FACILITIES COST ANALYSIS
May 2015

Michael R. White PK-8 School
for the
Cleveland Metropolitan School District

1111 Superior Ave. E, Suite 1800
Cleveland, Ohio 44114
Phone: (216) 838-0000

Architectural Vision Group, Ltd.
23850 Sperry Dr.
Westlake, Ohio 44145
Phone: (440) 808-8520
Fax: (440) 808-8301

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FACILITIES ASSESSMENT REPORT

INTRODUCTION

The Scope of Work for the Cleveland Metropolitan School District includes an Assessment Report for Michael R. White PK-8 School and Tremont Montessori PK-8 School. The assessment is based upon the Ohio School Facilities Commission (OSFC) Assessment Guidelines to fully renovate the school building to current Ohio School Design Manual Standards and current building codes.

AVG performed the assessments of Michael R. White PK-8 School and Tremont Montessori PK-8 School on April 5, 2015 and April 10, 2015 respectively. The Assessment consisted of a walk-through of the complexes and review of the architectural drawings and site. The Assessment Report contains the following: a general description of the facility assessment and associated costs, site plan, existing and proposed converted floor plans, and Enhanced Environmental Hazards Assessment (conducted by OSFC).

MASTER PLANNING CONSIDERATIONS & SUMMARY OF COSTS

Michael R. White PK-8 School

1) The school is not fully utilized based on the current enrollments. Based on the existing square footage and OSFC square foot calculators, this school could accommodate approximately 550 K-8 students. This extra square footage would be considered "excess space" by OSFC and will require the school district to pay 100% locally funded initiative's (LFI's) for the renovation work. The school will need to be programmed for close to 550 K-8 students to avoid this LFI.

2) The school would require a minimum of 350 students to be eligible for OSFC co-funding.

3) Subsequent to the original OSFC assessment in 2001, the OSFC then conducted an "Enhanced Environmental Hazards Assessment" to determine what asbestos and other hazardous materials are present. The report lists the plaster walls and ceilings throughout as asbestos containing materials. Therefore all the plaster walls and ceilings would require removal/abatement, and new drywall built in its place. The costs for the abatement of the plaster walls alone is close to $900,000.

4) The typical classrooms are undersized compared to the current standard established by the Ohio School Design Manual of 900 s.f. for typical classrooms, and 1,200 s.f. for Pre-Kindergarten & Kindergarten rooms.

5) There are 3 sections to the 2nd story which are not connected together. Therefore, 3 separate elevators would be required for ADA access to the 2nd floor classrooms.

Probable Renovations Costs

Michael R. White PK-8 School

A-W Renovations on Assessment Study:	$16,389,904.18
Renovation vs. Rebuilt Percentage:	95.56%

CLEVELAND METROPOLITAN SCHOOL DISTRICT

Building Assessment and Cost Analysis for

Michael R. White PK-8 School

Provided by

Architectural Vision Group, Ltd. (AVGL)

DRAFT - May 15, 2015

ARCHITECTURAL VISION GROUP, LTD.
Architects • Planners

CLEVELAND METROPOLITAN SCHOOL DISTRICT

Michael R. White PK-8 School Building Assessment

- Michael R. White K-8 School is composed of 4 separate buildings on the site:
  - Main academic building (62,021 SF)
  - Detached classroom building (5,056 SF)
  - Greenhouse building (1,547 SF)
  - Boiler House (4,906 SF)

  Total S.F. = 73,530 SF
- Building Capacity = 550 PK-8 Students
- Current Enrollment = 280 students
- OSFC required minimum students = 350 students
- OSFC Building SF for 350 PK-8 students = 52,849 SF
- Existing Michael R. White Bldg. Excess SF Renovations = $4.8 million Locally Funded Initiative (LFI)
- Renovation vs. Rebuild percentage = 95.56% (comparing renovation cost vs. cost of building new facility of same SF)

Michael R. White PK-8 School Building Assessment

- Option 1 - New Construction
  Demolish existing buildings and then build a new PK-8 School onsite for 350 PK-8 students.

- Option 2 - Renovation
  Renovate existing buildings to OSFC and building code standards for 350 PK-8 students.

Michael R. White PK-8 School Building Assessment

Option 1 – New Construction

Demolish existing buildings and then build a new PK-8 school on the existing school site.

- Build 52,849 SF new construction on existing school site for 350 students, grades PK-8.

52,849 SF x $253.07 =

$13,374,496.43

+ $1,482,594.30 demolition + abatement existing structures

$14,857,090.73 Total New Construction

Required LFI:	$ 0.00
OSFC Co-funded Share (68%):	$10,102,821.69
District Co-funded Share (32%):	$4,754,269.04

Swing Space LFI: TBD

Total District Cost: $4,754,269.04

Michael R. White PK-8 School Building Assessment

Option 2 –Renovation

Fully renovate existing Michael White School for 350 PK-8 students

- Renovate Existing: 73,530 SF
- Total Renovation Cost: $16,389,904.18 (approx. $222.90 per SF)
- OSFC co-funded SF for 350 students: 52,849 SF

73,530 SF existing - 52,849 SF OSFC co-funded = 20,681 SF excess space (LFI)

$16,389,904.18 Total Renovation

Required LFI (20,681 SF x $222.90/SF):	$ 4,609,794.90
Clay Roof Replacement LFI (cost difference between co-funded Shingle roof vs. non co-funded Clay Tile roof	$ 269,771.04
Total LFI:	**$4,879,565.94**
OSFC Co-funded Share (68% of $16,389,904.18 = $11,145,134.84 - $ 4,879,565.94 LFI):	$ 6,265,568.90
District Co-funded Share (32% of $ 16,389,904.18 = $5,244,769.33 + $ 4,879,565.94 LFI):	$10,124,335.27

Swing Space LFI: TBD

Total District Cost: $10,124,335.27

Cleveland Metropolitan School District					County	Cuyahoga	**Area**	8
Michael R. White PK-8 School					Contact			
1000 E. 92nd St.					Phone:			
Cleveland, Ohio					Date Prepared	5/14/2015		
					Prepared by:	Architectural Vision Group, Ltd.		

Addtion	Date	HA *	Floors	Current SF
Original Building	1920	no	3	62,021
Boiler House	1920	no	2	4,906
Detached Classroom Building	1955	no	1	5,056
Greenhouse	1958	no	1	1,547
Gross Sq. Ft.				73,530

FACILITIES	ASSESSMENT	Rating	Michael R. White PK-8			
A. Heating System			$ 2,508,843.60	Item A Note: Cost includes installation of new Air Conditioning		
B. Roofing			$ 670,256.54	Item B Note: $269,771.04 is LFI due to clay tile roof replacement		
C. Ventilation/Air Conditioning			$ -	Item C Note:Cost included in Item A		
D. Electrical Systems			$ 1,193,391.90			
E. Plumbing & Fixtures			$ 620,589.00	**Assessment/Master Planning Comments:**		
F. Windows			$ 405,840.00			
Structure			$ -			
G. Foundation			$ 31,264.00			
H. Walls & Chimneys			$ 258,985.00			
I. Floors & Roofs			$ 175,000.00	**Comparison 1:**		
J. General Finishes			$ 2,185,298.10	New Building Cost of same size	73,530	sf
K. Interior Lighting			$ 367,650.00	X	$ 233.25	
L. Security System			$ 209,560.40		**$ 17,150,872.50**	
M. Emerg/Egress Lighting			$ 73,530.00			
N. Fire Alarm System			$ 110,295.00	Reno vs Rebuild Percentage:		**95.56%**
O. Handicapped Access			$ 522,606.00			
P. Site Condition			$ 406,648.45	**Comparison 2:**		
Q. Sewage System			$ -	New Building Cost for 350 students	52,849	size of new bldg. per OSFC
R. Water Supply			$ -	(assume 234 ES + 116 MS)	$ 253.07	
S. Exterior Doors			$ 74,000.00		**$ 13,374,496.43**	
T. Asbestos			$ 1,334,620.19			
U. Life Safety Code			$ 305,296.00	Reno vs Rebuild Percentage:		**122.55%**
V. Loose Equipment			$ 367,650.00			
W. Technology			$ 748,535.40			
Subtotal			$ 12,569,859.58			
X. a) Contingency 7%			$ 879,890.17			
Total of Construction cost			$ 13,449,749.75			
b) Soft costs 16.29%			$ 2,190,964.23			
Renovation Cost			**$ 15,640,713.98**			
Area 8 regional Cost factor - 104.79%			$ 749,190.20			
TOTAL RENOVATION COST			$ 16,389,904.18	NOTE: Cost to renovate is $222.90 per SF		

General Description

Michael R. White PK-8 School is a two-story (plus basement) school located on East 92nd Street in a residential neighborhood in the City of Cleveland. It was originally constructed in 1920. The school is located on a small, urban 5.6-acre site that also houses a detached boiler house, a detached four-classroom building, and a greenhouse building that is contiguous to an active community garden. The detached classroom building is currently being used for storage. The facility is a brick building with attractively designed stone trim and detailing.

The facility features conventionally partitioned design. It features masonry bearing walls with plaster on the interior of the classrooms that is generally in deteriorated and poor condition. The floor structure for the intermediate floors of the building is cast-in-place concrete. The greenhouse is concrete slab on grade, and the boiler house has a concrete slab and below grade floor structure. The floor finishes throughout the school are variety of wood, concrete, VAT and quarry tile and, with the exception of the quarry tile, is in poor and worn out condition.

The roof system is clay tile on the sloped roofs, which appears in fair condition and an EPDM on the flat roofs. Several areas of ponding on the flat roofs were observed. The boiler house and the greenhouse also feature the same EPDM roofs. The ventilation system of the school is inadequate to meet the needs of the users.

The school contains a few unique spaces including a large central continuous space that serves as the auditorium, cafeteria and gymnasium. With a current enrollment reported to be at 290 students this PK-8 school is oversized for the student population.

The electrical system for the facility is inadequate based on OSDM guidelines for a school. The facility is equipped with a minimal security system and is not fully OSDM compliant. The building has the original 1921 fire alarm system, which is not compliant with Ohio Building Code, NFPA or Ohio School Design Manual requirements. The facility is not equipped with an automated fire suppression system.

The school contains asbestos, with many areas of VAT observed in poor and friable condition. Warning signs for asbestos pipe insulation were observed in many locations and, according to the Enhanced Environmental Assessment conducted in 2001, the plaster walls and ceilings are an ACM as well, requiring removal and replacement. The overall building is not compliant with ADA accessibility requirements.

The property is partially fenced in the area around the community garden and greenhouse building and the fencing is in poor condition. There are two asphalt parking lots on-site, both of which are in poor condition. Access onto the site is unrestricted. Parking for staff and visitors appears adequate for current enrollment levels and due to the former asphalt playground area now being converted to a dedicated parking area.

ITEM A: HEATING SYSTEM

Description

The existing heating system for the entire facility utilizes two (2), Weil McCane, gas-fired, steam boilers. Each boiler has an input of 4,100 MBH. These boilers are approximately ten (10) years old and in fair shape. It appears the steam piping throughout the facility is original (1921) and should be replaced. The facility is heated from steam radiators in each classroom, office and large-group areas. These radiators are original fixtures.

Steam radiators

Ventilation of the facility is done thru two (2) large supply fans utilizing steam heating coils to heat the ventilation air. The fans and steam coils are original (1921) and in poor shape. The ventilation requirements of the OSDM and OMC are not met.

Steam boilers

The pneumatic temperature control system appears to be from the original building construction installed in 1921 and is in very poor condition. This system does not include individual temperature control in all spaces as required by the OSDM.

The overall system is evaluated as being safe, but is in inefficient working condition, and long-term life expectancy of the existing system is not anticipated.

The ductwork system must be upgraded completely to allow the installation of a new HVAC system.

Restrooms and areas requiring exhaust (janitor's closets, art rooms, etc.) have exhaust registers, but it appears that few are operating properly.

Recommendations

Provide comprehensive, new heating, ventilating and air conditioning systems to achieve compliance with Ohio Building Code and Ohio School Design Manual standards. Provide new DDC type temperature control to meet both the OBC and OSDM requirements.

Costs

Main Building:

HVAC system replacement: 62,021 SF x $26.12 / SF =	$1,619,988.52
Convert to ducted system: 62,021 SF x $8.00 / SF =	$496,168.00

Greenhouse:

HVAC system replacement: 1,547 SF x $26.12 / SF =	$40,407.64
Convert to ducted system: 1,547 SF x $8.00 / SF =	$12,376.00

Detached Classroom Building:

HVAC system replacement: 5,056 SF x $26.12 / SF =	$132,062.72
Convert to ducted system: 5,056 SF x $8.00 / SF =	$40,448.00

Boiler House:

HVAC system replacement: 4,906 SF x $26.12 / SF =	$128,144.72
Convert to ducted system: 4,906 SF x $8.00 / SF =	$39,248.00
Total:	$2,508,843.60

ITEM B: ROOFING

Description

The school building has a combination of a clay tile type roof over the sloped roof structure and an EPDM system over the flat roofs. The clay tile appeared in fair condition, but some pieces were observed fallen off and it appears to be the original 1921 roof. According to Ohio School Facilities Commission data, the EPDM roof was installed in 1999 and, thus, requires replacement due to age. Ponding was observed in many locations of the flat roof. According to maintenance personnel, the roofs do not currently leak, but there is a broken roof drain pipe in the mechanical room which needs replacement. Signs of past water penetration were observed throughout the school during the physical assessment. The roof flashing does not wrap over the parapet walls, and evidence of water penetration through coping joints was observed. There is a roof hatch provided in the school, but it was suggested that easier access could be gained by crawling through a window. The sloped roofs utilize a system of gutters and downspouts for storm water that shed onto the lower flat roofs. Water is then drained via internal roof drains. Overflow is addressed by the means

Roof ponding

Parapet wall deterioration

of scuppers. No problems requiring attention were encountered with any roof penetrations. There is not a covered walkway attached to this structure.

The roofs over the boiler house and the greenhouse are also EPDM systems and appear to be of the same installation date as the school roof. The boiler house utilizes internal roof drains for storm drainage, while the greenhouse utilizes a system of gutters and downspouts that are tied into the storm drainage system. Neither of the roofs have access. The roof over the detached classroom building is a metal roof system and utilizes gutters and downspouts.

Greenhouse Roof (center bldg)

Clay tile roof

Recommendations

Boiler House roof

The flat, EPDM roofs require replacement to meet Ohio School Design Manual guidelines for the age of the system and due to ponding conditions – this also includes the boiler house roof and the greenhouse roof. The clay tile roof will need to be replaced, and due to Historic Preservation requirements, the new roof will likely be required to be clay tile, instead of shingles, which is what the OSFC will co-fund. The difference in cost will be the District's responsibility. The original roof hatch in the original building should be replaced. Replacement of one internal roof drain, which is leaking in mechanical room, should be done. Metal capping over existing stone coping should be done to prevent further water penetration. Replacement of all gutters and downspouts should be done due to age and condition. New gutters and downspouts should be provided for the detached classroom building.

Costs

Main Building:

EPDM Roof Replacement: 19,504 SF x $8.70/ SF =	$169,684.80
Metal Coping: 1,347 LF x $18.40/LF =	$24,784.80
Clay Tile Roof Replacement: 17,031 SF x $24.04/ SF =	$409,425.24
Gutter Replacement: 988 LF x $13.10/LF =	$12,942.80
Roof Hatch Replacement: Main Bldg.: 1 unit x $2,000/unit =	$2,000.00
Replace Roof Drain: Main Bldg: 1 drain x $1,200/drain =	$1,200.00

Greenhouse:

Roof Replacement: 2,380 SF x $8.70/ SF =	$20,706.00
Gutter Replacement: 89 LF x $13.10/LF =	$1,165.90

Detached Classroom Building:

Gutter Replacement: 434 LF x $13.10/LF =	$5,685.40

Boiler House:

Roof Replacement: Boiler House: 1,624 SF x $8.70/ SF =	$14,128.80
Metal Coping: Boiler House: 192 LF x $18.40/LF =	$3,532.80
Overflow drains: Boiler House: 2 units x $2,500/drain =	$5,000.00
Total:	$670,256.54

Note: The cost of a shingled roof system with ventilated nail base is $8.20/SF. The cost for the clay tile roof which will likely be required is $24.04/SF. The difference between them will be a Locally Funded Initiative (LFI) expense that is approximately $269,771.04.

ITEM C: AIR CONDITIONING

Description

The overall facility is not equipped with a central air conditioning system.

Fan Ventilation Unit with Steam Heating Coil

Recommendations

Provide an air conditioning system to meet OSFC design manual requirements. This will include a central boiler and chiller plant, and new exhaust throughout this facility. Pricing included in Item A.

ITEM D: ELECTRICAL

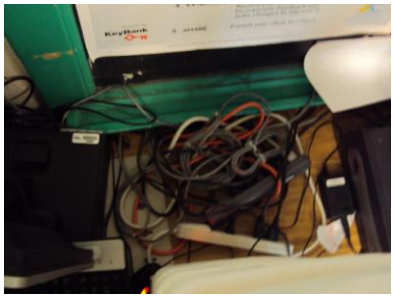
Description

The electrical system provided to the overall facility is a 240-volt 1200-amp 3-phase 4-wire system with an updated Main Distribution Panel installation (date unknown) and is in fair condition.

Main Distribution Panel

Power is provided to the building by a multiple utility-owned, transformer located in the utility vault, and is in unknown condition as the vault is only accessible by utility company personnel. The panel system, installed in 1921, is in poor condition and cannot be expanded to add additional capacity. There were some additional distribution panels added for technology upgrades.

Adequate outlets are not provided throughout the building for cleaning and services. The typical classroom contains approximately two (2) outlets. This creates the use of extension cords throughout the rooms and above ceilings. This is in violation of building codes. The overall building has lighting protection safeguards in place.



Excessive use of extension cords

The greenhouse building is fed with a 100-amp 240/120-volt 3-phase 4-wire system in fair condition. Adequate outlets are not provided throughout the building or on the exterior for maintenance. The boiler house is fed from the school through the connecting tunnel. Convenience outlets are inadequately provided.

Recommendations

The entire electrical system requires replacement to meet Ohio School Design Manual guidelines for overall capacity and lack of OSDM required features. Adequate outlets should be provided throughout the building to meet OSDM requirements.

An emergency generator should be installed, funding for which is included in the electrical system replacement.

The electrical service and all related components should be replaced in the greenhouse. (When the service of the main building is replaced it will be replaced with a 208/120volt 3-phase service as 240/120 3-phase service is no longer available.

The electrical service and all related components should be replaced in the boiler house when the service of the main building is replaced. It should be replaced with a 208/120volt 3-phase service as 240/120 3-phase service is no longer available.

Costs

Electrical system replacement: Main Bldg: 62,021 SF x $16.23/ SF =	$1,006,600.83
Electrical system replacement: Green House: 1,547 SF x $16.23/ SF =	$25,107.81
Electrical system replacement: Detached C.R. Bldg: 5,056 SF x $16.23/SF =	$82,058.88
Electrical system replacement: Boiler House: 4,906 SF x $16.23/ SF =	$79,624.38
Total:	$1,193,391.90

ITEM E: PLUMBING

Description

The service entrance is equipped with a backflow preventer and is in fair condition. A water treatment system has not been provided, though none is needed. The overall facility has copper piping and it appears that it is in fair condition. The domestic hot water heater is a 100-gallon, gas-fired tank and appears to be in fair condition.

High / Low electric water coolers

The school contains two (2) group restrooms for girls, and two (2) for boys. The facility has six (6) staff restrooms and one (1) special

education restroom. The boys' group restrooms consist of: nine (9) floor-mounted water closets, 16 floor-mounted urinals and five (5) wall-hung lavatories and they are in poor condition. The girls' group restrooms consist of 24 floor-mounted water closets, and eight (8) wall-hung lavatories and they are in poor condition. The staff restrooms and special education restroom consists of: nine (9) floor-mounted water closets, and eight (8) wall hung lavatories. All fixtures are in poor shape and should be replaced. The facility contains three (3) high/low electric water coolers, one (1) single electric water cooler and one drinking fountain, all of which are in poor condition.


Boy's Restroom

The greenhouse contains two (2) restrooms, consisting of two (2) floor-mounted water closets and two (2) wall hung lavatories. These fixtures appear to be in fair condition but should be replaced due to their age. The 30-gallon water heater also should be replaced due to its age.

Recommendations

Provide for replacement of water closets, urinals and lavatories as noted below. Replace two (2) domestic water heaters (main facility and greenhouse) and the domestic supply piping and sanitary piping should be replaced due to age. All drinking fountains and electric water coolers should be replaced due to age.

Costs

Main Building and Greenhouse:

Water closets: 38 units x $1,500/unit =	$57,000.00
Urinals: 14 units x $1,500/unit =	$21,000.00
Lavatory: 17 units x $1,500/unit =	$25,500.00
Electric water coolers: 5 units x $3,000/unit =	$15,000.00
Water heater: 2 units x $5,100/unit =	$10,200.00
Domestic Supply piping: 62,021 SF x $3.50/SF =	$217,073.50
Sanitary Waste piping: 62,021 SF x $3.50/SF =	$217,073.50

Detached Classroom Building:

Water closets: 5 units x $1,500/unit =	$7,500.00
Urinals: 3 units x $1,500/unit =	$4,500.00
Lavatory: 2 units x $1,500/unit =	$3,000.00
Electric water coolers: 2 units x $3,000/unit =	$6,000.00
Utility sink: 1 unit x $2,400/unit =	$2,400.00

Boiler House:

Domestic Supply piping: 4,906 SF x $3.50/SF =	$17,171.00
Sanitary Waste piping: 4,906 SF x $3.50/SF =	$17,171.00
Total =	$620,589.00

ITEM F: WINDOWS

Description

The windows throughout the majority of the school facility are an aluminum frame type window system with single glazing. They are not an approved OSFC window system. The windows are a double-hung type. Most are provided with insect screens, but many of the screens were observed in damaged condition. The window system hardware appears in good condition. Their date of installation is not known, but they appear to be less than 15-20 years old. Some windows are equipped with curtains, however, most have no window treatment. No glass block windows were observed in the school. The school is reported to contain skylights that have been roofed over according to maintenance personnel. There are no curtain wall window systems in the building. The windows in the boiler house and the greenhouse are steel frame, single pane windows that are a major source of energy loss. The windows on the boiler house feature security grills that are rusted and in poor condition. The greenhouse windows feature operable vents and are not equipped with screens. The top portion of the greenhouse windows are a frosted type glass. The exterior doors in the school building have recently been replaced with double-pane transoms and sidelights and they appear in good condition.

Greenhouse windows

Typical Windows

Recommendations

Provide a new window system in the original building due to these windows being a non-OSDM compliant window system. Provide for replacement of the greenhouse, detached classroom building and boiler house windows due to age, condition, and being a non-OSDM compliant type window system. New compliant window systems should be a double-glazed, thermally separated frame type with integral blinds.

Costs

Window replacement: Main Bldg: 5,023 SF x $60.00/ SF =	$301,380.00
Window replacement: Greenhouse: 519 SF x $60.00/ SF =	$31,140.00
Window replacement Detached Classroom Bldg.: 917 SF x $60.00/SF =	$55,020.00
Window replacement: Boiler House: 305 SF x $60.00/ SF =	$18,300.00
Total:	$405,840.00

ITEM G: STRUCTURE – FOUNDATION

Description

The facility is equipped with concrete foundation walls on concrete footings that were observed to be generally in fair condition. Areas of water penetration were observed in the basement. No grading or site drainage deficiencies were noted around the perimeter of the structure that are contributing to or could contribute to foundation/wall structural deterioration.

Recommendations

Provide for waterproofing and foundation repairs/sealing with foundation drainage system in the basement.

Costs

Waterproofing spray: 696 SF x $6.00/ SF =	$4,176.00
Drainage system: 116 LF x $18.00/LF =	$2,088.00
Repair foundation and seal cracks: Lump Sum =	$25,000.00
Total =	$31,264.00

ITEM H: STRUCTURE (WALLS AND CHIMNEYS)

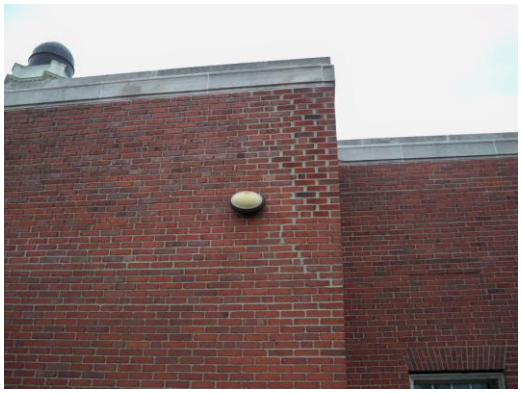
Description

Michael R. White School and the boiler house are both brick veneer structures on load bearing masonry wall system which displayed some locations of deterioration and are in fair condition. The exterior masonry is not provided with control joints. Brick veneer masonry walls are not cavity walls. Exterior masonry does not appear to have been cleaned or sealed in recent years and shows evidence of mortar deterioration. No locations of mold were observed. Architectural exterior accent materials consist of stone banding, columns and detailing which is aesthetically pleasing and generally in good condition, with a few exceptions. Nearly all the classrooms have plaster walls which are generally in poor condition, are deteriorating and contain asbestos (according to the EEHA Report by OSFC). Other interior walls include glazed and painted block, brick and marble panels, which range in condition. The window sills are stone on the exterior and marble on the interior and are in good condition. The exterior lintels are in fair condition in the school building, but are delaminating in the boiler house. The chimney located in the boiler house requires tuckpointing of the mortar.

Brick requires cleaning and sealing

The greenhouse building is a painted concrete block structure located on the south side of the site, and supports the science program. The walls are in fair condition in terms of structure, but need an exterior skin

for both insulation and weathertightness purposes. The school is not equipped with a loading dock.



Previous repairs

Recommendations

Provide tuckpointing in all areas of mortar deterioration as required. Provide for exterior masonry cleaning, sealing and caulking as required. Repoint stone and brick window sills where required. Provide an allowance for limestone repairs where it is damaged to ensure weathertightness of the building envelope. Replace steel lintels in boiler house. Provide new exterior skin for the greenhouse building for both added insulation value and protection from water penetration.

Delaminating Lintels at Boiler House

Interior brick wall in basement

Costs

Main Building:

Tuckpointing: 12,000 SF x $5.25/ SF =	$63,000.00
Exterior masonry cleaning: 49,141 SF x $1.50/SF =	$73,711.50
Exterior masonry sealing: 49,141 SF x $1.00 / SF =	$49,141.00
Caulking: 1,000 LF x $5.50 / LF =	$5,500.00
Allowance for stone repairs: lump sum	$15,000.00

Greenhouse:

Exterior skin: Lump sum =	$25,000.00

Boiler House:

Tuckpointing: 1,020 SF x $5.25/ SF =	$5,355.00
Exterior masonry cleaning: 3,061 SF x $1.50/SF =	$4,591.50
Exterior masonry sealing: 3,061 SF x $1.00 / SF =	$3,061.00
Lintel Replacement: 53 LF x $250/LF =	$13,250.00
Caulking: 250 LF x $5.50 / LF =	$1,375.00
Total =	$258,985.00

ITEM I: STRUCTURE (FLOORS & ROOFS)

Description

The main building floor construction is a cast in place concrete type construction, and is in fair condition. There is a small basement that leads to the boiler house via a tunnel. There are crawlspaces for pipes throughout the school. The floor construction of the boiler house is concrete slab below grade. The floor construction of the greenhouse building is concrete slab on grade. Intermediate floor construction of the main building and the boiler house is also cast in place concrete. The roof construction of the main building is a combination of wood trusses and steel bar joists, while the green house roof construction is laminated wood beam type construction. Portions of the boiler house lower level run underneath the pavement/drive above. One of these spaces is the former coal pit – which is now abandoned. It was observed to have exposed rebar and deteriorating concrete and is in poor condition.

Recommendations

Excavate and remove deteriorated coal pit room located underneath the asphalt drive. Close up wall opening in between boiler room and coal pit with new masonry wall. Provide engineered back fill and new asphalt surfacing in its place.

Costs

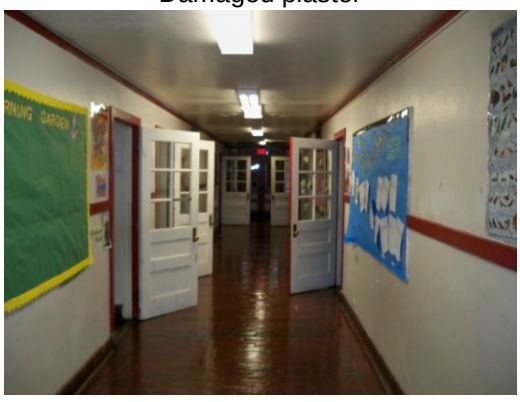
Remove coal pit and all associated work: Lump Sum = $175,000.00

ITEM J: GENERAL FINISHES

Description

The school features conventionally partitioned classrooms, with worn out wood flooring, plaster walls which are spalling and damaged, and a mixture of plaster ceilings and dropped 2’ x 4’ lay-in ceilings that range in condition from fair to poor. According to the Enhanced Environmental Assessment conducted by the Ohio School Facilities Commission in 2008, the plaster walls and ceilings contain asbestos and will require removal and replacement. Some rooms throughout the building feature VAT flooring which is in poor condition. The typical classroom features a cloakroom with hooks and shelving for student storage, and very little built in storage for teacher materials. What is present is the original, old wood casework and it is in poor condition. The typical classroom features more than an adequate amount of chalkboards that are the old wood, built-in the wall type and no tack boards are installed. The interior classroom doors are non-recessed, original wood units. They are equipped with knob type hardware with some featuring wired glass vision panels and all are in poor condition.

Damaged plaster



Corridor finishes

The large group restrooms feature concrete flooring and a combination of glazed block marble and plaster walls that range in condition from fair to poor. The restrooms ceilings are plaster and they are in poor condition. The toilet partitions are generally an old, metal type that requires replacement.

Plaster damage in ceiling

The central portion of the school is a large, open space that houses multiple purposes. It serves as the auditorium in the central portion, gymnasium space at each end, and one end also serves as the cafeteria. Seating is moved to the side areas when not in use. This space features a painted concrete floor which is uneven, plaster walls and 1' x 1' ceiling tiles glued to the plaster ceiling. They are falling off and in poor condition. No bleachers, auditorium seating or basketball backboards are provided. Portable basketball hoops are used. A stage is present for the auditorium and features old wood flooring. A small balcony is provided for the auditorium, but is completely full of tables and chairs as it is used for storage. There are two manual partition doors provided in this central space to separate the gyms/cafeteria from the auditorium. The doors go from floor to ceiling in height and they appear to be the original 1921 doors. They are reported as inoperable.

Center portion – 2 gyms and an auditorium/cafeteria

The art program, which is in a typical classroom, does not have a kiln. The media center is in a portion of the former Kindergarten room and features carpet over wood flooring, plaster walls and 2' x 4' lay-in ceilings. The media center finishes are in fair condition. The existing kitchen is a warming kitchen only. It is located in a converted classroom featuring concrete flooring, plaster walls, and plaster ceilings that are in worn condition. The age of the kitchen equipment is not known. There are no walk-in freezers or coolers provided.

Plaster Damage

The greenhouse features a concrete floor, painted block walls and an exposed wood ceiling. The finishes are in fair condition. The casework provided is basically built in tables along the window walls. Limited tack boards are provided. The boiler house has painted brick walls that are peeling, a concrete floor and plaster ceiling which has areas of damage.

Recommendations

Provide complete replacement of finishes and provide new casework due to very poor conditions and due to the installation of systems outlined in this report (such as HVAC system, electrical, technology, etc). Provide for replacement of old toilet partitions and provide new accessories. Plaster walls and ceilings will require replacement due to asbestos and condition.

New doors should be installed on marble partitions in abandoned restrooms. Funding for replacement of interior doors is provided in Item O, including doors here noted as being in poor condition. An art kiln and heat removal hood will be required for the school.

For a school funded by the Ohio School Facilities Commission, the building will be required to meet LEED Silver Certification. Because the building lacks wall insulation, furring out of existing exterior walls and providing insulation and abuse resistant GWB will be required in order to achieve credits for energy savings.

Costs

Main Building:

Complete replacement of finishes & casework: 62,021 SF x $15.90/ SF =	$986,133.90
Furring out of exterior walls: 44,652 SF x $6.00/SF =	$267,912.00
Toilet Partition replacement: 6 units x $1,000/ SF =	$6,000.00
Toilet accessory replacement: 62,021 SF x $0.20 SF =	$12,404.20
Art Kiln: 2 units x $2,750 each (one for ES & one for MS)	$5,500.00
Art kiln exhaust: 2 units x $5,000/unit =	$10,000.00
Wood Stage floor replacement: 318 SF x $12.85/SF =	$4,086.30
Lightweight concrete floor infill at wood floor removal: 33,360 SF x $8/SF =	$266,880.00
Auditorium/Gym partition wall (floor to ceiling height): 2 units x $50,000/unit =	$100,000.00
Plaster replacement (due to asbestos & condition): 41,310 SF x $9.00/SF =	$371,790.00

Detached Classroom Building:

Complete replacement of finishes and casework: 5,056 SF x $15.90/ SF =	$80,390.40
Furring out of exterior walls: 3,632 SF x $6.00/SF =	$21,792.00
Toilet Partition replacement: 4 units x $1,000/ SF =	$4,000.00

Boiler House:

Paint: 4,906 SF x $2.00/SF =	$9,812.00
Plaster Refinishing: 1,000 SF x $14.00/SF =	$14,000.00

Greenhouse:

Complete replacement of finishes & casework: 1,547 SF x $15.90/ SF =	$24,597.30
Total =	$2,185,298.10

ITEM K: INTERIOR LIGHTING

Description

Typical lighting throughout the building is a mix of T-8 and T-12 Fluorescent indirect/direct, 2' x 4' lay-in, surface mounted fluorescent fixtures and some incandescent fixtures throughout the building. The fixtures are in assorted conditions. Some areas have newer 2' x 4' T-8 fixtures installed.

The typical corridors in the building are equipped with T-8 1' x 4' surface fixtures in fair condition providing inadequate

Typical Gymnasium Lighting fixture

illumination. Typical classrooms are equipped with T-8 surface mounted fixtures in fair condition thus providing inadequate illumination. There also is a lack of dual level switching in some areas. The gymnasium/cafeteria/auditorium area is equipped with metal halide high bay fixtures in fair condition providing inadequate illumination. The kitchen area is equipped with surface mounted wrap around fluorescent fixtures in fair condition providing inadequate lighting levels as per code.

Typical Gymnasium Lighting fixture

The greenhouse building is equipped with T-12 industrial style fixtures in poor condition providing inadequate lighting. The boiler house building is equipped with a mix of T-8 and T-12 industrial style fixtures in fair condition providing inadequate lighting.

Recommendations

Provide complete replacement of lighting system due to inadequate lighting levels, condition and lack of multilevel switching.

Costs

Interior lighting replacement: Main Bldg.: 62,021 SF x $5.00/SF =	$310,105.00
Interior lighting replacement: Greenhouse: 1,547 SF x $5.00/SF =	$7,735.00
Interior lighting replacement: Detached Classroom Bldg.: 5,056 SF x $5.00/SF =	$25,280.00
Interior lighting replacement: Boiler House. 4,906 SF x $5.00/SF =	$24,530.00
Total =	$367,650.00

ITEM L: SECURITY SYSTEM

Description

The overall facility contains a CCTV intrusion type security system that is in good condition. An automatic visitor control system is not provided. Non-compliant CCTV cameras are provided at main entry areas and main corridors. CCTV is monitored at an off-site Administrative Area. A compliant computer controlled access control system integrating alarms and video signals with appropriate UPS backup is not provided. The system is not equipped with card/biometric readers. The security system is inadequate and the system is not fully compliant with Ohio School Design Manual guidelines.

Typical exterior building mounted fixture

Typical motion sensor & corridor camera

The greenhouse has no security system. The boiler house building is connected to the main security system of the school.

The exterior site lighting system is equipped with surface mounted incandescent fixtures in poor condition. Pedestrian walkways are illuminated using municipal owned street lights. Parking areas are not illuminated other than with spillover light

from the municipal street lights. The exterior site lighting system provides inadequate illumination due to sparse placement of fixtures and locations adjacent to landscape areas with overgrown vegetation.

Recommendations

Provide new security system to meet Ohio School Design Manual guidelines. Provide new exterior site lighting system to meet Ohio School Design Manual guidelines.

Costs

Main Building:

Security System Replacement: 62,021 SF x $1.85/SF =	$114,738.85
Site Lighting Replacement: 62,021 SF x $1.00/SF =	$62,021.00

Greenhouse:

Security System Replacement: 1,547 SF x $1.85/SF =	$2,861.95
Site Lighting Replacement: 1,547 SF x $1.00/SF =	$1,547.00

Detached Classroom Building:

Security System Replacement: 5,056 SF x $1.85/SF =	$9,353.60
Site Lighting Replacement: 5,056 SF x $1.00/SF =	$5,056.00

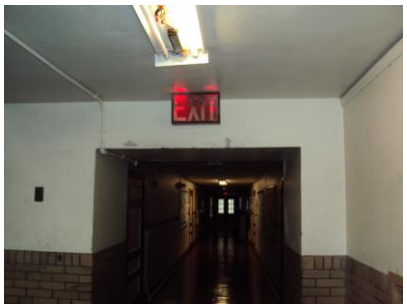
Boiler House:

Security System Replacement: 4,906 SF x $1.85/SF =	$9,076.10
Site Lighting Replacement: 4,906 SF x $1.00/SF =	$4,906.00
Total =	$209,560.50

ITEM M: EMERGENCY / EGRESS LIGHTING

Description

The overall school facility, greenhouse building and boiler house building are equipped with an emergency egress lighting system consisting of non-compliant red lettered plastic constructed illuminated exits signs. The system is in fair condition. The facility is equipped with emergency egress floodlighting, but it is not adequately provided throughout the building.



Non-compliant exit sign


Non-compliant exit sign

Recommendations

Provide complete replacement of emergency/egress lighting system to meet Ohio School Design Manual and Ohio Building Code guidelines.

Costs

Emergency/Egress Replacement Main Bldg: 62,021 SF x $1.00/SF =	$62,021.00
Emergency/Egress Replacement Greenhouse: 1,547 SF x $1.00/SF =	$1,547.00
Emergency/Egress Replacement Detached C.R. Bldg.: 5,056 SF x $1.00/SF =	$5,056.00
Emergency/Egress Replacement Boiler House: 4,906 SF x $1.00/SF =	$4,906.00
Total =	$73,530.00

ITEM N: FIRE ALARM

Description

The overall facility is equipped with a tele-call fire alarm system. It was installed in 1921 and is in poor condition. It consists of manual pull stations and bells as indicating devices. The system is not automatic and is not monitored by a third party. The system is not equipped with sufficient audible horns or strobes, indicating devices, flow switches, tamper switches, smoke detectors or heat sensors. The system will not support future fire suppression systems. The system is not adequately provided throughout, and does not have additional zone capabilities. The system is not fully compliant with Ohio Building Code, NFPA, and Ohio School Design Manual requirements.

Fire alarm activation in office

The greenhouse building is currently not connected to the fire alarm system. The boiler house building is connected to the existing outdated fire alarm system of the main school building.

Fire alarm panel

Recommendations

Provide complete replacement of fire alarm system to meet OBC, NFPA, and Ohio School Design Manual guidelines.

Costs

Fire Alarm System replacement Main Bldg: 62,021 SF x $1.50/SF =	$93,031.50
Fire Alarm System replacement Greenhouse: 1,547 SF x $1.50/SF =	$2,320.50
Fire Alarm System replacement Detached Classroom Bldg: 5,056 SF x $1.50/SF =	$7,584.00
Fire Alarm System replacement Boiler House: 4,906 SF x $1.50/SF =	$7,359.00
Total =	$110,295.00

ITEM O: HANDICAP ACCESS

Description

No lift at stage

There is an accessible route provided from the parking areas to one of the main entrances of the school. There is an accessible route connecting all or most areas of the site via sidewalks and asphalt surfacing. There is an exterior entrance without steps, however no ADA power door assist is present in the building. Other entrances compromise ADA entry due to steps. The playground layout and equipment are generally ADA compliant.

Old wood doors without ADA hardware

On the interior of the building, space allowances and reach ranges are compromised. There is not an accessible route between floor levels of this 2-story building. There are three separate upper levels in the building that are not connected – requiring an elevator at each location for accessibility. Access to the stage is not facilitated by a lift or ramp. Interior doors are old wood units, are not recessed and are not provided with ADA compliant hardware. The large group restrooms are not equipped with ADA compliant toilets or sinks. The floor mounted urinals are ADA compliant but in poor condition requiring replacement with new fixtures, including provisions for the disabled. Toilet partitions are old units and do not provide appropriate ADA clearances. Mirrors generally do not meet ADA requirements for mounting heights and they are in poor condition. ADA compliant electric water coolers were observed, but are in dated condition. The health clinic restroom is not compliant with ADA requirements. ADA signage is not provided.

Recommendations

Provide ADA-compliant signage, new elevators, sinks, toilets, urinals, electric water coolers (see Item E), toilet partitions, mirrors and toilet partition accessories as required. Replace old wood doors with new leafs equipped with ADA hardware. Provide lift for the stage. Parking issues are corrected in Item P.

Non ADA Compliant restroom

Non-ADA toilet partitions

Costs

Main Building:

ADA signage: 62,021 SF x $0.20/ SF =	$12,404.20
Elevators: 6 stops x $42,000/stop =	$252,000.00
ADA Toilet Partition replacement: 4 units x $1,000/ SF =	$4,000.00
ADA sinks/toilets/urinals: 10 unit x $3,800.00/unit =	$38,000.00
Mirrors: 4 units x $600/unit =	$2,400.00
Lift: 1 unit x $15,000/unit =	$15,000.00
ADA power door assist: 1 unit x $7,500.00 =	$7,500.00
Replace interior doors: 86 leafs x $1,300 / leaf =	$111,800.00

Greenhouse:

ADA signage: 1,547 SF x $0.20/ SF =	$309.40
ADA sinks/toilets: 4 unit x $3,800.00/unit =	$15,200.00
Replace interior doors: 6 leafs x $1,300 / leaf =	$7,800.00
ADA Power Door assist: 1 unit x $7,500/unit =	$7,500.00

Detached Classroom Building:

ADA signage: 5,056 SF x $0.20/ SF =	$1,011.20
ADA sinks/toilets/urinals: 5 unit x $3,800.00/unit =	$19,000.00
Replace interior doors: 10 leafs x $1,300 / leaf =	$13,000.00
ADA Power Door assist: 1 unit x $7,500/unit =	$7,500.00
Toilet Partitions: 2 units x $1,000/unit =	$2,000.00

Boiler House:

ADA signage: 4,906 SF x $0.20/ SF =	$981.20
Replace interior doors: 4 leafs x $1,300 / leaf =	$5,200.00
Total =	$522,606.00

ITEM P: SITE CONDITION

Description

The 5.6-acre flat site is located in an urban residential neighborhood and is provided with moderate tree and shrub type landscaping. The site houses the main academic building, a detached classroom building, a greenhouse building and the boiler house. The site accommodates a city garden adjacent to the greenhouse and also has a small detached classroom building on site. Minor areas of erosion were observed. No ponding was observed.

Rubber surface deteriorated

The site is bordered by moderately traveled streets. Two entrances provide access to the site: one on the south side of the property and one on the northeast side of the property. There is no bus loop onsite.

According to the building principal, only special needs students are provided with busing to the school and the buses park curbside on the street. There is no auto drop-off loop provided. Staff and visitor parking occur in two main parking asphalt lots that are in poor condition. Parking spaces appear to be adequate in terms of quantity. No ADA parking spaces were observed.

Parking lot in poor condition

Site and parking lot drainage design consists of sheet drainage and storm sewers. Sidewalks are generally properly sloped and located to provide a logical flow of pedestrian traffic, though there are areas that require replacement.

The playground equipment is metal and in generally good condition. The playground is located on a rubber surface that is in poor condition. Hard surface playgrounds used to be located in the north parking lot and are now abandoned. This area is used strictly for parking. Several areas on the site have chain link fencing which is in poor condition. There are no athletic facilities on the site.

Concrete deterioration & missing railing

The trash dumpster is provided with a concrete pad as per the OSDM requirements. At several entrances the concrete walk and brick retaining walls are deteriorating, leaning and in poor condition.

Recommendations

Provide ADA parking spaces. Resurface all asphalt areas. Provide for concrete sidewalk replacement. Provide for reconstruction of two (2) entrance steps, retaining walls and railings. Provide for replacement of old chain link fencing. Provide new rubber or soft surface material for playgrounds.

Costs

Convert 3 spaces to ADA spaces: 3 units x $1,100/ unit =	$3,300.00
Reconstruct concrete/retaining walls at 2 entrances: lump sum =	$50,000.00
Resurface all asphalt: 7,827 SY x $19.00/SY =	$148,713.00
Concrete sidewalk replacement: 2,205 SF x $4.69 SF =	$10,341.45
Chain link fencing: 1,600 LF x $13.00/LF =	$20,800.00
Soft surface playground material: 440 SY x $30.00/SY=	$13,200.00
Base sitework allowance for unforeseen site circumstances per OSFC guidelines:	$50,000.00
Additional sitework allowance based on SF of building x $1.50/SF =	$110,295.00
Total =	$406,649.45

ITEM Q: SEWER SYSTEM

Description

The sanitary sewer system is tied in to the city system and is in fair condition. No significant system deficiencies were reported by the owner or noted during the physical assessment.

Recommendations

Rework sanitary system with entire plumbing upgrades noted in Item E.

ITEM R: WATER SUPPLY

Description

The domestic water supply system is copper and is in fair condition. The pressure and flow appear adequate, however a flow test was not provided. Maintenance personal have had no apparent issues with the water supply.

Recommendations

Existing conditions require no work at this time.

ITEM S: EXTERIOR DOORS

Description

The typical hollow metal, exterior doors appear to have been recently replaced, and are generally in good condition with the exception of two (2) leafs. The doors have been installed on the old wood jambs and are showing signs of deterioration. They should be replaced. The interior vestibule doors however, have not been replaced and are old wood units. There are no overhead doors in the facility. In the boiler house there is one (1) old exterior door that is in poor condition and requires replacement and another four (4) exterior doors in the greenhouse require replacement.

Typical exterior door

Recommendations

Replace two (2) exterior doors and 12 vestibule doors in the main building, one (1) exterior door in the boiler house, and four (4) exterior doors in the green house to comply with Ohio Building Code, ADA and Ohio School Design Manual guidelines. Remove all exterior doors and provide new jambs – reuse existing exterior doors.

Costs

Main Building:

Replace exterior doors and vestibule doors: 13 leafs x $2,000.00 =	$26,000.00
Recaulk/minor repairs to stairs at entrances: lump sum =	$8,000.00

Replace exterior door jambs: 44 jambs x $500/jamb =	$22,000.00

Greenhouse:

Replace exterior doors: 5 leafs x $2,000.00 =	$10,000.00

Detached Classroom Bldg.:

Replace exterior doors: 3 leafs x $2,000.00 =	$6,000.00

Boiler house:

Replace exterior doors: 1 leaf x $2,000.00 =	$2,000.00
Total =	$74,000.00

ITEM T: HAZARDOUS MATERIALS

Description

In 2002, the OSFC conducted an Enhanced Environmental Hazardous Assessment to determine the presence of asbestos and other hazardous material. The study concluded that there is asbestos in the pipe insulation, pipe fittings, flexible duct connection, hard plaster and vinyl floor tiles which will require removal/abatement. New walls and ceilings will be required (see Section J). Costs are allocated for lead-based paint testing and mockups, as well as for incineration of fluorescent lamps and ballasts. It is assumed that the paint throughout the building is lead based due to the building's construction date and will be required to meet the EPA's Renovation/Replacement programs guidelines.

Damaged VAT flooring

Recommendations

Remove all hazardous materials, inclusive of asbestos-containing materials in the overall facility.

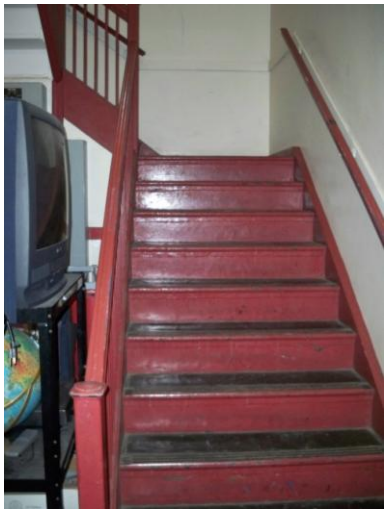
Costs

Hazardous material removal: =	$1,164,620.19
Detached CR Building Hazardous material removal =	$20,000.00
Potential lead paint costs (future testing by a licensed specialist will confirm exact cost) =	$150,000.00
Total =	$1,334,620.19

Note: Enhanced Environmental Assessment is attached as an exhibit for itemized costs.

ITEM U: LIFE SAFETY

Description


Non-compliant stair/handrail

The school facility and the greenhouse do not contain an automated fire suppression system. There are no kitchen hoods or equipment requiring kitchen hoods. The facility is not currently equipped with an emergency generator. Exit corridors are situated such that dead-end corridors are not present. The facility features four (4) main stairwells that are not protected by two-hour fire enclosures. The facility does not have any exterior stairways from intermediate floors. Guardrails/handrails are not compliant with current Ohio Building Code. Fire extinguishers are provided throughout the facility. Rooms with a capacity greater than 50 occupants are equipped with adequate egress.

Recommendations

Provide a new fire suppression system in all buildings. Provide new emergency generator with funding provided via complete replacement of electrical system in Item D. Provide new handrails and two-hour rated stair enclosures.

Costs

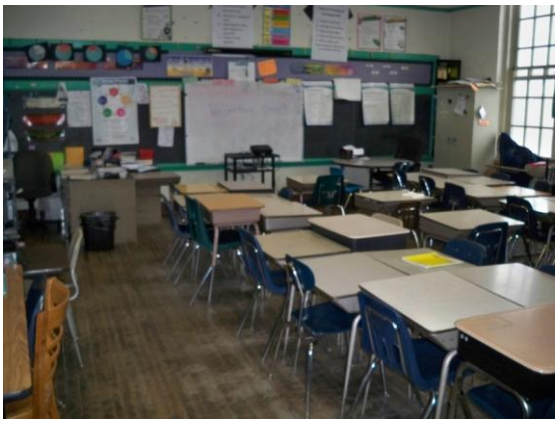
Main Building:	
Handrails: 7 levels x $5,000/level: =	$35,000.00
Stairwell enclosures: 7 levels x $5,000/level =	$35,000.00
Sprinkler/fire suppression system: 62,021 SF x $3.20/SF =	$198,467.20
Greenhouse:	
Sprinkler/fire suppression system: 1,547 SF x $3.20/SF =	$4,950.40
Detached Classroom Bldg.:	
Sprinkler/fire suppression system: 5,056 SF x $3.20/SF =	$16,179.20
Boiler House:	
Sprinkler/fire suppression system: 4,906 SF x $3.20/SF =	$15,699.20
Total =	$305,296.00

ITEM V: LOOSE FURNISHINGS

Description

The typical furniture is generally mismatched, dated and in worn condition. It consists of student desks and chairs, teacher desks and chairs, desk-height file cabinets, reading tables/computer workstations and bookcases.

Mismatched and dated furniture



Mismatched and dated furniture

Recommendations

Provide for complete replacement of furnishings.

Costs

Main Building Loose furnishings: 62,021 SF x $5.00/SF: =	$310,105.00
Boiler House Loose furnishings: 4,906 SF x $5.00/SF =	$24,530.00
Detached C.R. Bldg. Loose furnishings: 5,056 SF x $5.00/SF =	$25,280.00
Greenhouse Loose furnishings: 1,547 SF x $5.00/SF=	$7,735.00
Total =	$367,650.00

ITEM W: TECHNOLOGY

Description

The facility is equipped with a few smaller IT rooms that provide connectivity for the entire facility. Each classroom contains a small network cabinet that provides connectivity for each room. This cabinet is fed with a single run to the IT room. The typical classroom only contains two (2) data outlets. There is a two-way PA system that provides one-way communication from the office. Phones are not provided in each classroom.

The greenhouse is currently not connected to any of the technology infrastructure. The boiler house is currently not connected to any of the technology infrastructure.

Recommendations

Provide complete replacement of technology systems to meet Ohio School Design Manual requirements.

Costs

Technology system Main Bldg: 62,021 x $10.18/SF: =	$631,373.78
Technology system Greenhouse: 1,547 SF x $10.18/SF: =	$15,748.46
Technology system Detached CR Bldg: 5,056 SF x $10.18/SF: =	$51,470.08
Technology system Boiler House: 4,906 SF x $10.18/SF: =	$49,943.08
Total =	$748,535.40

ITEM X: SUMMARY OF COSTS

SUBTOTAL OF CONSTRUCTION COSTS:	=	$12,569,859.58
Construction Contingency – 7%:	=	$879,890.17
TOTAL OF CONSTRUCTION COSTS:	=	$13,449,749.75
Non-construction costs – 16.29%:	=	$2,190,964.23
Subtotal	=	$15,640,713.98
Regional cost factor 104.79%	=	$749,190.20
TOTAL RENOVATION PROJECT COST	**=**	**$16,389,904.18**

Environmental Hazards Assessment Cost Estimates

Owner:	Cleveland Municipal
Facility:	Miles Standish Elem
Date of Initial Assessment:	Mar 28, 2002
Date of Assessment Update:	Mar 28, 2002
Cost Set:	2014

District IRN:	43786
Building IRN:	24703
Firm:	Lawhon & Associates, Inc. - Columbus

Scope remains unchanged after cost updates.

Building Addition	Addition Area (sf)	Total of Environmental Hazards Assessment Cost Estimates	
		Renovation	Demolition
1921	64,598	$902,045.00	$892,045.00
Total	64,598	$902,045.00	$892,045.00
Total with Regional Cost Factor (103.76%)	—	$935,961.89	$925,585.89
Regional Total with Soft Costs & Contingency	—	$1,164,620.19	$1,151,709.30

Environmental Hazards(Enhanced) - Cleveland Municipal (43786) - Miles Standish Elem (24703) -

Owner:	Cleveland Municipal	**Bldg. IRN:**	24703
Facility:	Miles Standish Elem	**BuildingAdd:**	
Date On-Site:	2002-04-26	**Consultant Name:**	

A. Asbestos Containing Material (ACM) — AFM=Asbestos Free Material

	ACM Found	Status	Quantity	Unit Cost	Estimated Cost
1.	Boiler/Furnace Insulation Removal	Reported / Assumed Asbestos-Free Material	0	$10.00	$0.00
2.	Breeching Insulation Removal	Reported / Assumed Asbestos-Free Material	0	$10.00	$0.00
3.	Tank Insulation Removal	Reported / Assumed Asbestos-Free Material	0	$8.00	$0.00
4.	Duct Insulation Removal	Not Present	0	$8.00	$0.00
5.	Pipe Insulation Removal	Reported Asbestos-Containing Material	660	$10.00	$6,600.00
6.	Pipe Fitting Insulation Removal	Reported Asbestos-Containing Material	83	$20.00	$1,660.00
7.	Pipe Insulation Removal (Crawlspace/Tunnel)	Reported Asbestos-Containing Material	135	$12.00	$1,620.00
8.	Pipe Fitting Insulation Removal (Crawlspace/Tunnel)	Reported Asbestos-Containing Material	27	$30.00	$810.00
9.	Pipe Insulation Removal (Hidden in Walls/Ceilings)		0	$15.00	$0.00
10.	Dismantling of Boiler/Furnace/Incinerator	Not Present	0	$2,000.00	$0.00
11.	Flexible Duct Connection Removal	Assumed Asbestos-Containing Material	10	$100.00	$1,000.00
12.	Acoustical Plaster Removal	Not Present	0	$7.00	$0.00
13.	Fireproofing Removal	Not Present	0	$25.00	$0.00
14.	Hard Plaster Removal	Reported Asbestos-Containing Material	124509	$7.00	$871,563.00
15.	Gypsum Board Removal	Not Present	0	$6.00	$0.00
16.	Acoustical Panel/Tile Ceiling Removal	Not Present	0	$3.00	$0.00
17.	Laboratory Table/Counter Top Removal	Not Present	0	$100.00	$0.00
18.	Cement Board Removal	Not Present	0	$5.00	$0.00
19.	Electric Cord Insulation Removal	Not Present	0	$1.00	$0.00
20.	Light (Reflector) Fixture Removal	Not Present	0	$50.00	$0.00
21.	Sheet Flooring with Friable Backer Removal		0	$4.00	$0.00
22.	Fire Door Removal		0	$100.00	$0.00
23.	Door and Window Panel Removal		0	$100.00	$0.00
24.	Decontamination of Crawlspace/Chase/Tunnel	Not Present	0	$3.00	$0.00
25.	Soil Removal		0	$150.00	$0.00
26.	Non-ACM Ceiling/Wall Removal (for access)	Not Present	0	$2.00	$0.00
27.	Window Component (Compound, Tape, or Caulk) - Reno & Demo		0	$300.00	$0.00
28.	Window Component (Compound, Tape, or Caulk) - Reno Only		0	$300.00	$0.00
29.	Resilient Flooring Removal, Including Mastic	Reported Asbestos-Containing Material	2500	$3.00	$7,500.00
30.	Carpet Mastic Removal	Not Present	0	$2.00	$0.00
31.	Carpet Removal (over RFC)	Reported / Assumed Asbestos-Free Material	0	$1.00	$0.00
32.	Acoustical Tile Mastic Removal	Reported / Assumed Asbestos-Free Material	0	$3.00	$0.00
33.	Sink Undercoating Removal		0	$100.00	$0.00
34.	Roofing Removal	Reported / Assumed Asbestos-Free Material	0	$2.00	$0.00
35.	None	Not Present	lump sum		$0.00
36.	(Sum of Lines 1-35)	**Total Asb. Hazard Abatement Cost for Renovation Work**			$890,753.00
37.	(Sum of Lines 1-35)	**Total Asb. Hazard Abatement Cost for Demolition Work**			$890,753.00

B. Removal Of Underground Storage Tanks — ☑ None Reported

	Tank No.	Location	Age	Product Stored	Size	Est.Rem.Cost
1.	(Sum of Lines 1-0)	**Total Cost For Removal Of Underground Storage Tanks**				$0.00

C. Lead-Based Paint (LBP) - Renovation Only — ☐ Addition Constructed after 1980

1.	Estimated Cost For Abatement Contractor to Perform Lead Mock-Ups		$5,000.00
2.	Special Engineering Fees for LBP Mock-Ups		$5,000.00
3.	(Sum of Lines 1-2)	**Total Cost for Lead-Based Paint Mock-Ups**	$10,000.00

D. Fluorescent Lamps & Ballasts Recycling/Incineration — ☐ Not Applicable

	Area Of Building Addition	Square Feet w/Fluorescent Lamps & Ballasts	Unit Cost	Total Cost
1.	64598	12920	$0.10	$1,292.00

E. Other Environmental Hazards/Remarks — ☑ None Reported

		Description	Cost Estimate
1.	(Sum of Lines 1-0)	**Total Cost for Other Environmental Hazards - Renovation**	$0.00
2.	(Sum of Lines 1-0)	**Total Cost for Other Environmental Hazards - Demolition**	$0.00

F. Environmental Hazards Assessment Cost Estimate Summaries

1.	A36, B1, C3, D1, and E1	**Total Cost for Env. Hazards Work - Renovation**	$902,045.00
2.	A37, B1, D1, and E2	**Total Cost for Env. Hazards Work - Demolition**	$892,045.00

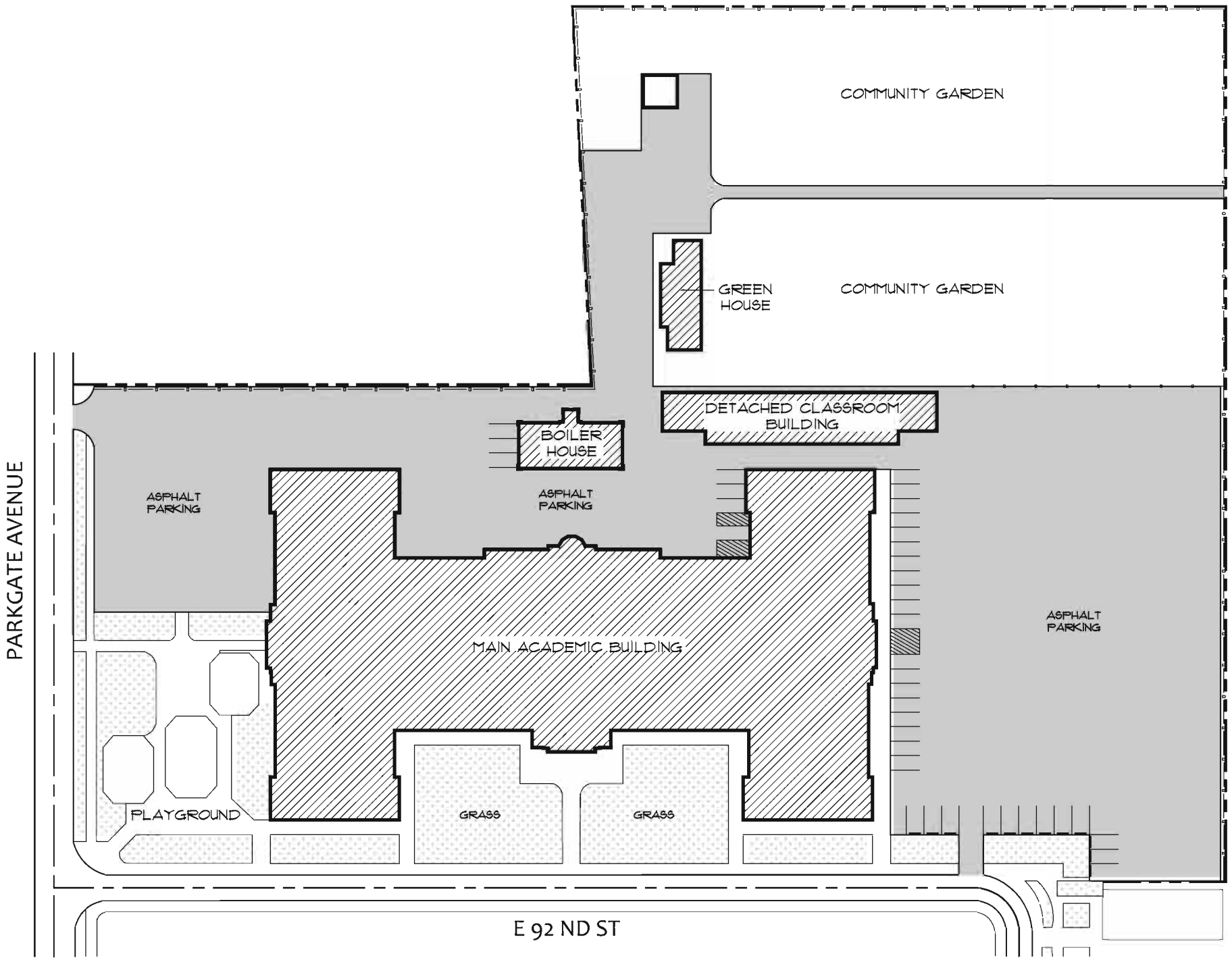
* INSPECTION ASSUMPTIONS for Reported/Assumed Asbestos-Free Materials (Rep/Asm AFM):

a. Unless reported otherwise by the District, materials installed after 1980 are assumed to be asbestos-free.

b. Unless reported otherwise by the District, small quantities (less than 1,000 square feet) of the following materials are assumed to be asbestos free: hard plaster, acoustical plaster and gypsum board systems; acoustical panels and tiles; fireproofing; 12"×12" floor tile and mastic.

c. Unless reported otherwise by the District, all roofing materials are assumed to be asbestos-free.

THESE MATERIALS SHOULD BE PROPERLY SAMPLED AND ANALYZED FOR ASBESTOS PRIOR TO DISTURBING THEM.



SITE PLAN

SCALE: NOT TO SCALE

MICHAEL WHITE PK-8 SCHOOL

CLEVELAND METROPOLITAN SCHOOL DISTRICT

CONSTRUCTION DATES:
1920, 1955, 1958

ACREAGE:
5.6

TOTAL SF:
73,530

GRADES:
PK-8

CURRENT ENROLLMENT:
280 APPROX.

SQUARE FEET PER STUDENT:
262.6

DATE ISSUED:
MAY 15, 2015

LEGENDS:

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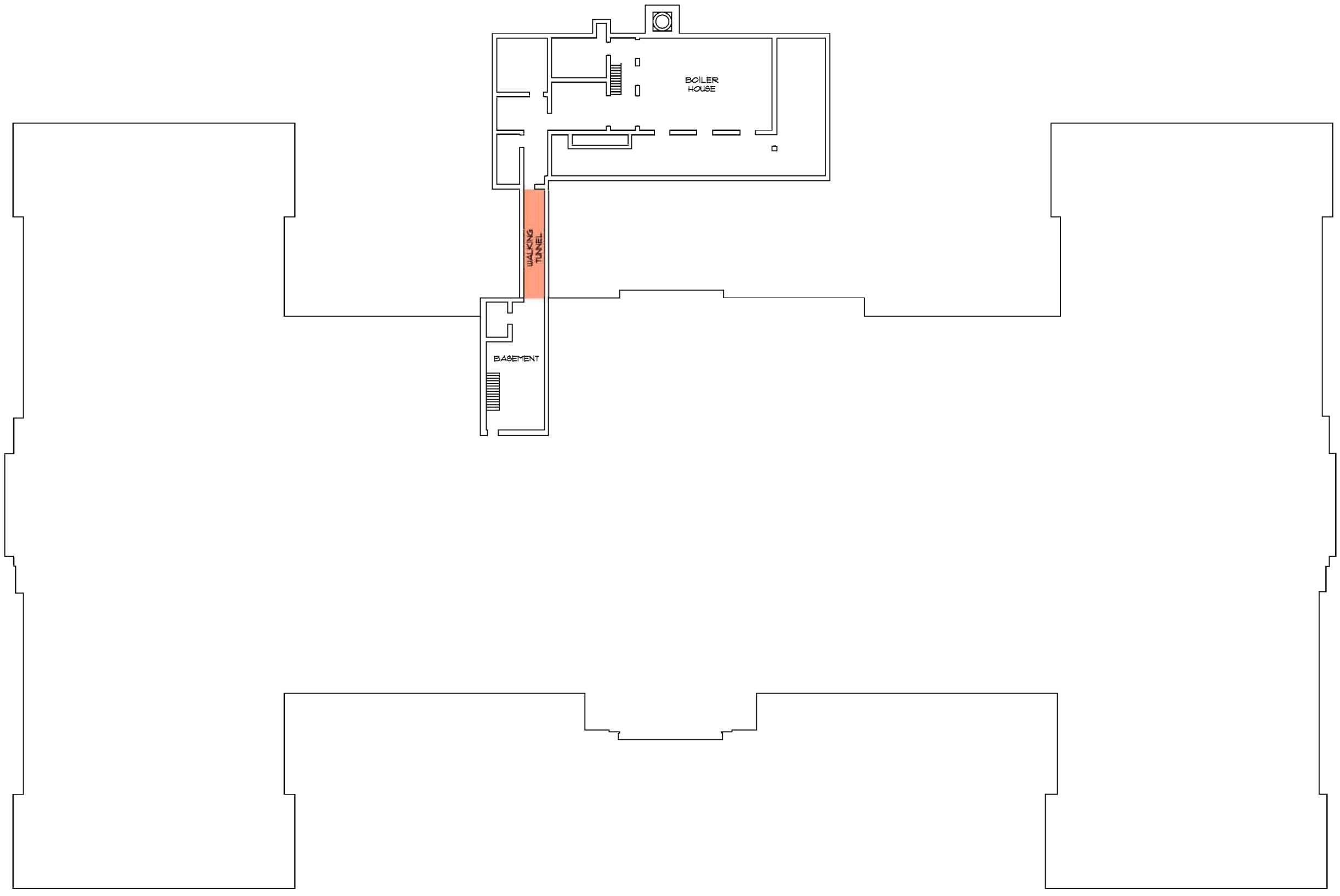
CLEVELAND, OHIO 44145



BASEMENT FLOOR PLAN

SCALE: 1" = 30'-0"

0 30' 60'

MICHAEL WHITE PK-8 SCHOOL

CLEVELAND METROPOLITAN SCHOOL DISTRICT

CONSTRUCTION DATES:
1920, 1955, 1958

ACREAGE:
5.6

TOTAL SF:
73,530

GRADES:
PK-8

CURRENT ENROLLMENT:
280 APPROX.

SQUARE FEET PER STUDENT:
262.6

DATE ISSUED:
MAY 15, 2015

LEGENDS:

BUILDING COMPONENT

- CORRIDORS
- GYMNASIUM
- MEDIA CENTER
- STUDENT DINING
- KITCHEN
- VOCATIONAL SPACE
- AGRICULTURAL EDUCATION LAB
- NON-DESIGN MANUAL
- UNUSABLE
- OVERSIZED
- BASEMENT

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FIRST FLOOR PLAN

SCALE: 1" = 30'-0"

0 30' 60'

MICHAEL WHITE PK-8 SCHOOL

CLEVELAND METROPOLITAN SCHOOL DISTRICT

CONSTRUCTION DATES: 1920, 1955, 1958

ACREAGE: 5.6

TOTAL SF: 73,530

GRADES: PK-8

CURRENT ENROLLMENT: 280 APPROX.

SQUARE FEET PER STUDENT: 262.6

DATE ISSUED: MAY 15, 2015

LEGENDS:

BUILDING COMPONENT

- CORRIDORS
- GYMNASIUM
- MEDIA CENTER
- STUDENT DINING
- KITCHEN
- VOCATIONAL SPACE
- AGRICULTURAL EDUCATION LAB
- NON-DESIGN MANUAL
- UNUSABLE
- OVERSIZED
- BASEMENT

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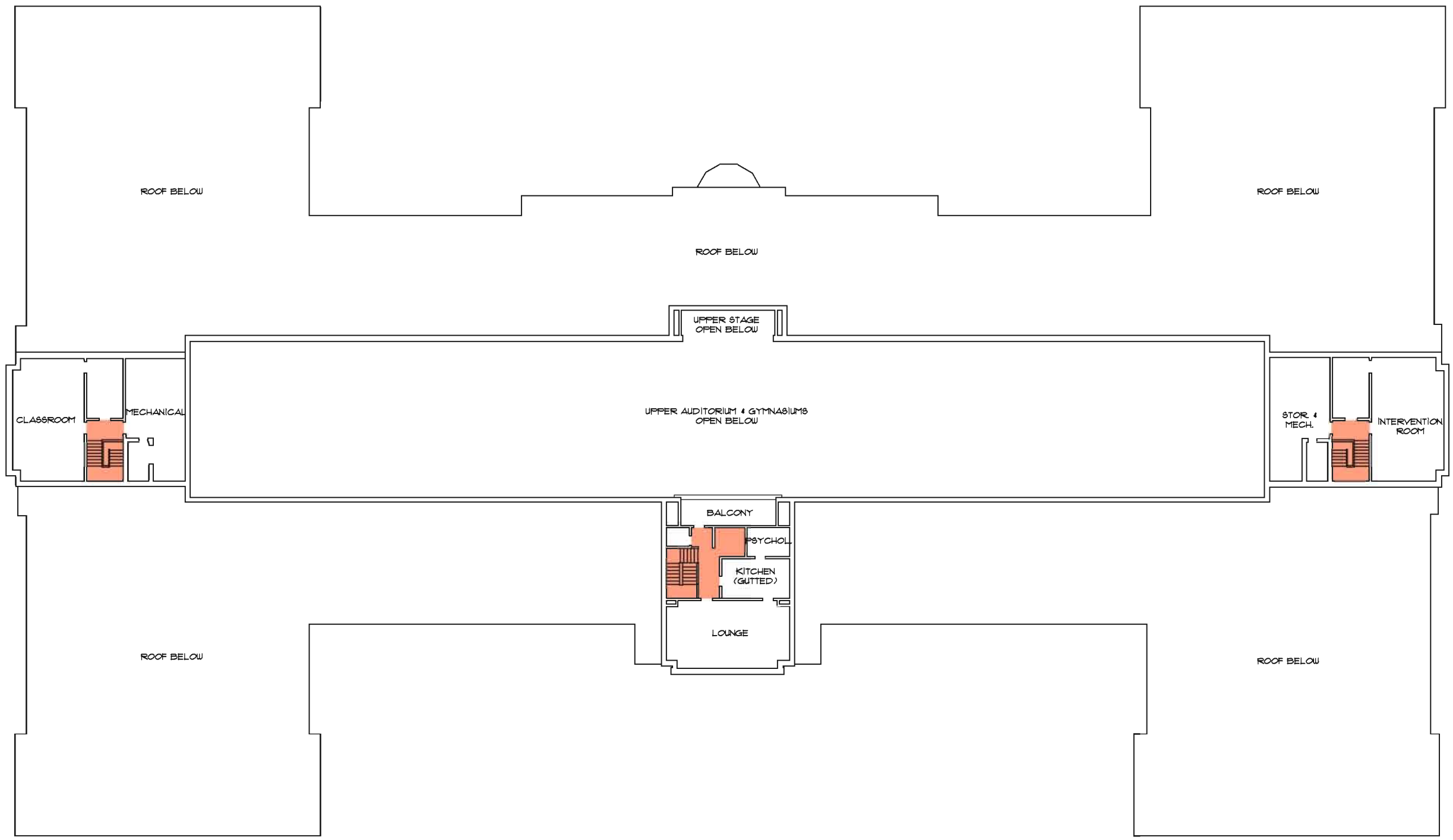

SECOND FLOOR PLAN

SCALE: 1" = 30'-0"

0 30' 60'

MICHAEL WHITE PK-8 SCHOOL

CLEVELAND METROPOLITAN SCHOOL DISTRICT

CONSTRUCTION DATES: 1920, 1955, 1958

ACREAGE: 5.6

TOTAL SF: 73,530

GRADES: PK-8

CURRENT ENROLLMENT: 280 APPROX.

SQUARE FEET PER STUDENT: 262.6

DATE ISSUED: MAY 15, 2015

LEGENDS:

BUILDING COMPONENT

- CORRIDORS
- GYMNASIUM
- MEDIA CENTER
- STUDENT DINING
- KITCHEN
- VOCATIONAL SPACE
- AGRICULTURAL EDUCATION LAB
- NON-DESIGN MANUAL
- UNUSABLE
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- BASEMENT

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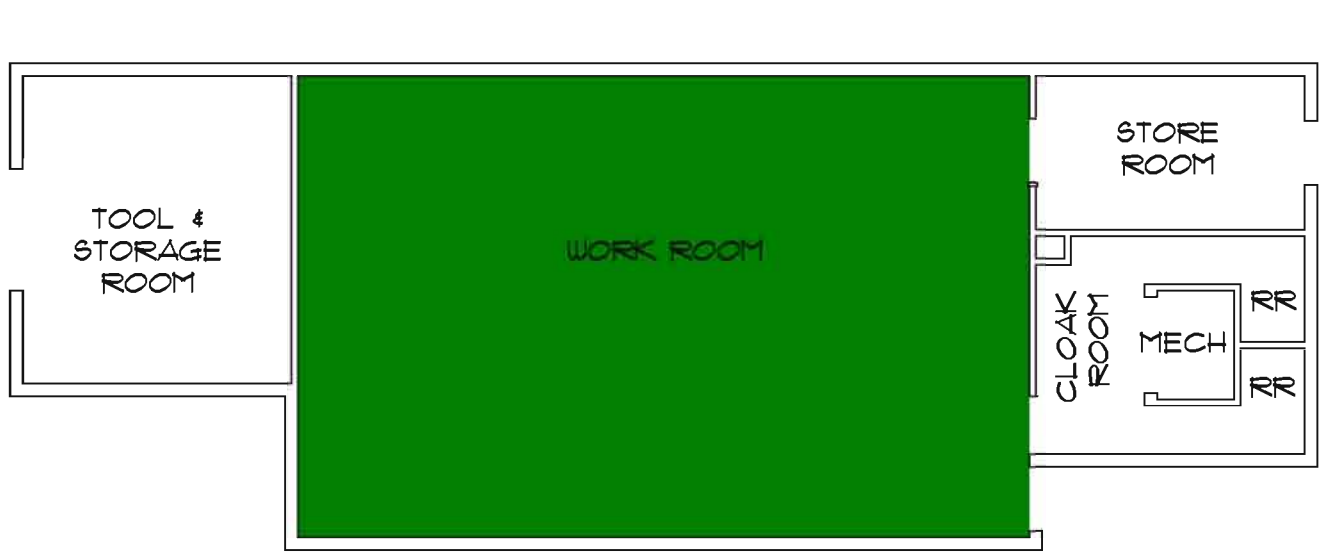

GREENHOUSE FLOOR PLAN

SCALE: 1" = 10'-0"

0 10' 20'

MICHAEL WHITE PK-8 SCHOOL

CLEVELAND METROPOLITAN SCHOOL DISTRICT

CONSTRUCTION DATES:
1920, 1955, 1958

ACREAGE:
5.6

TOTAL SF:
73,530

GRADES:
PK-8

CURRENT ENROLLMENT:
280 APPROX.

SQUARE FEET PER STUDENT:
262.6

DATE ISSUED:
MAY 15, 2015

LEGENDS:

BUILDING COMPONENT

- CORRIDORS
- GYMNASIUM
- MEDIA CENTER
- STUDENT DINING
- KITCHEN
- VOCATIONAL SPACE
- AGRICULTURAL EDUCATION LAB
- NON-DESIGN MANUAL
- UNUSABLE
- OVERSIZED
- BASEMENT

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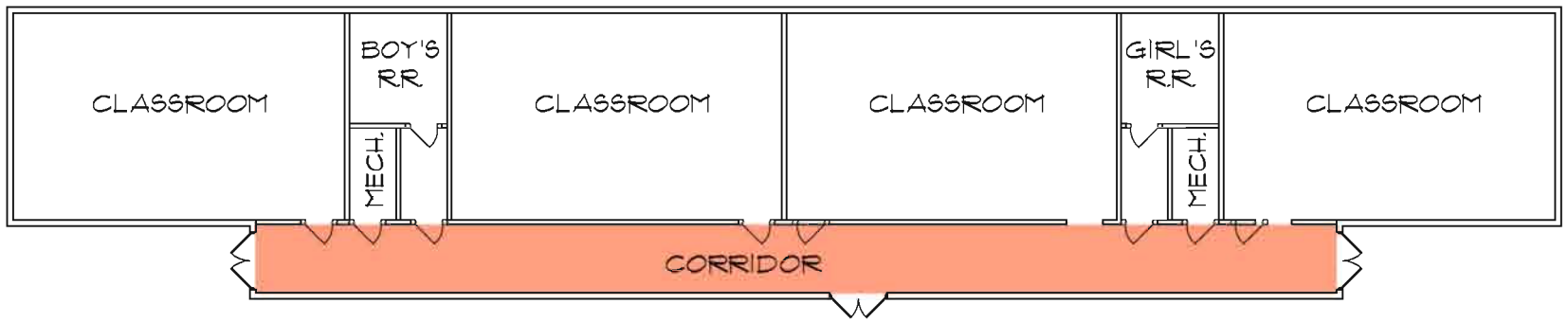

DETACHED CLASSROOM BUILDING FLOOR PLAN

SCALE: 1" = 20'-0" 0 20' 40'

MICHAEL WHITE PK-8 SCHOOL

CLEVELAND METROPOLITAN SCHOOL DISTRICT

CONSTRUCTION DATES: 1920, 1955, 1958

ACREAGE: 5.6

TOTAL SF: 73,530

GRADES: PK-8

CURRENT ENROLLMENT: 280 APPROX.

SQUARE FEET PER STUDENT: 262.6

DATE ISSUED: MAY 15, 2015

LEGENDS:

BUILDING COMPONENT

- CORRIDORS
- GYMNASIUM
- MEDIA CENTER
- STUDENT DINING
- KITCHEN
- VOCATIONAL SPACE
- AGRICULTURAL EDUCATION LAB
- NON-DESIGN MANUAL
- UNUSABLE
- OVERSIZED
- BASEMENT

ARCHITECTURAL VISION GROUP, LTD.
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SHEET NO
6 OF 6

Master Plan Name	test for michael white
Program	()
Rank	
School District	Cleveland Municipal School District
School District IRN	43786
County	Cuyahoga County
Cost Region	8 (New Construction Cost Factor: 103.76%)
Cost Set	2014
Bracketing Set	2014
Educational Planner	

This master plan has no enrollment projection associated with it. The numbers for square feet per student may not be accurate.

No Enrollment Projection selected

Project Scope:

Master Planner Commentary:

Building	New Elementary/Middle			
Program				
Cost Set				
Assessing Consultant				
Type	Elementary/Middle			
Acres				
Grades Housed				
Current Enrollment				
Additions to Demolish				
Grades Housed - Proposed	K-8			
Projected Enrollment	350			
CT Projected Enrollment				
Scope of Work	Build New			
CEFPI Rating				
Existing ft²				
Cost/ft² (DM)				
Cost to Replace	$0.00			
Cost to Renovate				
Reprogramming	$0.00			
Renovate÷Replace				
Right Replacement				
Right Ratio				
Addition Required	No			
	New ft²			
Proposed Enrollment	Students		sf/Student	sf required
Elementary (PK-K)	×		=	0
Elementary (PK-5)	234	×	141.26 =	33,055
Middle (6-8)	116	×	170.64 =	19,794
High (9-12)	×		=	0
Career Technical Core Space	×		=	0
Total ft² Required				52,849.08
ft² Existing				
Large Group Restroom Fixture Replacement	No			
Comprehensive Vocational	No			
Oversized ft²				
Less Oversized ft²				
CT ft² Existing				
CT ft² Not Programmed				
Less CT ft²				
Addition ft²				52,849
Cost per ft²	*see below*			
Total Addition Cost				
	Cost to Rebuild			
Cost Of New SF	SF Required		$/SF	Cost
Elementary (PK-5)	33,054.84	×	$252.80 =	$8,356,263.55
Middle (6-8)	19,794.24	×	$253.52 =	$5,018,235.72
High (9-12)	0	×	=	$0.00
Career Technical Program Space				
CT Existing ft²				
CT New ft²				
CT Total ft²				
CT Program Total				$0.00
Total Proposed ft²				52,849
Total to Rebuild				$13,374,499.27
Total to Rebuild All Buildings				
Cost to Reno & Reprogram				$0.00
Total Addition Cost				
Total Career Technical				$0.00
Project Cost				$13,374,499.27
Asbestos Abatement				$0.00
Demolition				$0.00
Specific Allowance				$0.00
Total Building Cost				$13,374,499.27
Page Subtotal	$13,374,499.27			
General Allowance	$0.00			
Project Agreement LFI	$0.00			
Co-Funded Project	$13,374,499.27			
Total Project Cost	**$13,374,499.27**			

ASSESSMENT COST GUIDELINES – 2014

A. HEATING SYSTEM

The Assessment Consultant shall evaluate the HVAC system and determine the requirements for each building or building addition using the funding chart below.

HVAC System Replacement:	**$**	**26.12 sf**	(includes demo of existing system and reconfiguration of piping layout and new controls, air conditioning)
Convert To Ducted System	**$**	**8.00 sf**	(includes costs for vert. & horz. chases, cut openings, soffits, etc. Must be used in addition to HVAC System Replacement if the existing HVAC system is non-ducted)
Heating System (Only):	**$**	**8.50 sf**	(for boilers, pump & piping replacement, not AHU)
Controls (Only):	**$**	**2.50 sf**	

Heating System Component replacement:

(describe "Components" along with opinion of probable costs within recommendation section)

Additional Comments:

- Systems which are not compliant with the OSDM are acceptable, providing they can meet OBBC fresh air requirements and are in safe/good working order. They should have a long-term additional life expectancy.
- Radiators must be removed.
- Rooftop units that are over 10 years old are to be replaced.
- If the controls are older than 1975, or not DDC, replace them.
- Heating system cost includes demolition of the existing system and reconfiguration of piping layout.
- Use "convert to ducted system" when changing from a non-ducted system. Do not repeat in Item "C". Use only in conjunction with "HVAC System Replacement".

Coordination Comments:

- If total HVAC system replacement is required, Item "C" shall be zero.
- If HVAC system is being replaced, replace acoustic ceilings under item J. GENERAL FINISHES and lighting under Item K. INTERIOR LIGHTING.
- If upgrading/adapting the heating system to accommodate cooling, use Item "C" Ventilation/AC.
- If replacing mechanical system add electrical service and connections under "D".
- If replacing unit ventilator system verify whether adjacent casework needs to be replaced under "J. GENERAL FINISHES".
- In situations where existing conditions prevent installation of ductwork due to deck height, etc., assessor should still budget for adding ductwork. This allowance in conjunction with full HVAC replacement will provide an adequate budget in cases where alternate viable systems may be required during actual design.
- Preliminary estimates to convert existing buildings to Geo-Thermal Systems indicate that the Complete HVAC System Replacement and Convert to Ducted System budgets (totaling **$34.12**) should be sufficient for most facilities. However, Geo-Thermal System conversions will need to be analyzed on a case by case basis and additional costs beyond the **$34.12** per sq. ft., if required, should be included as an "Other" with explanation for the additional costs.

HIGH BAY/INDUSTRIAL SPACE – LAB TYPES 5, 6, 7:

Heating and Ventilation System:	**$**	**16.00 sf**	(includes demo of existing system and reconfiguration of piping layout and new controls)
Roof Top Unit	**$**	**11.00 sf**	(without air conditioning)
	$	**13.00 sf**	(with air conditioning)

B. ROOFING

The Assessment Consultant shall document the age of existing roof(s) and note any known problems. Look for stained ceilings on the inside of each building as an indication of potential roof problems.

Asphalt Shingle:	**$**	**3.00 sf**	
Asphalt Shingle with Ventilated Nail Base:	**$**	**8.20 sf**	
Deck Replacement:	**$**	**5.25 sf**	(wood or metal, including insulation)
Built-up Asphalt:	**$**	**13.20 sf**	
Membrane (all types/fully adhered):	**$**	**8.70 sf**	(unless under 10,000 sf)
Standing Metal Seam:	**$**	**16.50 sf**	
Repair/replace cap flashing & coping:	**$**	**18.40 lf**	
Gutters/Downspouts:	**$**	**13.10 lf**	
Remove/replace existing roof Drains and Sump:	**$**	**1200.00 ea**	
Overflow Roof Drains and Piping:	**$**	**2500.00 ea**	
Roof Insulation:	**$**	**3.20 sf**	(non-tapered insulation for use in areas without drainage problems)
Roof Insulation:	**$**	**4.70 sf**	(tapered insulation
Roof Access Hatch:	**$**	**2,000.00 ea**	(remove and replace)
Roof Access Ladder with Fall Protection Cage:	**$**	**100.00 lf**	(remove and replace)
Roof Access, Ladder & Fall Protection Cage:	**$**	**3,850.00 ea**	(provide when no roof access currently exists)
Correct Ponding Water on Roof by Remove/Replace Existing Ponding Area:	**$**	**12.50 sf**	(provide tapered insulation **for limited area use to correct ponding**)

Hazardous Material Replacement Costs:

Roofing Replacement	**$**	**8.00 sf**	

Other:

(describe "Other" items along with opinion of probable costs within recommendation section)

Additional Comments:

- Costs listed above include tear off of existing roof (non-asbestos containing shingles and/or underlayment). The systems include flashings.
- Replace membrane roofs that are (7) years old or older.
- Replace built-up roofs that are (15) years old or older.
- Replace asphalt shingle roofs that are (10) years old or older.
- Foam Roofing systems are to be budgeted for replacement. Use Membrane roof replacement at **$8.70**/sf.
- Replace tile roofs with asphalt shingles; add deck if necessary.

Coordination Comments:

- Use only one roof system type to replace multiple systems used on a single facility, except for pitched roofs. The replacement roof should be in-kind to the most dominant roofing type being replaced.

C. VENTILATION/AIR CONDITIONING

The Assessment Consultant shall verify that all buildings or additions to buildings have air conditioning.

Air Conditioning System:	**$ 16.60 sf**	
Dust Collection System:	**$ 25,000.00 ea**	(complete w/installation)
Restroom Exhaust System:	**$10,500.00 ea**	(including new ductwork and fans; do not include if complete HVAC system in Item A selected)
Kiln Exhaust System:	**$ 5,000.00 ea**	
Art Program Paint Hood:	**$ 12,000.00 ea**	
Chemical Exhaust Hood System for Science Laboratories:	**$ 15,000.00 ea**	

Other:

(describe "Other" items along with opinion of probable costs within recommendation section)

Additional Comments:

- Add air to a school that has an acceptable heating system; this may require adapting the heating system to accommodate cooling.
- All wood shop areas are required to have dust collection systems in addition to HVAC upgrades.
- To completely replace heating and air conditioning systems, see Item A above.
- Window units are not acceptable.
- Do not include budget for Restroom Exhaust System if complete HVAC system in Item A selected.

Coordination Comments:

- If the building contains Air Conditioning and partial Air Conditioning component replacement exceeds $11.12 per sf then replace entire Air Conditioning System at $16.60 per sf
- If replacing Air Conditioning, replace acoustic ceilings under Item J. GENERAL FINISHES and lighting under Item K. INTERIOR LIGHTING.

HIGH BAY/INDUSTRIAL SPACE – LAB TYPES 5, 6, 7:

Welding Exhaust System:	**$ 50,000.00 per system**
Paint Booth Exhaust System:	**$ 12,000.00 per system**
Vehicle Emission System:	**$ 15,000.00 per system**
Paint Hood System:	**$ 7,500.00 per system**
Exhaust for Gas-fired Equipment:	**$ 3,500.00 per system**

Other (describe "Other" items along with opinion of probable costs within recommendation section)

Additional Comments:

- To completely replace heating and ventilation systems, see Item "A" above.
- Dust Collection System to be installed in Carpentry and Wood Product Technologies labs.
- Welding Exhaust System to be installed in Agriculture Production, Building & Property Maintenance, Industrial Maintenance, Natural Resources, Power Equipment Technology, Welding & Cutting, Engineering Technologies, Manufacturing Engineering Technology and Agriculture Industrial Equipment labs.
- Paint Booth Exhaust System to be installed in Aircraft Maintenance, Agriculture Production and Auto Collision Repair labs.
- Vehicle Emission System to be installed in Auto Specialization, Auto Technology and Medium/Heavy Truck Technician labs.
- Exhaust for Gas-fired Equipment to be installed in Plumbing and Pipefitting lab.

D. ELECTRICAL SYSTEMS

The Assessment Consultant shall verify that the electrical is adequate for estimated electrical loads (refer to Minimum Amperage Chart below).

System Replacement:	**$ 16.23 sf**	(Includes demo of existing system. Includes generator for life safety systems. Does not include telephone or data or equipment)
Components		(Use items below ONLY when the entire system is NOT being replaced)
Panel Replacement:	**$ 3,500.00 unit**	(power or lighting sub-panel only)
Transformer Removal:	**$ 1,500.00 lump sum**	(per phase/can)
New Pad Mounted Transformer:	**$ 15,000.00 lump sum**	(1000 KVA – includes demo of existing system)
Step-down Transformer:	**$ 3,000.00 lump sum**	
Additional Circuits:	**$ 800.00 per circuit**	
Additional Receptacles:	**$ 250.00 each**	
Lightning Protection:	**$ 0.30 sf**	
Grounding:	**$ 0.25 sf**	

Other:

(describe "Other" items along with opinion of probable costs within recommendation section)

Minimum Amperage Chart

Building Square Footage	Minimum Amperage 480v 3 phase	Minimum Amperage 208v
0-10,000	400	1,000
10,000 – 20,000	400	1,000
20,000 – 30,000	600	1,200
30,000 – 40,000	800	1,600
40,000 – 50,000	1,000	2,000
50,000 – 60,000	1,200	2,400
60,000 – 70,000	1,400	3,000
70,000 – 80,000	1,600	3,500
80,000 – 90,000	1,800	
90,000 – 100,000	2,000	

For each 10,000 sf increment over 100,000 sf increase 480-volt service size by 200.

Additional Comments:

- If electrical system is over 35 years old, replace entire system.
- If black oil-filled transformers are PCB contaminated, they must be replaced.
- New pad mounted transformer cost includes demolition of existing transformer.
- Replace single-phase service with three-phase service, if available.
- Electrical system replacement budget includes technology associated components, including back boxes, cable tray and grounding.

Coordination Comments:

- If Electrical Component replacement exceeds $10.87 per sf, then replace entire Electrical System at $16.23 per sf.
- Individual component costs should not be applied when a full system replacement has been indicated.

HIGH BAY/INDUSTRIAL SPACE – LAB TYPES 5, 6, 7:

Bus Duct:	**$ 150.00 per lf**	
"Emergency Shut Off Switch" Push Button	**$ 8000.00 each**	(Allows instructor to de-energize panelboards, bus duct or other electrical equipment in Type 5-7 lab spaces)
208v 3 Phase Service	**$ 15,000 lump sum**	(Includes 300 lin. ft. conduit. Does not include new transformer, upgraded panels or switch gear.)
480v 3 Phase Service	**$ 20,000 lump sum**	(Includes 300 lin. ft. conduit. Does not include new transformer, upgraded panels or switch gear.)

Additional Comments:

- Bus Duct to be installed in Electrical Trades Lab.
- 208v 3 phase and 480v 3 phase electrical service to be installed in Electrical Trades, Industrial Maintenance, Manufacturing Operations, Welding & Cutting, Manufacturing Engineering Technology, and Precision Machinery.
- The "Emergency Shut Off" Switch should be added to ~~***the following***~~ programs in Types 5-7 to allow the instructor to de-energize panelboards, bus ducts or other electrical equipment. ***Where necessary, include "Emergency Shut Off" switch for equipment.*** ~~***Type 4: Firefighting and Emergency Medical Services – Type 5: Agribusiness & Production Systems, Appliance Repair, Auto Specialization, Building & Property Maintenance, Building Technology, Electrical Trades, Environmental Control Technologies, Heavy Equipment Operations (Construction), Integrated Systems Technology, Manufacturing Design & Development, Manufacturing Occupations, Natural Resource Management, Plumbing & Pipefitting, Power Equipment Technology, Power Transmission, Welding & Cutting; Type 6: Industrial Power Technology, Auto Collision Repair, Auto Technology, Ground Transportation, Carpentry, Construction – Design/Build and Management, Engineering Technology, Structural Systems, Mechanical, Electrical and Plumbing, Medium/Heavy Truck Technician, Wood Product Technologies, Precision Machining, Manufacturing Operations; Type 7: Aircraft Maintenance, Air Transportation, and Animal Science.***~~

E. PLUMBING AND FIXTURES

The Assessment Consultant shall determine if there are pressure problems and number of systems if additions are present, and address all other concerns using the cost indicated below. Do not put any cost of handicapped compliance in this area. – The Assessment Consultant shall determine if there are sufficient numbers of plumbing fixtures based upon plumbing code in effect at time of assessment. Determine fixture count by dividing the square footage of the building by the allowable square footage per student in the Design Manual.

Back Flow Preventer:	**$ 5,000.00 unit**	
Water Treatment System:	**$ 15,000.00 unit**	(Domestic Water System, softening only, per system)
Water Treatment System:	**5,500.00 unit**	(Chlorination type, per unit)
Domestic Supply Piping:	**$ 3.50 sf**	(remove/replace)
Sanitary Waste Piping:	**$ 3.50 sf**	(remove/replace)
Domestic Water Heater	**$ 5,100.00 unit**	(remove/replace)
Toilet:	**$ 3,800.00 unit**	(new)
Toilet:	**$ 1,500.00 unit**	(remove/replace) See Item O
Urinal:	**$ 3,800.00 unit**	(new)
Urinal:	**$ 1,500.00 unit**	(remove/replace)
Sink:	**$ 2,500.00 unit**	(new)
Sink:	**$ 1,500.00 unit**	(remove/replace)
Electric Water Cooler:	**$ 3,000.00 unit**	(double ADA)
Replace Faucets and Flush Valves	**$ 500.00 unit**	(average cost to remove replace)
Two Station Modular Lavatory	**$ 3000.00 unit**	(remove/replace)
Three Station Modular Lavatory	**$ 4000.00 unit**	(remove/replace)

Other:
(describe "Other" items along with opinion of probable costs within recommendation section)

Additional Comments:

- Some schools with additions have more than one service.
- If domestic supply piping is galvanized pipe, replace the distribution system.
- Current codes require back-flow preventors, if there are none, add to system.
- Floor mounted toilet fixtures are acceptable if in safe/good working order and have a long-term additional life expectancy.
- Meet with school representatives and inquire about condition and history of under-slab sanitary. If problems are suspected, ask district about having a pipe inspection via camera photography to better determine condition. Also, enter item in the "Summary of Significant Findings."
- Replace ALL non low flow type fixtures in order to improve water efficiency and to meet the LEED pre-requisite #1 Water Use Reduction requirement.

HIGH BAY/INDUSTRIAL SPACE – LAB TYPES 5, 6, 7:

Safety Shower/Eyewash:		
Remove & Replace Existing:	**$**	**450.00 each**
New Installation:	**$**	**2,500.00 each**
Utility Sink:	**$**	**2,400.00 unit**
Hose Bibbs:	**$**	**800.00 unit**
Wash Fountain:	**$**	**3,600.00 unit**
Natural Gas Connections:	**$**	**800.00 each**
Compressed Air Connections:	**$**	**15,000.00 system**
Grease Trap or Oil Interceptor	**$**	**6,000.00 each**

Additional Comments:

- All high bay labs will have safety shower/eyewash, utility sink, hose bibbs and wash fountains.
- Natural Gas Connections to be included in Building and Property Maintenance, Heating and Ventilation Technician and Plumbing & Pipefitting labs.
- Compressed Air Connections to be included ***as necessary and per the program space plates.*** ~~***in Appliance Repair, Agriculture Production, Agribusiness and Production, Auto Specialization, Business Machine Maintenance, Heavy Equipment Operations, Manufacturing Design and Development, Industrial Maintenance, Brick, Block and Cement Masonry, Natural Resource Management, Plumbing & Pipefitting, Power Transmission, Welding & Cutting, Agricultural and Industrial Equipment Technology, Industrial Power Technology, Auto Collision Repair, Auto Technology, Ground Transportation, Carpentry, Engineering Technology, Medium/Heavy Truck Technician, Wood Product Technologies, Precision Machining, Manufacturing Operations, Aircraft Maintenance and Air Transportation labs.***~~

F. WINDOWS

The Assessment Consultant should visually determine the area of windows to be replaced, by establishing an estimate based on approximate area of windows times number of units. The ***Ohio School Facilities, Ohio School Design Manual*** *supports integral blinds.*

Insulated Glass/Panels:	**$**	**60.00 sf**	(includes blinds)
Skylights:	**$**	**125.00 sf**	(remove and replace)
Translucent Panels:	**$**	**125.00 sf**	(remove and replace)
Curtain Wall/Storefront System:	**$**	**65.00 sf**	(remove and replace)
Greenhouse Replacement	**$**	**85.00 sf**	(demo and replace; based on area of greenhouse floor)
Hazardous Material Replacement Costs:			
Door and Window Panel Replacement:	**$**	**200.00 ea**	

Other:
(describe "Other" items along with opinion of probable costs within recommendation section)

Additional Comments:

- All single pane glass windows are to be replaced.
- All non-thermally broken window units are to be replaced.
- The above cost includes demolition of existing windows and installation of new panel screens and replacement windows.
- Replace glass block, which is part of an integral window system, only if the windows are being replaced, or if the glass block is in disrepair; replace glass block with windows. All other glass block, which is in good condition, may remain.
- Exterior transom windows and sidelights to be included in window area.

G. STRUCTURE

The Assessment Consultant shall look for cracking and differential movement of the building and any additions. In addition, check any existing crawl space(s) for deterioration of structure. Determine if the district has experienced any structural problems. ***Do not go down in pipe tunnels.***

Waterproofing:			
Spray Applied:	**$**	**6.00 sf**	(includes excavation and backfill)
Membrane:	**$**	**7.00 sf**	(includes excavation and backfill)
Drainage Tile Systems/Foundation Drainage:	**$**	**18.00 lf**	(includes excavation and backfill)

Other:
(describe "Other" items along with opinion of probable costs within recommendation section)

Additional Comments:

- Calculation for this item will be made on a case-by-case basis.
- Indicate the reasons for any found deficiencies and their associated cost.
- Immediately report any conditions that appear "unsafe".

H. STRUCTURE WALLS AND CHIMNEYS

The Assessment Consultant shall look for any cracking, shifting, spalling or movement. Determine if the district has experienced any structural problems.

Tuckpointing:	**$**	**5.25 sf**	(wall surface)
Exterior Masonry Cleaning:	**$**	**1.50 sf**	(wall surface)
Exterior Masonry Sealing:	**$**	**1.00 sf**	(wall surface)
Exterior Caulking:	**$**	**5.50 lf**	(removing and replacing)
Replace Brick Veneer System:	**$**	**35.00 sf**	(total removal and replacement including pinning and shoring)
Lintel Replacement:	**$**	**250.00 lf**	(total removal and replacement including pinning and shoring)
Sill Replacement:	**$**	**45.00 lf**	(remove and replace)
Pre-finished Aluminum Coping			
Replacement:	**$**	**22.50 lf**	(removing existing coping and replacing)
Stone and Masonry	**$**	**100.00 lf**	(remove and replace)
Install Control Joints:	**$**	**60.00 lf**	

Other:
(describe "Other" items along with opinion of probable costs within recommendation section)

Additional Comments:

- Calculation for this item will be made on a case-by-case basis.
- Indicate the reason(s) for any found deficiencies and their associated cost.
- Tuckpoint up to natural breaks in walls, such as corners or control joints.

- If other less common exterior skin materials are observed to be problematic, such as metal panels or pre-cast concrete, enter items in the "Summary of Significant Findings."

I. STRUCTURE: FLOORS AND ROOFS

Replace Wood Floor System:	**$**	**45.00 sf**	
Fire Rated Drywall over Existing			
Wood Ceiling Joists:	**$**	**3.50 sf**	(per square face feet of required drywall)
Repair Soffits:	**$**	**24.00 sf**	
Remove/Replace Damaged Concrete			
Slab on Grade:	**$**	**8.00 sf**	
Hazardous Material Replacement Costs:			
Soil Replacement	**$**	**141.00 cy**	(only to be used when back filling existing crawl spaces Where hazardous materials were abated)

Other:

(describe "Other" items along with opinion of probable costs within recommendation section)

Additional Comments:

- Structural wood floor supporting joists must be replaced and will result in replacing the addition with a new building.
- Roof wood structures are permitted to remain if separated with OBBC compliant fire separation assemblies.
- Calculation for this item will be made on a case-by-case basis.
- **CAUTION**: Replacing the structural floor requires gutting the entire addition and will require other systems to be affected as follows:

Coordination Comments:

- A. Heating System: HVAC System Replacement ($26.12/sf**)**
- D. Electrical System: System Replacement ($16.23/sf)
- J. General Finishes: Complete Replacement of Finishes and Casework (varies based on type of school)
- K. Interior Lighting: Complete Building Replacement ($5.00/sf)
- L. Security Systems ($1.50/sf)
- M. Emergency/Egress Lighting ($1.00/sf)
- N. Fire Alarm ($1.50/sf)
- T. Hazardous Materials: When replacing a wood floor system, include additional testing for possible hazardous material abatement.
- W. Technology: Non-OSDM Compliant ($ variable/sf)

J. GENERAL FINISHES

The cost to replace all the finishes in a school building are listed below. Define requirement for casework within description.

Partial Finish Replacement:			
Paint:	**$**	**2.00 sf**	(floor area/prep and installation)
Acoustic Ceiling:	**$**	**2.90 sf**	(drop in/standard 2x4 ceiling tile per area)
	$	**3.50 sf**	(tear-out and replace per area)
Vinyl Enhanced Tile (VET):	**$**	**4.10 sf**	(tear out and replace per area; to be used in lieu of VCT)
Carpet:	**$**	**3.50 sf**	(tear-out and replace per area)
Tackboard:	**$**	**0.30 sf**	(per building area)
Chalkboard/Markerboard:	**$**	**0.30 sf**	(per building area)
Lockers:	**$**	**1.73 sf**	(high & middle school per building area)
	$	**1.00 sf**	(elementary/cubbies per building area)
Lockers:	**$**	**250.00 ea**	(individual unit replacement)

Complete Replacement of Finishes (excludes casework):

Elementary	$	11.80 sf	(elementary, per building area, with removal of existing)
Middle	$	12.60 sf	(middle, per building area, with removal of existing)
High	$	12.60 sf	(high school, per building area, with removal of existing)

Complete Replacement of Finishes and Casework:

Elementary	$	15.90 sf	(elementary, per building area, with removal of existing)
Middle	$	15.90 sf	(middle, per building area, with removal of existing)
High	$	17.70 sf	(high school, per building area, with removal of existing)

Complete replacement of Casework only:

Elementary	$	4.00 sf	
Middle	$	3.25 sf	
High	$	5.00 sf	
Partial Casework: (base and wall)	$	450.00 lf	(refer to OSFC, OSDM for requirements)
Toilet Partitions:	$	1000.00 per stall	(removing and replacing)
Toilet Accessory Replacement	$	0.20 sf	(per building area)
Plaster refinishing:	$	14.00 sf	
Repair Drywall:	$	5.50 sf	
Demo & Reinstall Drywall Partitions:	$	7.00 sf	
Partition Open Space Classrooms:	$	$8.00 sf	(per building sq.ft., CMU in corridors and drywall partitions between classrooms)
Lightweight Concrete Floor Infill at Wood Floor Removal	$	8.00 sf	(includes removal of wood flooring and sleeper system)
Door, Frame and Hardware:	$	1,300.00 each	(non-ADA)
Resilient Wood/Synthetic Flooring:	$	12.85 sf	(tear-out and replace per area)
Terrazzo Floor Repair:	$	25.00 sf	(floor area affected; max. area to be 300 sf)
Basketball Backboard Replacement	$	3,200.00 each	(non-electric)
	$	6,500.00 each	(electric)
Bleacher Replacement	$	110.00 per seat	(based on current enrollment)
Art Program Kiln:	$	2,750.00 ea	
Remove Demountable Partitions/ Install New GWB Partitions	$	9.00 sf	(includes the demolition of the demountable partition, new partition with 5/8" abuse board, 10' high walls braced to structure above and the use of existing electric and data runs; unit price is based on floor area)
Additional Wall Insulation	$	6.00 sf	(includes the furring out of the existing walls, insulation and abuse resistant GWB)

Hazardous Material Replacement Costs

Acoustical Plaster Replacement	$	12.00 sf
Fireproofing Replacement	$	5.00 sf
Hard Plaster Replacement	$	9.00 sf
Gypsum Board Replacement	$	4.00 sf
Acoustical Panel/Tile Ceiling Replacement:	$	1.50 sf
Laboratory Table/Counter Top Replacement:	$	150.00 lf
Door and Window Panel Replacement	$	200.00 ea

Non-ACM Acoust. Panel Ceiling Replacement:	**$ 1.50 sf**	
Resilient Flooring Replacement, Including Mastic:	**$ 2.25 sf**	
Carpet Replacement (over RFC)	**$ 3.00 sf**	

Kitchen Equipment:

Walk-in Coolers/Freezers:	**$ 29,818.00 per unit**	
Floor Mixer:	**$ 9,476.00 per unit**	
CombiOven (double):	**$31,000.00 per unit**	
CombiOven (single):	**$15,500.00 per unit**	
Convection Oven (double):	**$ 12,600.00 per unit**	
Conventional Oven:	**$ 6,200.00 per unit**	
Range:	**$ 2,925.00 per unit**	
Mixer:	**$ 4,116.00 per unit**	
Hot Serving Unit:	**$ 8,148.00 per unit**	
Hot Food Cabinet	**$ 6,150.00 per unit**	
Cold Serving Unit:	**$ 6,633.00 per unit**	
Cold Food Cabinet:	**$ 9,900.00 per unit**	
Ice Maker (with bin)	**$ 4,200.00 per unit**	
Stationary Serving Unit:	**$ 3,300.00 per unit**	
Reach-in Refrigerator/Freezer:	**$ 6,433.00 per unit**	
Slicer	**$ 4,965.00 per unit**	
Kettle:	**$ 20,016.00 per unit**	
Pot Filler:	**$ 1,200.00 per unit**	
Disposer:	**$ 2,814.00 per unit**	
Dishwasher:	**$ 17,000.00 per unit**	
Soft Serve Machine:	**$ 15,000.00 per unit**	
Shelving and Tables (stainless)	**$ 3,325.00 per unit**	
Kitchen Exhaust Hood:	**$ 56,000.00 per unit**	(includes fans, exhaust & ductwork)

Total Kitchen Equipment Replacement:	**$ 190.00 sf**	(square footage based upon only existing area of food preparation, serving, kitchen storage areas and walk-ins. Includes demolition and removal of existing kitchen equipment.)
Total Warming Kitchen Replacement:	**$ 112.50 sf**	(square footage based upon only existing area of food preparation, serving, kitchen storage areas and walk-ins. Includes demolition and removal of existing kitchen equipment.)

Other:

(describe "Other" items along with opinion of probable costs within recommendation section)

Additional Comments:

- Casework replacement should be on an as needed basis.
- Casework is to comply with Ohio School Facilities, Ohio School Design Manual where practical.
- Assessment Consultant must determine lineal footage of casework to be replaced.
- Do not add items to kitchen, if they do not exist.
- If Terrazzo floor repair area exceeds 300 sf, budget for VET or Carpet instead.
- Partitioning open space classrooms is intended for buildings with an open space design where individual, separated and enclosed classrooms are desired. This includes full height CMU walls in corridors, full height metal stud and drywall partitions between classrooms and doors in lieu of moveable partitions.

- Replace kitchen equipment over 20 years old.
- If two-thirds of the interior doors require replacement, replace all of them.
- When replacing demountable partitions, only count the floor area zones where the demountable partitions occur and indicate in the "Summary of Significant Findings."

Coordination Comments:

- If individual Kitchen Equipment item costs exceed $127.30 per sf of food preparation, serving, kitchen storage areas and walk-ins, replace all Kitchen Equipment at funding level above for square footage of food preparation, serving, kitchen storage areas and walk-ins. (Use existing kitchen size for calculation).
- If Acoustic Ceilings are being replaced review condition of item K. INTERIOR LIGHTING.
- If Partial Finish Replacement costs exceed two-thirds cost per sf of Complete Finish Replacement, replace all finishes at funding level for Complete Replacement of Finishes.
- When replacing kitchen equipment, evaluate kitchen equipment electrical panel for sufficient capacity.
- When replacing demountable partitions with metal studs & gypsum board, replace all interior doors within these walls.

HIGH BAY/INDUSTRIAL SPACE – LAB TYPES 5, 6, 7:

Seal Concrete Floor:	**$**	**0.50 sf**	
Ceiling Replacement:	**$**	**3.85 sf**	(high bay area only, combination exposed and acoustical ceiling)
Paint exposed ceiling	**$**	**1.00 sf**	(high bay only)
Paint	**$**	**1.50 sf**	(high bay area only)
Total Flooring Replacement	**$**	**0.75 sf**	(high bay area only)
Total Finish Replacement	**$**	**8.50 sf**	(high bay area only)

K. INTERIOR LIGHTING

The Assessment Consultant shall refer to the design manual to verify that the minimum FC levels are present. Refer to the design manual (page 8600-13 (revised 7/1/99)) for candle levels. The Assessment Consultant shall measure lighting levels in a sampling of educational spaces to determine if upgrades are necessary. Indicate within description a summary of recorded lighting levels.

Building Lighting Replacement	**$5.00 sf**	(Includes demo of existing fixtures)
Hazardous Material Replacement Costs:		
Light (Reflector) Fixture Removal	**$3.00 sf**	

Additional Comments:

- Replace all incandescent pendant fixtures, U-shaped florescent lamps and T-12 florescent lamps.
- Replace fixtures in poor condition even though foot-candle level is good.

Coordination Comments:

- If Interior Lighting is being replaced, replace Acoustic Ceilings under item J. GENERAL FINISHES.
- If sprinklers are added, remove and replace ceilings and lighting.

HIGH BAY/INDUSTRIAL SPACE – LAB TYPES 5, 6, 7:

High Intensity (High Bay) Lighting	**$6.00 Sq. Ft.**
Interior Lighting	**$4.00 Sq. Ft.**

L. SECURITY SYSTEMS

The Assessment Consultant shall verify that all buildings in the school district have security systems. If none exist, use $1.85 sf.

Security System	**$**	**1.85 sf**	(complete, area of building)
Partial Security System Upgrade	**$**	**1.35 sf**	(complete, area of building)
Exterior Site Lighting:	**$**	**1.00 sf**	(complete, area of building)

Additional Comments:

- A complete security system will include access control systems, panic alarms, lock down capabilities, etc., and may include fencing (see Ohio School Facilities, Ohio School Design Manual.)

M. EMERGENCY/EGRESS LIGHTING

The Assessment Consultant shall verify that school building has a standby generator supplying emergency power to emergency/egress lighting.

Emergency/Egress Lighting:	**$1.00 sf**	(complete, area of building)
New Exit Sign	**$300.00 each**	
New Emergency Light	**$350.00 each**	

Additional Comments:

- All exit signs are to meet code for size and location.
- Emergency lighting must meet code for illumination levels and locations.
- New Emergency/Egress lighting must have generator back up. Unless total electric replacement is required, coordinate generator with Item U Life Safety.

N. FIRE ALARM

The Assessment Consultant shall verify that all assessment facilities have a minimum of an addressable type alarm system with strobe type devices in all occupiable spaces and pull stations at all exits.

Fire Alarm System:	**$**	**1.50 sf**	(complete new system, including removal of existing)

Additional Comments:

- All corridor/room devices shall be the strobe/horn type.
- If there is not an existing system, or if present system is outdated and does not meet code, add a new system.
- If present system does not have additional expansion capability, consider replacement.
- Alarm system shall be connected to an automatic digital communicator monitored by a central station.

O. HANDICAPPED ACCESS

Wheelchair confined students and staff must have access to all instructional areas of every school. All toilet facilities, drinking fountains and door hardware must be ADA compliant.

Handicapped Hardware:	**$**	**350.00 set**	(includes installation/hardware only)
Signage:	**$**	**0.20 sf**	(per building area)
Ramps:	**$**	**40.00 sf**	(per ramp/interior-exterior complete)
Lifts:	**$**	**15,000.00 unit**	(complete)
Elevators:	**$**	**42,000.00**	**(per stop, $84,000 minimum)**
Electric Water Coolers:	**$**	**1,800.00 unit**	(replacement double ADA)

	$ 3,000.00 unit	(new double ADA)
Toilet/Urinals/Sinks:	**$ 3,800.00 unit**	(new ADA)
	$ 1,500.00 unit	(replacement ADA)
Toilet Partitions:	**$ 1,000.00 stall**	(ADA - grab bars, accessories included)
ADA Assist Door & Frame:	**$ 7,500.00 unit**	(openers, electrical, patching, etc)
Replace Doors:	**$ 1,300.00 leaf**	(standard 3070 wood door, HM frame, door/light, includes hardware)
	$ 5,000.00 leaf	(rework narrow opening to provide 3070 wood door, HM frame, door/light, includes hardware)
	$ 5,000.00 leaf	(rework opening and corridor wall to accommodate ADA standards when door opening is set back from edge of corridor and cannot accommodate a wheelchair.)
Remount Restroom Mirrors to Handicapped Height:	**$ 285.00 per restroom**	
Provide ADA Shower:	**$ 3,000.00 ea**	**(**includes fixtures, walls, floor drain, and supply line of an existing locker room)
Provide Toilet Accessories:	**$ 1,000.00 per restroom**	

Other:

(describe "Other" items along with opinion of probable costs within recommendation section)

Additional Comments:

- Upgrade costs include associated required electrical upgrades.
- Ramps can be used if there is run-out room.
- Existing floor-to-floor chair lifts cannot be used as a substitute for a new elevator.
- Coordinate plumbing fixtures with "E".
- Provide ADA Assisted doors per OBBC.
- Ensure room for expansion, if applicable.

P. SITE CONDITION

The Assessment Consultant shall confirm with district personnel if a deficient site condition exists. Ask the custodian and/or district personnel if the district's parking areas meet city or local codes in reference to paving.

Playground Equipment:	**$ 1.50 sf up to $100,000**	(per building square feet)
Removal of existing Playground Equipment	**$ 2,000.00 lump sum**	
Replace Existing Asphalt Paving (heavy duty):	**$ 30.60 sy**	(includes drainage/tear out for heavy duty asphalt)
Replace Existing Asphalt Paving (light duty):	**$ 28.60 sy**	(includes drainage/tear out for light duty asphalt)
Asphalt Paving/New Wearing Course:	**$ 19.00 sy**	(includes minor crack repair in less than 5% of paved area)
New Asphalt Paving (heavy duty):	**$ 27.80 sy**	
New Asphalt Paving (light duty):	**$ 25.80 sy**	
Parking Space:	**$ 1,100.00 space**	(ES & MS: .11 space per student, HS .42 space per student. Parking space includes parking lot drive space.)
Bus Drop-Off:		(Allowance to assist in constructing bus drop-off at
ES/MS	**HS/CT**	buildings where there currently is none)
$110/student	**$68.75/student**	(based on current enrollment)
Concrete Curb:	**$ 18.00 lf**	(new)

Concrete Sidewalk:	**$ 4.69 sf**	(5" exterior slab)
Stabilize soil erosion	**$ 2.50 sf**	(includes stripping and re-grading)
Exterior Hand / Guard Rails:	**$ 43.00 lf**	
Sitework Allowance	**up to $200,000**	(for unforeseen conditions)
Provide Soft Surface Playground Material:	**$ 30.00 sy**	
Replace Concrete Steps:	**$ 32.00 sf**	
Provide Exterior Parking Lot Catch Basin:	**$ 2,500.00 ea**	
Provide Concrete Dumpster Pad:	**$ 2,400.00 ea**	(for two dumpsters)

Other:

Storm Drainage:

Curb Cuts:

Stabilize Soil Erosion:

(describe "Other" items along with opinion of probable costs within recommendation section)

Additional Comments:

- Review existing Bus/pedestrian/vehicular traffic separation. Assessment consultant should provide funding for paving and curbing to provide separation.
- Pave a parking lot if not currently paved.
- This could include a bad drainage condition.
- This could include a circulation problem such as handicapped inaccessibility.
- Provide playground equipment to elementaries (only) as indicated in the ***Ohio School Facilities, Ohio School Design Manual.***
- Assessment Consultant to review any existing equipment.
- Bus drop off is based on current student enrollment. Combination schools will be determined by enrollment per grade level.
- A sitework allowance to accommodate unforeseen circumstances is to be included on all renovation projects. The assessor is required to manually select this as directed on the webtool instructions.

Q. SEWAGE SYSTEM

The Assessment Consultant shall verify the condition and suitability of the existing sewage system. These items are on a per school basis.

ELEMENTARY SCHOOL COST

Square Feet of Building	***Cost per sf***
43,750 – 50,000 sf	*$ 4.51*
50,001 sf –69,360 sf	*$ 4.68*
69,361 sf – 100,000 sf	*$ 3.07*
100,001 sf and up	*$ 2.80*

MIDDLE SCHOOL COST

Square Feet of Building	***Cost per sf***
52,850 - 67,950 sf	*$ 3.93*
67,951 sf – 91,650 sf	*$ 3.44*
91,651 sf – 100,000 sf	*$ 3.04*
100,001 sf and up	*$ 2.86*

HIGH SCHOOL COST	
Square Feet of Building	*Cost per sf*
63,000 - 100,000 sf	*$ 3.66*
100,001 sf – 133,600 sf	*$ 2.21*
133,601 sf – 200,400 sf	*$ 1.79*
200,401 sf and up	*$ 1.60*

A more accurate probable cost will be achieved by obtaining actual flow rates of a similar type of school with a similar student population and modifying those numbers to the design of the new or renovated building.

Abandonment of Self-		
Contained Unit:	**$ 10,000.00 lump sum**	
Sewage Main:	**$ 45.00 lf**	(includes excavation and backfilling)

Other:

(describe "Other" items along with opinion of probable costs within recommendation section

Additional Comments:

- ***The size (gallons/day) and type of the treatment plant (re-circulating sand filter or extended aeration) the drainage characteristics of the soil, and the length of sewer piping between the building and treatment components all influence the design and cost.***
- ***Another important factor is water-reducing plumbing fixtures. Treatment plants sized for higher flows will not perform satisfactorily and experience negative effects on the equipment provided.***

- ~~**Student count is based upon current enrollment or capacity as determined in Item "E" – Plumbing; whichever is greater.**~~
- Meet with school representatives and inquire about condition and history of the underground sanitary lines. If problems are suspected, ask district about having a pipe inspection via camera photography to better determine condition. Also enter the item in the "Summary of Significant Findings."

R. WATER SUPPLY

The Assessment Consultant shall verify that there are no problems in this area.

Domestic Water Booster Pump:	**$ 35,000.00**	**lump sum**	
Pressure Tank:	**$ 1.50**	**per gallon**	(new)
	$ 2.00	**per gallon**	(removal/replacement)
Domestic Water Main	**$ 40.00**	**lin. ft**	(new)
Well:	**$ 45,000.00**	**unit**	
Well Pump:	**$ 2,500.00**	**unit**	(5HP unit)
	$ 10,000.00	**unit**	(25-30 HP unit)
Water Quality Test	**$ 500.00**		(includes 2 tests)

Other:

(describe "Other" items along with opinion of probable costs within recommendation section)

Coordination Comments:

- Coordinate with Item "U" – Life Safety
- If District uses a well for potable water, determine if arsenic contamination is an issue. Contact OSFC if Arsenic Filtration System is required.

S. EXTERIOR DOORS

Assessment Consultant shall visually inspect and recommend for replacement, if needed.

Door Leaf/Frame and Hardware:	**$ 2,000.00 per leaf**	(includes removal of existing)
Overhead door and hardware	**$ 2,500.00 per leaf**	(8x10 sectional, manual operation)
Hazardous Material Replacement Costs:		
Fire Door Replacement	**$ 1,100.00 each**	

Other:

(describe "Other" items along with opinion of probable costs within recommendation section)

Additional Comments:

- All exterior door and hardware must be ADA compliant.
- Replace all wood exterior doors.
- Coordinate transoms and sidelights with Item "F" Windows.

T. HAZARDOUS MATERIAL

Effective June 1, 2001 Assessors will use the Environmental Hazards Form to establish estimates for Item T.

Additional Comments:

- **IMPORTANT NOTE TO REGIONAL PROGRAM CONSULTANTS:** If the building is intended to become a part of a district's Master Plan, the Regional Program Consultant shall review the Enhanced Environmental Report and make any budget adjustments required due to replacement of abated materials. The adjustments should be made per the specific line items in sections A through W herein, under the *Hazardous Material Replacement Costs* heading in each section.
- OSFC policy is to remove all hazardous materials.

U. LIFE SAFETY

The Assessment Consultant shall review exit corridors and include funding for eliminating existing dead-end corridor conditions. Include descriptive analysis and opinion of probable costs in recommendation section. The Assessment Consultant shall confirm that all buildings contain sprinklers. Stairs must be in two-hour rated enclosures and travel distances may require an additional means of egress. Stair railings must pass the 4" ball test. The present code requires that the guards of stair railing(s) shall not allow a sphere of 4" to pass through the balusters. An exception is made only for the triangular opening where the tread /rise / railing bottom meet to allow a 6" size sphere to pass through. In addition, the design of a guardrail should not be such that would create a "ladder effect" allowing a student to climb the railing system and therefore possibly fall over it. If water supply is from a well, assure an additional well, well pump, storage tank and generator will be required to serve the fire suppression sprinkler system.

Sprinkler / Fire Suppression System:	**$ 3.20 sf**	(includes increase of service piping, if required)
Interior Stairwell Closure:	**$ 5,000.00 per level**	(includes associated doors, door frames and hardware)
New Exterior Stair Enclosure	**$ 42,500.00 per level**	(all inclusive)
Demo of existing stairway:	**$12,000 per floor**	(per stairway, two floor minimum $12,000, includes demo and floor construction, see coordination comment)
As required to provide adequate fire suppression system:		
Water Main	**$ 40.00 ln. ft.**	(new)
Well Pump (Electric):	**$ 30,000.00 unit**	
Well Pump for Fire Pump	**$ 20,000.00 unit**	
Generator:	**$ 50,000.00 unit**	(75 KW w/fence and pad/day tank only, life safety only)
Storage Tank:	**$ 50,000.00 unit**	(30,000-35,000 gallon tanks)

Well:	**$ 45,000.00**	**unit**	
Handrails:	**$ 5,000.00**	**level**	
Retrofit existing kitchen hood with Fire suppression system	**$ 6,500.00**	**per hood**	
Provide Fire Extinguisher and Wall Cabinet:	**$ 585.00**	**ea**	(includes preparation of wall to receive recessed cabinet)
Replace Fire Extinguisher:	**$ 400.00**	**ea**	

Other:

(describe "Other" items along with opinion of probable costs within recommendation section)

Additional Comments:

- Demo of existing stairway includes the removal of an interior stairway requiring enclosure due to fire code that cannot be enclosed because of space or other issues. The stairway will then be removed and the space used for other purposes. The cost includes the removal of the stair and any guard or handrails, installing structural steel, decking and concrete infill.
- Stairway enclosures not required for two-story buildings.

Coordination Comments:

- If a Fire Suppression System is being provided, replace Interior Lighting under item K. INTERIOR LIGHTING.
- If a Fire Suppression System is being provided, replace Acoustic Ceilings under item J. INTERIOR FINISHES.
- When specifying a fire protection system for a building currently using a well for domestic water include well pump, generator and storage tank.
- Coordinate with Item "R" Water Supply.
- If complete electrical replacement is required, do not add generator.

V. LOOSE FURNISHINGS

Based on the CEFPI appraisal form, if loose furnishings are rated less than 8 under Environment for Education on Item 6.17 apply funding as listed below. If CEFPI Item 6.17 is above 8, no funding should be received.

Use the following graduated scale:

CEFPI Rating	$/Sf Allowance
8	$1.00
7	$2.00
6	$3.00
4 to 5	$4.00
0 to 3	$5.00

(Graduated scale based on evaluation of furnishing)

HIGH BAY/INDUSTRIAL SPACE – LAB TYPES 5, 6, 7:

High Bay Loose Furnishings allowance is $1.00 per sqft

Add $19,500 for Welding Tables in the Welding lab in addition to the $1.00 per sqft for loose furnishings.

W. TECHNOLOGY

The Assessment Consultant shall determine whether the school is fully compliant with the Ohio School Design Manual (OSDM). Provide assessment funding based on the figures below.

Non-OSDM Compliant:

ELEMENTARY SCHOOL TECHNOLOGY COST

Square Feet	Cost per sf
< 50,000 sf	$13.18
50,001 sf –69,360 sf	$11.51
69,361 sf – 100,000 sf	$10.18
100,001 sf and up	$ 9.84

MIDDLE SCHOOL TECHNOLOGY COST

Square Feet	Cost per sf
< 67,950 sf	$10.29
67,951 sf – 91,650 sf	$ 9.47
91,651 sf – 100,000 sf	$ 8.66
100,001 sf and up	$ 8.47

HIGH SCHOOL TECHNOLOGY COST

Square Feet	Cost per sf
< 100,000 sf	$8.82
100,001 sf – 133,600 sf	$8.54
133,601 sf – 200,400 sf	$6.79
200,401 sf and up	$5.80

Additional Comments:

- Technology renovation calculation is based on current student enrollment. Combination schools will be determined by enrollment per grade level.
- Technology renovation budgets include technology cabling, network electronics (wireless), phone system, paging & central sound system, wireless clock system, all A/V system components (such as classroom projectors, video distribution & sound), specialized audio systems for large group areas, and interactive curriculum technology (such as smart board/stand, interactive tablet, student response system, document camera).

Coordination Comments:

- Technology renovation calculation is based on current building size and current building enrollment (i.e. elementary, middle or high school). Combination schools will be determined by enrollment per grade level.

X. NON-CONSTRUCTION COST – *(Same as 2013)*

Non-Construction costs are listed below. A construction contingency of 7% will be added to the A through W Costs.

Land Survey	*0.03%*
Soil Borings/Phase I Envir. Report	*0.10%*
Agency Approval Fees (Bldg. Code)	*0.25%*
Construction Testing	*0.40%*
Printing – Bid Documents	*0.15%*
Advertising for Bids	*0.02%*
Builders Risk Insurance	*0.12%*
Bond Fees	*0.00%*
Design Professionals Compensation	*7.50%*
CM Compensation	*6.00%*
Commissioning and Maintenance Plan Advisor	0.60%
Non-Construction Contingency	*1.12%*
Non-Construction Total	*16.29%*

Regional Cost Factors

*As of March **21, 2014** Regional Cost Factors have been adjusted as follows:*

Region 0 – Central Ohio	***1.0000***
Region 1 – Southwestern Ohio	***0.9812***
Region 2 – West Central Ohio	***1.0012***
Region 3 – Northwestern Ohio	***1.0349***
Region 4 – North Central Ohio	***1.0244***
Region 5 – South Central Ohio	***1.0031***
Region 6 – Southeastern Ohio	***1.0216***
Region 7 – East Central Ohio	***1.0085***
Region 8 – Northeastern Ohio	***1.0376***

Note: The changes for *2014* are color-coded as follows:

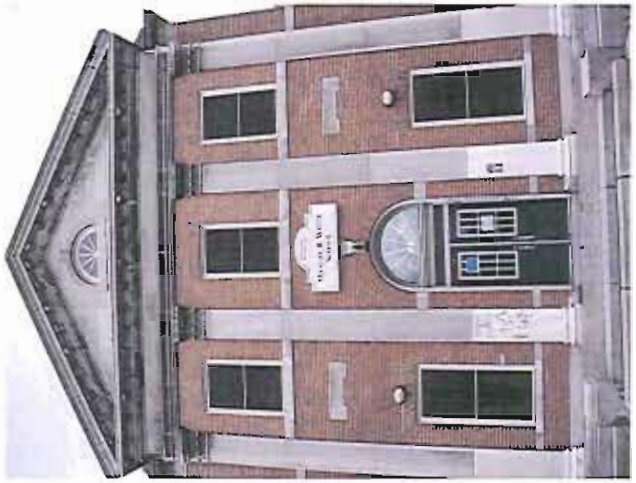
Green:	**Cost or Narrative Change**
Orange:	**Cost or Narrative Added**
Red:	**Narrative Deleted**























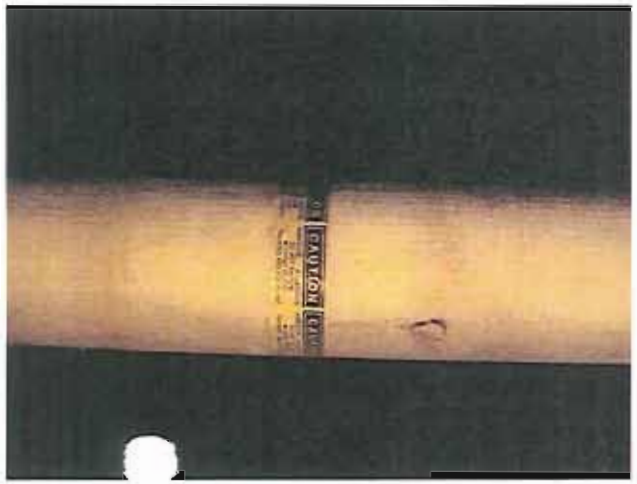










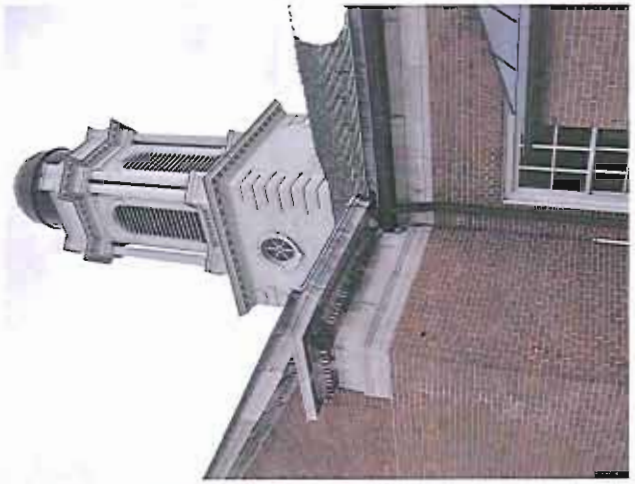






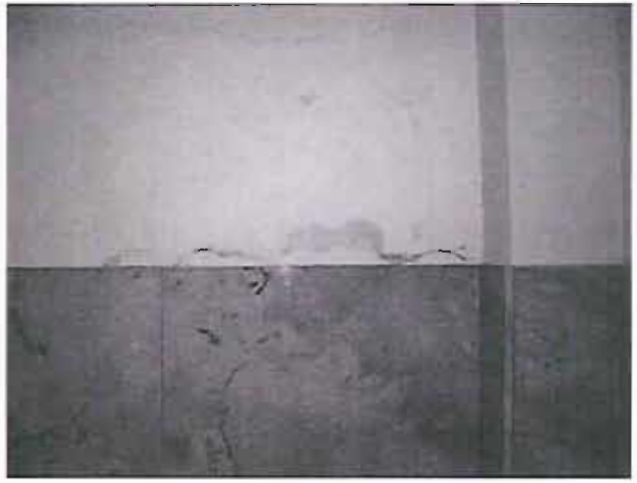


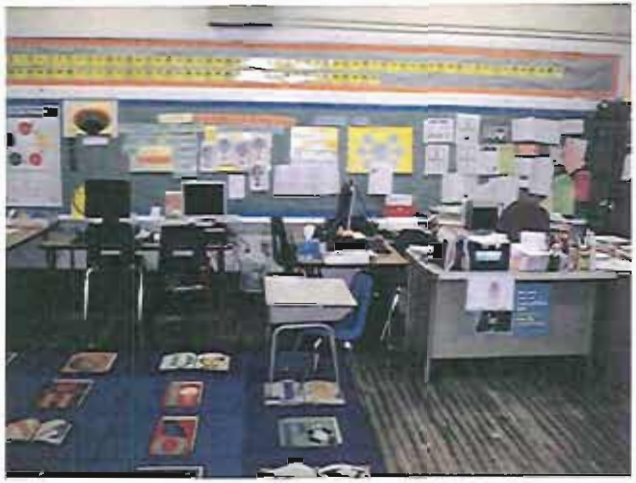


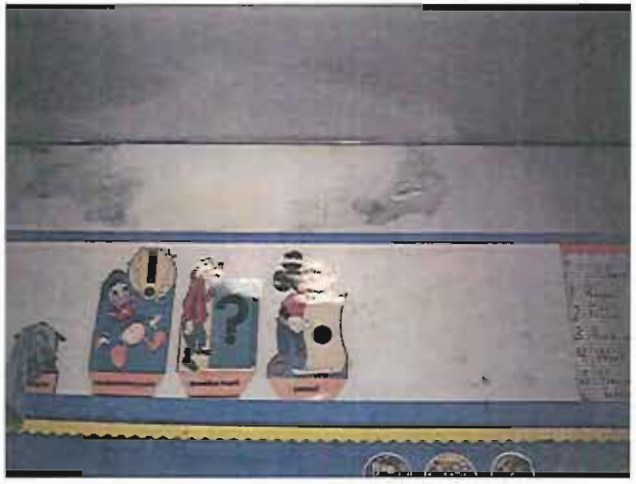






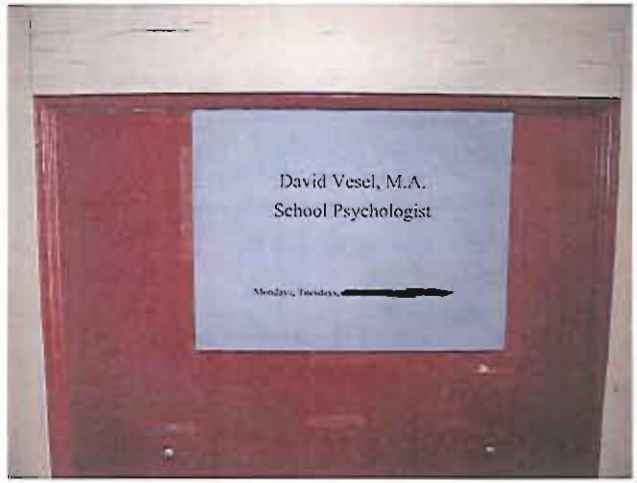






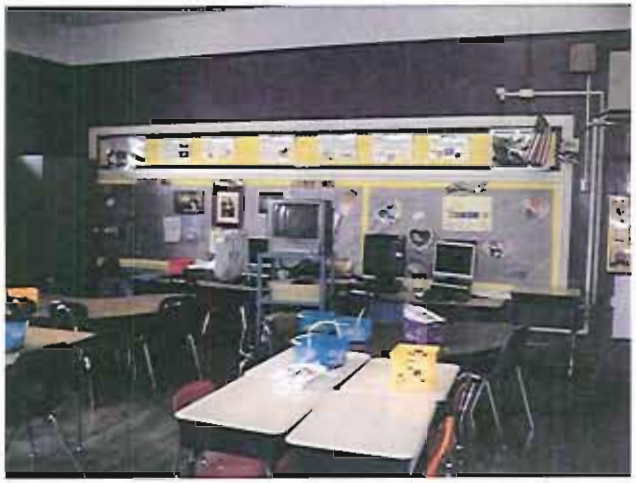





David Vesel, M.A.
School Psychologist


Audiobooks


Creativity

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Speech,
language,
and
Hearing...
They Mean
So Much!


CAUTION
ASBESTOS. HAZARDOUS.
DO NOT DISTURB
WITHOUT PROPER
TRAINING AND EQUIPMENT
CAUTION
CAUTION


TREES