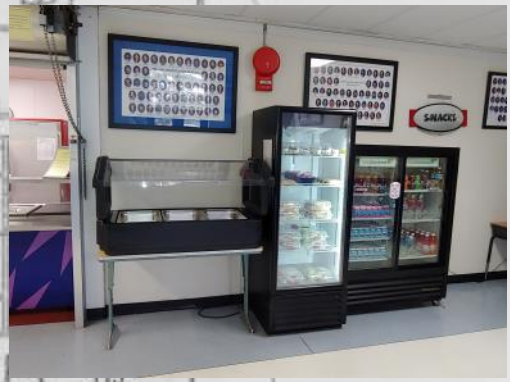
FANNING HOWEY

YELLOW SPRINGS MIDDLE SCHOOL AND HIGH SCHOOL

PHYSICAL ASSESSMENT

OBSERVATIONS

BUILDING ENVELOPE



YELLOW SPRINGS SCHOOLS

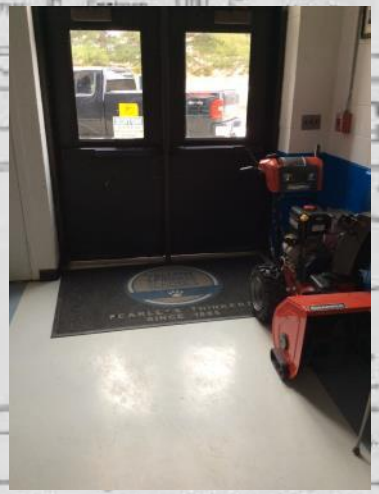
FANNING HOWEY

YELLOW SPRINGS MIDDLE SCHOOL AND HIGH SCHOOL

PHYSICAL ASSESSMENT

OBSERVATIONS

BUILDING INTERIOR



YELLOW SPRINGS SCHOOLS

FANNING HOWEY

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PHYSICAL ASSESSMENT

OBSERVATIONS

BUILDING INTERIOR

YELLOW SPRINGS SCHOOLS

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PHYSICAL ASSESSMENT

OBSERVATIONS

BUILDING INTERIOR

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PHYSICAL ASSESSMENT

OBSERVATIONS

BUILDING INTERIOR

YELLOW SPRINGS SCHOOLS

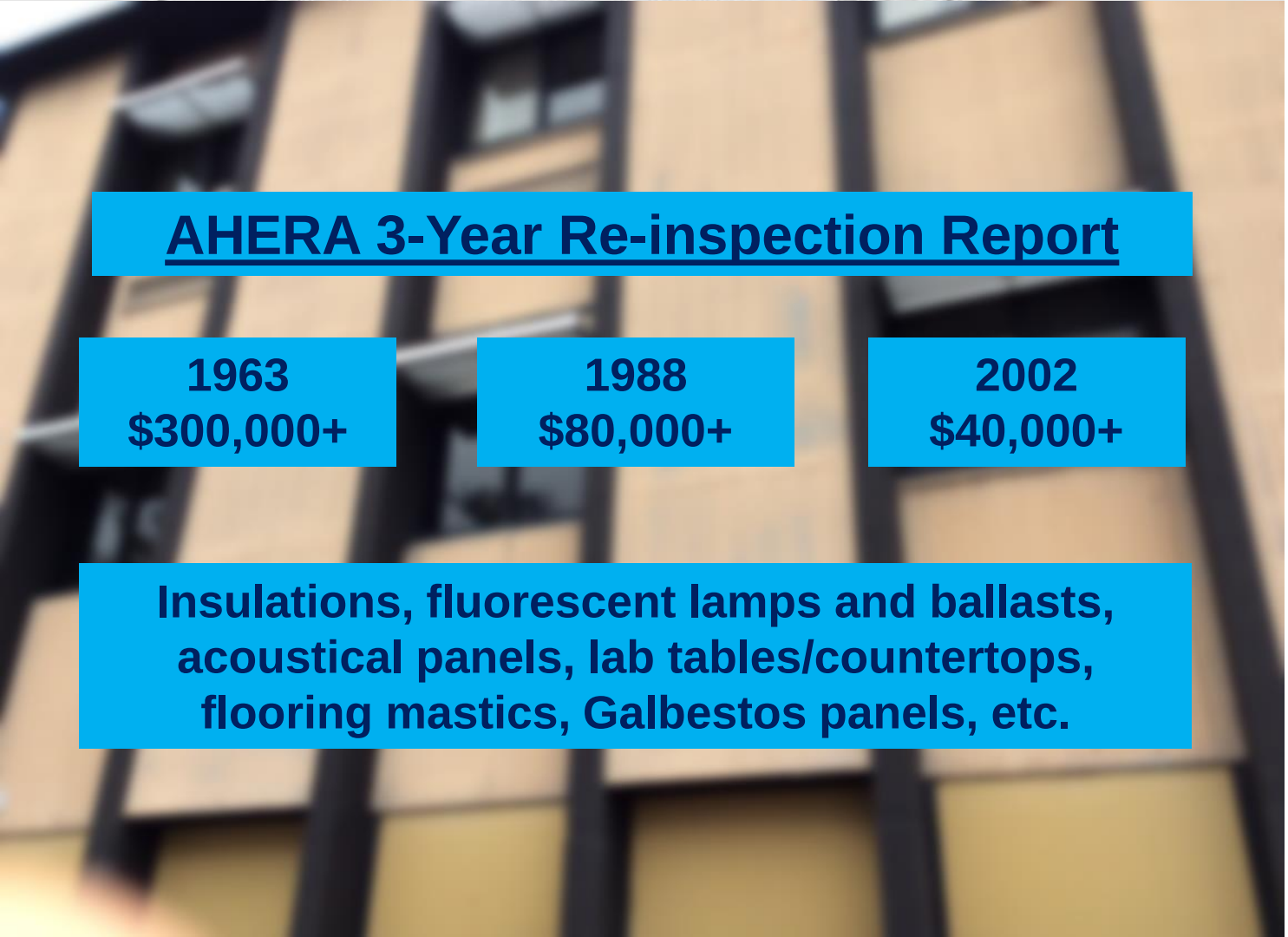
FANNING HOWEY

YELLOW SPRINGS MIDDLE SCHOOL AND HIGH SCHOOL

PHYSICAL ASSESSMENT

OBSERVATIONS

BUILDING ACCESSIBILITY



AHERA 3-Year Re-inspection Report

1963
$300,000+

1988
$80,000+

2002
$40,000+

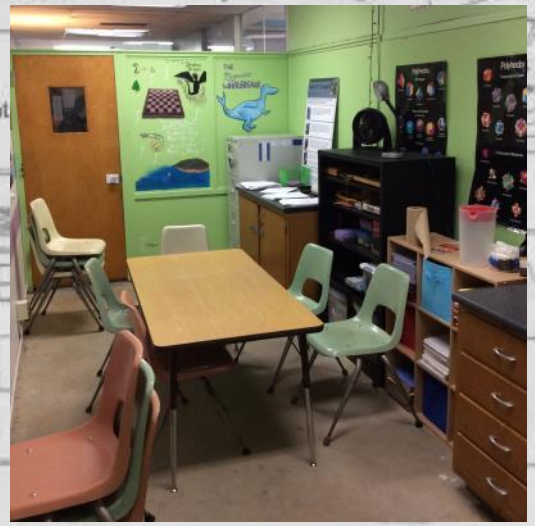
Insulations, fluorescent lamps and ballasts, acoustical panels, lab tables/countertops, flooring mastics, Galbestos panels, etc.

YELLOW SPRINGS MIDDLE SCHOOL AND HIGH SCHOOL

PHYSICAL ASSESSMENT

OBSERVATIONS

HAZARDOUS MATERIAL



YELLOW SPRINGS MIDDLE SCHOOL AND HIGH SCHOOL

PHYSICAL ASSESSMENT

OBSERVATIONS

FURNISHINGS

- **No fire protection system (sprinklers) exist**
- **Most of overall plumbing system is beyond useful life**
- **Overall HVAC system has exceeded useful life, 2002 units should be replaced within 5-10 years**

YELLOW SPRINGS MIDDLE SCHOOL AND HIGH SCHOOL

PHYSICAL ASSESSMENT

OBSERVATIONS

HVAC AND PLUMBING

- **Fire alarm functional, but outdated**
- **Majority of panel boards are too old for replacement parts.**
- **Lighting mostly fluorescent, becoming expensive with LED trend.**
- **Emergency and exit lights aged past being reliable**

YELLOW SPRINGS SCHOOLS

FANNING HOWEY

YELLOW SPRINGS MIDDLE SCHOOL AND HIGH SCHOOL

PHYSICAL ASSESSMENT

OBSERVATIONS

ELECTRICAL

- Paging system – replace with new
  - Replacement parts not available, manufacturer is out of business
- Clock system – provide new
  - No synchronous clock system within building
- Telephone System – replace with new
  - Functions, but consistently drops out multiple times per month
- Horizontal cabling infrastructure – upgrade
  - Currently mixture of Category 5E and 6. Upgrade to shielded 6 and 6A to support higher bandwidths for network and wireless devices
- Fiber backbone cabling infrastructure – replace with new
  - Currently only supports 1 Gb backbone, should upgrade to support 10 Gb backbone for higher bandwidths/speeds
- Pathways for horizontal data cabling – replace
  - Majority of pathways are exposed and not properly supported

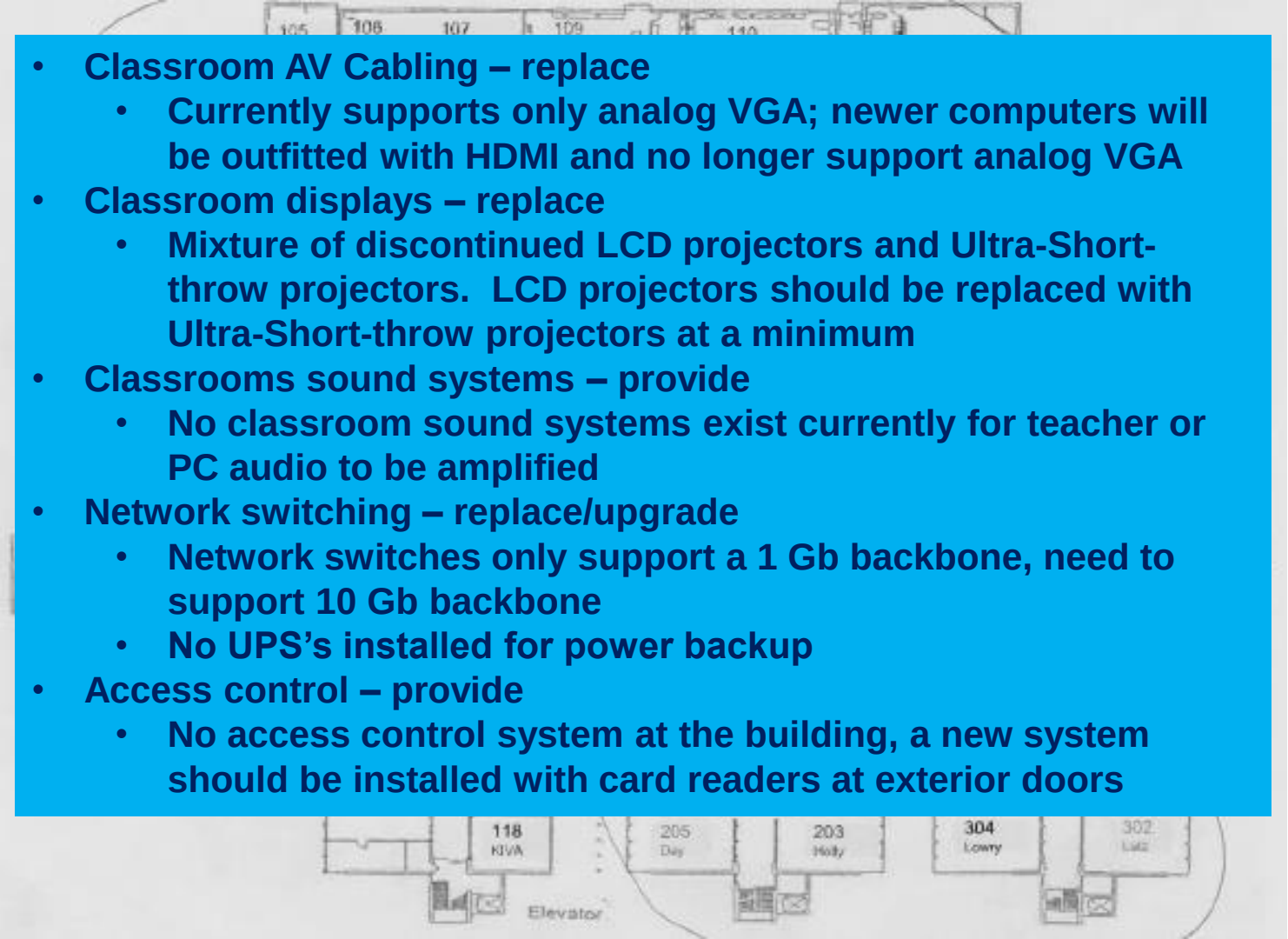
YELLOW SPRINGS MIDDLE SCHOOL AND HIGH SCHOOL

PHYSICAL ASSESSMENT

OBSERVATIONS

TECHNOLOGY

- **Classroom AV Cabling – replace**
  - **Currently supports only analog VGA; newer computers will be outfitted with HDMI and no longer support analog VGA**
- **Classroom displays – replace**
  - **Mixture of discontinued LCD projectors and Ultra-Short-throw projectors. LCD projectors should be replaced with Ultra-Short-throw projectors at a minimum**
- **Classrooms sound systems – provide**
  - **No classroom sound systems exist currently for teacher or PC audio to be amplified**
- **Network switching – replace/upgrade**
  - **Network switches only support a 1 Gb backbone, need to support 10 Gb backbone**
  - **No UPS's installed for power backup**
- **Access control – provide**
  - **No access control system at the building, a new system should be installed with card readers at exterior doors**



YELLOW SPRINGS MIDDLE SCHOOL AND HIGH SCHOOL

PHYSICAL ASSESSMENT

OBSERVATIONS

TECHNOLOGY

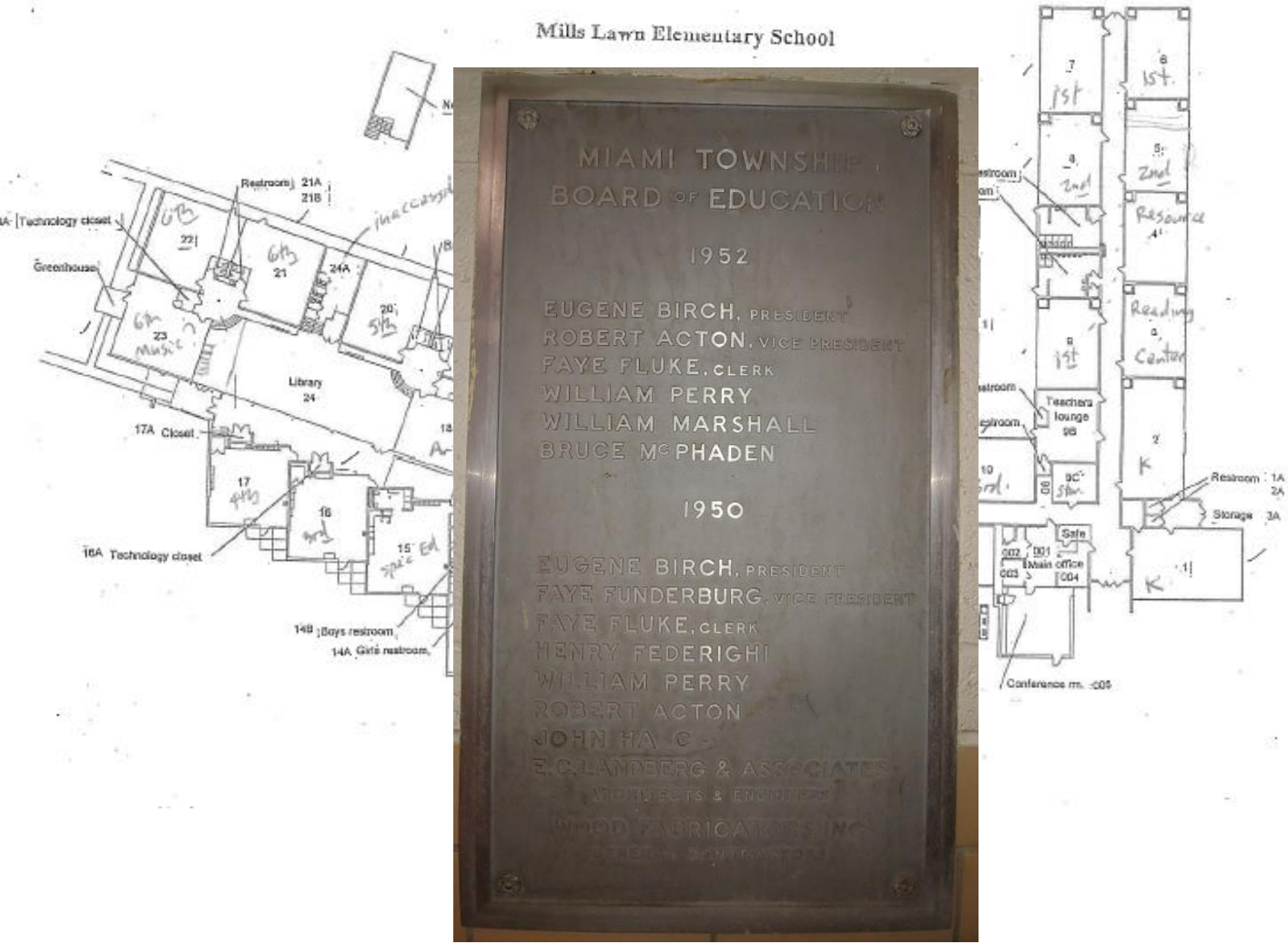
Drainage issues, bicycle storage area blocks pathways to main entrances, no separation of pedestrian an vehicular traffic, lack of adequate storm system to manage runoff.

YELLOW SPRINGS MIDDLE SCHOOL AND HIGH SCHOOL

PHYSICAL ASSESSMENT

OBSERVATIONS

SITE



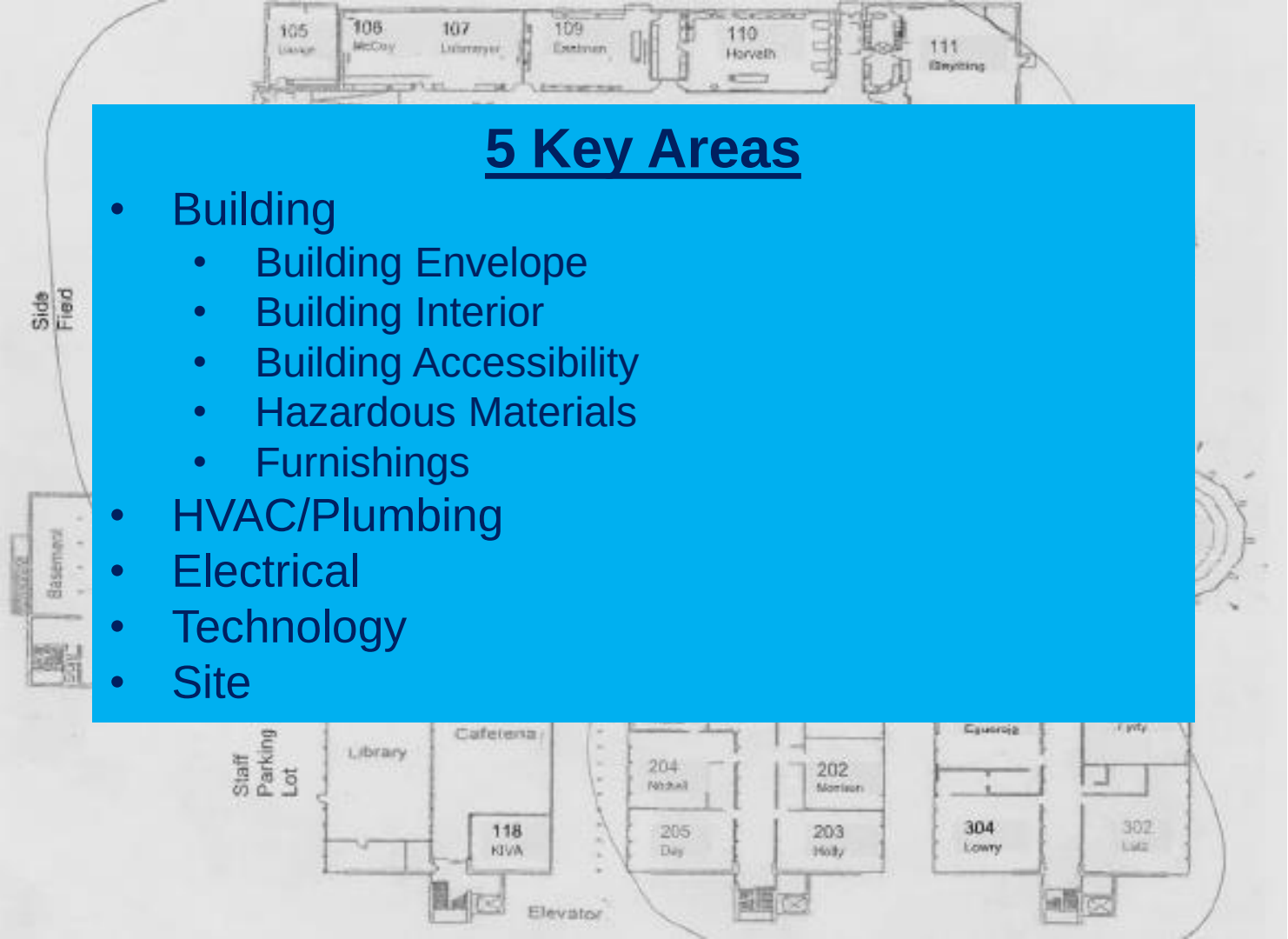
YELLOW SPRINGS SCHOOLS
FEARLESS THINKERS

FANNING HOWEY

MILLS LAWN SCHOOL

PHYSICAL ASSESSMENT

OBSERVATIONS



5 Key Areas

- Building
  - Building Envelope
  - Building Interior
  - Building Accessibility
  - Hazardous Materials
  - Furnishings
- HVAC/Plumbing
- Electrical
- Technology
- Site

YELLOW SPRINGS SCHOOLS

FANNING HOWEY

MILLS LAWN SCHOOL

PHYSICAL ASSESSMENT

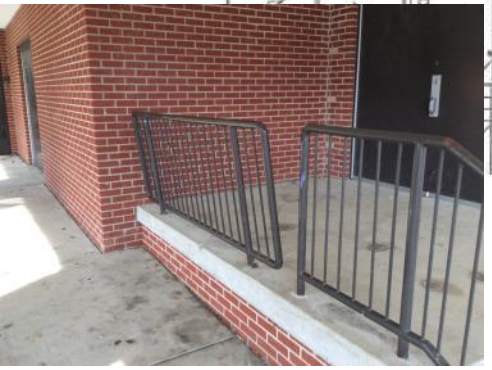
KEY AREAS

MILLS LAWN SCHOOL

PHYSICAL ASSESSMENT

OBSERVATIONS

BUILDING ENVELOPE



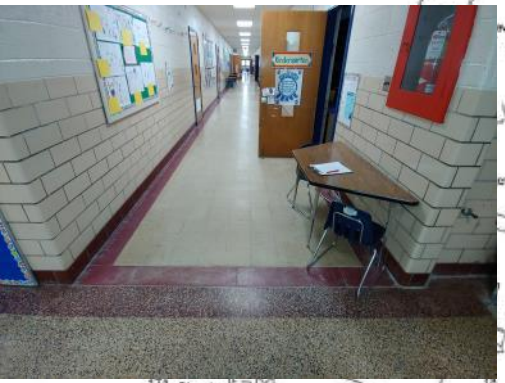
MILLS LAWN SCHOOL

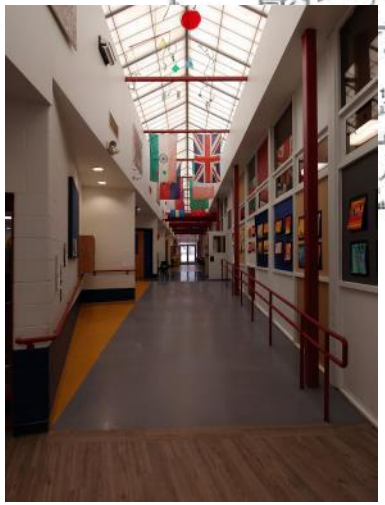
PHYSICAL ASSESSMENT

OBSERVATIONS

BUILDING ENVELOPE

Mills Lawn Elementary School



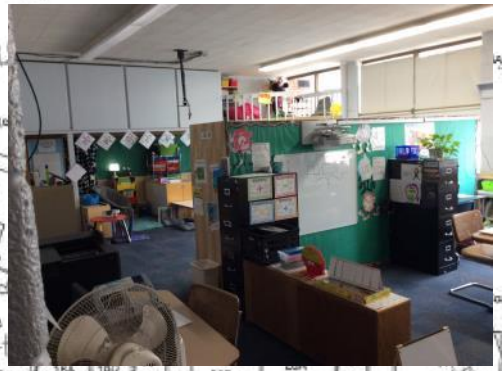


MILLS LAWN SCHOOL

PHYSICAL ASSESSMENT

OBSERVATIONS

BUILDING INTERIOR



MILLS LAWN SCHOOL

PHYSICAL ASSESSMENT

OBSERVATIONS

BUILDING INTERIOR

YELLOW SPRINGS SCHOOLS

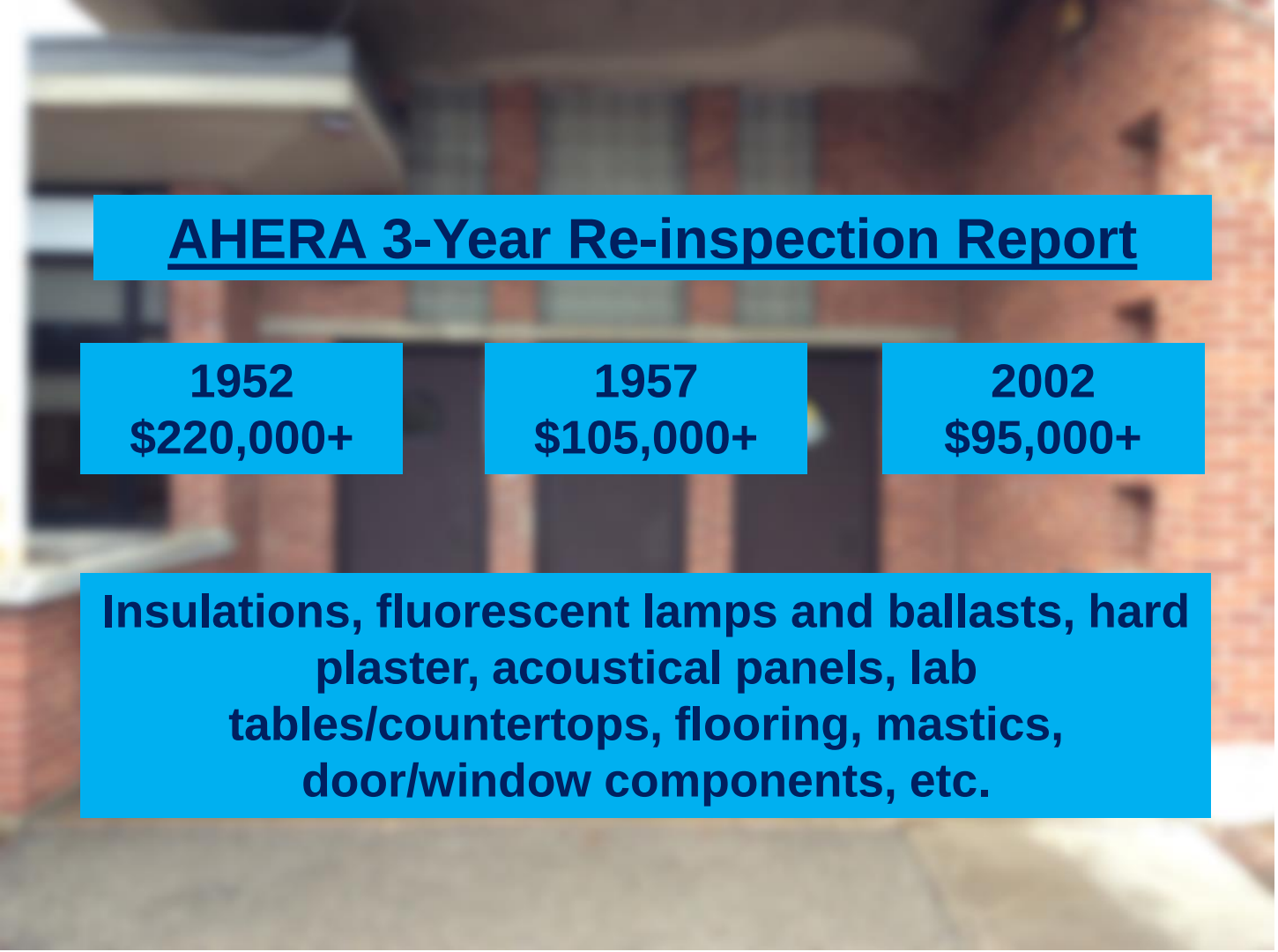
FANNING HOWEY

MILLS LAWN SCHOOL

PHYSICAL ASSESSMENT

OBSERVATIONS

BUILDING ACCESSIBILITY



AHERA 3-Year Re-inspection Report

1952	1957	2002
$220,000+	$105,000+	$95,000+

Insulations, fluorescent lamps and ballasts, hard plaster, acoustical panels, lab tables/countertops, flooring, mastics, door/window components, etc.

YELLOW SPRINGS SCHOOLS

FANNING HOWEY

MILLS LAWN SCHOOL

PHYSICAL ASSESSMENT

OBSERVATIONS

HAZARDOUS MATERIALS

YELLOW SPRINGS SCHOOLS
FEARLESS THINKERS

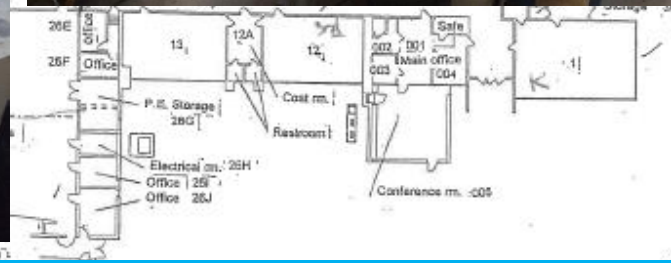
FANNING HOWEY

MILLS LAWN ELEMENTARY

PHYSICAL ASSESSMENT

OBSERVATIONS

FURNISHINGS



YELLOW SPRINGS SCHOOLS

FANNING HOWEY

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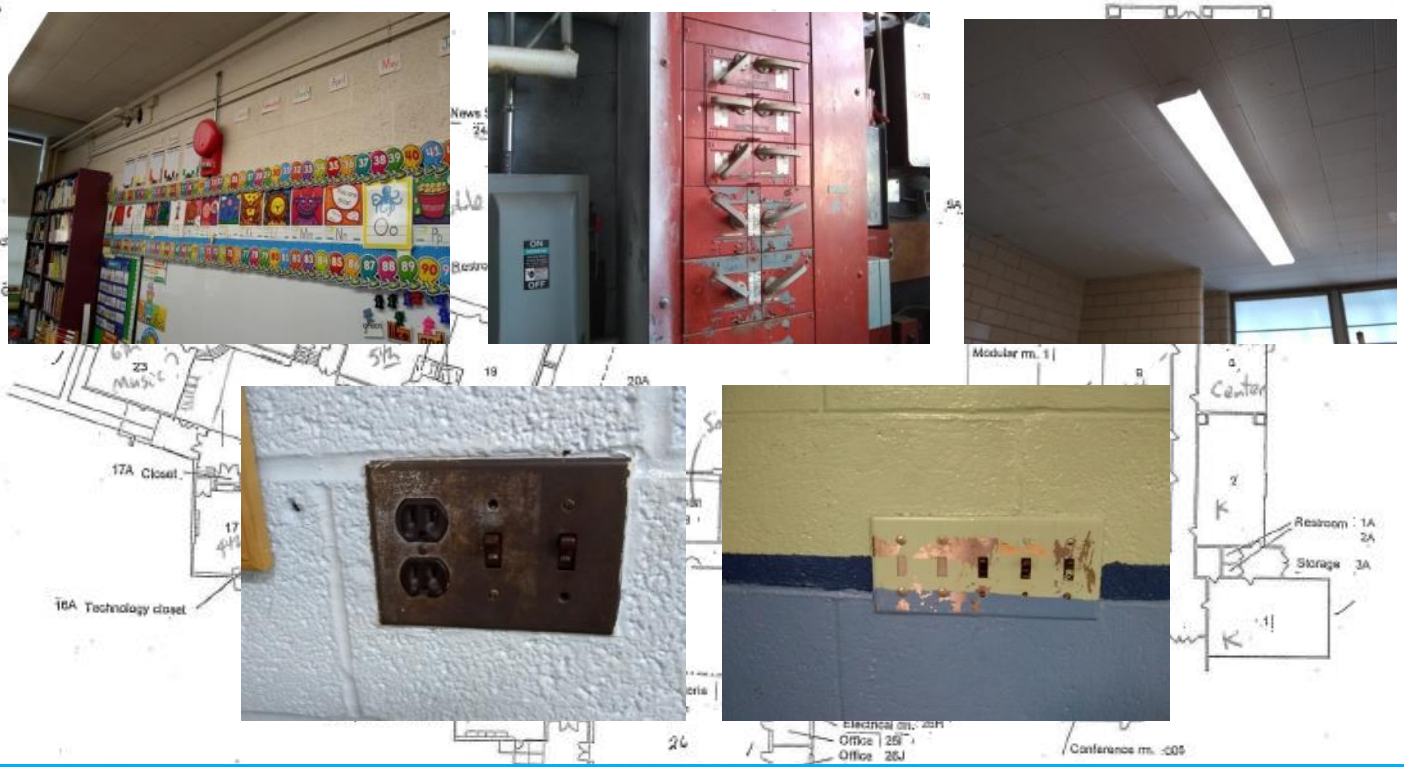

YELLOW SPRINGS SCHOOLS

FANNING HOWEY

MILLS LAWN ELEMENTARY

PHYSICAL ASSESSMENT

OBSERVATIONS

ELECTRICAL

- **Fire alarm functional, but outdated**
- **Majority of panel boards are original and/or in poor condition.**
- **HVAC upgrades will likely require electrical service replacement.**
- **Lighting and emergency/exit lighting should be upgraded to LED.**
- **Receptacles and switches throughout due for replacement**

- **Paging system – replace with new**
  - **Replacement parts not available, manufacturer is out of business**
- **Clock system – provide new**
  - **No synchronous clock system within building**
- **Telephone System – replace with new**
  - **Functions, but consistently drops out multiple times per month**
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YELLOW SPRINGS SCHOOLS

FANNING HOWEY

MILLS LAWN SCHOOL

PHYSICAL ASSESSMENT

OBSERVATIONS

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  - No classroom sound systems exist currently for teacher or PC audio to be amplified
- Network switching – replace/upgrade
  - Network switches only support a 1 Gb backbone, need to support 10 Gb backbone
  - No UPS's installed for power backup
- Access control/Intrusion detection – provide
  - No access control system at the building, a new system should be installed with card readers at exterior doors
  - Some intrusion detection exists, but a new system throughout is warranted

YELLOW SPRINGS SCHOOLS

FANNING HOWEY

MILLS LAWN SCHOOL

PHYSICAL ASSESSMENT

OBSERVATIONS

TECHNOLOGY

Inadequate student drop-off/pick-up (Limestone and Elm), drainage issues, accessible routes, fall protection at play equipment

MILLS LAWN ELEMENTARY

PHYSICAL ASSESSMENT

OBSERVATIONS

SITE

SUMMARY		
	YSHS/MMS	**Mills Lawn School**
Total Area (SF)	74,229	47,324
Total Renovation Costs	$19,798,360	$11,784,798
Total Cost/SF (New)	$258.56	$258.69
Replacement Costs (Same SF)	$19,192,650	$12,242,246
Renovate:Replace	103%	96%

YELLOW SPRINGS SCHOOLS

PHYSICAL ASSESSMENT

SUMMARY

Phasing…One Way

- Critical
  - Life safety, code compliance, technology, security
- Priority
  - Infrastructure, maintenance, roofs, envelope
- Deferred
  - Finishes, furnishings, fixtures

YELLOW SPRINGS SCHOOLS

PHYSICAL ASSESSMENT

PHASED APPROACH CONCEPT

PHASED APPROACH

	Critical	Priority	Deferred
Mills Lawn School	$2,384,388	$6,337,551	$3,062,859
YSHS/MMS	$5,899,193	$9,764,642	$4,134,525
Total/Phase	$8,283,581	$16,102,193	$7,197,384
Total Overall	$31,583,158		

YELLOW SPRINGS SCHOOLS

PHYSICAL ASSESSMENT

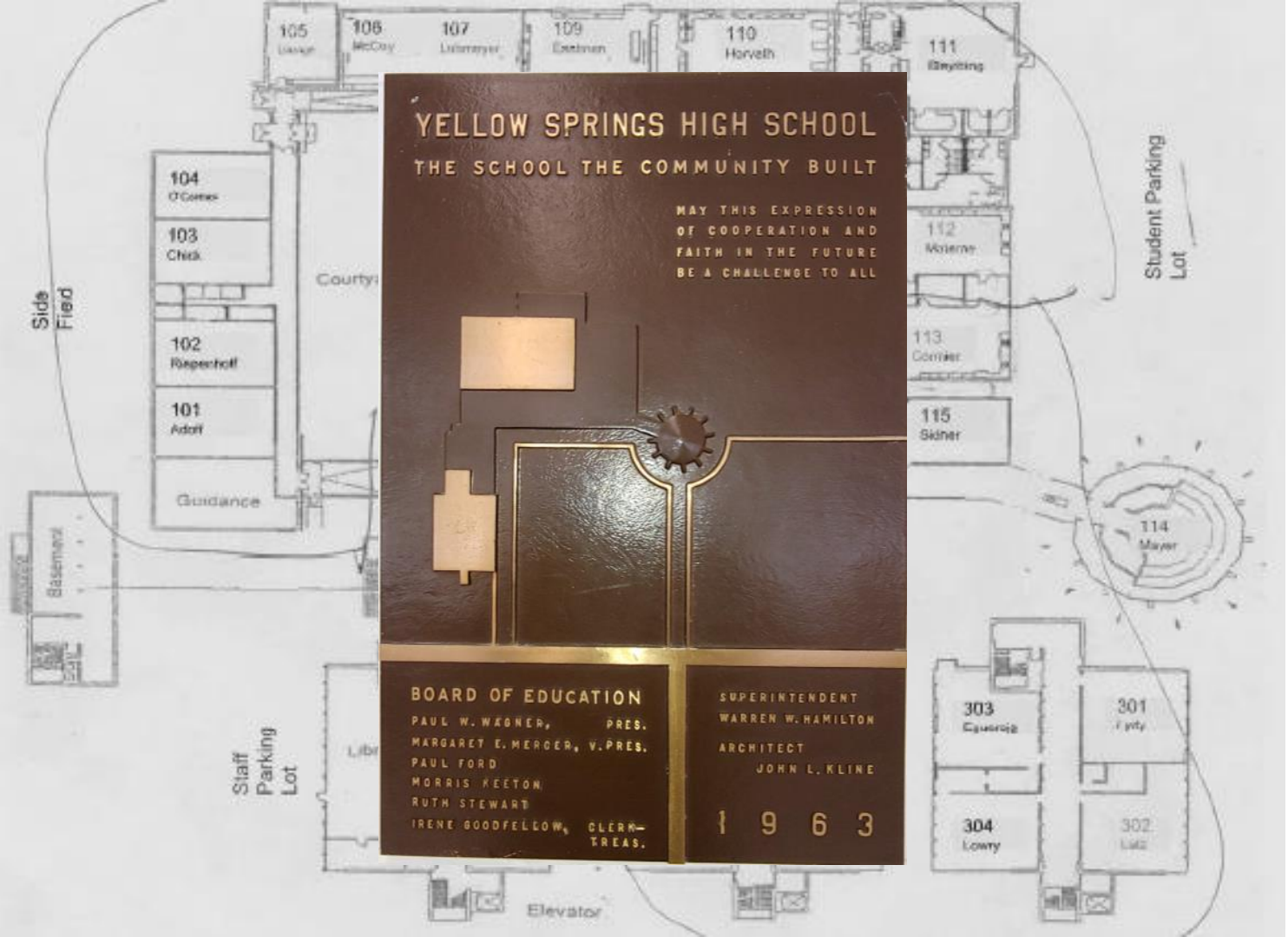
PHASED APPROACH CONCEPT

INVESTMENT IN THE FUTURE	
Renovations	$31,583,158
Current K-12 Enrollment	712
Current Area	121,553 SF
New Area	108,847 SF
Total New	$28,134,773
Renovate:Replace	112%

YELLOW SPRINGS SCHOOLS

PHYSICAL ASSESSMENT

CONSIDER THE INVESTMENT



YELLOW SPRINGS MIDDLE SCHOOL AND HIGH SCHOOL

EDUCATIONAL ASSESSMENT

OBSERVATIONS

YELLOW SPRINGS SCHOOLS

FANNING HOWEY

OBSERVATIONS

1988 modular addition is past it's useful life.

Invest no money in renovation

Consider demolition and rebuild

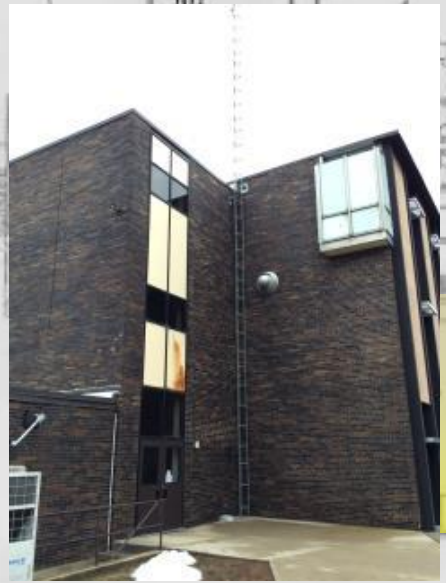
FANNING HOWEY

OBSERVATIONS

3-story classroom wing

No bearing walls - could be reconfigured

Multiple level small footprint limits collaboration



YELLOW SPRINGS SCHOOLS

FANNING HOWEY

OBSERVATIONS

3-story classroom wing

Industrial feel

Dated

Not inspiring

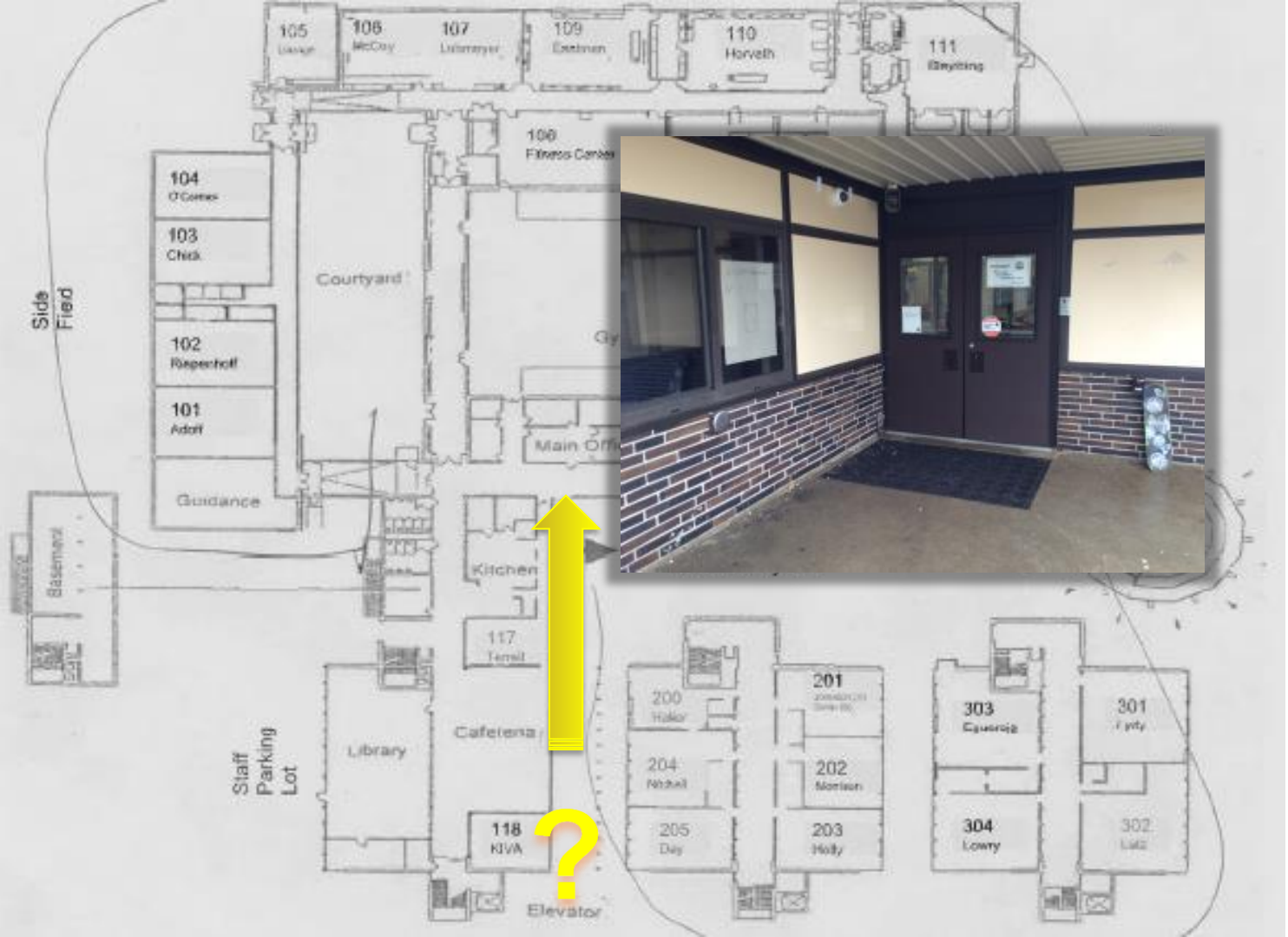
YELLOW SPRINGS SCHOOLS

FANNING HOWEY

OBSERVATIONS

Convoluted circulation

Excess circulation



YELLOW SPRINGS SCHOOLS

FANNING HOWEY

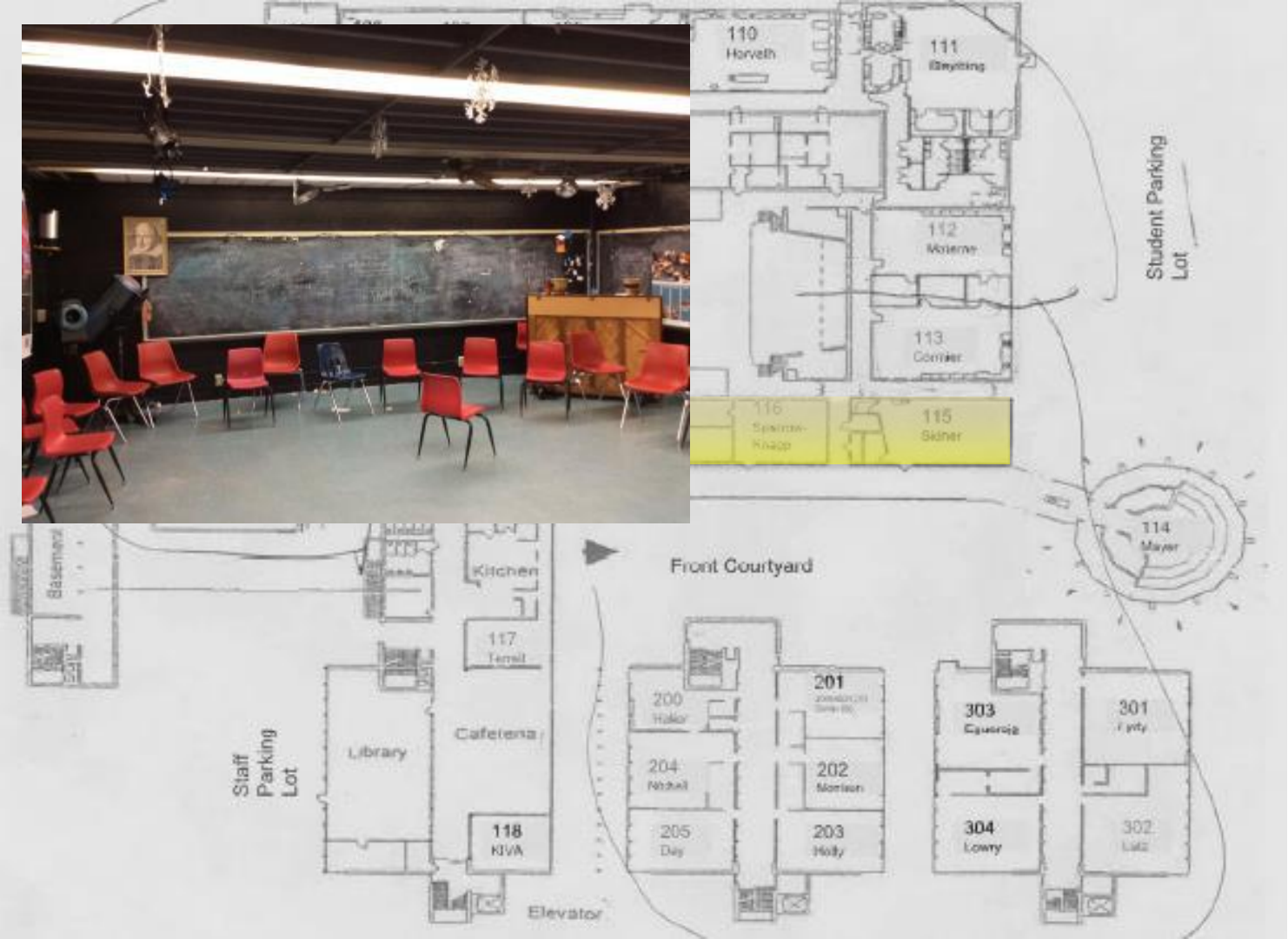
OBSERVATIONS

Entrance

Difficult to locate

Uninspiring

No secure vestibule



OBSERVATIONS

Limited height for activities

Deep roof deck has no capacity for hanging equipment

OBSERVATIONS

Kitchen

Minimal space for prep and serving

Limited ability to offer healthy and fresh options

OBSERVATIONS

Media Center

Not an inviting destination

Large but underutilized

Very traditional

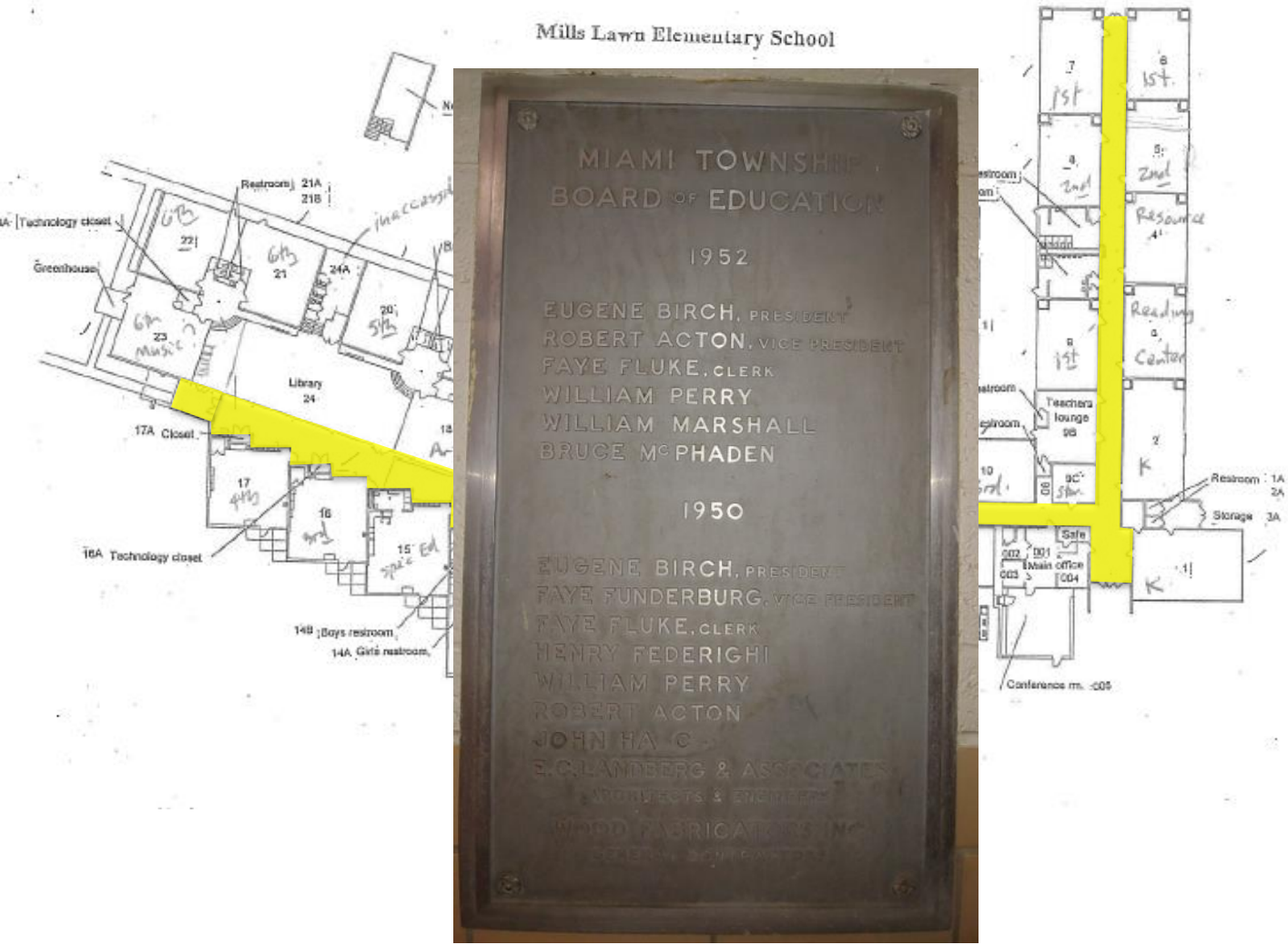
OBSERVATIONS

Music

Accessibility issues

Feels like an annex

Odd shapes and angles



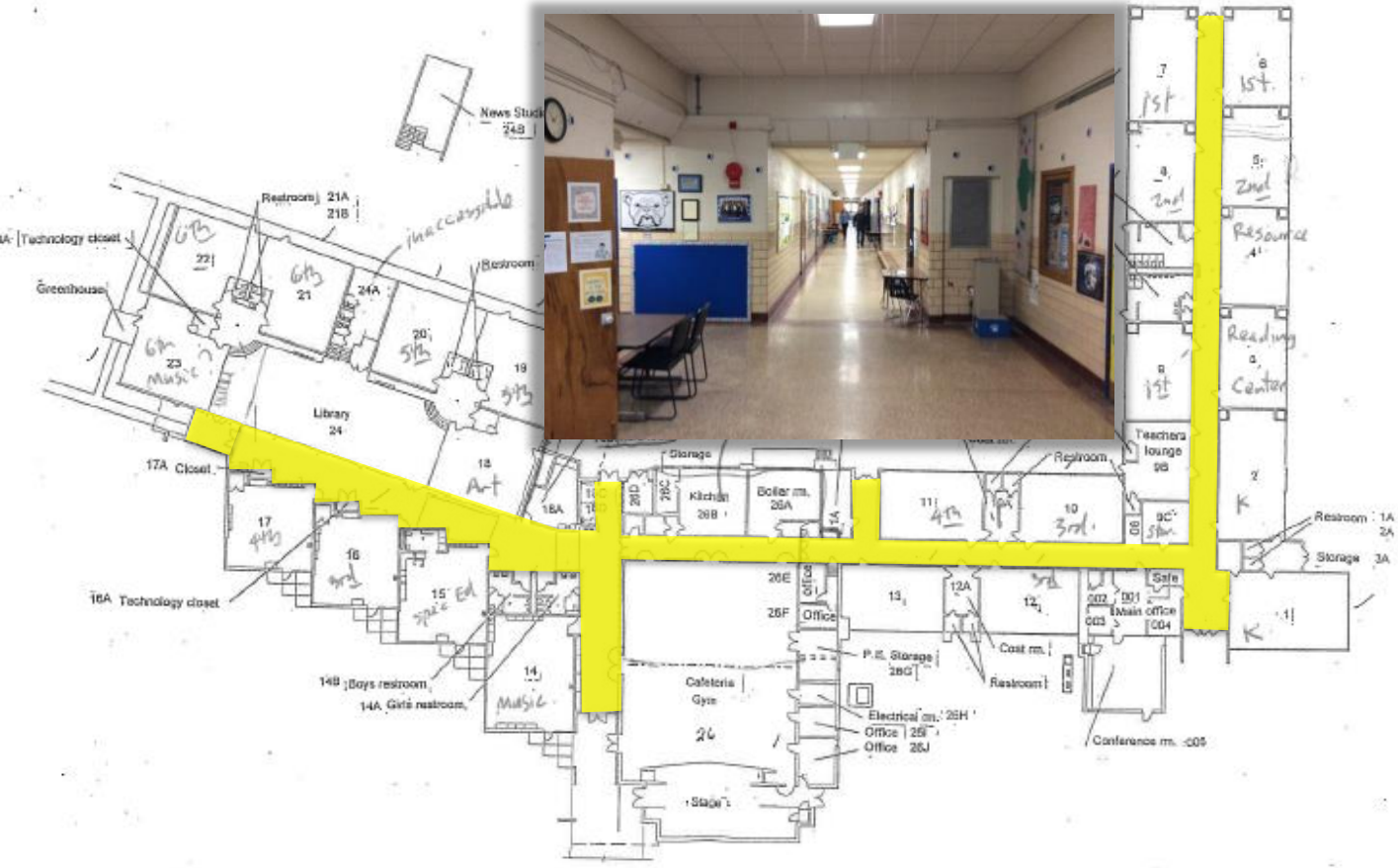
YELLOW SPRINGS SCHOOLS

FANNING HOWEY

MILLS LAWN ELEMENTARY

EDUCATIONAL ASSESSMENT

OBSERVATIONS



YELLOW SPRINGS SCHOOLS

FANNING HOWEY

OBSERVATIONS

Very long circulation paths

Disconnect between areas of the building

OBSERVATIONS

Feels like 3 or more separate buildings assembled together

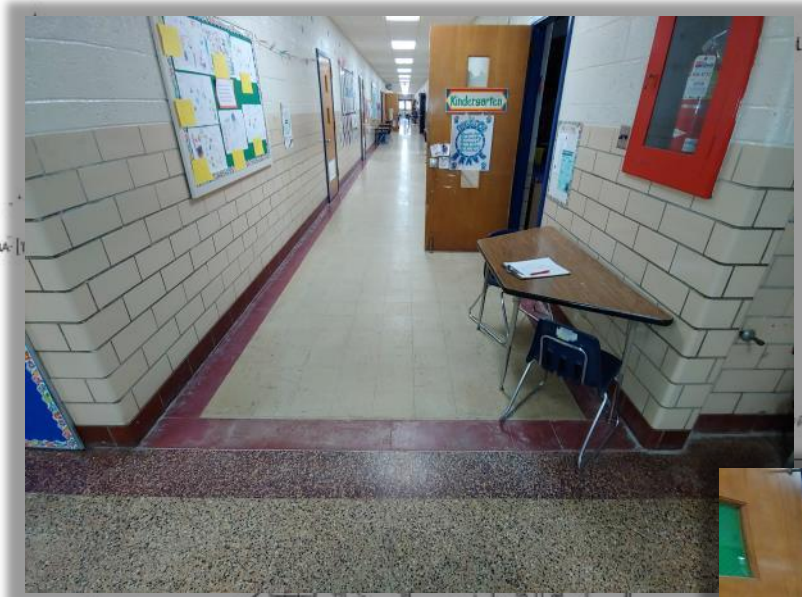
YELLOW SPRINGS SCHOOLS

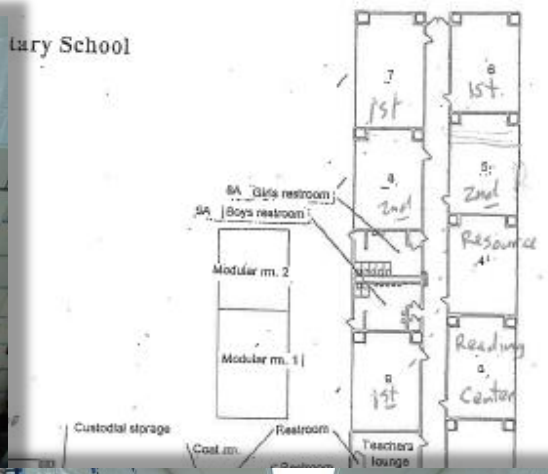
FANNING HOWEY

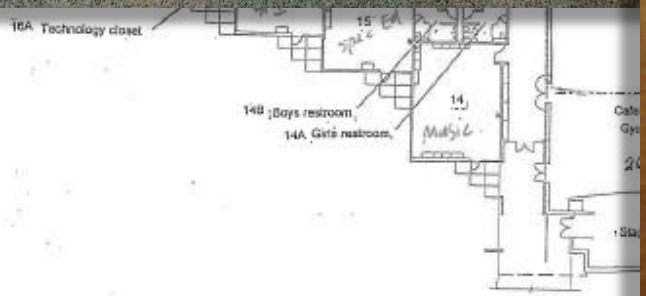
OBSERVATIONS

Unclear entrance

Lack of signage





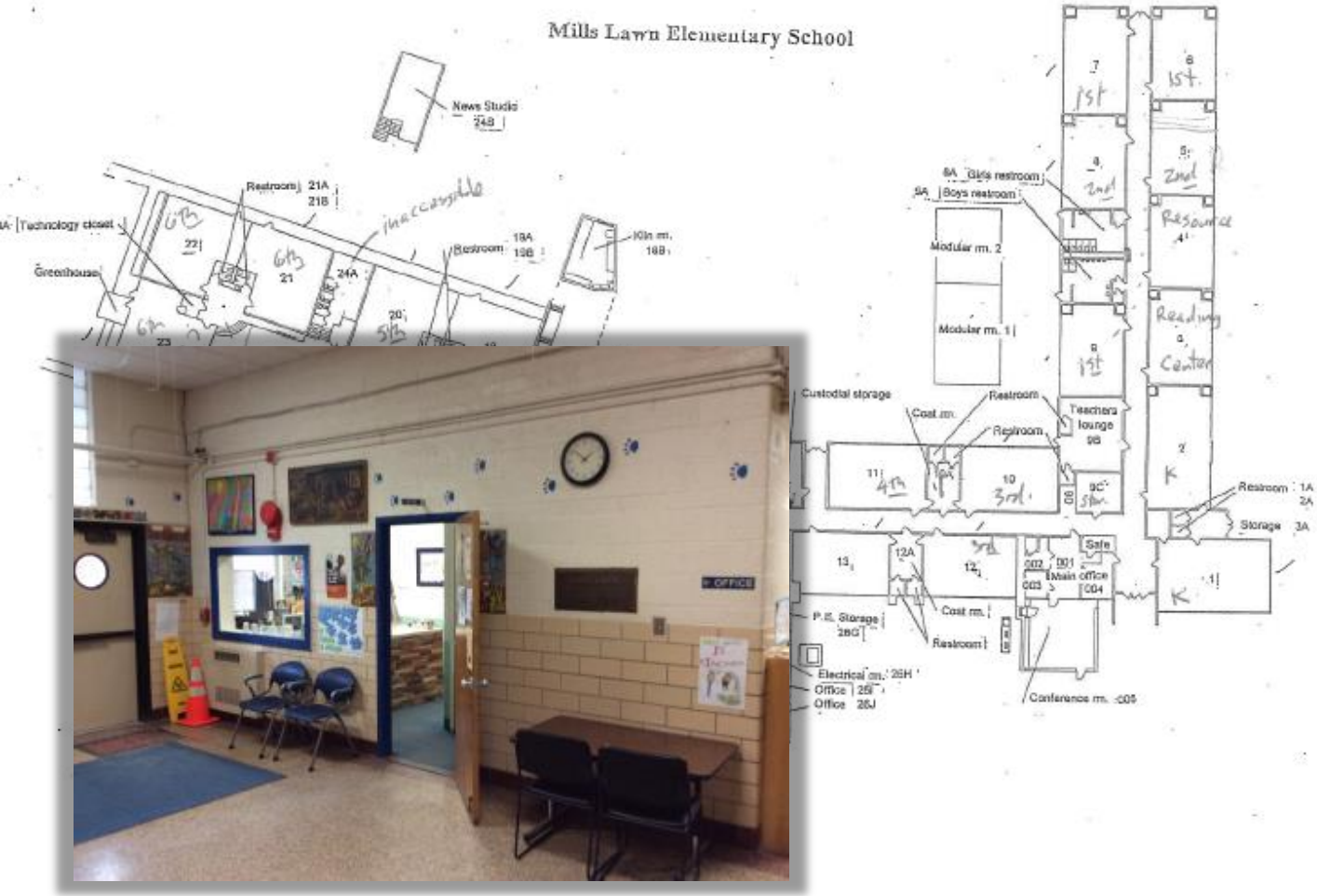


YELLOW SPRINGS SCHOOLS

FANNING HOWEY

OBSERVATIONS

Lack of space for small group work



YELLOW SPRINGS SCHOOLS

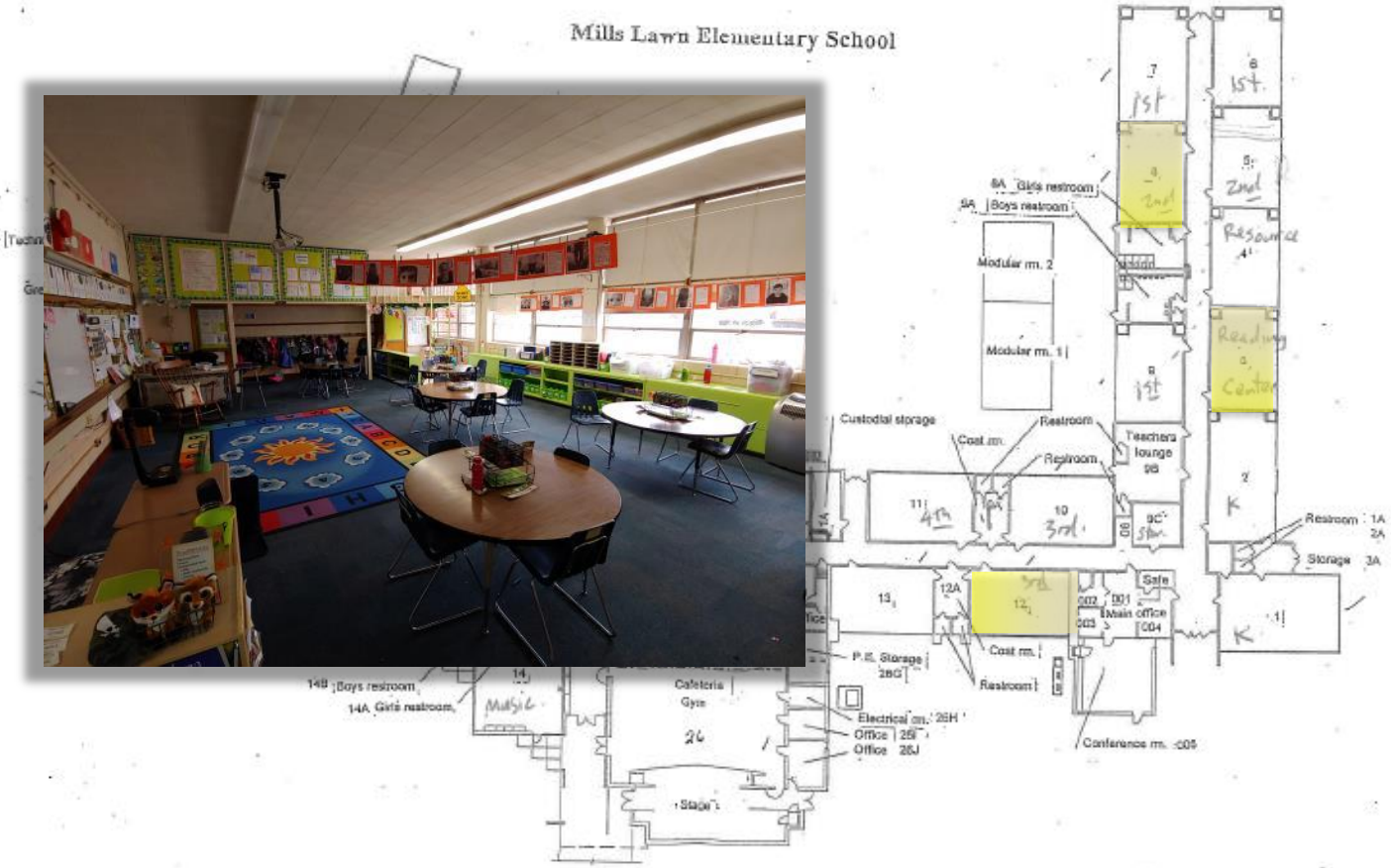
FANNING HOWEY

OBSERVATIONS

Front entrance and office

Not fully controlled and secured

Not welcoming



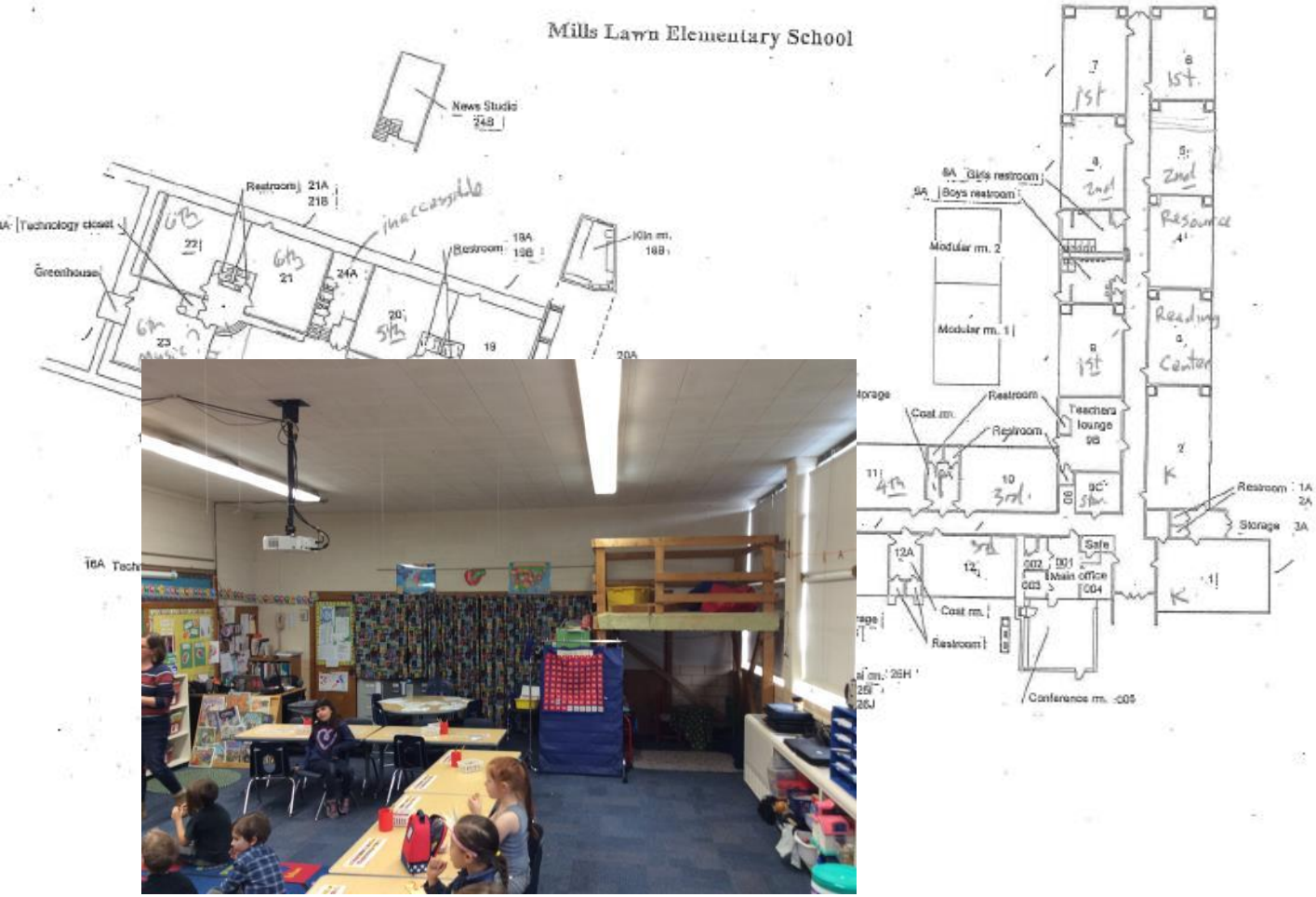
YELLOW SPRINGS SCHOOLS

FANNING HOWEY

OBSERVATIONS

Narrow gauge footprint – long and narrow classrooms

High ceilings but low structure

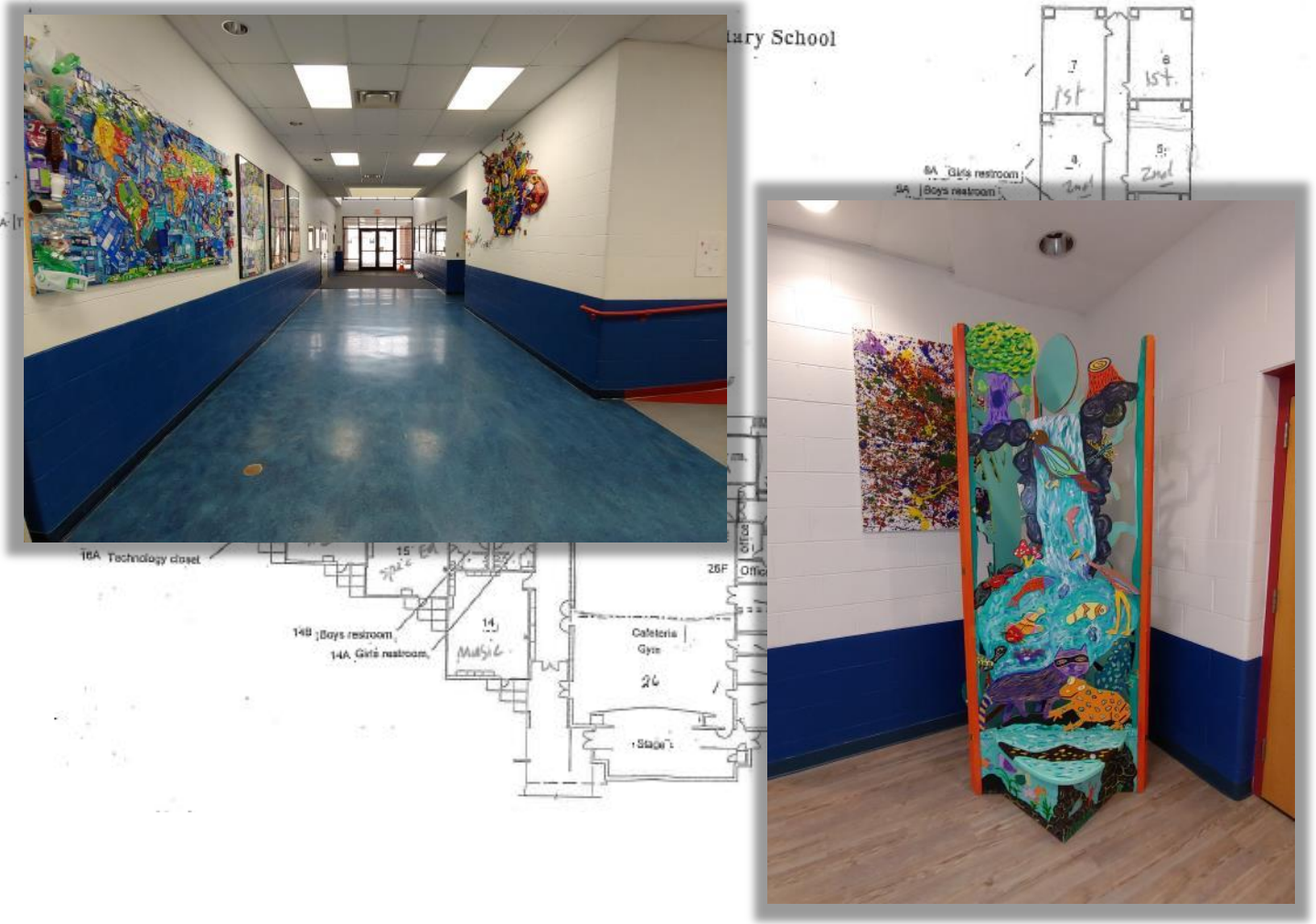


YELLOW SPRINGS SCHOOLS

FANNING HOWEY

OBSERVATIONS

Retrofitting creative learning spaces



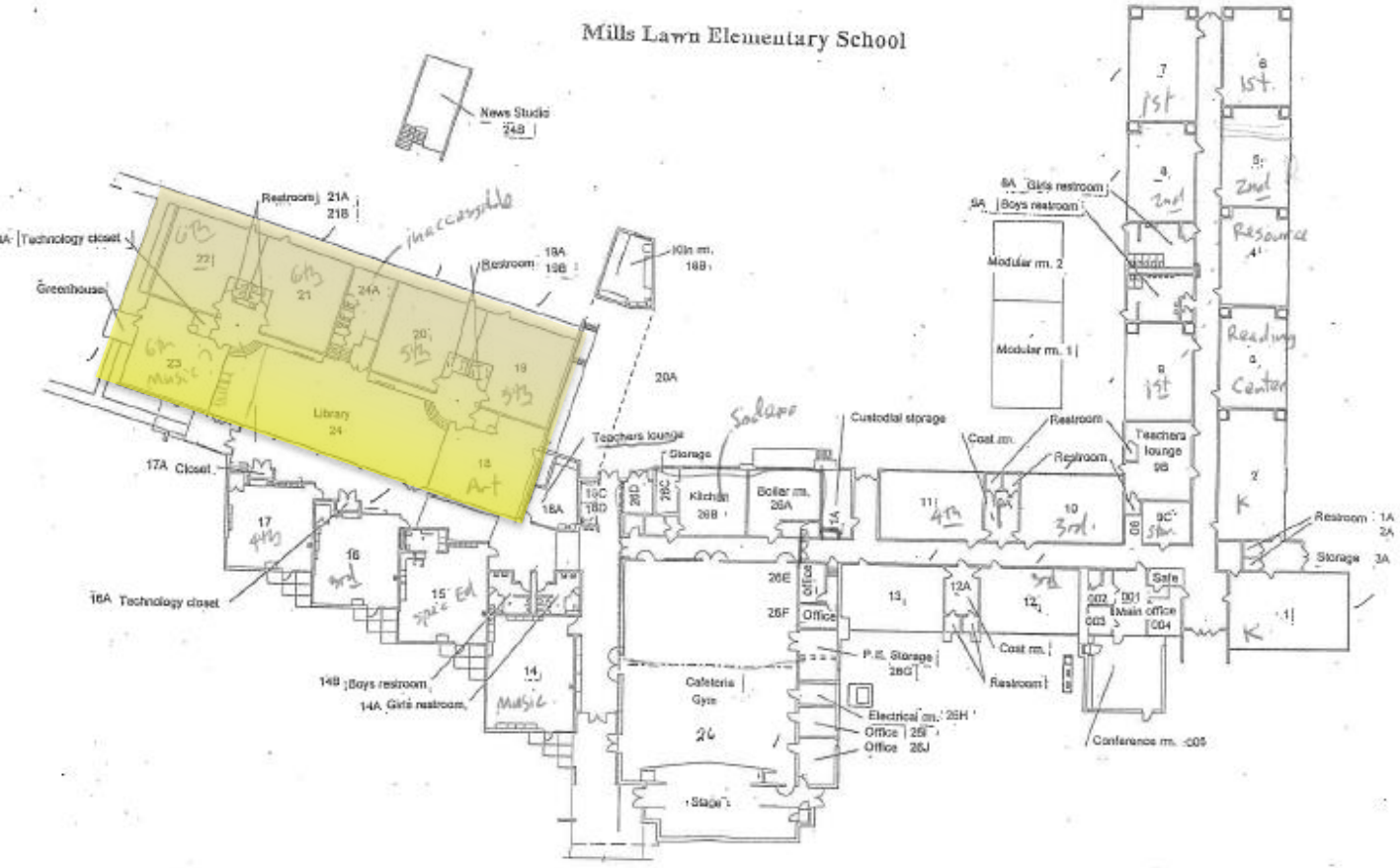
OBSERVATIONS

Pride

Artwork, murals, creations

OBSERVATIONS

Accessibility



YELLOW SPRINGS SCHOOLS

FANNING HOWEY

OBSERVATIONS

1955 annex

Opportunities and Limitations

FANNING HOWEY

YELLOW SPRINGS MIDDLE SCHOOL AND HIGH SCHOOL

EDUCATIONAL ASSESSMENT

OPPORTUNITIES

OPPORTUNITIES

Partial demolition

- 3-story wing
- 1988 modulars
- Music wing

Approx. $650,000

OPPORTUNITIES

Convert gymnasium into central commons, dining and performing arts

Convert art rooms into larger functional kitchen

Approx. $2.3 million

OPPORTUNITIES

Convert kitchen into new admin office space and enlarge to create secure office and new building entrance and image

Approx. $650,000

OPPORTUNITIES

New gymnasium that can connect to new central commons

Approx. $3.0 million

OPPORTUNITIES

New HS and MS learning communities with integrated space for collaboration and project-based learning

Approx. $7.0 million

OPPORTUNITIES

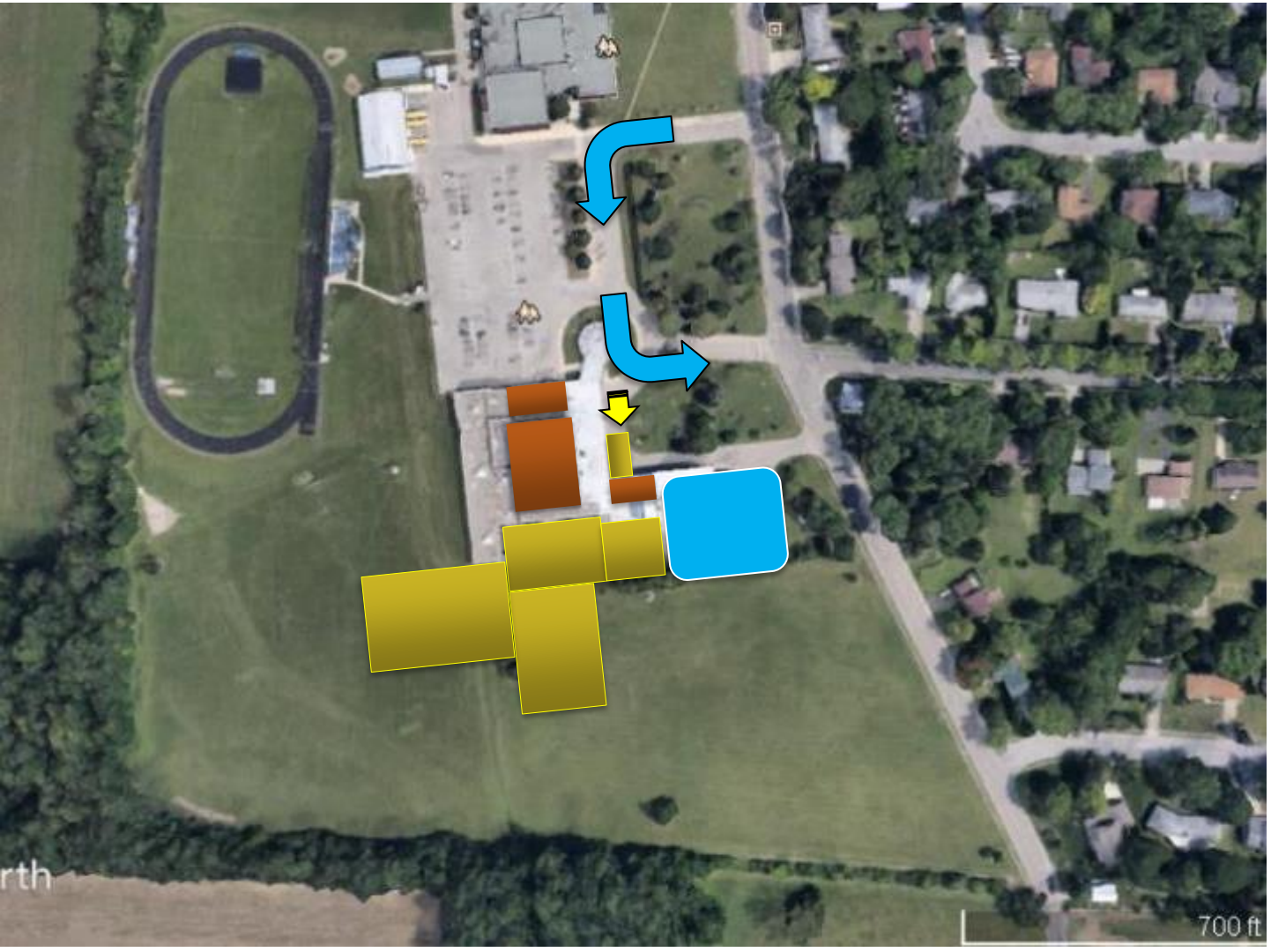
New MS learning community with integrated space for collaboration and project-based learning

Approx. $3.9 million

OPPORTUNITIES

New art and music addition

Approx. $2.0 million



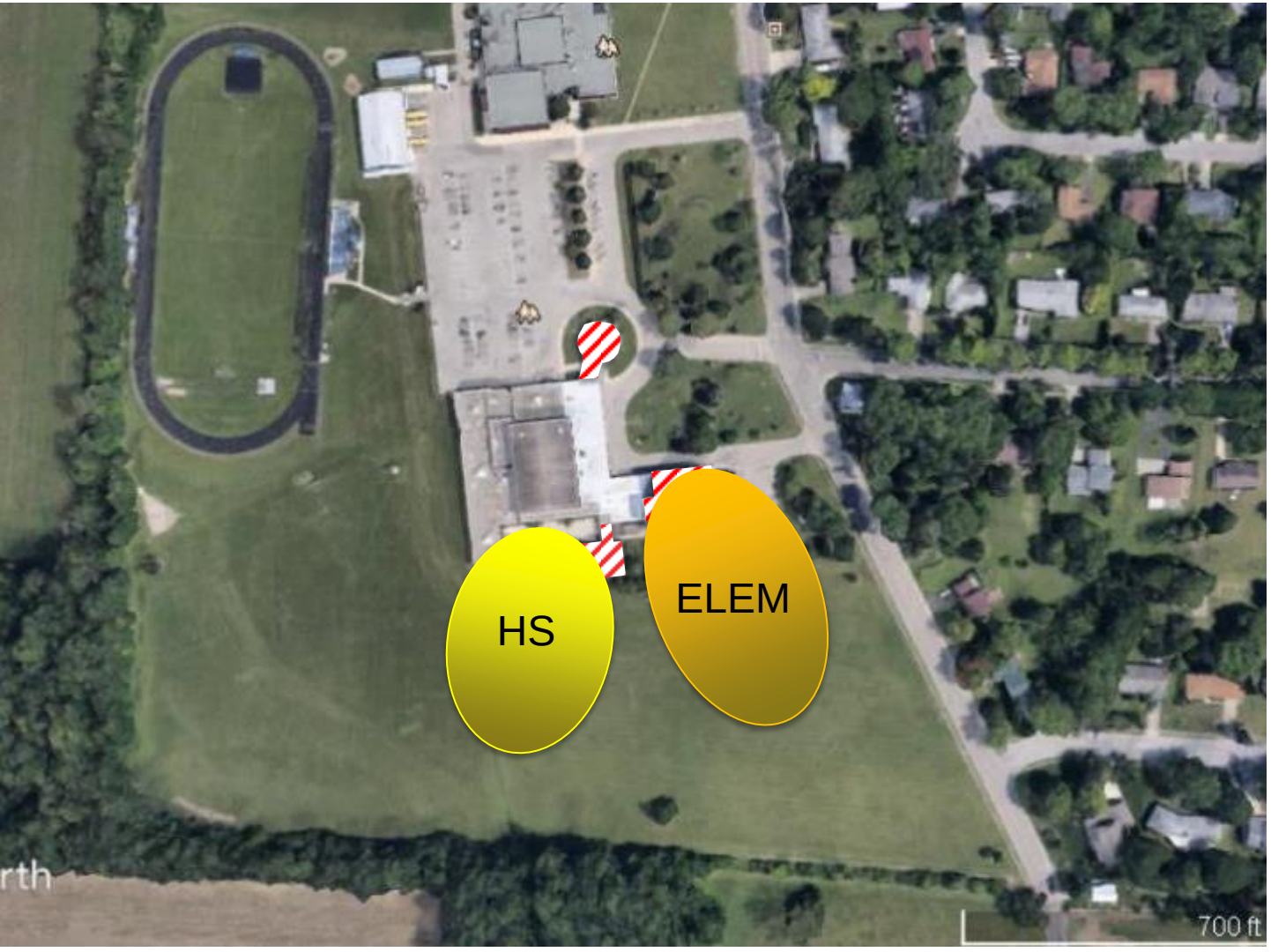
YELLOW SPRINGS SCHOOLS

FANNING HOWEY

OPPORTUNITIES

All combined

Approx. $19.0 million



Partial demolition and additions to convert to a K-12

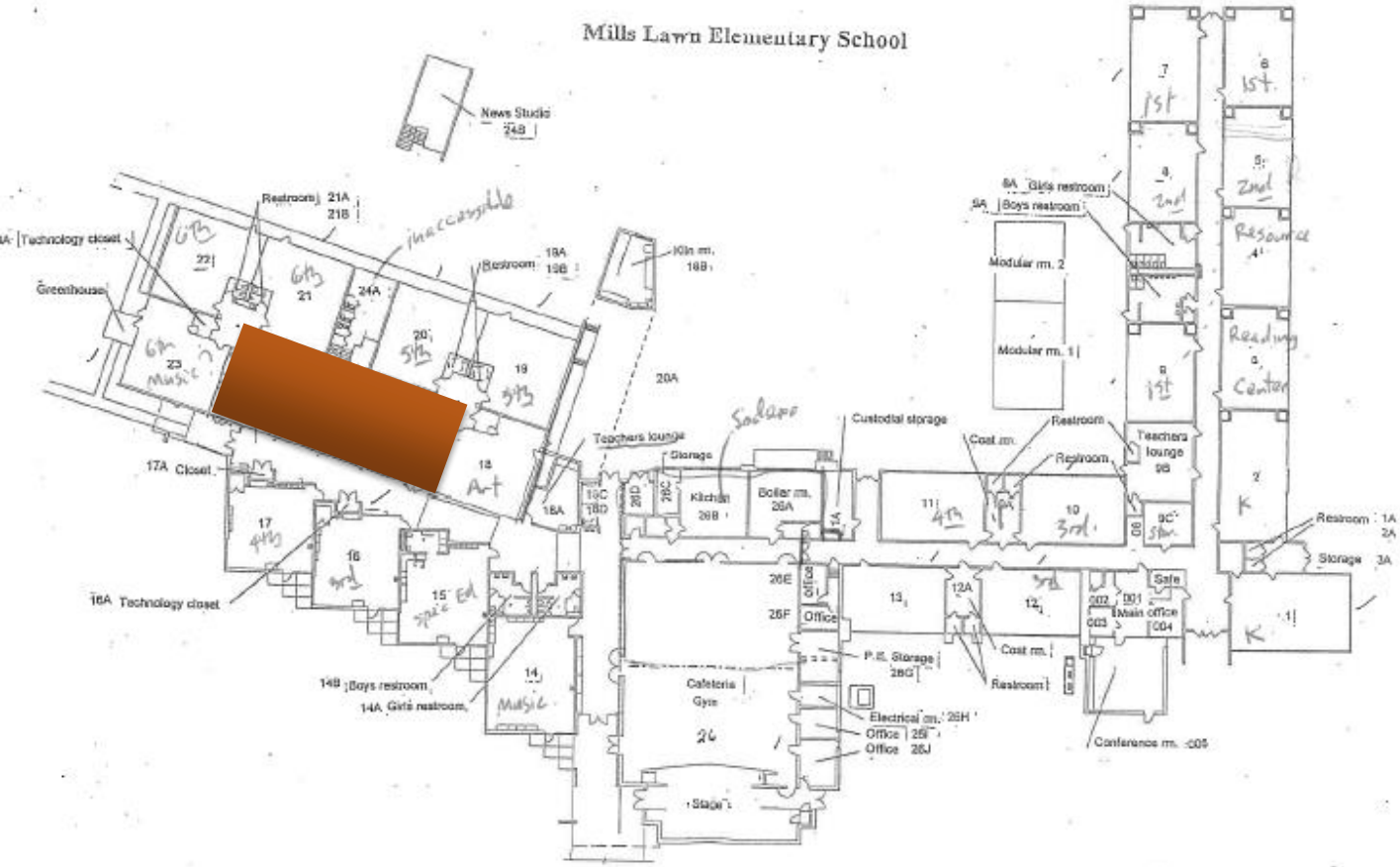
*No other renovation work included

Approx. $26.0 million

YELLOW SPRINGS SCHOOLS

FANNING HOWEY

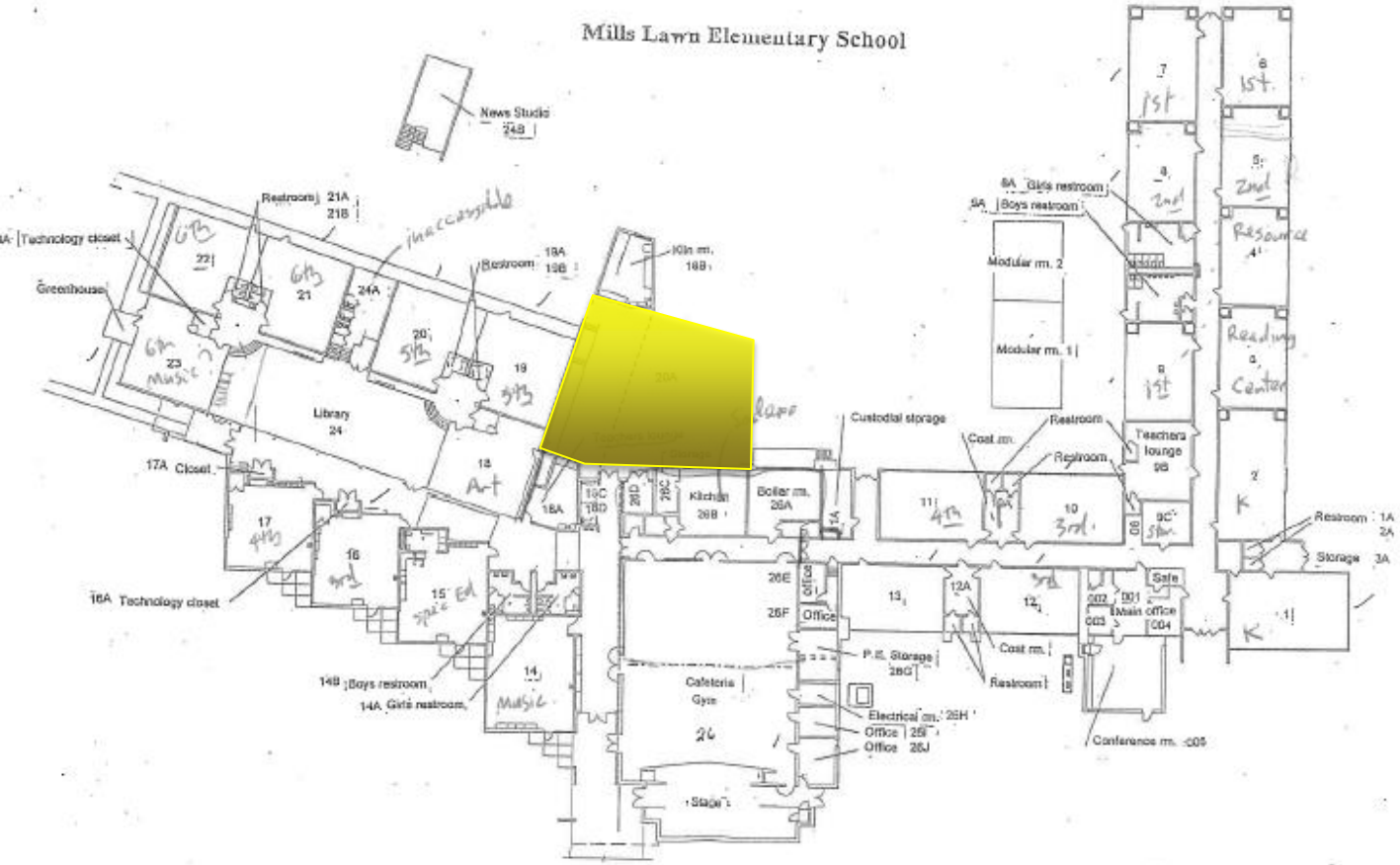
OPPORTUNITIES



OPPORTUNITIES

Convert library/computer space to a multi-use project lab

Approx. $250,000



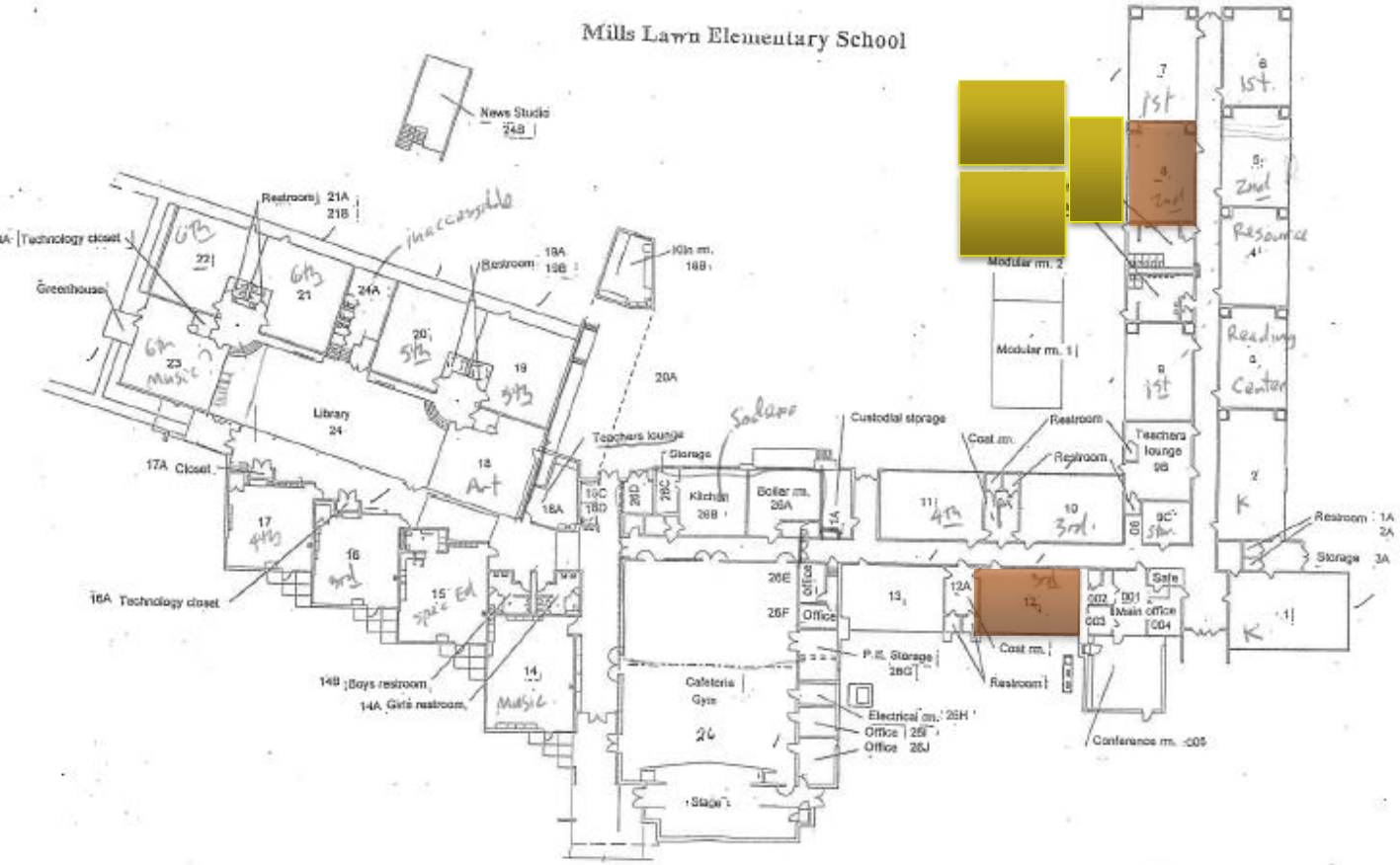
YELLOW SPRINGS SCHOOLS

FANNING HOWEY

OPPORTUNITIES

New Student dining/commons space to free up gymnasium for PE and performing arts

Approx. $1.3 million



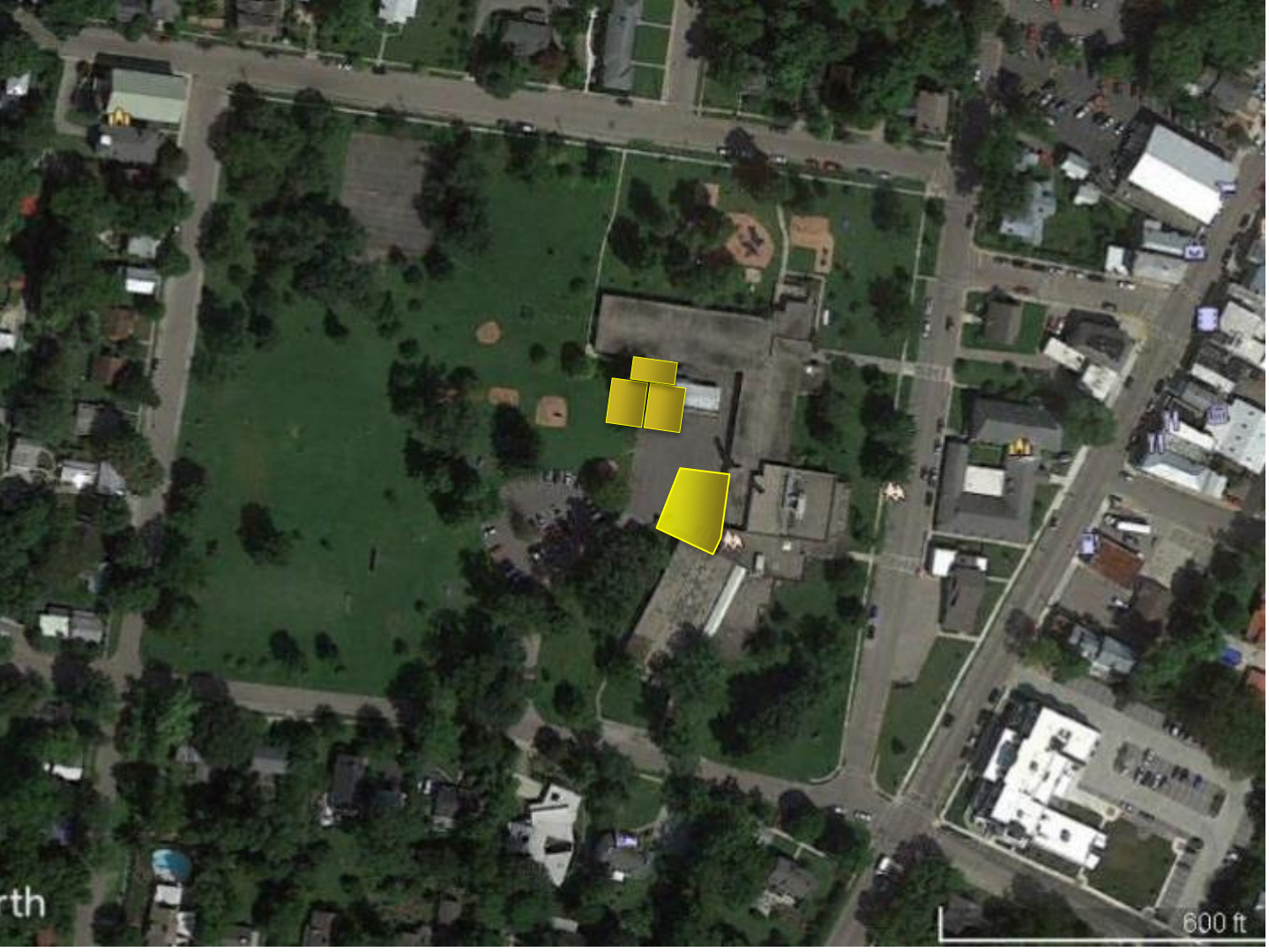
YELLOW SPRINGS SCHOOLS

FANNING HOWEY

OPPORTUNITIES

Small classroom addition and convert existing classroom space to collaboration and project space

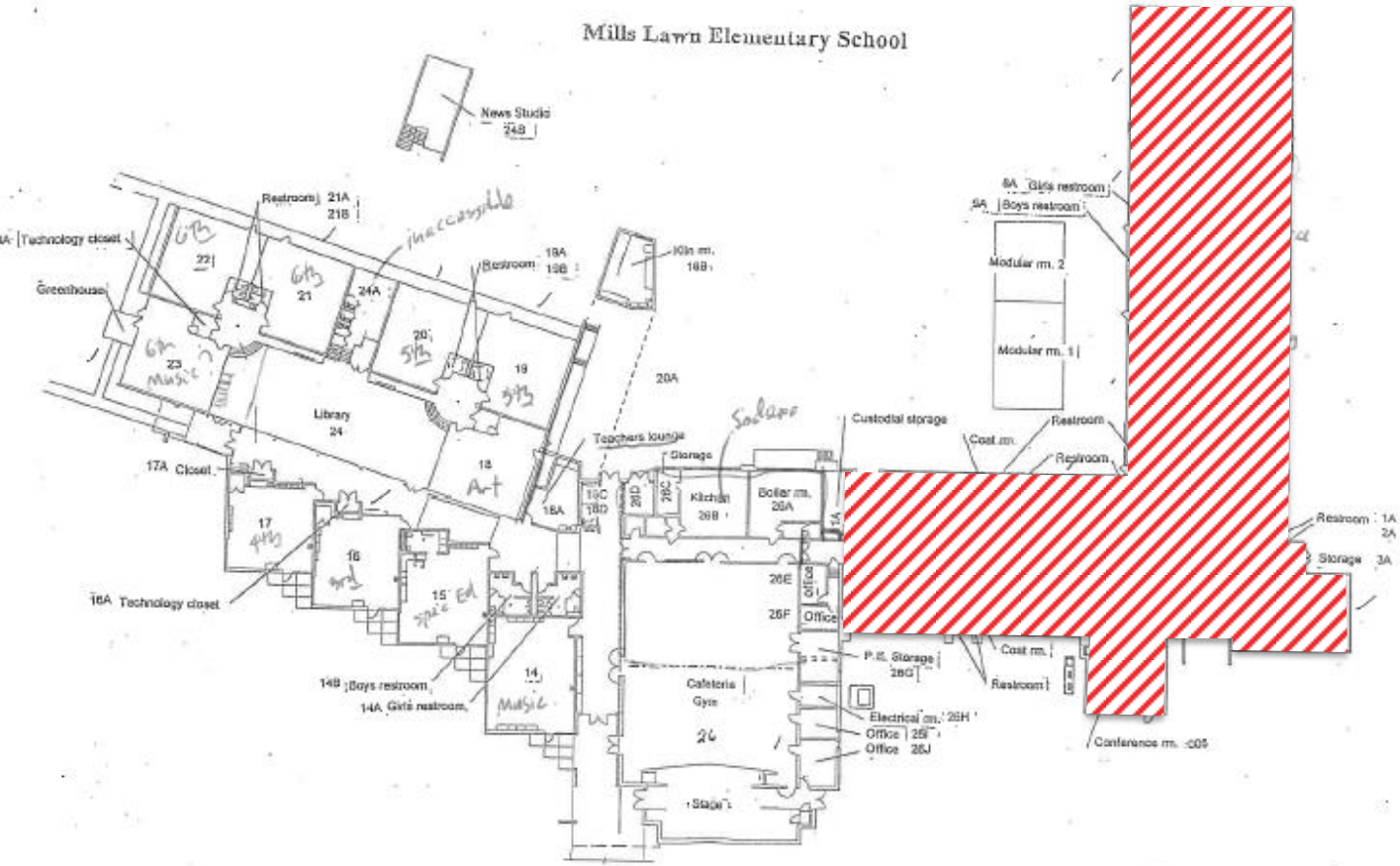
Approx. $1.0 million



OPPORTUNITIES

Small classroom addition and convert existing classroom space to collaboration and project space

New Student dining/commons space to free up gymnasium for PE and performing arts

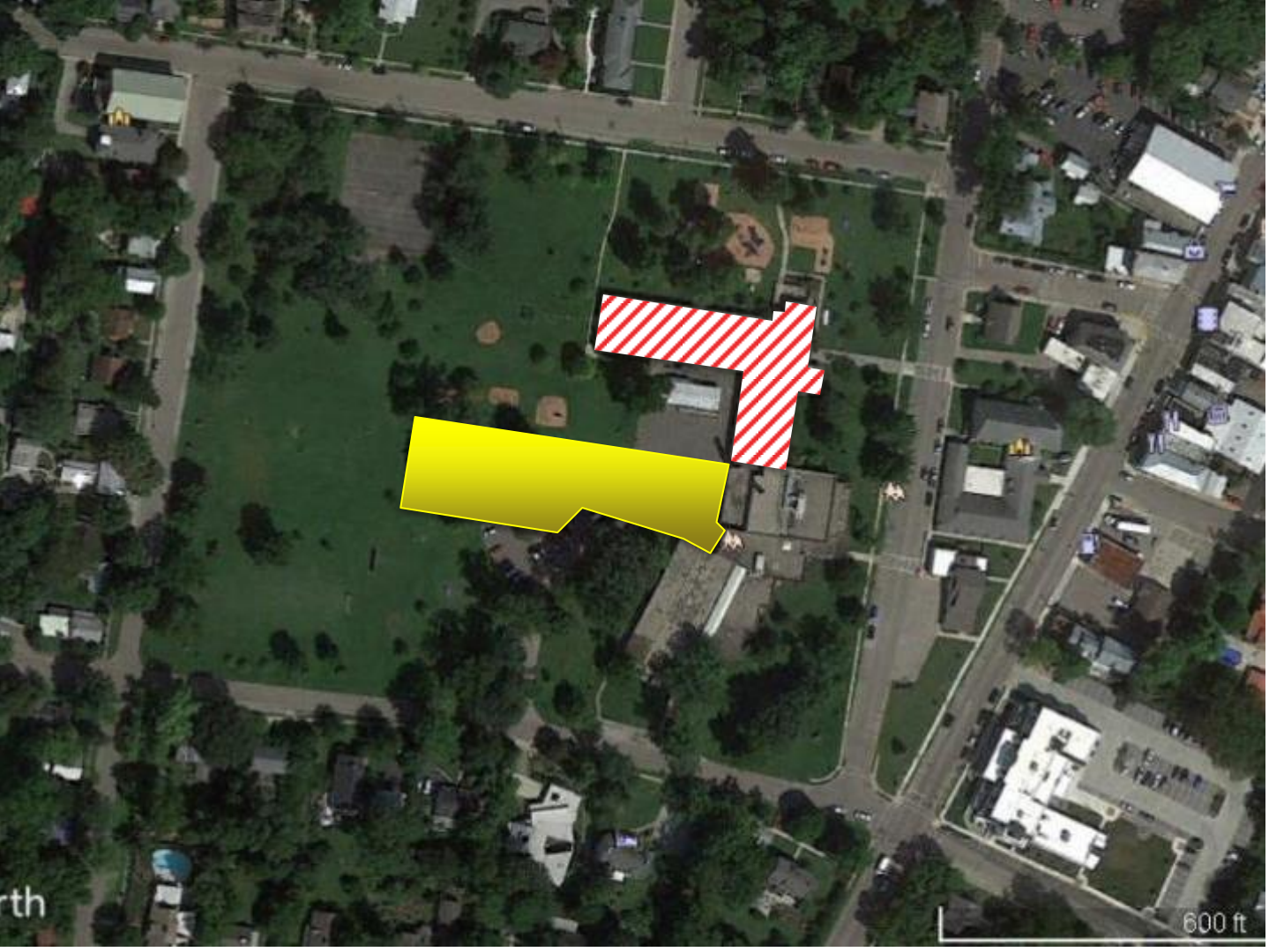


YELLOW SPRINGS SCHOOLS

FANNING HOWEY

OPPORTUNITIES

Demolish and rebuild 1952 original section



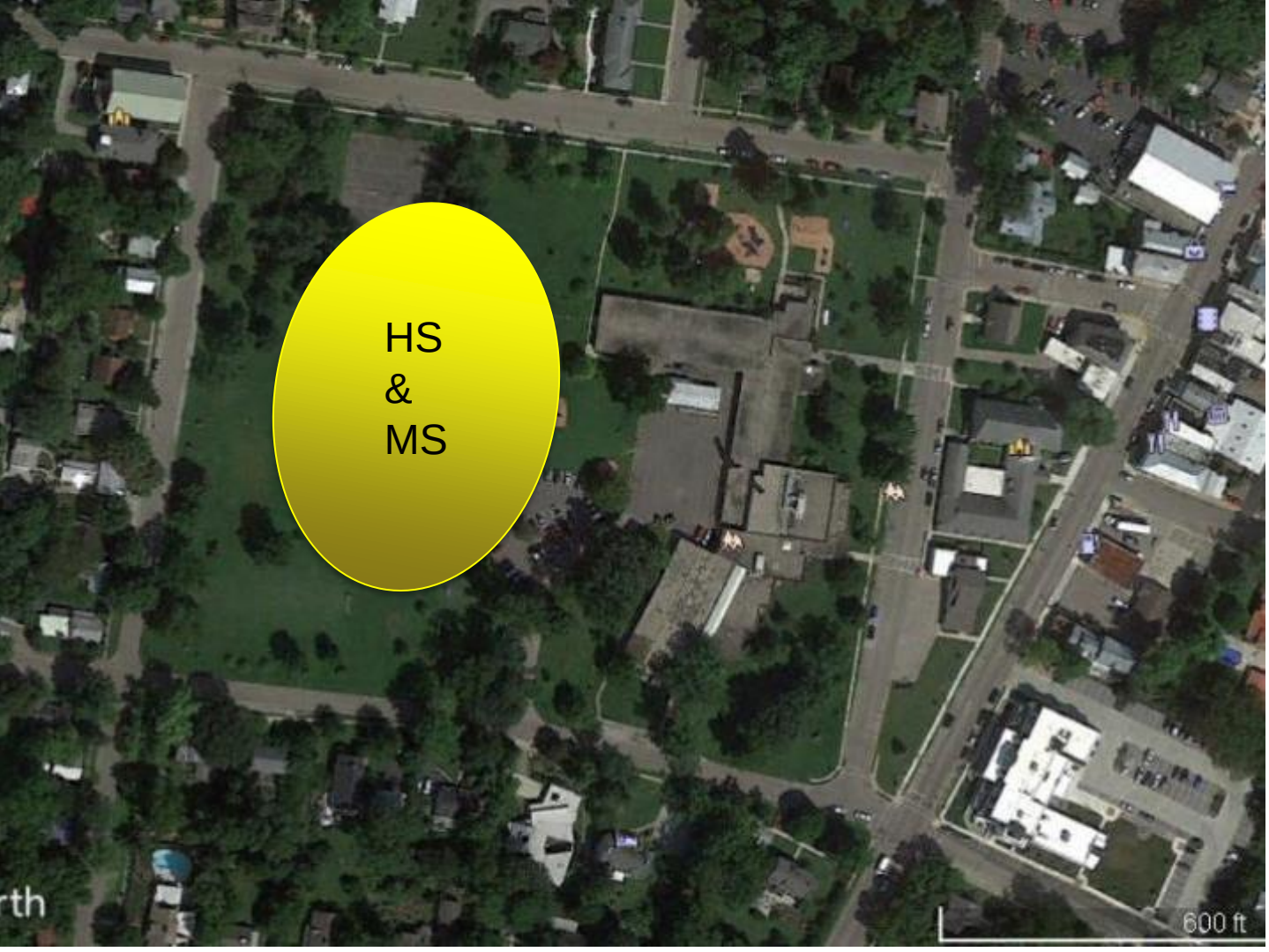
YELLOW SPRINGS SCHOOLS

FANNING HOWEY

OPPORTUNITIES

Demolish 1952 original section and rebuild new addition

Approx. $7.0 million



YELLOW SPRINGS SCHOOLS

FANNING HOWEY

OPPORTUNITIES

Add 6-12 to Mills Lawn site either as a standalone or connected facility

*No other renovation work included

Approx. $19.9 million

Questions and Answers

MODULAR BUILDING INSTITUTE

MBI Fact Sheet

Relocatable Classroom Fact Sheet

The Modular Building Institute estimates that there are approximately 300,000 relocatable classrooms (RCs) in use in the United States today. About half of those classrooms are owned by school districts while the other half are owned by modular leasing companies.

While the average age of RCs owned by school systems varies, with many facilities exceeding twenty years, the average age of RCs owned and leased by an industry leasing company is generally less than ten years.

RCs constructed to newer building codes are generally more energy efficient and durable than older units that have been relocated multiple times.

In March 2014, the National Center for Educational Statistics published a report titled: "**Condition of America's Public School Facilities: 2012-2013**."

The report survey **1,800** school districts and found that **31%** of all schools utilized "portable" classrooms (relocatable, temporary). The study further segmented the data by region, school size, condition of schools, and various enrollment categories.

Not surprisingly, schools with higher enrollments utilized RCs at a higher rate than the national average, with 43% of schools over 600 students using these facilities.

Schools in urban areas with higher student enrollments utilize RCs to a greater extent that rural and smaller schools. As such, schools with higher minority populations tend to use these classrooms more than the national average. Schools with 50%+ minority enrollment reported using relocatables in 45% of schools, vs. the national overall average of 31%.

The full report can be found here:

http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2014022

Modular Building Institute has supported the improvement of design and performance of relocatable classrooms by sharing free resources and best practices such as:

Relocatable classrooms, unlike recreational vehicles or mobile homes, are built to the same local building codes as traditional classrooms. But building codes provide the minimum acceptable requirements. Schools have the option to acquire more energy efficient, durable relocatable classrooms that exceed the minimum building code requirements.

Schools often acquire the minimally acceptable code compliant classroom due to cost constraints, intending to use the classrooms for a temporary basis. Often these temporary classrooms become permanent fixtures on campuses with some still in use 20, 30 or even 40 years later. MBI recommends that school districts match the product with the need and consider leasing relocatable classrooms if the need is truly 1-5 years, and consider building additions or renovations if greater. MBI members can provide high performing modular classroom additions with minimal site interruptions.

If properly maintained and with occasional capital improvements (such as roofing and hvac systems) relocatable classrooms can be expected to have a useful life of 20 years or more. However, classrooms built prior to 1990 are not as energy efficient, quiet, or accommodating as classrooms built to more recent codes. Schools should have a process to "phase out" any relocatable classroom in its inventory over twenty years old.

Flip over for more

MODULAR BUILDING INSTITUTE

MBI Fact Sheet

Indoor Air Quality:

All school buildings use similar construction and furnishing materials, so the types of chemicals present in the indoor air are not likely to be much different for relocatable versus permanent classrooms. The most comprehensive study conducted on indoor air quality in relocatable classrooms was a report by the California Air resources Board and the California Department of Health Services in November 2004.

This report, "Environmental Health Conditions in California's Portable Classrooms" analyzed various indoor air quality issues at 384 randomly selected schools. For each school, the facility manager and three teachers (two from portables and one from a traditional classroom) were asked to complete a detailed questionnaire about the aspects of the classroom. Additionally sampling tubes were sent to two thirds of those schools for deployment in the three classrooms.

The following excerpts are taken directly from the report:

- ☑ Both portable and traditional classrooms were found to have some environmental conditions that need improvement. However, the most serious problems occur only in a small percent of classrooms.
- ☑ **Improved operation and maintenance would go a long way to address many of the problems identified.**
- ☑ State relocatable classrooms have always met or exceeded construction codes in effect at the time of approval. Additionally, they comply with ASHRAE standards for temperature control.
- ☑ Sixty percent of teachers in portables indicated they turn off ventilation systems at times due to excess noise. Overall, the HVAC systems delivered adequate outdoor air and total airflows **when operated properly, so design capacity did not appear to be a common problem in this study.**

Steps MBI has taken to improve the performance of relocatable classrooms:

Sponsored a student design competition and an open design competition requiring participants to design the relocatable classroom of the future. Over 60 entries were received, with scholarships and prize money awarded by MBI.

Partnered with the Acoustical Society of America to develop a new ANSI standard for improving acoustics in relocatable classrooms.

Endorses and promotes the Collaborative for High Performance Schools (CHPS) "High Performance Relocatable Classroom Program"

New high performance modular classroom – first place in MBI's 2014 Awards of Distinction: Green Building Category.

Other public resources include:

From the U.S. Environmental Protection Agency's Indoor Air Quality Reference Guide: http://1.usa.gov/1swkbB8

From the Collaborative for High Performance Schools (CHPS): http://www.chps.net/dev/Drupal/node/41

WORKSHEET		
Grade Configuration:		**Area**
Current Student Enrollment	**K-12**	
Enter number of Elementary School students	312	
Enter number of Middle School students	168	
Enter number of High School students	232	
Total Student Enrollment	**712**	
SF per student		
SF per Elementary School student	128	39,999
SF per Middle School student	155	26,018
SF per High School student	185	42,830
Total Gross Square Feet Funded		**108,847**
SELECT ONE ◉ Single or Two Story Building ○ 3 Stories or greater		
Vert. Cir. Area Allowance (3 Stories or greater)		0
Total Adjusted POR Gross Square Footage		**108,847**

State of Ohio Summary of New Construction "Opinion of Probable Costs"

Per Square Foot of Floor Area / Baseline Region 0 (Central Ohio)

2019 Design Manual Update

Regions	Reg Modif Factor	ELEMENTARY SCHOOLS				MIDDLE SCHOOLS				HIGH SCHOOLS			
		1-400 Students 1-50,000 SF	401-600 Students 50,001-69,360 SF	601-865 Students 69,361-100,000 SF	866 Students and up 100,001 SF and up	1-450 Students 1-67,950 SF	451-650 Students 67,951-91,650 SF	651-709 Students 91,651-100,000 SF	710 Students and up 100,001 SF and up	1-598 Students 1-100,000 SF	599-800 Students 100,001-133,600 SF	801-1200 Students 133,601-200,400 SF	1201 Students and up 200,401 SF and up
0 - Central Ohio	**NC 100**												
Site		$24.10	$21.90	$21.03	$20.43	$24.53	$22.89	$22.88	$22.22	$23.29	$22.61	$25.55	$24.14
Basic Building		$206.09	$199.76	$191.36	$185.79	$206.31	$194.89	$194.33	$188.91	$206.66	$200.64	$193.34	$189.73
TOTAL		**$230.19**	**$221.66**	**$212.39**	**$206.22**	**$230.84**	**$217.78**	**$217.21**	**$211.13**	**$229.95**	**$223.25**	**$218.89**	**$213.87**
Non-Consttruction Costs		$37.06	$35.69	$34.20	$33.20	$37.17	$35.06	$34.97	$33.99	$37.02	$35.94	$35.24	$34.43
GRAND TOTAL		**$267.25**	**$257.35**	**$246.59**	**$239.42**	**$268.01**	**$252.84**	**$252.18**	**$245.12**	**$266.97**	**$259.19**	**$254.13**	**$248.30**
1 - Southwestern Ohio	**NC 96.66**												
Site		$23.30	$21.17	$20.33	$19.75	$23.71	$22.13	$22.12	$21.48	$22.51	$21.85	$24.70	$23.33
Basic Building		$199.21	$193.08	$184.97	$179.58	$199.42	$188.38	$187.84	$182.60	$199.76	$193.94	$186.89	$183.40
TOTAL		**$222.51**	**$214.25**	**$205.30**	**$199.33**	**$223.13**	**$210.51**	**$209.96**	**$204.08**	**$222.27**	**$215.79**	**$211.59**	**$206.73**
Non-Consttruction Costs		$35.82	$34.49	$33.05	$32.09	$35.92	$33.89	$33.80	$32.86	$35.79	$34.74	$34.06	$33.28
GRAND TOTAL		**$258.33**	**$248.74**	**$238.35**	**$231.42**	**$259.05**	**$244.40**	**$243.76**	**$236.94**	**$258.06**	**$250.53**	**$245.65**	**$240.01**
2 - West Central Ohio	**NC 98.22**												
Site		$23.67	$21.51	$20.66	$20.07	$24.09	$22.48	$22.47	$21.82	$22.88	$22.21	$25.10	$23.71
Basic Building		$202.42	$196.20	$187.96	$182.48	$202.64	$191.42	$190.87	$185.55	$202.98	$197.07	$189.90	$186.36
TOTAL		**$226.09**	**$217.71**	**$208.62**	**$202.55**	**$226.73**	**$213.90**	**$213.34**	**$207.37**	**$225.86**	**$219.28**	**$215.00**	**$210.07**
Non-Consttruction Costs		$36.40	$35.05	$33.59	$32.61	$36.50	$34.44	$34.35	$33.39	$36.36	$35.30	$34.61	$33.82
GRAND TOTAL		**$262.49**	**$252.76**	**$242.21**	**$235.16**	**$263.23**	**$248.34**	**$247.69**	**$240.76**	**$262.22**	**$254.58**	**$249.61**	**$243.89**
3 - Northwestern Ohio	**NC 104.97**												
Site		$25.30	$22.99	$22.08	$21.45	$25.75	$24.03	$24.02	$23.32	$24.45	$23.73	$26.82	$25.34
Basic Building		$216.33	$209.68	$200.87	$195.02	$216.57	$204.58	$203.99	$198.30	$216.93	$210.61	$202.95	$199.16
TOTAL		**$241.63**	**$232.67**	**$222.95**	**$216.47**	**$242.32**	**$228.61**	**$228.01**	**$221.62**	**$241.38**	**$234.34**	**$229.77**	**$224.50**
Non-Construction Costs		$38.90	$37.46	$35.89	$34.85	$39.01	$36.81	$36.71	$35.68	$38.86	$37.73	$36.99	$36.15
GRAND TOTAL		**$280.53**	**$270.13**	**$258.84**	**$251.32**	**$281.33**	**$265.42**	**$264.72**	**$257.30**	**$280.24**	**$272.07**	**$266.76**	**$260.65**
4 - North Central Ohio	**NC 100.42**												
Site		$24.20	$21.99	$21.12	$20.52	$24.63	$22.99	$22.98	$22.31	$23.39	$22.70	$25.66	$24.24
Basic Building		$206.96	$200.59	$192.17	$186.57	$207.18	$195.71	$195.15	$189.71	$207.53	$201.48	$194.16	$190.53
TOTAL		**$231.16**	**$222.58**	**$213.29**	**$207.09**	**$231.81**	**$218.70**	**$218.13**	**$212.02**	**$230.92**	**$224.18**	**$219.82**	**$214.77**
Non-Construction Costs		$37.22	$35.84	$34.34	$33.34	$37.32	$35.21	$35.12	$34.14	$37.18	$36.09	$35.39	$34.58
GRAND TOTAL		**$268.38**	**$258.42**	**$247.63**	**$240.43**	**$269.13**	**$253.91**	**$253.25**	**$246.16**	**$268.10**	**$260.27**	**$255.21**	**$249.35**
5 - South Central Ohio	**NC 101.63**												
Site		$24.49	$22.26	$21.37	$20.76	$24.93	$23.26	$23.25	$22.58	$23.67	$22.98	$25.97	$24.53
Basic Building		$209.45	$203.01	$194.48	$188.82	$209.68	$198.07	$197.50	$191.99	$210.03	$203.91	$196.49	$192.83
TOTAL		**$233.94**	**$225.27**	**$215.85**	**$209.58**	**$234.61**	**$221.33**	**$220.75**	**$214.57**	**$233.70**	**$226.89**	**$222.46**	**$217.36**
Non-Consruction Costs		$37.66	$36.27	$34.75	$33.74	$37.77	$35.63	$35.54	$34.55	$37.63	$36.53	$35.82	$35.00
GRAND TOTAL		**$271.60**	**$261.54**	**$250.60**	**$243.32**	**$272.38**	**$256.96**	**$256.29**	**$249.12**	**$271.33**	**$263.42**	**$258.28**	**$252.36**
6 - Southeastern Ohio	**NC 101.86**												
Site		$24.55	$22.31	$21.42	$20.81	$24.99	$23.32	$23.31	$22.63	$23.72	$23.03	$26.03	$24.59
Basic Building		$209.92	$203.47	$194.92	$189.25	$210.15	$198.52	$197.95	$192.43	$210.50	$204.37	$196.94	$193.26
TOTAL		**$234.47**	**$225.78**	**$216.34**	**$210.06**	**$235.14**	**$221.84**	**$221.26**	**$215.06**	**$234.22**	**$227.40**	**$222.97**	**$217.85**
Non-Construction Costs		$37.75	$36.35	$34.83	$33.82	$37.86	$35.71	$35.62	$34.62	$37.71	$36.61	$35.90	$35.07
GRAND TOTAL		**$272.22**	**$262.13**	**$251.17**	**$243.88**	**$273.00**	**$257.55**	**$256.88**	**$249.68**	**$271.93**	**$264.01**	**$258.87**	**$252.92**
7 - East Central Ohio	**NC 101.41**												
Site		$24.44	$22.21	$21.33	$20.72	$24.88	$23.21	$23.20	$22.53	$23.62	$22.93	$25.91	$24.48
Basic Building		$209.00	$202.57	$194.06	$188.41	$209.22	$197.64	$197.07	$191.58	$209.57	$203.47	$196.07	$192.41
TOTAL		**$233.44**	**$224.78**	**$215.39**	**$209.13**	**$234.10**	**$220.85**	**$220.27**	**$214.11**	**$233.19**	**$226.40**	**$221.98**	**$216.89**
Non-Construction Costs		$37.58	$36.19	$34.68	$33.67	$37.69	$35.56	$35.46	$34.47	$37.54	$36.45	$35.74	$34.92
GRAND TOTAL		**$271.02**	**$260.97**	**$250.07**	**$242.80**	**$271.79**	**$256.41**	**$255.73**	**$248.58**	**$270.73**	**$262.85**	**$257.72**	**$251.81**
8 - Northeastern Ohio	**NC 104.88**												
Site		$25.28	$22.97	$22.06	$21.43	$25.73	$24.01	$24.00	$23.30	$24.43	$23.71	$26.80	$25.32
Basic Building		$216.15	$209.50	$200.70	$194.86	$216.38	$204.40	$203.82	$198.13	$216.75	$210.43	$202.78	$198.99
TOTAL		**$241.43**	**$232.47**	**$222.76**	**$216.29**	**$242.11**	**$228.41**	**$227.82**	**$221.43**	**$241.18**	**$234.14**	**$229.58**	**$224.31**
Non-Construction Costs		$38.87	$37.43	$35.86	$34.82	$38.98	$36.77	$36.68	$35.65	$38.83	$37.70	$36.96	$36.11
GRAND TOTAL		**$280.30**	**$269.90**	**$258.62**	**$251.11**	**$281.09**	**$265.18**	**$264.50**	**$257.08**	**$280.01**	**$271.84**	**$266.54**	**$260.42**