Building Information - Oakwood City (44586) - Lange School

Program Type	Expedited Local Partnership Program (ELPP)
Setting	Suburban
Assessment Name	Lange School with 2018 Costs, EEA & Related Scope Adjustments
Assessment Date (on-site; non-EEA)	2017-08-25
Kitchen Type	Warming Kitchen
Cost Set:	2018
Building Name	Lange School
Building IRN	94458601
Building Address	219 W. Dorothy Lane
Building City	Dayton
Building Zipcode	45429
Building Phone	(937) 299-8730
Acreage	1.60
Current Grades:	K
Teaching Stations	11
Number of Floors	2
Student Capacity	98
Current Enrollment	135
Enrollment Date	2017-10-04

Enrollment Date is the date in which the current enrollment was taken.

Number of Classrooms	9
Historical Register	**NO**
Building's Principal	Mr. Frank Eaton
Building Type	Elementary

Next Page

North elevation photo:

East elevation photo:

South elevation photo:

West elevation photo:

GENERAL DESCRIPTION

16,330 Total Existing Square Footage
1940 Building Dates
K Grades
135 Current Enrollment
11 Teaching Stations
1.60 Site Acreage

Lange School, which is not on the National Register of Historic Buildings, and originally constructed in 1940, is a 2-story, 16,630 square foot brick school building located in a suburban residential setting. The existing facility features a conventionally partitioned design, and does not utilize modular buildings. The structure of the overall facility contains concrete masonry unit and brick type exterior wall construction, with gypsum board on either wood or metal stud framing type wall construction in the interior. The floor system consists of wood framing and wood plank decking. The roof structure is wood framing. The roofing system is a combination of fully adhered membrane, asphalt shingle and clay tile. The roofing installation date is unknown, but it is confirmed to be installed over seven years ago. The ventilation system of the building is inadequate to meet the needs of the users. The Classrooms are undersized in terms of the current standards established by the State of Ohio. Physical Education and Student Dining spaces consist of one Multipurpose space, but a change in flooring delineates the spaces. The electrical system for the facility is generally inadequate. The facility is equipped with a non-compliant security system. The building has a non-compliant manual fire alarm system. The facility is equipped with a non-compliant fire suppression system. The building does not contain asbestos and other hazardous materials. The overall building is not compliant with ADA accessibility requirements. The school is located on a 1.6-acre site adjacent to residential properties. The property and playgrounds are partially fenced for security. Access onto the site is unrestricted. Site circulation is fair. There is no dedicated space for school buses to load and unload on the site, but there is no student bussing currently in service for this School District. Parking for staff, visitors and community events is adequate.

This facility was originally built as a casket factory, and was retro-fitted to be a kindergarten building. The building systems and site allotment is not adequate for a school building.

Previous Page

Next Page

Name	Year	Handicapped Access	Floors	Square Feet	Non OSDM Addition	Built Under ELPP
Original Construction	1940	no	2	16,330	no	no

Previous Page

Next Page

Addition	Auditorium Fixed Seating	Corridors	Agricultural Education Lab	Primary Gymnasium	Media Center	Vocational Space	Student Dining	Kitchen	Natatorium	Indoor Tracks	Adult Education	Board Offices	Outside Agencies	Auxiliary Gymnasium
Original Construction (1940)		1729		1152	1119		836	412						
Total	0	1,729	0	1,152	1,119	0	836	412	0	0	0	0	0	0

Master Planning Considerations	Due to the site being very small and inclusive of the building, drives, parking and hard surface play, any building additions would require underground stormwater detainage. Very close proximity to the property lines limit any additions to the east and west. Any possible additions to the south would be very limited due to the frontage zoning setback. Any additions would be on the area of the hard-surface play, and be limited to a building footprint of approximately 7,500 square feet.

Previous Page

Next Page

Existing CT Programs for Assessment

Next Page

Previous Page

Program Type	Program Name	Related Space	Square Feet
No Records Found			

Legend:

Not in current design manual

In current design manual but missing from assessment

Building Summary - Lange School (94458601)

District:	Oakwood City	**County:**	Montgomery **Area:** West Central Ohio (2)
Name:	Lange School	**Contact:**	Mr. Frank Eaton
Address:	219 W. Dorothy Lane	**Phone:**	(937) 299-8730
	Dayton,OH 45429	**Date Prepared:**	2017-08-25 **By:** Paul W. Garland
Bldg. IRN:	94458601	**Date Revised:**	2018-03-09 **By:** Paul Brown

Current Grades	K	Acreage:	1.60
Proposed Grades	N/A	Teaching Stations:	11
Current Enrollment	135	Classrooms:	9
Projected Enrollment	N/A		

Addition	Date	HA	Number of Floors	Current Square Feet
Original Construction	1940	no	2	16,330
Total				**16,330**

*HA	=	Handicapped Access
*Rating	=1	Satisfactory
	=2	Needs Repair
	=3	Needs Replacement
*Const P/S	=	Present/Scheduled Construction

		FACILITY ASSESSMENT Cost Set: 2018	Rating	Dollar Assessment	C
	A.	Heating System	3	$557,179.60	-
	B.	Roofing	3	$158,958.10	-
	C.	Ventilation / Air Conditioning	3	$0.00	-
	D.	Electrical Systems	3	$265,035.90	-
	E.	Plumbing and Fixtures	2	$44,000.00	-
	F.	Windows	3	$46,800.00	-
	G.	Structure: Foundation	1	$0.00	-
	H.	Structure: Walls and Chimneys	2	$42,378.50	-
	I.	Structure: Floors and Roofs	2	$194,585.00	-
	J.	General Finishes	2	$95,426.00	-
	K.	Interior Lighting	3	$85,400.00	-
	L.	Security Systems	3	$56,540.50	-
	M.	Emergency/Egress Lighting	3	$16,330.00	-
	N.	Fire Alarm	2	$28,577.50	-
	O.	Handicapped Access	2	$132,066.00	-
	P.	Site Condition	2	$185,276.52	-
	Q.	Sewage System	1	$0.00	-
	R.	Water Supply	1	$0.00	-
	S.	Exterior Doors	3	$22,000.00	-
	T.	Hazardous Material	3	$44,533.00	-
	U.	Life Safety	2	$74,256.00	-
	V.	Loose Furnishings	1	$16,330.00	-
	W.	Technology	3	$215,229.40	-
-	X.	Construction Contingency / Non-Construction Cost	-	$557,231.21	-
Total				$2,838,133.23	

Suitability Appraisal Summary

Section	Points Possible	Points Earned	Percentage	Rating Category
Cover Sheet	—	—	—	—
1.0 The School Site	100	68	68%	Borderline
2.0 Structural and Mechanical Features	200	127	64%	Borderline
3.0 Plant Maintainability	100	55	55%	Borderline
4.0 Building Safety and Security	200	134	67%	Borderline
5.0 Educational Adequacy	200	122	61%	Borderline
6.0 Environment for Education	200	138	69%	Borderline
LEED Observations	—	—	—	—
Commentary	—	—	—	—
Total	1000	644	64%	Borderline

Enhanced Environmental Hazards Assessment Cost Estimates

C=Under Contract

Renovation Cost Factor	98.97%
Cost to Renovate (Cost Factor applied)	$2,808,900.45

The Replacement Cost Per SF and the Renovate/Replace ratio are only provided when this summary is requested from a Master Plan.

Previous Page

Original Construction (1940) Summary

District:	Oakwood City	**County:**	Montgomery **Area:** West Central Ohio (2)
Name:	Lange School	**Contact:**	Mr. Frank Eaton
Address:	219 W. Dorothy Lane	**Phone:**	(937) 299-8730
	Dayton,OH 45429	**Date Prepared:**	2017-08-25 **By:** Paul W. Garland
Bldg. IRN:	94458601	**Date Revised:**	2018-03-09 **By:** Paul Brown

Current Grades	K	Acreage:	1.60
Proposed Grades	N/A	Teaching Stations:	11
Current Enrollment	135	Classrooms:	9
Projected Enrollment	N/A		

Addition	Date	HA	Number of Floors	Current Square Feet
Original Construction	**1940**	**no**	**2**	**16,330**
Total				**16,330**

*HA	=	Handicapped Access
*Rating	=1	Satisfactory
	=2	Needs Repair
	=3	Needs Replacement
*Const P/S	=	Present/Scheduled Construction

		FACILITY ASSESSMENT Cost Set: 2018	Rating	Dollar Assessment	C
	A.	Heating System	3	$557,179.60	-
	B.	Roofing	3	$158,958.10	-
	C.	Ventilation / Air Conditioning	3	$0.00	-
	D.	Electrical Systems	3	$265,035.90	-
	E.	Plumbing and Fixtures	2	$44,000.00	-
	F.	Windows	3	$46,800.00	-
	G.	Structure: Foundation	1	$0.00	-
	H.	Structure: Walls and Chimneys	2	$42,378.50	-
	I.	Structure: Floors and Roofs	2	$194,585.00	-
	J.	General Finishes	2	$95,426.00	-
	K.	Interior Lighting	3	$85,400.00	-
	L.	Security Systems	3	$56,540.50	-
	M.	Emergency/Egress Lighting	3	$16,330.00	-
	N.	Fire Alarm	2	$28,577.50	-
	O.	Handicapped Access	2	$132,066.00	-
	P.	Site Condition	2	$185,276.52	-
	Q.	Sewage System	1	$0.00	-
	R.	Water Supply	1	$0.00	-
	S.	Exterior Doors	3	$22,000.00	-
	T.	Hazardous Material	3	$44,533.00	-
	U.	Life Safety	2	$74,256.00	-
	V.	Loose Furnishings	1	$16,330.00	-
	W.	Technology	3	$215,229.40	-
-	X.	Construction Contingency / Non-Construction Cost	-	$557,231.21	-
Total				$2,838,133.23	

Suitability Appraisal Summary

Section	Points Possible	Points Earned	Percentage	Rating Category
Cover Sheet	—	—	—	—
1.0 The School Site	100	68	68%	Borderline
2.0 Structural and Mechanical Features	200	127	64%	Borderline
3.0 Plant Maintainability	100	55	55%	Borderline
4.0 Building Safety and Security	200	134	67%	Borderline
5.0 Educational Adequacy	200	122	61%	Borderline
6.0 Environment for Education	200	138	69%	Borderline
LEED Observations	—	—	—	—
Commentary	—	—	—	—
Total	1000	644	64%	Borderline

Enhanced Environmental Hazards Assessment Cost Estimates

C=Under Contract

Renovation Cost Factor	98.97%
Cost to Renovate (Cost Factor applied)	$2,808,900.45

The Replacement Cost Per SF and the Renovate/Replace ratio are only provided when this summary is requested from a Master Plan.

A. Heating System

Description: The existing system for the overall facility consists of constant volume rooftop units with gas heat exchangers, delivering hot air to the spaces, installed in 1992, and are in poor condition due to age. 2-pipe vs. 4-pipe designations are not applicable in this facility due to ducted rooftop unit gas heat. The system does comply with the 15 CFM per person fresh air requirements of the Ohio Building Code mechanical code and Ohio School Design Manual. The electronic type system temperature controls were installed in 2003 and are in good condition. The system does not feature individual temperature controls in all spaces required by the OSDM. The overall system does not feature any central energy recovery systems. The facility is not equipped with louvered interior doors to facilitate Corridor utilization as return air plenums. The existing system is ducted, but the ductwork cannot be integrated into a possible future system due to arrangement, air volume, and routing of existing ductwork. The overall heating system is evaluated as being in safe but inefficient working order, and long term life expectancy of the existing system is anticipated with routine yearly maintenance. The structure is equipped with central air conditioning. The site does not contain underground fuel tanks that are currently in use.

Rating: 3 Needs Replacement

Recommendations: Provide new overall heating, ventilating, and air conditioning system to achieve compliance with Ohio Building Code and Ohio School Design Manual standards. Replace existing ductwork to facilitate efficient exchange of conditioned air.

Item	Cost	Unit	Whole Building	Original Construction (1940) 16,330 ft²	Sum	Comments
HVAC System Replacement:	$26.12	sq.ft. (of entire building addition)		Required	$426,539.60	(includes demo of existing system and reconfiguration of piping layout and new controls, air conditioning)
Convert To Ducted System	$8.00	sq.ft. (of entire building addition)		Required	$130,640.00	(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)
Sum:			$557,179.60	$557,179.60		

Gas Piping to Bryant Rooftop Units

Gas Piping to Trane Rooftop Unit

Back to Assessment Summary

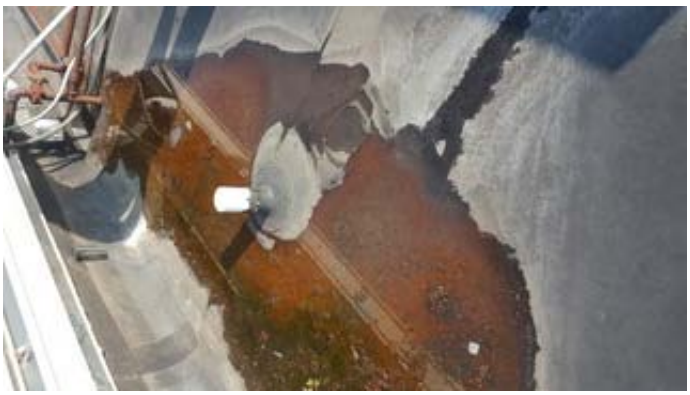
B. Roofing

Description: The roof over the overall facility is a combination of fully adhered membrane, asphalt shingle, and clay tile systems that were installed over 7 years ago, and are in poor condition. There are District reports of current leaking. At the southwest corner of the second floor in the storage room, there is excessive leaking that the district has been unable to repair. Signs of past leaking were observed during the physical assessment. Access to the roof was gained by window that is in poor condition. Fall safety protection cages are not required. There were observations of standing water on the roof. Metal and clay tile cap flashings and stone copings are in poor condition. Roof storm drainage is addressed through a system of gutters and downspouts, scuppers, and roof drains, which are properly located, but in insufficient quantity, and in fair condition. The roof is equipped with overflow roof drains, in fair condition. No problems requiring attention were encountered with any roof penetrations. There are not any covered walkways attached to this structure.

Rating: 3 Needs Replacement

Recommendations: The roof over the overall facility requires replacement to meet Ohio School Design Manual guidelines, due to condition and age of system. Replace insulation on areas of roof replacement. Provide tapered insulation in areas where ponding has occurred. The flashing and coping on the overall facility requires replacement due to condition. Due to existing conditions gutters and downspouts, and roof drains require replacement.

Item	Cost	Unit	Whole Building	Original Construction (1940) 16,330 ft²	Sum	Comments
Asphalt Shingle:	$3.00	sq.ft. (Qty)		7,434 Required	$22,302.00	
Membrane (all types):	$8.70	sq.ft. (Qty)		6,926 Required	$60,256.20	(unless under 10,000 sq.ft.)
Repair/replace cap flashing and coping:	$18.40	ln.ft.		300 Required	$5,520.00	
Gutters/Downspouts	$13.10	ln.ft.		609 Required	$7,977.90	
Remove/replace existing roof Drains and Sump:	$1,200.00	each		1 Required	$1,200.00	
Overflow Roof Drains and Piping:	$2,500.00	each		2 Required	$5,000.00	
Roof Insulation:	$3.20	sq.ft. (Qty)		13,860 Required	$44,352.00	(non-tapered insulation for use in areas without drainage problems)
Roof Insulation:	$4.70	sq.ft. (Qty)		500 Required	$2,350.00	(tapered insulation for limited area use to correct ponding)
Other: Roof Drain and Sump	$5,000.00	each		2 Required	$10,000.00	New roof drain and associated piping.
Sum:			$158,958.10	$158,958.10		



Area of Ponding

Membrane and Asphalt Shingle Portion of Roof

Back to Assessment Summary

C. Ventilation / Air Conditioning

Description: The overall facility is equipped with a dx type central air conditioning system, which is in fair condition. There are (6) dx packaged rooftop units with R-22 refrigerant and (1) dx split system with air cooled condensing unit on the roof and indoor unit located in the mezzanine. Window units are provided in 0 locations. The ventilation system in the overall facility consists of rooftop units, installed in 1992 and in fair to poor condition, providing fresh air to interior Classrooms, two exterior Classrooms, the Office area, Activity area and Dining area, and dx split system air handling unit, installed in 1992 and in poor condition, providing fresh air to three exterior Classrooms. Relief air venting is provided by being ducted back through the rooftop units. The ventilation system does meet the Ohio Building Code 15 CFM per occupant fresh air requirement. The overall system is not compliant with Ohio Building Code and Ohio School Design Manual requirements. Dust collection systems are not required in this facility, and no system is provided. Due to existing grade configuration, there is no Art program. General building exhaust systems for Restrooms, Storage Rooms and Custodial are adequately placed, and in fair condition.

Rating: 3 Needs Replacement

Recommendations: Provide an air conditioning system to meet with Ohio Building Code and Ohio School Design Manual requirements. Replace the HVAC equipment containing R-22 refrigerant. Pricing included in Item A.

Item	Cost	Unit	Whole Building	Original Construction (1940) 16,330 ft²	Sum	Comments
Sum:			$0.00	$0.00		

Air Cooled Condensing Unit on Roof Serves Air Handling Unit in the Mezzanine

Two Bryant Rooftop Units at Lange School

Back to Assessment Summary

D. Electrical Systems

Description: The electrical system provided to the 1940 Original Construction is equipped with three (3) 200 amps main circuit breaker type panelboard distribution system, 240/120V, 1 phase and 3 wire system, installed in 1996, and is in good condition. Power is provided to the school by a single utility owned, pad-mounted transformer located outside, and in fair condition. The panel system, installed in 1996, is in good condition, but cannot be expanded to add additional capacity. The Classrooms are equipped with adequate electrical outlets. The typical Classroom contains (6) general purpose outlets, (2) dedicated outlets for each Classroom computer, and (0) dedicated outlets for each Classroom television. Some Classrooms are equipped with as many as (8) general purpose outlets, while others are equipped with as few as (4) general purpose outlets. There are not any spaces that have no electrical outlets. The Corridors are not equipped with adequate electrical outlets for servicing. Adequate GFI protected exterior outlets are not provided around the perimeter of the building. The facility is not equipped with an emergency generator. Adequate lightning protection safeguards are not provided. Stage lighting power system including control panel, breakers, and dimmers is inadequately provided, in poor condition and does not meet OSDM requirements. The overall electrical system meets does not meet Ohio School Design Manual requirements in supporting the current needs of the school, and will be inadequate to meet the facility's future needs.

Rating: 3 Needs Replacement

Recommendations: The entire electrical system requires replacement to meet Ohio School Design Manual guidelines for overall capacity, Classroom capacity, due to condition and age, lack of OSDM-required features and to accommodate the addition of an air conditioning system. Provide adequate electrical outlets for servicing at Corridors and around the perimeter of the building. Provide an emergency generator, with funding included in the electrical system replacement. Provide adequate lightning protection safeguards in the overall facility, including associated grounding system, with funding included in the electrical system replacement. Provide adequate control panel, dimmers, and breakers to support the Stage lighting system.

Item	Cost	Unit	Whole Building	Original Construction (1940) 16,330 ft²	Sum	Comments
System Replacement:	$16.23	sq.ft. (of entire building addition)		Required	$265,035.90	(Includes demo of existing system. Includes generator for life safety systems. Does not include telephone or data or equipment) (Use items below ONLY when the entire system is NOT being replaced)
Sum:			$265,035.90	$265,035.90		

Building's Electrical Panels

Typical Classroom Receptacle

Back to Assessment Summary

E. Plumbing and Fixtures

Description: The service entrance is equipped with a reduced pressure back flow preventer in fair condition. A water treatment system is not provided, though none is needed. The domestic water supply piping in the overall facility is copper, was installed in 2000, and is in good condition. The waste piping in the overall facility is PVC, was installed in 2000, and is in good condition. The facility is equipped with a 40 gallon electric water heater in good condition. The school contains (1) Large Group Restroom for boys, (1) Large Group Restroom for girls, (0) Locker Room Restrooms for boys, (0) Locker Room Restrooms for girls, (0) Restrooms associated with specialty Classrooms, and (2) Restrooms for staff. Boys' Large Group Restroom contains (0) ADA and (2) non-ADA floor mounted tank type toilets, (0) ADA and (1) non-ADA wall mounted flush valve urinal, (1) ADA wash fountain, as well as (0) ADA and (0) non-ADA wall mounted lavatories. Girls' Large Group Restroom contains (1) ADA and (2) non-ADA floor mounted tank type toilets, (1) ADA wash fountain, as well as (0) ADA and (0) non-ADA lavatories. Staff Restrooms contain (2) ADA and (1) non-ADA toilets, (0) ADA and (1) non-ADA urinals, as well as (2) ADA and (0) non-ADA lavatories. Condition of fixtures is fair. The facility is equipped with (0) ADA and (0) non-ADA drinking fountains, as well as (0) ADA and (2) non-ADA electric water coolers, in fair condition. The (7) Kindergarten Classrooms are equipped with (7) ADA and (0) non-ADA sink mounted type drinking fountains, in good condition. Special Education Classroom is not equipped with the required Restroom facilities. Kitchen is not equipped with the required Restroom. Heath Clinic is equipped with the required Restroom, and fixtures are in fair condition. Kindergarten Classrooms are not equipped with Restroom facilities. Kitchen fixtures consist of (1) three station lavatory and (1) two station lavatory, which are in fair condition. The Kitchen is not equipped with a grease interceptor due to the lack of need. The Kitchen is provided the required 140 degree hot water supply via a 40 gallon tank type water heater, which is in good condition. The school does meet the OBC requirements for fixtures. Relative to LEED requirements, the school is not equipped with low flow type fixtures. Per OBC and OSDM requirements this facility should be equipped with (5) toilets, (2) urinals, (3) lavatories, (7) Classroom sink mounted drinking fountains, and (1) electric water coolers. Observations revealed that the school is currently equipped with (9) toilets, (2) urinals, (3) wash fountains, (4) lavatories, (7) Classroom sink mounted drinking fountains, and (2) electric water coolers. ADA requirements are not met for fixtures and drinking fountains (see Item O). Custodial Closets are properly located and are adequately provided with required service sink or floor drain sink, which is in poor condition. Science Classroom / Lab utility sinks, gas connections, compressed air connections, and safety shower / eyewash are not provided, but are not required due to existing grade configuration. Due to existing grade configuration, no Biology or Chemistry Classroom acid waste systems are required. Adequate exterior wall hydrants are provided.

Rating: 2 Needs Repair

Recommendations: Due to LEED, and OSFC requirements, provide (7) new toilets / (4) new lavatories / (2) new urinals / (2) new double ADA electric water coolers / (7) new lavatory mounted type drinking fountains. Replace the 3 station lavatory and the 2 station lavatory to meet LEED requirements. Due to condition, replace the service sink / Floor Drain sink in the Janitors Closet. See Item O for replacement of fixtures related to ADA requirements.

Item	Cost	Unit	Whole Building	Original Construction (1940) 16,330 ft²	Sum	Comments
Toilet:	$1,500.00	unit		7 Required	$10,500.00	(remove / replace) See Item O
Urinal:	$1,500.00	unit		2 Required	$3,000.00	(remove / replace)
Sink:	$1,500.00	unit		4 Required	$6,000.00	(remove / replace)
Electric water cooler:	$3,000.00	unit		2 Required	$6,000.00	(double ADA)
Two Station Modular Lavatory	$3,000.00	unit		1 Required	$3,000.00	(remove / replace)
Three Station Modular Lavatory	$4,000.00	unit		1 Required	$4,000.00	(remove / replace)
Other: Lavatory Mounted Drinking Fountain	$1,500.00	per unit		7 Required	$10,500.00	(remove and replace)
Other: Service Sink / Floor Drain Sink	$1,000.00	per unit		1 Required	$1,000.00	(remove and replace, located in the Janitors closet)
Sum:			$44,000.00	$44,000.00		

Electric Water Heater In the Janitor Closet

Typical Wash Fountain at Lange School

Back to Assessment Summary

F. Windows

Description: The majority of the facility is equipped with thermally broken vinyl frame windows with double glazed insulated glazing type window system. The exact installation date is unknown, but reported by District that the windows are 20-25 years old, in fair condition. The window system features operable windows in most of the building, and operable windows are not equipped with opening limiters, but are equipped with insect screens in fair condition. Window system seals are in fair condition, with minimal air and water infiltration being experienced. Window system hardware is in fair condition. The window system features surface mounted blinds, which are in fair condition. This facility is not equipped with any curtain wall systems. There are glass block windows on the west elevation, in fair condition. There is one window in the attached that is a metal frame window with single pane glazing, and is in poor condition. The exterior doors in the overall facility are not equipped with sidelights or transoms. Exterior door vision panels are single pane glazing. The school does contain 6 acrylic bubble type skylights in good condition. The school does not contain clerestories. Interior glass is not OSDM-compliant due to not being tempered glazing. Window security grilles are not provided, but no ground floor windows are present. There is not a Greenhouse associated with this school.

Rating: 3 Needs Replacement

Recommendations: Provide a new insulated window system with integral blinds to meet with Ohio School Design Manual requirements. Exterior door vision panel replacement is addressed in Item S in exterior door replacement scope. Replace interior glazing with compliant tempered glazing.

Item	Cost	Unit	Whole Building	Original Construction (1940) 16,330 ft²	Sum	Comments
Insulated Glass/Panels:	$65.00	sq.ft. (Qty)		634 Required	$41,210.00	(includes blinds)
Other: Remove Glass block replace with insulated windows	$65.00	sq.ft. (Qty)		54 Required	$3,510.00	(includes blinds)
Other: Replace Interior Glazing	$40.00	sq.ft. (Qty)		52 Required	$2,080.00	Provide Tempered Glazing
Sum:			$46,800.00	$46,800.00		

Skylights

Windows in East Elevation

Back to Assessment Summary

G. Structure: Foundation

Description: The overall facility is equipped with concrete foundation walls on concrete footings, which displayed no locations of significant differential settlement, cracking, or leaking, and are in good condition. No significant issues related to foundation cracking or spalling were encountered. The District reports that there has been past leaking. No grading or site drainage deficiencies were noted around the perimeter of the structure that are contributing or could contribute to foundation / wall structural deterioration.

Rating: 1 Satisfactory

Recommendations: Existing conditions require no renovation or replacement at the present time.

Item	Cost	Unit	Whole Building	Original Construction (1940) 16,330 ft²	Sum	Comments
Sum:			$0.00	$0.00		

Crawl Space

Exposed Foundation Wall

Back to Assessment Summary

H. Structure: Walls and Chimneys

Description: The overall facility has a brick veneer and split-face block on a load bearing masonry wall system with gypsum board interior finish which displayed locations of deterioration, and is in fair condition. The exterior masonry appears to have no caulked control joints. Control joints are not provided at lintel locations, at doors and windows, building corners, and wall offsets. Control joints are provided at connection of dissimilar materials. The school does not contain expansion joints and none are needed, as there is no indication of exterior masonry cracking or separation. Exterior walls in the overall facility are adequately insulated. Brick veneer masonry walls are not cavity walls. Weep holes and vents are not provided or required. The exterior masonry has been painted in recent years, and shows evidence of mortar deterioration, especially at the base of the walls. Architectural exterior accent materials consist of painted wood, which is in poor condition. Exterior framing for walls above the roof is non-treated lumber and is in poor condition. Exterior building fenestration in the overall facility represents 13.75% of the exterior surfaces. Interior Corridor and demising walls are either metal stud or wood framed partitions with gypsum board. Corridor walls project full height from floor to bottom of deck, and are in good condition. Classroom and office walls do not project full height from floor to bottom of deck, and are in good condition. Interior soffits are of either plaster type construction in good condition, or acoustical ceiling tile in fair condition. The window sills are an element of the aluminum window system, and are in poor condition. The exterior lintels are steel, and are in fair condition. There are no chimneys. Canopies over entrances are wood-framed and aluminum-finished type construction, and are in poor condition. Exterior soffits are of aluminum type construction, and in poor condition. The school is not equipped with a loading dock.

Rating: 2 Needs Repair

Recommendations: Provide tuckpointing in all areas of mortar deterioration as required through the overall facility. Provide masonry cleaning, caulking and painting as required through the overall facility. Repair the caulked control joints at the connections of dissimilar materials. Replace aluminum soffits. Repair or replace wood trim and paint. Window sill replacement is addressed in Item F. Exterior wall insulation deficiencies are addressed in Item J.

Item	Cost	Unit	Whole Building	Original Construction (1940) 16,330 ft²	Sum	Comments
Tuckpointing:	$5.25	sq.ft. (Qty)		2,470 Required	$12,967.50	(wall surface)
Exterior Masonry Cleaning:	$1.50	sq.ft. (Qty)		5,446 Required	$8,169.00	(wall surface)
Exterior Caulking:	$5.50	ln.ft.		344 Required	$1,892.00	(removing and replacing)
Other: Exterior Painting	$2.00	sq.ft. (Qty)		5,702 Required	$11,404.00	Masonry and Wood Trim
Other: Replace Aluminum Soffits	$14.00	sq.ft. (Qty)		435 Required	$6,090.00	Existing Canopies
Other: Replace Wood Trim	$7.25	sq.ft. (Qty)		256 Required	$1,856.00	Below windows on East Elevation, Above Windows on South Elevation
Sum:			$42,378.50	$42,378.50		

Masonry Wall on South Elevation

Control Joint at Dissimilar Materials

Back to Assessment Summary

I. Structure: Floors and Roofs

Description: The floor construction of the base floor of the overall facility is wood planking on wood joist type construction, and is in fair condition. Crawl space is located under the group boys room section of the facility. The floor construction of the second floor of the overall facility is wood planking on wood joist type construction, and is in fair condition. Ceiling to structural deck spaces are sufficient to accommodate HVAC, electrical, and plumbing scopes of work in required renovations. The roof construction of the overall facility is wood planking on wood rafter type construction, and is in poor condition.

Rating: 2 Needs Repair

Recommendations: Refer to Item U for pricing of fire suppression system. Provide fire separation assembly for wood roof and floor. Replace wood roof framing at section of roof over the Media Center, Corridor and Group Restrooms.

Item	Cost	Unit	Whole Building	Original Construction (1940) 16,330 ft²	Sum	Comments
Other: Provide Fire Rated Assembly at Exposed Wood Framing	$3.50	sq.ft. (of entire building addition)		Required	$57,155.00	Allowance for wood roof and floor framing
Other: Replace Wood Roof System	$45.00	sq.ft. (Qty)		3,054 Required	$137,430.00	At area of sagging roof ridge
Sum:			$194,585.00	$194,585.00		

Sagging Roof Framing

Floor Framing above Crawl Space

Back to Assessment Summary

J. General Finishes

Description: The overall facility features conventionally partitioned Classrooms with carpet and VCT type flooring, with either painted plaster or ACT type ceilings, as well as painted plaster type wall finishes, and they are in good condition. The overall facility has Corridors with carpet type flooring, ACT or painted plaster type ceilings, as well as painted plaster type wall finishes, and they are in good condition. The overall facility has Restrooms with VCT type flooring, ACT type ceilings, as well as painted plaster type wall finishes, and they are in good condition. Toilet partitions are metal or wood, and are in fair condition. Classroom casework in the overall facility is wood type construction with plastic laminate tops, is adequately provided, and in good condition. The typical Classroom contains 10 lineal feet of casework, and Classroom casework provided ranges from 7 to 15 feet. Classrooms are provided adequate markerboards and tackboards, which are in good condition. The lockers and storage cubbies, located in the Corridors, are adequately provided, and in good condition. Due to existing grade configuration, there is not an Art Program. The facility is equipped with wood non-louvered interior doors that are flush mounted with and some without proper ADA hardware and clearances, and in fair condition. The Gymnasium space has carpet type flooring, painted plaster type ceilings, as well as painted plaster type wall finishes, and they are in good condition. Gymnasium does not have seating or basketball hoops. The Media Center, has carpet type flooring, ACT type ceilings, as well as painted plaster type wall finishes, and they are in good condition. Student Dining, has VCT type flooring, ACT type ceilings, as well as painted plaster type wall finishes, and they are in good condition. Student Dining shares the Gymnasium space, but there is a clear division with floor and ceiling materiality changes. OSDM-required fixed equipment for Stage is not provided. Existing Gymnasium, Student Dining, and Media Center spaces are adequately provided with appropriate sound attenuation acoustical surface treatments. The existing Kitchen is a Warming Kitchen only, is undersized based on current enrollment, and the existing Kitchen equipment is in fair condition. The Kitchen is not equipped with a hood. The Kitchen is equipped with a standard size refrigerator in good condition.

Rating: 2 Needs Repair

Recommendations: Provide funding to paint interior of overall facility. Replace toilet accessories. Replace toilet partitions. Replace existing Kitchen equipment due to age and condition. Funding for replacement of interior doors is provided in Item O. POST-ASSESSMENT NOTE: Rii 3-9-18 Scope added to replace Non-ACM ceiling panels and resilient floring to coordinate with Item T.

Item	Cost	Unit	Whole Building	Original Construction (1940) 16,330 ft²	Sum	Comments
Paint:	$2.00	sq.ft. (of entire building addition)		Required	$32,660.00	(partial finish - floor area/prep and installation)
Toilet Partitions:	$1,000.00	per stall		4 Required	$4,000.00	(removing and replacing)
Toilet Accessory Replacement	$0.20	sq.ft. (of entire building addition)		Required	$3,266.00	(per building area)
Non-ACM Acoustical Panel Ceiling Replacement	$1.50	sq.ft. (Qty)		1,600 Required	$2,400.00	(Hazardous Material Replacement Cost - See T.)
Resilient Flooring Replacement, Including Mastic	$2.25	sq.ft. (Qty)		3,000 Required	$6,750.00	(Hazardous Material Replacement Cost - See T.)
Total Warming Kitchen Replacement	$112.50	sq.ft. (Qty)		412 Required	$46,350.00	(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)
Sum:			$95,426.00	$95,426.00		

Typical Classroom Finishes

Typical Corridor Finishes

Back to Assessment Summary

K. Interior Lighting

Description: The typical Classrooms in the overall facility are equipped with T-8 fluorescent, 2x4 lay-in and 2x4 wraparound surface mount fixture type lighting with single level switching. Classroom fixtures are in good condition, providing an average illumination of 78 FC, thus complying with the 40 FC recommended by the OSDM. The typical Corridors in the overall facility are equipped with T-8 fluorescent, 2x4 wraparound surface mount fixture type lighting with single level switching. Corridor fixtures are in good condition, providing an average illumination of 20 FC, thus complying with the 15 FC recommended by the OSDM. There is no Gymnasium space in the facility. There is no Media Center space in the facility. The Student Dining spaces are equipped with T-8 fluorescent, 2x4 lay-in and 2x4 wraparound surface mount fixture type lighting with single level switching. Student Dining fixtures are in good condition, providing an average illumination of 45 FC, thus complying with the 40 FC recommended by the OSDM. The Kitchen spaces are equipped with T-8 fluorescent, 2x4 lay-in fixture type lighting with single level switching. Kitchen fixtures are in good condition, providing an average illumination of 53 FC, thus complying with the 50 FC recommended by the OSDM. The Service Areas in the overall facility are equipped with T-8 fluorescent, 1x4 indirect suspended and 2x4 recessed mount fixture type lighting, in good condition. The typical Administrative spaces in the overall facility are equipped with T-8 fluorescent, 2x4 recessed mount fixture type lighting in good condition, providing adequate illumination based on OSDM requirements.

Rating: 3 Needs Replacement

Recommendations: Provide complete replacement of lighting system due to condition, lighting levels, lack of multi-level switching, and installation of systems outlined in Items A, J and U. Provide adequate occupancy sensors to areas currently lacking for compliance with ASHRAE 90.1.

Item	Cost	Unit	Whole Building	Original Construction (1940) 16,330 ft²	Sum	Comments
Complete Building Lighting Replacement	$5.00	sq.ft. (of entire building addition)		Required	$81,650.00	Includes demo of existing fixtures
Other: Enhanced Lighting Controls	$250.00	each		15 Required	$3,750.00	Provide Occupancy sensor to areas currently lacking for compliance with ASHRAE 90.1. Basic labor to replace electric switch with favorable site conditions. Shutoff power to circuit. Remove existing switch. Wire, secure and test new switch. Repower circuit and verify proper operation. Includes planning, equipment and material acquisition, area preparation and protection, setup and cleanup.
Sum:			$85,400.00	$85,400.00		

Typical Classroom Lighting

Dining Room Lighting

Back to Assessment Summary

L. Security Systems

Description: The overall facility contains a CCTV (Honeywell) and Door access control security system (Ademco), in good condition. Motion detectors are not provided in main entries, central gathering areas, offices, main Corridors, and spaces where 6 or more computers are located. Exterior doors are not equipped with door contacts, but are equipped with door alarm modules. An automatic visitor control system is not provided. The Administrative office is located adjacent to the Main Entrance to the facility and though a secure Entrance vestibule is not provided, the Main Entry is equipped with Door Buzzer Entry system and CCTV camera monitored and controlled by a computer in the Administrative office. Compliant color CCTV cameras are provided at main entry areas, parking lots, central gathering areas, and main Corridors. CCTV is monitored in Administrative Area with the use of a LCD monitor, computer based recording device. 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 not adequately provided throughout, and the system is not fully compliant with Ohio School Design Manual guidelines. There are no playground fencing issues requiring attention. The exterior site lighting system is equipped with fluorescent, recessed downlight fixtures at entry lights, in fair condition. Pedestrian walkways are illuminated with surface mount decorative wall sconce fixtures in fair condition. Parking pick-up / drop off areas are illuminated with high pressure sodium, ground mounted floodlight fixtures, in fair condition. The exterior site lighting system provides inadequate illumination due to insufficient fixture capacity and sparse placement of fixtures.

Rating: 3 Needs Replacement

Recommendations: Provide complete replacement of security system to meet Ohio School Design Manual guidelines. Provide complete replacement of exterior site lighting system to meet Ohio School Design Manual guidelines.

Item	Cost	Unit	Whole Building	Original Construction (1940) 16,330 ft²	Sum	Comments
Security System:	$1.85	sq.ft. (of entire building addition)		Required	$30,210.50	(complete, area of building)
Exterior Site Lighting:	$1.00	sq.ft. (of entire building addition)		Required	$16,330.00	(complete, area of building)
Other: Secure Entrance Vestibule	$10,000.00	allowance		Required	$10,000.00	Add a door and wall system to deny access to the Media Center from the Main Entry.
Sum:			$56,540.50	$56,540.50		

Exterior Building

Security Monitor At Reception Area

Back to Assessment Summary

M. Emergency/Egress Lighting

Description: The overall facility is equipped with an emergency egress lighting system consisting of non-compliant green lettered, plastic construction, incandescent illuminated exit signs, as well as OSDM compliant red lettered, plastic construction, LED illuminated exit signs, and the system is in good condition. The facility is adequately equipped with emergency egress floodlighting, that is powered on separate circuits, and the system is in good condition. The facility is not equipped with recessed fluorescent lighting used as emergency egress lighting. The system is provided with appropriate battery backup, but is not backed up by an emergency generator. The system is not adequately provided throughout, and does not meet Ohio School Design Manual and Ohio Building Code requirements.

Rating: 3 Needs Replacement

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

Item	Cost	Unit	Whole Building	Original Construction (1940) 16,330 ft²	Sum	Comments
Emergency/Egress Lighting:	$1.00	sq.ft. (of entire building addition)		Required	$16,330.00	(complete, area of building)
Sum:			$16,330.00	$16,330.00		

Typical Exit Sign

Typical Emergency Lighting

Back to Assessment Summary

N. Fire Alarm

Description: The overall facility is equipped with a Honeywell (Ademco) type fire alarm system, installed in 2015, and in good condition, consisting of manual pull stations, bells, horn and strobe indicating devices. The system is automatic and is monitored by a third party (Protection 1). The system is equipped with sufficient audible horns and strobe indicating devices, flow switches, tamper switches, smoke detectors. The system is not equipped with any heat sensors. The system thus will support future fire suppression systems. The system is adequately provided throughout, but does not have additional zone capabilities. The system is not fully compliant with Ohio Building Code, NFPA, and Ohio School Design Manual requirements.

Rating: 2 Needs Repair

Recommendations: Provide partial replacement of fire alarm system replacing the outdated fire alarm control panel for additional expansion capability to the overall facility to meet OBC, NFPA, and Ohio School Design Manual guidelines.

Item	Cost	Unit	Whole Building	Original Construction (1940) 16,330 ft²	Sum	Comments
Fire Alarm System:	$1.75	sq.ft. (of entire building addition)		Required	$28,577.50	(complete new system, including removal of existing)
Sum:			$28,577.50	$28,577.50		

Fire Alarm Panel And Smoke Detector

Typical Audible Horn and Strobe Device

Back to Assessment Summary

O. Handicapped Access

Description: At the site, there is an accessible route provided from the public right-of-way, the accessible parking areas, and from the passenger unloading zone to the main entrance of the school. There is not an accessible route connecting all areas of the site because there is not a designated walking path/sidewalk to the playground. The exterior entrances are not ADA accessible due to improper hardware. Access from the parking / drop-off area to the building entries is not compromised by steps or steep ramps. Adequate handicap parking is not provided. Exterior doors are not equipped with ADA hardware. Building entrances should be equipped with 1 ADA power assist door, and none are provided. The main entry located in the front of the building requires a power assist door. Playground layout and equipping are compliant. On the interior of the building, space allowances and reach ranges are mostly compliant. There is an accessible route through the building which does include protruding objects. Ground and floor surfaces are compliant. Stairs do not meet all ADA requirements due to width of stairwell. There are no ramps. Elevation changes within the overall facility are facilitated by 3 compliant and 1 non-compliant stairwell in good condition, 1 compliant lift in fair condition. This multistory building does not have a compliant elevator that accesses every floor. Access to the Stage is not facilitated by a Corridor at Stage level, chair lift, or ramp. Interior doors are not recessed, are provided adequate clearances, and are not provided with ADA-compliant hardware. 5 ADA-compliant toilets are required, and 4 are currently provided. 5 ADA-compliant Restroom lavatories are required, and 2 are currently provided. 0 ADA-compliant Science Classroom lab sinks are required, and 0 are currently provided. 2 ADA-compliant urinals are required, and 2 are currently provided. 0 ADA-compliant showers are required, and 0 are currently provided. 2 ADA-compliant electric water coolers are required, and 0 are currently provided. Toilet partitions are metal or wood, and do not provide appropriate ADA clearances. ADA-compliant accessories are not adequately provided and mounted. Mirrors do meet ADA requirements for mounting heights. Due to existing grade configuration, no Science Classroom considerations require evaluation. Health Clinic and Special Education Restrooms are not compliant with ADA requirements due to non-compliant fixtures. ADA signage is not adequately provided throughout the building.

Rating: 2 Needs Repair

Recommendations: Provide ADA-compliant signage, 1 power assist door opener, toilets, toilet accessories, sinks, toilet partitions, toilet accessories, doors and frames, and door hardware in the overall facility to facilitate the school's meeting of ADA requirements. Parking issues are corrected in Item P. Provide ramp for access to stage. Provide elevator to access teacher's lounge on second floor. Provide funding to expand stairwell to second floor to allow for compliant width. Replace existing chair lift due to condition.

Item	Cost	Unit	Whole Building	Original Construction (1940) 16,330 ft²	Sum	Comments
Signage:	$0.20	sq.ft. (of entire building addition)		Required	$3,266.00	(per building area)
Ramps:	$40.00	sq.ft. (Qty)		75 Required	$3,000.00	(per ramp/interior-exterior complete)
Lifts:	$15,000.00	unit		1 Required	$15,000.00	(complete)
Elevators:	$42,000.00	each		1 Required	$42,000.00	(per stop, $84,000 minimum)
Toilet/Urinals/Sinks:	$3,800.00	unit		1 Required	$3,800.00	(new ADA)
Toilet/Urinals/Sinks:	$1,500.00	unit		7 Required	$10,500.00	(replacement ADA)
Toilet Partitions:	$1,000.00	stall		3 Required	$3,000.00	(ADA - grab bars, accessories included)
ADA Assist Door & Frame:	$7,500.00	unit		1 Required	$7,500.00	(openers, electrical, patching, etc)
Replace Doors:	$1,300.00	leaf		30 Required	$39,000.00	(standard 3070 wood door, HM frame, door/light, includes hardware)
Provide Toilet Accessories:	$1,000.00	per restroom		5 Required	$5,000.00	
Sum:			$132,066.00	$132,066.00		

Non Compliant Stairwell

Stage

P. Site Condition

Description: The 1.6-acre flat site is located in a suburban residential setting with moderate tree and shrub type landscaping. There are two small storage sheds next to the dumpster enclosure. There are no apparent problems with erosion or ponding. The site is bordered to the south by a heavily traveled city street. A single entrance onto the site impedes proper separation of bus and other vehicular traffic, and one-way bus traffic is not provided. However, there is no student bussing provided by this School District, so bus traffic is not a concern. Staff and visitor parking is facilitated by multiple asphalt parking lots in fair to poor condition, containing 29 parking places, which provides adequate parking for staff members, visitors, but not the disabled. The site and parking lot drainage design, consisting of sheet drainage to catch basins and storm sewers, provides adequate evacuation of storm water, and no problems with parking lot ponding were observed. Concrete curbs in poor condition are appropriately placed. Concrete sidewalks are properly sloped, are located to provide a logical flow of pedestrian traffic, and are in fair to poor condition. Trash pick-up and service drive pavement is not heavy duty is in fair to poor condition, and is equipped with a concrete pad area for dumpsters, which is in poor condition. Exterior concrete steps at the main entry are in fair condition. Decorative metal rail is non-compliant per Building Code and Design Manual. There is no ramp for accessibility at the main entry. The playground equipment is primarily constructed of coated steel and high-density plastic, and is in good condition. Playground equipment is placed to provide compliant fall zones, and on compliant wood fiber mulch of sufficient depth. Hard surface play area, with a basketball goal, but no court markings is provided on an asphalt surface in fair condition. The site and playground area are equipped with tables and benches in fair condition. Privacy fencing is provided on 3 sides of the site. Standard fencing is provided along the entry drive and around the playground. Due to the site being very small and inclusive of the building, drives, parking and hard surface play, any building additions would require underground stormwater detainage. Very close proximity to the property lines limit any additions to the east and west. Any possible additions to the south would be very limited due to the frontage zoning setback. Any additions would be on the area of the hard-surface play, and be limited to a building footprint of approximately 7,500 square feet.

Rating: 2 Needs Repair

Recommendations: Provide new asphalt wear course on the hard-surface play area. Provide new heavy-duty paving at the entry drives to new dumpster pad. Provide new light-duty paving at parking areas. Provide funding to repair concrete curbing and concrete sidewalks. Replace the main entry concrete steps and provide a compliant guardrail. Provide a compliant ramp at the main entry. Replace damaged concrete dumpster pad. Provide linework for designated ADA parking spots. Replace the wood tables and benches at the playground area.

Item	Cost	Unit	Whole Building	Original Construction (1940) 16,330 ft²	Sum	Comments
Replace Existing Asphalt Paving (heavy duty):	$30.60	sq. yard		880 Required	$26,928.00	(including drainage / tear out for heavy duty asphalt)
Replace Existing Asphalt Paving (light duty):	$28.60	sq. yard		1,423 Required	$40,697.80	(including drainage / tear out for light duty asphalt)
Asphalt Paving / New Wearing Course:	$19.00	sq. yard		741 Required	$14,079.00	(includes minor crack repair in less than 5% of paved area)
Concrete Curb:	$18.00	ln.ft.		1,018 Required	$18,324.00	(new)
Concrete Sidewalk:	$4.69	sq.ft. (Qty)		288 Required	$1,350.72	(5 inch exterior slab)
Exterior Hand / Guard Rails:	$43.00	ln.ft.		12 Required	$516.00	
Replace Concrete Steps:	$32.00	sq.ft. (Qty)		52 Required	$1,664.00	
Provide Concrete Dumpster Pad:	$2,400.00	each		1 Required	$2,400.00	(for two dumpsters)
Base Sitework Allowance for Unforeseen Circumstances	$50,000.00	allowance		Required	$50,000.00	Include this and one of the next two. (Applies for whole building, so only **one** addition should have this item)
Sitework Allowance for Unforeseen Circumstances for buildings between 0 SF and 100,000 SF	$1.50	sq.ft. (of entire building addition)		Required	$24,495.00	Include this one **or** the next. (Each addition should have this item)
Other: ADA Parking Space Linework	$75.00	each		2 Required	$150.00	Provide appropriate ADA markings/designations for parking lot.
Other: Concrete ramp	$32.00	sq.ft. (Qty)		96 Required	$3,072.00	Access for Main Entry
Other: Provide Site Benches and Tables	$800.00	each		2 Required	$1,600.00	Replace table and bench units at playground area.
Sum:			$185,276.52	$185,276.52		

Entry Drive and Staff Parking

Hard-Surface Play and Dumpster Pad

Back to Assessment Summary

Q. Sewage System

Description: The sanitary sewer system is tied in to the city system, and is in good condition. No significant system deficiencies were reported by the school district or noted during the physical assessment.

Rating: 1 Satisfactory

Recommendations: Existing conditions require no renovation or replacement at the present time.

Item	Cost	Unit	Whole Building	Original Construction (1940) 16,330 ft²	Sum	Comments
Sum:			$0.00	$0.00		

PVC Drain Piping

PVC Drain Piping

Back to Assessment Summary

R. Water Supply

Description: The domestic water supply system is tied in to the municipal system, features 1'' service and 1'' water meter, and is in good condition. The District was not able to provide water supply flow test data. The existing domestic water service appears to meet the facility's current needs. The facility is equipped with an adequately sized automated fire suppression system, for which the existing water supply provides adequate support. The domestic water service is not equipped with a water booster pump, and none is required. The system provides adequate pressure and capacity for the future needs of the school.

Rating: 1 Satisfactory

Recommendations: Existing conditions require no renovation or replacement at the present time.

Item	Cost	Unit	Whole Building	Original Construction (1940) 16,330 ft²	Sum	Comments
Sum:			$0.00	$0.00		

Backflow Preventer at Lange

Sprinkler Piping in the Mezzanine at Lange

Back to Assessment Summary

S. Exterior Doors

Description: Typical exterior doors in the overall facility are wood type construction, installed on wood frames, and in poor condition. Typical exterior doors feature single glazed unprotected vision panels, and inappropriate hardware. Entrance doors in the overall facility are hollow metal type construction, installed on hollow metal frames, and in fair condition. Entrance doors feature single glazed unprotected vision panels and inappropriate hardware. The facility is not equipped with any roof access doors. There are no overhead doors in the facility.

Rating: 3 Needs Replacement

Recommendations: Replace all exterior and entrance doors to comply with Ohio Building Code, ADA, and Ohio School Design Manual guidelines.

Item	Cost	Unit	Whole Building	Original Construction (1940) 16,330 ft²	Sum	Comments
Door Leaf/Frame and Hardware:	$2,000.00	per leaf		11 Required	$22,000.00	(includes removal of existing)
Sum:			$22,000.00	$22,000.00		

Typical Exterior Door

Typical Entrance Door

Back to Assessment Summary

T. Hazardous Material

Description: The School District has been assessed previously, in 2001, and an Enhanced Environmental Hazards Assessment (EEHA) was subsequently conducted. The Table below summarizes the scopes of work called for in the Enhanced Environmental Hazards Assessment. The district did not provide documentation of any abatement projects since that time. Plaster walls and ceilings, carpet mastic, ceiling tile, and sinks with undercoating are reported to contain hazardous materials are located in the overall facility in good condition. The EEHA report does not reflect this, but there is documentation in the previous assessment. There are no underground storage tanks on the site. Due to the construction date, there is no potential for lead based paint. Fluorescent lighting will require special disposal.

Rating: 3 Needs Replacement

Recommendations: Remove all hazardous materials, inclusive of asbestos-containing materials in the overall facility as noted in the attached Environmental Hazards Assessment. Provide for the testing of paint that has the potential of being lead-based. Provide for disposal of fluorescent lighting. NOTE: the District has not provided updated asbestos reports or abatement reports. Existing drawings state that abatement was done with the 2003 Addition/Renovation. All information provided here is based on what the district provided, but is not the most up-to-date information.

Item	Cost	Unit	Whole Building	Original Construction (1940) 16,330 ft²	Sum	Comments
Environmental Hazards Form				EEHA Form	—	
Estimated Cost For Abatement Contractor to Perform Lead Mock-Ups	$1.00	per unit		5,000 Required	$5,000.00	
Special Engineering Fees for LBP Mock-Ups	$1.00	per unit		5,000 Required	$5,000.00	
Fluorescent Lamps & Ballasts Recycling/Incineration	$0.10	sq.ft. (Qty)		16,330 Required	$1,633.00	
Pipe Insulation Removal (Hidden in Walls/Ceilings)	$15.00	ln.ft.		400 Required	$6,000.00	
Soil Removal	$150.00	cubic yard		90 Required	$13,500.00	See P
Non-ACM Ceiling/Wall Removal (for access)	$2.00	sq.ft. (Qty)		1,600 Required	$3,200.00	See J
Window Component (Compound, Tape, or Caulk) - Reno & Demo	$300.00	each		2 Required	$600.00	
Window Component (Compound, Tape, or Caulk) - Reno Only	$300.00	each		2 Required	$600.00	
Resilient Flooring Removal, Including Mastic	$3.00	sq.ft. (Qty)		3,000 Required	$9,000.00	See J
Sum:			$44,533.00	$44,533.00		

Back to Assessment Summary

U. Life Safety

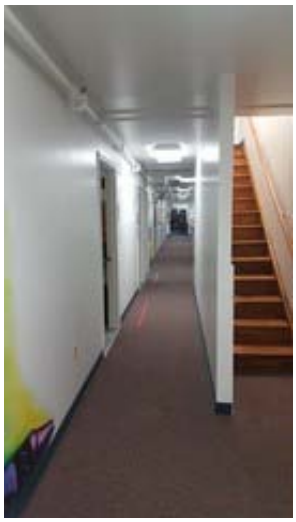
Description: The overall facility is equipped with a non-compliant automated fire suppression system in fair condition. Exit Corridors are situated such that dead-end Corridors are not present. The facility features 1 interior stair tower, which is not protected by a two-hour fire enclosure. The facility does not have any exterior stairways from intermediate floors. Walls are surrounding the interior stairs, so no guardrails are present. The stairway is situated in an egress Corridor reducing the Corridor width below compliant standards. The stairway is not a compliant width to OBC standards. There is no Kitchen hood provided in this facility. The equipment in the Kitchen area does not require a hood. Fire extinguishers are provided in sufficient quantity. Existing fire extinguishers are adequately spaced. The facility is not equipped with an emergency generator. The existing water supply is provided by a tie-in to the municipal system, and is sufficient to meet the future fire suppression needs of the school. Rooms with a capacity greater than 50 occupants are not equipped with adequate egress.

Rating: 2 Needs Repair

Recommendations: Provide complete replacement of automated fire suppression system to meet Ohio School Design Manual guidelines. Provide new emergency generator, with funding provided via complete replacement of electrical system in Item D. Provide new handrails to meet the requirements of the Ohio Building Code. Rework existing non-compliant stair tower and Corridor.

Item	Cost	Unit	Whole Building	Original Construction (1940) 16,330 ft²	Sum	Comments
Sprinkler / Fire Suppression System:	$3.20	sq.ft. (Qty)		16,330 Required	$52,256.00	(includes increase of service piping, if required)
Interior Stairwell Closure:	$5,000.00	per level		1 Required	$5,000.00	(includes associated doors, door frames and hardware)
Demo of existing stairway:	$12,000.00	per level		1 Required	$12,000.00	(per stairway, two floor minimum $12,000, includes demo and floor construction, see coordination comment)
Handrails:	$5,000.00	level		1 Required	$5,000.00	
Sum:			$74,256.00	$74,256.00		

Reading Room with Fire Extinguisher and Sprinkler Heads



Non-compliant Stair and Corridor

Back to Assessment Summary

V. Loose Furnishings

Description: The typical Classroom furniture is of consistent design, and in generally good condition, consisting of student desks & chairs, teacher desks & chairs, desk height file cabinets, bookcases, wastebaskets, etc. The facility's furniture and loose equipment were evaluated in item 6.17 in the CEFPI section of this report, and on a scale of 1 to 10 the overall facility received a rating of 8 due to observed conditions, and due to the fact that it lacks some of the Design Manual required elements.

Rating: 1 Satisfactory

Recommendations: Provide for replacement of outdated or inadequate furnishings.

Item	Cost	Unit	Whole Building	Original Construction (1940) 16,330 ft²	Sum	Comments
CEFPI Rating 8	$1.00	sq.ft. (of entire building addition)		Required	$16,330.00	
Sum:			$16,330.00	$16,330.00		

Typical Classroom Furniture

Typical Classroom Furniture

Back to Assessment Summary

W. Technology

Description: The typical Classroom is equipped with the required four technology data ports for student use, one data port for teacher use, one voice port with a digitally based phone system, one audio/visual port for projector, wireless access point (WAP), 2-way PA system that can be initiated by either party, and one port for smartboard, and computers for use by students to meet Ohio School Design Manual requirements. The typical Classroom is not equipped with central sound system, curriculum technology such as interactive tablet, student response system and document camera. The facility is not equipped with a centralized clock system. Specialized electrical / sound system requirements of Stage and Student Dining are in adequately provided, and in poor condition. OSDM-compliant computer network infrastructure is not provided. The facility does not contain a media distribution center. The Classrooms provides Computer Labs for use by students.

Rating: 3 Needs Replacement

Recommendations: Provide complete replacement of technology systems to meet Ohio School Design Manual requirements, and to sustain the capacity to keep pace with technological development.

Item	Cost	Unit	Whole Building	Original Construction (1940) 16,330 ft²	Sum	Comments
ES portion of building with total SF < 50,000	$13.18	sq.ft. (Qty)		16,330 Required	$215,229.40	
Sum:			$215,229.40	$215,229.40		

Typical Ceiling Devices And Smartboard

Typical Classroom Data Ports

Back to Assessment Summary

X. Construction Contingency / Non-Construction Cost

Renovation Costs (A-W)		$2,280,902.02
7.00%	Construction Contingency	$159,663.14
Subtotal		$2,440,565.16
16.29%	Non-Construction Costs	$397,568.06
Total Project		**$2,838,133.23**

Construction Contingency	$159,663.14
Non-Construction Costs	$397,568.06
Total for X.	**$557,231.21**

Non-Construction Costs Breakdown		
Land Survey	0.03%	$732.17
Soil Borings / Phase I Envir. Report	0.10%	$2,440.57
Agency Approval Fees (Bldg. Code)	0.25%	$6,101.41
Construction Testing	0.40%	$9,762.26
Printing - Bid Documents	0.15%	$3,660.85
Advertising for Bids	0.02%	$488.11
Builder’s Risk Insurance	0.12%	$2,928.68
Design Professional’s Compensation	7.50%	$183,042.39
CM Compensation	6.00%	$146,433.91
Commissioning	0.60%	$14,643.39
Non-Construction Contingency (includes partnering and mediation services)	1.12%	$27,334.33
Total Non-Construction Costs	**16.29%**	**$397,568.06**

Back to Assessment Summary

Name of Appraiser	Paul Brown	**Date of Appraisal**	2017-08-25
Building Name	Lange School		
Street Address	219 W. Dorothy Lane		
City/Town, State, Zip Code	Dayton, OH 45429		
Telephone Number(s)	(937) 299-8730		
School District	Oakwood City		

Setting: Suburban

Site-Acreage	1.60	Building Square Footage	16,330
Grades Housed	K	Student Capacity	98
Number of Teaching Stations	11	Number of Floors	2
Student Enrollment	135		
Dates of Construction	1940		

Energy Sources:	☐ Fuel Oil	☑ Gas	☑ Electric	☐ Solar
Air Conditioning:	☑ Roof Top	☐ Windows Units	☑ Central	☐ Room Units
Heating:	☑ Central	☑ Roof Top	☐ Individual Unit	☐ Forced Air
	☐ Hot Water	☐ Steam		

Type of Construction	**Exterior Surfacing**	**Floor Construction**
☑ Load bearing masonry	☑ Brick	☑ Wood Joists
☐ Steel frame	☐ Stucco	☐ Steel Joists
☐ Concrete frame	☐ Metal	☐ Slab on grade
☑ Wood	☑ Wood	☐ Structural slab
☐ Steel Joists	☐ Stone	

Back to Assessment Summary

1.0 The School Site	Points Allocated	Points
1.1 **Site is large enough** to meet educational needs as defined by state and local requirements	25	*10*
The site is 1.60 acres, and is too small to meet OSFC guidelines.		
1.2 **Site is easily accessible** and conveniently located for the present and future population	20	*16*
The site is conveniently located for the population, but is not located within the school district boundaries.		
1.3 **Location** is removed from undesirable business, industry, traffic, and natural hazards	10	*6*
School is bordered by a heavy traffic street.		
1.4 Site is **well landscaped and developed** to meet educational needs	10	*8*
Site is nicely landscaped.		
1.5 ES Well equipped **playgrounds are separated** from streets and parking areas MS Well equipped **athletic and intermural areas are separated** from streets and parking HS Well equipped **athletic areas** are adequate with sufficient solid-surface parking	10	*8*
Playground is located in the back of the school away from streets and fenced in from the parking area.		
1.6 **Topography** is varied enough to provide desirable appearance and without steep inclines	5	*4*
Site is relatively flat.		
1.7 Site has stable, well drained **soil free of erosion**	5	*4*
No erosion was observed during the physical assessment.		
1.8 Site is suitable for **special instructional needs**, e.g., outdoor learning	5	*4*
Site appears to be suitable for outdoor learning.		
1.9 **Pedestrian services** include adequate sidewalk with designated crosswalks, curb cuts, and correct slopes	5	*4*
Adequate sidewalks are provided on site.		
1.10 ES/MS Sufficient **on-site, solid surface parking** for faculty and staff is provided HS Sufficient **on-site, solid surface parking** is provided for faculty, students, staff and community	5	*4*
Sufficient solid surface parking is provided for faculty and staff.		
TOTAL - 1.0 The School Site	100	*68*

2.0 Structural and Mechanical Features	Points Allocated	Points
Structural		
2.1 Structure meets all **barrier-free** requirements both externally and internally	15	*10*
The school is mostly accessible for the disabled, with some minor changes required.		
2.2 **Roofs** appear sound, have positive drainage, and are weather tight	15	*2*
Roof requires complete replacement and some areas require a framing replacement.		
2.3 **Foundations** are strong and stable with no observable cracks	10	*8*
Foundations are in good condition with no observable cracks.		
2.4 **Exterior and interior walls** have sufficient expansion joints and are free of deterioration	10	*6*
Walls are in fair condition.		
2.5 **Entrances and exits** are located so as to permit efficient student traffic flow	10	*8*
There are no dead end Corridors.		
2.6 **Building ''envelope''** generally provides for energy conservation (see criteria)	10	*8*
Interior walls appear to have already been furred out to provide adequate insulation. Building envelope appears to be sufficient.		
2.7 Structure is **free of friable asbestos** and **toxic materials**	10	*2*
The school has the potential to have lead based paint and contains fluorescent lamps and ballasts.		
2.8 Interior walls permit sufficient **flexibility** for a variety of class sizes	10	*4*
No flexible partitions are provided.		

Mechanical/Electrical	Points Allocated	Points
2.9 **Adequate light sources** are well maintained, and properly placed and are not subject to overheating	15	*13*
The overall lighting system of the facility complies with the lighting level recommended by the OSDM.		
2.10 **Internal water supply** is adequate with sufficient pressure to meet health and safety requirements	15	*12*
Internal water supply appears to be adequate.		
2.11 Each teaching/learning area has adequate convenient **wall outlets**, phone and computer cabling for technology applications	15	*12*
Typical Classroom complies with the recommended wall outlets required for convenient use and computer.		
2.12 **Electrical controls** are safely protected with **disconnect switches** easily accessible	10	*2*
The HVAC units on the roof are not safely protected with disconnect switches.		
2.13 **Drinking fountains** are adequate in number and placement, and are properly maintained including provisions for the disabled	10	*6*
Drinking fountains are adequately provided, but require replacement due to ADA standards.		
2.14 Number and size of **restrooms meet requirements**	10	*8*
The number of Restrooms is adequate to meet requirements.		
2.15 **Drainage systems** are properly maintained and meet requirements	10	*8*
Site drainage appears adequate.		
2.16 **Fire alarms, smoke detectors, and sprinkler systems** are properly maintained and meet requirements	10	*8*
Fire alarms and smoke detectors are properly maintained and meet requirements.		

2.17 **Intercommunication system** consists of a central unit that allows dependable **two-way communication** between the office and instructional areas	10	*6*
The building has existing 2-way PA system between office and Classrooms but it does not fully meet the OSDM-compliant computer network infrastructure requirements.		
2.18 **Exterior water supply** is sufficient and available for normal usage	5	*4*
Exterior water supply appears to be sufficient.		
TOTAL - 2.0 Structural and Mechanical Features	200	*127*

3.0 Plant Maintainability	Points Allocated	Points
3.1 **Windows, doors, and walls** are of material and finish requiring minimum maintenance	15	*8*
All windows and doors require replacement.		
3.2 **Floor surfaces** throughout the building require minimum care	15	*9*
Carpet and VCT throughout the building. Carpet is not resistant to stain, but both are easily cleaned.		
3.3 **Ceilings and walls** throughout the building, including service areas, are easily cleaned and resistant to stain	10	*6*
Walls are painted plaster and ceilings are mainly ACT. ACT is not easily cleaned or resistant to stain.		
3.4 **Built-in equipment** is designed and constructed for ease of maintenance	10	*8*
Casework is adequate to meet the needs of staff and students.		
3.5 **Finishes and hardware**, with compatible keying system, are of durable quality	10	*4*
Finishes and hardware are not consistent throughout the building.		
3.6 **Restroom fixtures** are wall mounted and of quality finish	10	*6*
Restroom fixtures are floor and wall mounted.		
3.7 Adequate **custodial storage space** with water and drain is accessible throughout the building	10	*8*
Custodial storage space is adequate.		
3.8 Adequate **electrical outlets and power**, to permit routine cleaning, are available in every area	10	*3*
The Corridors are not equipped with adequate electrical outlets for servicing. Adequate GFI protected exterior outlets are not provided around the perimeter of the building.		
3.9 **Outdoor light fixtures, electrical outlets**, equipment, and other fixtures are accessible for repair and replacement	10	*3*
The exterior site lighting system provides inadequate illumination due to insufficient fixture capacity and sparse placement of fixtures. Adequate GFI protected exterior outlets are not provided around the perimeter of the building.		
TOTAL - 3.0 Plant Maintainability	100	*55*

4.0 Building Safety and Security	Points Allocated	Points
Site Safety		
4.1 **Student loading areas** are segregated from other vehicular traffic and pedestrian walkways	15	*12*
Student drop off area is located at the front of the building, away from staff parking.		
4.2 **Walkways**, both on and offsite, are available for safety of pedestrians	10	*8*
Walkways on-site are sufficient, but no walkways are provided from the street.		
4.3 **Access streets** have sufficient signals and signs to permit safe entrance to and exit from school area	5	*3*
Sufficient signs are provided.		
4.4 **Vehicular entrances and exits** permit safe traffic flow	5	*4*
Traffic flow appears to be safe.		
4.5 ES **Playground equipment** is free from hazard MS Location and types of **intramural equipment** are free from hazard HS **Athletic field equipment** is properly located and is free from hazard	5	*4*
Playground equipment is free from hazard.		

Building Safety	Points Allocated	Points
4.6 **The heating unit(s)** is located away from student occupied areas	20	*16*
The heating units are away from student occupied areas.		
4.7 Multi-story buildings have at least **two stairways** for student egress	15	*12*
The second story in this building is only for a teacher lounge and storage. There is only one stairwell.		
4.8 **Exterior doors** open outward and are equipped with panic hardware	10	*4*
Not all exterior doors open outward and are equipped with panic hardware.		
4.9 **Emergency lighting** is provided throughout the entire building with exit signs on separate electrical circuits	10	*5*
The facility is adequately equipped with emergency egress floodlighting, but is not equipped with recessed fluorescent lighting used as emergency egress lighting, and the system is in good condition. The system is not provided with appropriate battery backup Emergency / Egress lighting must have generator back up.		
4.10 **Classroom doors** are recessed and open outward	10	*7*
Classroom doors open outward, but are not recessed.		
4.11 **Building security systems** are provided to assure uninterrupted operation of the educational program	10	*5*
The overall facility only has a CCTV type security system.		
4.12 **Flooring** (including ramps and stairways) is maintained in a non-slip condition	5	*4*
Flooring is mainly carpet and maintained in a non-slip condition.		
4.13 **Stair risers** (interior and exterior) do not exceed 6 1/2 inches and range in number from 3 - 16	5	*4*
Stair risers are adequate.		
4.14 **Glass** is properly located and protected with wire or safety material to prevent accidental student injury	5	*2*
Interior glass is not tempered.		
4.15 **Fixed Projections** in the traffic areas do not extend more than eight inches from the corridor wall	5	*2*
Drinking fountains and lockers extend into Corridors.		
4.16 **Traffic areas** terminate at an exit or a stairway leading to an egress	5	*4*
There are no dead end Corridors.		

Emergency Safety	Points Allocated	Points
4.17 Adequate **fire safety equipment** is properly located	15	*12*
Building is fully sprinklered and has fire extinguishers located throughout the building.		
4.18 There are at least **two independent exits** from any point in the building	15	*12*
There are no dead end Corridors.		
4.19 **Fire-resistant materials** are used throughout the structure	15	*4*
Building has a wood floor and roof structure.		
4.20 Automatic and manual **emergency alarm system** with a distinctive sound and flashing light is provided	15	*10*
Automatic and manual emergency alarm system with distinctive sound and flashing light is provided.		
TOTAL - 4.0 Building Safety and Security	200	*134*

5.0 Educational Adequacy	Points Allocated	Points
Academic Learning Space		
5.1 **Size of academic learning areas** meets desirable standards	25	*12*
Classrooms are undersized per OSDM.		
5.2 **Classroom space** permits arrangements for small group activity	15	*12*
Classrooms are undersized, but have be organized to allow smaller learning areas.		
5.3 **Location of academic learning areas** is near related educational activities and away from disruptive noise	10	*6*
Building is small enough that academic learning areas and Gymnasium/Media Center spaces are in close proximity.		
5.4 **Personal space** in the classroom away from group instruction allows privacy time for individual students	10	*8*
Though Classrooms are undersized, layout does allow for privacy space.		
5.5 **Storage for student materials** is adequate	10	*8*
Storage for student materials is adequate.		
5.6 **Storage for teacher materials** is adequate	10	*8*
Storage for teacher materials is adequate.		
Special Learning Space	Points Allocated	Points
5.7 **Size of special learning area(s)** meets standards	15	*4*
Size of special learning areas does not meet requirements.		
5.8 **Design of specialized learning area(s)** is compatible with instructional need	10	*2*
Specialized learning areas does not meet requirements.		
5.9 **Library/Resource/Media Center** provides appropriate and attractive space	10	*8*
Media Center provides an attractive space for age group of students.		
5.10 **Gymnasium (or covered P.E. area)** adequately serves physical education instruction	5	*2*
Gymnasium is undersized per OSDM.		
5.11 ES **Pre-kindergarten and kindergarten space** is appropriate for age of students and nature of instruction MS/HS **Science** program is provided sufficient space and equipment	10	*8*
Kindergarten space is appropriate.		
5.12 **Music Program** is provided adequate sound treated space	5	*1*
No dedicated music space is provided.		
5.13 **Space for art** is appropriate for special instruction, supplies, and equipment	5	*4*
Space for art is conducive to the age group.		
School Facility Appraisal	Points Allocated	Points
5.14 **Space for technology education** permits use of state-of-the-art equipment	5	*4*
Computer stations in Classrooms provide adequate technology for the age group.		
5.15 Space for **small groups and remedial instruction** is provided adjacent to classrooms	5	*1*
No space is provided for remedial instruction.		
5.16 **Storage for student and teacher material** is adequate	5	*4*

Cubbies and casework provide adequate storage for students and teachers.

Support Space	Points Allocated	Points
5.17 **Teacher's lounge and work areas** reflect teachers as professionals	10	*8*
Teacher's lounge is adequate.		
5.18 **Cafeteria/Kitchen** is attractive with sufficient space for seating/dining, delivery, storage, and food preparation	10	*4*
Cafeteria and Kitchen are undersized based on current enrollment.		
5.19 **Administrative offices** provided are consistent in appearance and function with the maturity of the students served	5	*4*
Administrative offices are sufficient for student needs.		
5.20 **Counselor's office** insures privacy and sufficient storage	5	*4*
Counselor's office is adequate.		
5.21 **Clinic** is near administrative offices and is equipped to meet requirements	5	*4*
Clinic is near administrative offices and is adequate to meet requirements.		
5.22 **Suitable reception space** is available for students, teachers, and visitors	5	*2*
Reception space is limited.		
5.23 **Administrative personnel** are provided **sufficient work space and privacy**	5	*4*
Administrative work space is adequate.		
TOTAL - 5.0 Educational Adequacy	200	*122*

6.0 Environment for Education	Points Allocated	Points
Exterior Environment		
6.1 Overall **design is aesthetically pleasing** to age of students	15	*8*
Overall design is adequate, but not aesthetically pleasing.		
6.2 Site and building are **well landscaped**	10	*8*
Building is nicely landscaped.		
6.3 **Exterior noise and poor environment** do not disrupt learning	10	*8*
Building is located in a residential area and away from disruptive noise.		
6.4 **Entrances and walkways** are **sheltered** from sun and inclement weather	10	*7*
Main entrances in the front and back of the facility are covered, but there are not covered walkways.		
6.5 **Building materials** provide attractive color and texture	5	*2*
The building is weathered and is in need of care.		
Interior Environment	Points Allocated	Points
6.6 **Color schemes, building materials, and decor** provide an impetus to learning	20	*18*
The interior color schemes, building materials, and decor are adequate.		
6.7 **Year around comfortable temperature and humidity** are provided throughout the building	15	*12*
Heating and Air Conditioning is provided to all of the spaces within the building.		
6.8 **Ventilating system** provides adequate quiet circulation of clean air and meets 15cfm VBC requirement	15	*12*
Adequate ventilation appears to be provided.		
6.9 **Lighting system** provides proper intensity, diffusion, and distribution of illumination	15	*10*
The lighting system complies with the recommended lighting levels.		
6.10 **Drinking fountains and restroom facilities** are conveniently located	15	*12*
Drinking fountains and Restrooms are appropriately located.		
6.11 **Communication among students** is enhanced by commons area(s) for socialization	10	*6*
The Gymnasium space and Media Center space are undersized per OSDM guidelines, but do provide a nice space for socialization.		
6.12 **Traffic flow** is aided by appropriate foyers and corridors	10	*4*
West side Corridor is too narrow to be code compliant where the Staff Restrooms are located.		
6.13 **Areas for students to interact** are suitable to the age group	10	*4*
Areas for students are undersized per OSDM.		
6.14 **Large group areas are designed** for effective management of students	10	*4*
The Gymnasium space and Media Center space are undersized per OSDM guidelines.		
6.15 **Acoustical treatment** of ceilings, walls, and floors provides effective sound control	10	*8*
Acoustical treatment throughout the facility is adequate.		
6.16 **Window design** contributes to a pleasant environment	10	*7*
Window design is adequate.		
6.17 **Furniture and equipment** provide a pleasing atmosphere	10	*8*

Furniture and equipment are adequate.

TOTAL - 6.0 Environment for Education	200	*138*

LEED Observation Notes

School District:	Oakwood City
County:	Montgomery
School District IRN:	44586
Building:	Lange School
Building IRN:	94458601

Sustainable Sites

Construction process can have a harmful effect on local ecology, especially when buildings are build on productive agricultural, wildlife or open areas. Several measures can be take however to prevent the impact on undeveloped lands or to improve previously contaminated sites. Appropriate location reduces the need for private transportation and helps to prevent an increase in air pollution. Developing buildings in urban areas and on brownfield sites instead of greenfield locations has economical and environmental benefits. Controlling stormwater runoff and erosion can prevent the worsening of water quality in receiving bodies of water and the impact on aquatic life. Once the building is constructed, it's important to decrease heat island effects and reduce the light pollution on the site.

(source: LEED Reference Guide, 2001:9)

There is not a public bus system for the school. The facility is centrally located within the community. Heat island effects can be reduced with roof replacements to have more reflective roofs.

Water Efficiency

In the US ca. 340 billion gallons of fresh water are withdrawn daily from surface sources, 65% of which is discharged later after use. Water is also withdrawn from underground aquifers The excessive usage of water results in the current water deficit, estimated at 3,700 billion gallons. Water efficiency measures in commercial buildings can reduce water usage by at least 30%. Low-flow fixtures, sensors or using non potable water for landscape irrigation, toilet flushing and building systems are just some of available strategies. Not only do they result in environmental savings, but also bring about financial benefits, related to lower water use fees, lower sewage volumes to treat and energy use reductions.

(source: LEED Reference Guide, 2001:65)

All plumbing fixtures should be replaced with water-conserving fixtures, such as dual-flush water closets and pint-flush urinals. Tank type water closets could be fed via water collected through a rain harvesting system to further reduce potable water usage.

Energy & Atmosphere

Buildings in the US account for more than 30% of the total energy use and for approximately 60% of electricity. 75% of energy is derived from the burning of fossil fuels, which releases CO2 into the Atmosphere and contributes to global warming. Moreover, coal fired electric utilities release nitrogen oxides and sulfur dioxide, where the former contribute to smog and the latter to acid rain. Other types of energy production are not less harmful. Burning of natural gas produces nitrogen oxides and greenhouse gases as well, nuclear power creates nuclear wastes, while hydroelectric generating plants disrupt natural water flows. Luckily there are several practices that can reduce energy consumption and are environmentally and economically beneficial. Not only will they reduce the air pollution and mitigate global warming thanks to being less dependent on power plants, but also they will reduce operational costs and will quickly pay back. In order to make the most of those practices, it's important to adopt a holistic approach to the building's energy load and integrate different energy saving strategies.

(source: LEED Reference Guide, 2001:93)

To improve on the energy stewardship by the School District, a ground geo-exchange loop with vertical boreholes that serves new geothermal heat pumps or a hybrid system would offer additional savings to the District. To assist the District in optimizing its new building automation system, enhanced commissioning by a certified Commissioning Authority has a potential to provide the District a fully functional building control system upon completion of a construction project.

Material & Resources

The steps related to process building materials, such as extraction, processing and transportation are not environmentally natural, as they pollute the air, water and use natural resources. Construction and demolition wastes account for 40% of the solid waste stream in the US. Reusing existing documents is one of the best strategies to reduce solid wastes volumes and prevents then from ending up at landfills. It also reduces habitat disturbance and minimizes the need for the surrounding infrastructure. While using new materials one should take into account different material sources. Salvaged materials provide savings on material costs, recycled content material minimizes waste products and local materials reduce the environmental impact of transportation. Finally, using rapidly renewable materials and certified wood decreases the consumption of natural resources. Recycling and reusing construction waste is another strategy to be taken into consideration in sustainable design.

(source: LEED Reference Guide, 2001:167)

Materials & Resources credits could gain large amounts of points if building is reused, renovated, or added to.

Indoor Environmental Quality

As we spend a big majority of our time indoors, the emphasis should be put on optimal indoor environmental quality strategies while (re)designing a building . Otherwise, a poor IEQ will have adverse effects on occupants' health, productivity and quality of life. IEQ strategies such as ventilation effectiveness and control of contaminants or a building flush-out prior to occupancy can reduce potential liability, increase the market value of the building but can also result in a significantly higher productivity (16%). Other strategies involve automatic sensors and controls, introducing fresh air to the building or providing lots of daylighting views.

(source: LEED Reference Guide, 2001:215)

Outdoor airflow delivery monitoring should be provided to assure building personnel that adequate outdoor ventilation air is supplied to all spaces while the building is occupied.

Innovation & Design Process

This category is aimed at recognizing projects that implemented innovative building features and sustainable building knowledge, and whose strategy or measure results exceeded those which are required by the LEED Rating System. Expertise in sustainable design is the key element of the innovative design and construction process.

(source: LEED Reference Guide, 2001:271)

Innovation & Design process credits could be obtained by providing higher values of regional materials, recycled content, or water conservation.

Justification for Allocation of Points

Building Name and Level: **Lange School**

K

Building features that clearly exceed criteria:

1. Murals and decor throughout building are creative and stimulating.
2.
3.
4.
5.
6.

Building features that are non-existent or very inadequate:

1. Building is not fully compliant with ADA requirements. Signage, hardware, and clearances are inconsistent throughout.
2. Building does not have a secured entry.
3.
4.
5.
6.

Back to Assessment Summary

Environmental Hazards Assessment Cost Estimates

Owner:	Oakwood City
Facility:	Lange School
Date of Initial Assessment:	Aug 25, 2017
Date of Assessment Update:	Mar 9, 2018
Cost Set:	2018

District IRN:	44586
Building IRN:	94458601
Firm:	Resource International, Inc.

Scope remains unchanged after cost updates.

Building Addition	Addition Area (sf)	Total of Environmental Hazards Assessment Cost Estimates	
		Renovation	Demolition
1940 Original Construction	16,330	$44,533.00	$34,533.00
Total	16,330	$44,533.00	$34,533.00
Total with Regional Cost Factor (98.97%)	—	$44,074.31	$34,177.31
Regional Total with Soft Costs & Contingency	—	$54,841.80	$42,526.93

Environmental Hazards(Enhanced) - Oakwood City (44586) - Lange School (94458601) - Original Construction

Owner:	Oakwood City	**Bldg. IRN:**	94458601
Facility:	Lange School	**BuildingAdd:**	Original Construction
Date On-Site:	2018-02-21	**Consultant Name:**	Jordan Mederer

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

	ACM Found	Status	Quantity	Unit Cost	Estimated Cost
1.	Boiler/Furnace Insulation Removal	Not Present	0	$10.00	$0.00
2.	Breeching Insulation Removal	Not Present	0	$10.00	$0.00
3.	Tank Insulation Removal	Not Present	0	$8.00	$0.00
4.	Duct Insulation Removal	Not Present	0	$8.00	$0.00
5.	Pipe Insulation Removal	Reported / Assumed Asbestos-Free Material	0	$10.00	$0.00
6.	Pipe Fitting Insulation Removal	Not Present	0	$20.00	$0.00
7.	Pipe Insulation Removal (Crawlspace/Tunnel)	Reported / Assumed Asbestos-Free Material	0	$12.00	$0.00
8.	Pipe Fitting Insulation Removal (Crawlspace/Tunnel)	Reported / Assumed Asbestos-Free Material	0	$30.00	$0.00
9.	Pipe Insulation Removal (Hidden in Walls/Ceilings)	Assumed Asbestos-Containing Material	400	$15.00	$6,000.00
10.	Dismantling of Boiler/Furnace/Incinerator	Not Present	0	$2,000.00	$0.00
11.	Flexible Duct Connection Removal	Not Present	0	$100.00	$0.00
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	Not Present	0	$7.00	$0.00
15.	Gypsum Board Removal	Reported / Assumed Asbestos-Free Material	0	$6.00	$0.00
16.	Acoustical Panel/Tile Ceiling Removal	Reported / Assumed Asbestos-Free Material	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	Not Present	0	$4.00	$0.00
22.	Fire Door Removal	Not Present	0	$100.00	$0.00
23.	Door and Window Panel Removal	Not Present	0	$100.00	$0.00
24.	Decontamination of Crawlspace/Chase/Tunnel	Not Present	0	$3.00	$0.00
25.	Soil Removal	Reported Asbestos-Containing Material	90	$150.00	$13,500.00
26.	Non-ACM Ceiling/Wall Removal (for access)	Assumed Asbestos-Containing Material	1600	$2.00	$3,200.00
27.	Window Component (Compound, Tape, or Caulk) - Reno & Demo	Assumed Asbestos-Containing Material	2	$300.00	$600.00
28.	Window Component (Compound, Tape, or Caulk) - Reno Only	Assumed Asbestos-Containing Material	2	$300.00	$600.00
29.	Resilient Flooring Removal, Including Mastic	Reported Asbestos-Containing Material	3000	$3.00	$9,000.00
30.	Carpet Mastic Removal	Reported / Assumed Asbestos-Free Material	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	Reported / Assumed Asbestos-Free Material	0	$100.00	$0.00
34.	Roofing Removal	Reported / Assumed Asbestos-Free Material	0	$2.00	$0.00
35.	(Sum of Lines 1-34)	**Total Asb. Hazard Abatement Cost for Renovation Work**			$32,900.00
36.	(Sum of Lines 1-34)	**Total Asb. Hazard Abatement Cost for Demolition Work**			$32,900.00

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.	16330	16330	$0.10	$1,633.00

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.	A35, B1, C3, D1, and E1	**Total Cost for Env. Hazards Work - Renovation**	$44,533.00
2.	A36, B1, D1, and E2	**Total Cost for Env. Hazards Work - Demolition**	$34,533.00

* 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.