

**Building Information - Troy City (44925) - Forest Elementary**

Program Type	Classroom Facilities Assistance Program (CFAP) - Regular
Setting	Small City
Assessment Name	Forest Elementary School (11924) FINAL
Assessment Date (on-site; non-EEA)	2016-08-06
Kitchen Type	Warming Kitchen
Cost Set:	2016
Building Name	Forest Elementary
Building IRN	11924
Building Address	413 East Canal Street
Building City	Troy
Building Zipcode	45373
Building Phone	(937) 332.6746
Acreage	1.96
Current Grades:	K-5
Teaching Stations	22
Number of Floors	2
Student Capacity	360
Current Enrollment	262
Enrollment Date	2016-08-06
Enrollment Date is the date in which the current enrollment was taken.	
Number of Classrooms	18
Historical Register	<b>NO</b>
Building's Principal	Mr. Paul Hohlbein
Building Type	Elementary

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North elevation photo:



East elevation photo:



South elevation photo:



West elevation photo:



#### GENERAL DESCRIPTION

**46,647** Total Existing Square Footage

**1949,1973,2006** Building Dates

**K-5** Grades

**262** Current Enrollment

**22** Teaching Stations

**1.96** Site Acreage

Forest Elementary, which is not on the National Register of Historic Buildings, and originally constructed in 1949, is a two story, 46,647 square foot brick and stone school building located in a small town residential setting. The existing facility features a conventionally partitioned design, and does not utilize modular buildings. The structure of the overall facility contains brick veneer on load bearing masonry type exterior wall construction, with load bearing masonry type wall construction in the interior. The base floor system of the overall facility consists of concrete slab on grade. The intermediate floor system of the 1949 Original Construction is a cast-in-place concrete T type construction. The roof structure of the 1949 Original Construction is a combination of gypsum and steel deck on steel joist type construction. The roof structure of the 1973 and 2006 Additions is steel deck on steel joist type construction. The roofing system of the 1949 Original Construction and 1973 Addition is EPDM, installed in 2005. The roofing system of the 2006 Addition is a TPO system, installed in 2006. The ventilation system of the building is not adequate and does not appear meet the needs of the users. The Classrooms are adequately sized in terms of the current standards established by the State of Ohio. Physical Education and Student Dining spaces consist of one Gymnasium and separate Student Dining. The electrical system for the facility is inadequate. The facility is not equipped with a compliant security system. The building has a non-compliant automatic fire alarm system. The facility is not equipped with a compliant automated fire suppression system. The building contains asbestos. The overall building is not compliant with ADA accessibility requirements. The school is located on a 1.96 acre site adjacent to residential properties. The property is partially fenced and the playgrounds are completely fenced for security. Access onto the site is unrestricted. Site circulation is fair to poor. There is no dedicated space for school buses to load and unload on the site. Parking for staff, visitors and community events is adequate.

*No Significant Findings*

**Building Construction Information - Troy City (44925) - Forest Elementary (11924)**

<b>Name</b>	<b>Year</b>	<b>Handicapped Access</b>	<b>Floors</b>	<b>Square Feet</b>	<b>Non OSDM Addition</b>
Original Construction	1949	no	2	44,096	no
Office Addition	1973	no	1	1,090	no
Kindergarten Addition	2006	yes	1	1,461	no

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Building Component Information - Troy City (44925) - Forest Elementary (11924)

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 (1949)		7503		2853	1303		1709	734						
Office Addition (1973)														
Kindergarten Addition (2006)														
Total	0	7,503	0	2,853	1,303	0	1,709	734	0	0	0	0	0	0
<b>Master Planning Considerations</b>		There are no readily evident conditions that might significantly effect master planning with regard to the site. Due to the size of the site, building expansion is not recommended.												

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# Existing CT Programs for Assessment

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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 - Forest Elementary (11924)

<b>District:</b> Troy City				<b>County:</b> Miami		<b>Area:</b> West Central Ohio (2)	
<b>Name:</b> Forest Elementary				<b>Contact:</b> Mr. Paul Hohlbein			
<b>Address:</b> 413 East Canal Street Troy, 45373				<b>Phone:</b> (937) 332.6746			
<b>Bldg. IRN:</b> 11924				<b>Date Prepared:</b> 2016-08-06		<b>By:</b> Julie Apt	
				<b>Date Revised:</b> 2016-12-11		<b>By:</b> Bernie Merritt	
Current Grades		K-5	Acreage:		1.96		
Proposed Grades		N/A	Teaching Stations:		22		
Current Enrollment		262	Classrooms:		18		
Projected Enrollment		N/A					
Addition		Date	HA	Number of Floors	Current Square Feet		
<u>Original Construction</u>		1949	no	2	44,096		
<u>Office Addition</u>		1973	no	1	1,090		
<u>Kindergarten Addition</u>		2006	yes	1	1,461		
<b>Total</b>				<b>46,647</b>			
*HA =		Handicapped Access					
*Rating =		1 Satisfactory					
		=2 Needs Repair					
		=3 Needs Replacement					
*Const P/S =		Present/Scheduled Construction					
<b>CEFPPI Appraisal Summary</b>							
<b>Section</b>							
<b>Points Possible</b>							
<b>Points Earned</b>							
<b>Percentage</b>							
<b>Rating</b>							
<b>Category</b>							
<u>Cover Sheet</u>							
1.0 <u>The School Site</u>							
2.0 <u>Structural and Mechanical Features</u>							
3.0 <u>Plant Maintainability</u>							
4.0 <u>Building Safety and Security</u>							
5.0 <u>Educational Adequacy</u>							
6.0 <u>Environment for Education</u>							
<u>LEED Observations</u>							
<u>Commentary</u>							
<b>Total</b>							
1000							
605							
61%							
Borderline							
<u>Enhanced Environmental Hazards Assessment Cost Estimates</u>							
<b>FACILITY ASSESSMENT</b>							
Cost Set: 2016							
Rating							
Dollar Assessment							
C=Under Contract							
Renovation Cost Factor							
97.49%							
Cost to Renovate (Cost Factor applied)							
\$7,833,074.91							
<i>The Replacement Cost Per SF and the Renovate/Replace ratio are only provided when this summary is requested from a Master Plan.</i>							
A. <u>Heating System</u>							
3							
\$1,591,595.64							
B. <u>Roofing</u>							
3							
\$243,386.20							
C. <u>Ventilation / Air Conditioning</u>							
2							
\$5,000.00							
D. <u>Electrical Systems</u>							
3							
\$757,080.81							
E. <u>Plumbing and Fixtures</u>							
3							
\$429,252.00							
F. <u>Windows</u>							
3							
\$261,840.00							
G. <u>Structure: Foundation</u>							
1							
\$0.00							
H. <u>Structure: Walls and Chimneys</u>							
2							
\$61,968.50							
I. <u>Structure: Floors and Roofs</u>							
1							
\$0.00							
J. <u>General Finishes</u>							
3							
\$1,101,832.80							
K. <u>Interior Lighting</u>							
3							
\$233,235.00							
L. <u>Security Systems</u>							
3							
\$132,943.95							
M. <u>Emergency/Egress Lighting</u>							
3							
\$46,647.00							
N. <u>Fire Alarm</u>							
3							
\$69,970.50							
O. <u>Handicapped Access</u>							
3							
\$276,779.40							
P. <u>Site Condition</u>							
2							
\$221,221.45							
Q. <u>Sewage System</u>							
1							
\$0.00							
R. <u>Water Supply</u>							
1							
\$0.00							
S. <u>Exterior Doors</u>							
2							
\$8,000.00							
T. <u>Hazardous Material</u>							
2							
\$700.00							
U. <u>Life Safety</u>							
3							
\$261,025.40							
V. <u>Loose Furnishings</u>							
2							
\$139,941.00							
W. <u>Technology</u>							
3							
\$614,807.46							
X. <u>Construction Contingency / Non-Construction Cost</u>							
-							
\$1,577,519.95							
<b>Total</b>							
<b>\$8,034,747.06</b>							

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Original Construction (1949) Summary

<b>District:</b> Troy City				<b>County:</b> Miami		<b>Area:</b> West Central Ohio (2)	
<b>Name:</b> Forest Elementary				<b>Contact:</b> Mr. Paul Hohlbein			
<b>Address:</b> 413 East Canal Street Troy, 45373				<b>Phone:</b> (937) 332.6746			
<b>Bldg. IRN:</b> 11924				<b>Date Prepared:</b> 2016-08-06		<b>By:</b> Julie Apt	
				<b>Date Revised:</b> 2016-12-11		<b>By:</b> Bernie Merritt	
Current Grades		K-5	Acreage:		1.96		
Proposed Grades		N/A	Teaching Stations:		22		
Current Enrollment		262	Classrooms:		18		
Projected Enrollment		N/A					
<b>Addition</b>		<b>Date</b>	<b>HA</b>	<b>Number of Floors</b>	<b>Current Square Feet</b>		
<b>Original Construction</b>		1949	no	2	44,096		
Office Addition		1973	no	1	1,090		
Kindergarten Addition		2006	yes	1	1,461		
<b>Total</b>					<b>46,647</b>		
*HA		=	Handicapped Access				
*Rating		=	1 Satisfactory				
		=	2 Needs Repair				
		=	3 Needs Replacement				
*Const P/S		=	Present/Scheduled Construction				
<b>CEFPI Appraisal Summary</b>							
<b>Section</b>		<b>Points Possible</b>		<b>Points Earned</b>		<b>Percentage Rating Category</b>	
<u>Cover Sheet</u>							
1.0 The School Site		100		56		56% Borderline	
2.0 Structural and Mechanical Features		200		114		57% Borderline	
3.0 Plant Maintainability		100		64		64% Borderline	
4.0 Building Safety and Security		200		113		57% Borderline	
5.0 Educational Adequacy		200		148		74% Satisfactory	
6.0 Environment for Education		200		110		55% Borderline	
<u>LEED Observations</u>							
<u>Commentary</u>							
<b>Total</b>		<b>1000</b>		<b>605</b>		<b>61% Borderline</b>	
<u>Enhanced Environmental Hazards Assessment Cost Estimates</u>							
<b>C=Under Contract</b>							
<b>Renovation Cost Factor</b>							
<b>Cost to Renovate (Cost Factor applied)</b>							
<b>97.49%</b>							
<b>\$7,424,849.48</b>							
<i>The Replacement Cost Per SF and the Renovate/Replace ratio are only provided when this summary is requested from a Master Plan.</i>							
<b>FACILITY ASSESSMENT</b>		<b>Cost Set: 2016</b>		<b>Rating</b>		<b>Dollar Assessment</b>	
A. Heating System		3		\$1,504,555.52		-	
B. Roofing		3		\$205,898.50		-	
C. Ventilation / Air Conditioning		2		\$5,000.00		-	
D. Electrical Systems		3		\$715,678.08		-	
E. Plumbing and Fixtures		3		\$416,722.00		-	
F. Windows		3		\$245,040.00		-	
G. Structure: Foundation		1		\$0.00		-	
H. Structure: Walls and Chimneys		2		\$53,398.50		-	
I. Structure: Floors and Roofs		1		\$0.00		-	
J. General Finishes		3		\$1,067,115.60		-	
K. Interior Lighting		3		\$220,480.00		-	
L. Security Systems		3		\$125,673.60		-	
M. Emergency/Egress Lighting		3		\$44,096.00		-	
N. Fire Alarm		3		\$66,144.00		-	
O. Handicapped Access		3		\$266,169.20		-	
P. Site Condition		2		\$211,698.34		-	
Q. Sewage System		1		\$0.00		-	
R. Water Supply		1		\$0.00		-	
S. Exterior Doors		2		\$6,000.00		-	
T. Hazardous Material		2		\$700.00		-	
U. Life Safety		3		\$252,862.20		-	
V. Loose Furnishings		2		\$132,288.00		-	
W. Technology		3		\$581,185.28		-	
- X. Construction Contingency / Non-Construction Cost		-		\$1,495,306.55		-	
<b>Total</b>				<b>\$7,616,011.37</b>			

Office Addition (1973) Summary

<b>District:</b> Troy City				<b>County:</b> Miami		<b>Area:</b> West Central Ohio (2)	
<b>Name:</b> Forest Elementary				<b>Contact:</b> Mr. Paul Hohlbein			
<b>Address:</b> 413 East Canal Street Troy, 45373				<b>Phone:</b> (937) 332.6746			
<b>Bldg. IRN:</b> 11924				<b>Date Prepared:</b> 2016-08-06		<b>By:</b> Julie Apt	
				<b>Date Revised:</b> 2016-12-11		<b>By:</b> Bernie Merritt	
Current Grades		K-5	Acreage:		1.96		
Proposed Grades		N/A	Teaching Stations:		22		
Current Enrollment		262	Classrooms:		18		
Projected Enrollment		N/A					
<b>Addition</b>				<b>Date</b>	<b>HA</b>	<b>Number of Floors</b>	<b>Current Square Feet</b>
<u>Original Construction</u>				1949	no	2	44,096
<b>Office Addition</b>				<b>1973</b>	<b>no</b>	<b>1</b>	<b>1,090</b>
<u>Kindergarten Addition</u>				2006	yes	1	1,461
<b>Total</b>				<b>46,647</b>			
				*HA	=	Handicapped Access	
				*Rating	=1	Satisfactory	
					=2	Needs Repair	
					=3	Needs Replacement	
				*Const P/S	=	Present/Scheduled Construction	
<b>FACILITY ASSESSMENT</b>				<b>Cost Set: 2016</b>		<b>Rating</b>	<b>Dollar Assessment</b>
							<b>C</b>
A. <u>Heating System</u>				3		\$37,190.80 -	
B. <u>Roofing</u>				3		\$16,390.10 -	
C. <u>Ventilation / Air Conditioning</u>				2		<b>\$0.00</b> -	
D. <u>Electrical Systems</u>				3		\$17,690.70 -	
E. <u>Plumbing and Fixtures</u>				3		\$9,130.00 -	
F. <u>Windows</u>				3		\$6,000.00 -	
G. <u>Structure: Foundation</u>				1		\$0.00 -	
H. <u>Structure: Walls and Chimneys</u>				2		\$3,240.00 -	
I. <u>Structure: Floors and Roofs</u>				1		\$0.00 -	
J. <u>General Finishes</u>				3		\$34,425.00 -	
K. <u>Interior Lighting</u>				3		\$5,450.00 -	
L. <u>Security Systems</u>				3		\$3,106.50 -	
M. <u>Emergency/Egress Lighting</u>				3		\$1,090.00 -	
N. <u>Fire Alarm</u>				3		\$1,635.00 -	
O. <u>Handicapped Access</u>				3		\$10,268.00 -	
P. <u>Site Condition</u>				2		\$4,031.75 -	
Q. <u>Sewage System</u>				1		\$0.00 -	
R. <u>Water Supply</u>				1		\$0.00 -	
S. <u>Exterior Doors</u>				2		\$2,000.00 -	
T. <u>Hazardous Material</u>				2		<b>\$0.00</b> -	
U. <u>Life Safety</u>				3		\$3,488.00 -	
V. <u>Loose Furnishings</u>				2		\$3,270.00 -	
W. <u>Technology</u>				3		\$14,366.20 -	
- X. <u>Construction Contingency / Non-Construction Cost</u>						\$42,208.73 -	
<b>Total</b>						<b>\$214,980.78</b>	
<b>CEFPI Appraisal Summary</b>							
				<b>Section</b>	<b>Points Possible</b>	<b>Points Earned</b>	<b>Percentage Rating Category</b>
				<u>Cover Sheet</u>	—	—	—
				1.0 <u>The School Site</u>	100	56	56% Borderline
				2.0 <u>Structural and Mechanical Features</u>	200	114	57% Borderline
				3.0 <u>Plant Maintainability</u>	100	64	64% Borderline
				4.0 <u>Building Safety and Security</u>	200	113	57% Borderline
				5.0 <u>Educational Adequacy</u>	200	148	74% Satisfactory
				6.0 <u>Environment for Education</u>	200	110	55% Borderline
				<u>LEED Observations</u>	—	—	—
				<u>Commentary</u>	—	—	—
				<b>Total</b>	<b>1000</b>	<b>605</b>	<b>61% Borderline</b>
<u>Enhanced Environmental Hazards Assessment Cost Estimates</u>							
				<b>C=Under Contract</b>			
				Renovation Cost Factor		97.49%	
				Cost to Renovate (Cost Factor applied)		\$209,584.76	
<i>The Replacement Cost Per SF and the Renovate/Replace ratio are only provided when this summary is requested from a Master Plan.</i>							



Kindergarten Addition (2006) Summary

<b>District:</b> Troy City				<b>County:</b> Miami		<b>Area:</b> West Central Ohio (2)	
<b>Name:</b> Forest Elementary				<b>Contact:</b> Mr. Paul Hohlbein			
<b>Address:</b> 413 East Canal Street Troy, 45373				<b>Phone:</b> (937) 332.6746			
<b>Bldg. IRN:</b> 11924				<b>Date Prepared:</b> 2016-08-06		<b>By:</b> Julie Apt	
				<b>Date Revised:</b> 2016-12-11		<b>By:</b> Bernie Merritt	
Current Grades		K-5	Acreage:		1.96		
Proposed Grades		N/A	Teaching Stations:		22		
Current Enrollment		262	Classrooms:		18		
Projected Enrollment		N/A					
<b>Addition</b>		<b>Date</b>	<b>HA</b>	<b>Number of Floors</b>	<b>Current Square Feet</b>		
<u>Original Construction</u>		1949	no	2	44,096		
<u>Office Addition</u>		1973	no	1	1,090		
<b>Kindergarten Addition</b>		<b>2006</b>	<b>yes</b>	<b>1</b>	<b>1,461</b>		
<b>Total</b>				<b>46,647</b>			
*HA =		Handicapped Access					
*Rating =1		Satisfactory					
=2		Needs Repair					
=3		Needs Replacement					
*Const P/S =		Present/Scheduled Construction					
<b>CEFPI Appraisal Summary</b>							
<b>Section</b>		<b>Points Possible</b>		<b>Points Earned</b>		<b>Percentage Rating Category</b>	
<u>Cover Sheet</u>							
1.0 <u>The School Site</u>		100		56		56% Borderline	
2.0 <u>Structural and Mechanical Features</u>		200		114		57% Borderline	
3.0 <u>Plant Maintainability</u>		100		64		64% Borderline	
4.0 <u>Building Safety and Security</u>		200		113		57% Borderline	
5.0 <u>Educational Adequacy</u>		200		148		74% Satisfactory	
6.0 <u>Environment for Education</u>		200		110		55% Borderline	
<u>LEED Observations</u>							
<u>Commentary</u>							
<b>Total</b>		<b>1000</b>		<b>605</b>		<b>61% Borderline</b>	
<u>Enhanced Environmental Hazards Assessment Cost Estimates</u>							
<u>C=Under Contract</u>							
<b>FACILITY ASSESSMENT</b>							
Cost Set: 2016							
			<b>Rating</b>	<b>Dollar Assessment</b>			
A. <u>Heating System</u>			3	\$49,849.32		-	
B. <u>Roofing</u>			3	\$21,097.60		-	
C. <u>Ventilation / Air Conditioning</u>			2	\$0.00		-	
D. <u>Electrical Systems</u>			3	\$23,712.03		-	
E. <u>Plumbing and Fixtures</u>			3	\$3,400.00		-	
F. <u>Windows</u>			3	\$10,800.00		-	
G. <u>Structure: Foundation</u>			1	\$0.00		-	
H. <u>Structure: Walls and Chimneys</u>			2	\$5,330.00		-	
I. <u>Structure: Floors and Roofs</u>			1	\$0.00		-	
J. <u>General Finishes</u>			3	\$292.20		-	
K. <u>Interior Lighting</u>			3	\$7,305.00		-	
L. <u>Security Systems</u>			3	\$4,163.85		-	
M. <u>Emergency/Egress Lighting</u>			3	\$1,461.00		-	
N. <u>Fire Alarm</u>			3	\$2,191.50		-	
O. <u>Handicapped Access</u>			3	\$342.20		-	
P. <u>Site Condition</u>			2	\$5,491.36		-	
Q. <u>Sewage System</u>			1	\$0.00		-	
R. <u>Water Supply</u>			1	\$0.00		-	
S. <u>Exterior Doors</u>			2	\$0.00		-	
T. <u>Hazardous Material</u>			2	\$0.00		-	
U. <u>Life Safety</u>			3	\$4,675.20		-	
V. <u>Loose Furnishings</u>			2	\$4,383.00		-	
W. <u>Technology</u>			3	\$19,255.98		-	
- X. <u>Construction Contingency / Non-Construction Cost</u>			-	\$40,004.67		-	
<b>Total</b>				<b>\$203,754.91</b>			
						<b>Renovation Cost Factor</b>	
						97.49%	
						<b>Cost to Renovate (Cost Factor applied)</b>	
						\$198,640.67	
<i>The Replacement Cost Per SF and the Renovate/Replace ratio are only provided when this summary is requested from a Master Plan.</i>							

A. Heating System

**Description:** The existing system for the 1949 Original Construction is a natural gas fired steam boiler type system, installed in 1949, and is in fair condition. The systems in the 1973 and 2006 Additions are an extension of that found in the 1949 Original Construction. 2-pipe vs. 4-pipe designations are not applicable in this facility, as no central air conditioning is provided. The facility is equipped with (2) steam boilers, only one of which is operational. The single steam boiler was manufactured by Fitzgibbon Boilers, was installed in 1949, and is in fair condition. Steam is distributed to terminal units consisting of fin tubes, unit ventilators, cabinet heaters, unit heaters, and air handlers. The terminal equipment is original to each addition and is in fair condition. The system does not appear to comply with the 15 CFM per person fresh air requirements of the Ohio Building Code mechanical code and Ohio School Design Manual. The pneumatic and electric type system temperature controls are original to each addition and are in fair to poor 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 systems in the overall facility are not ducted, and floor to structural deck heights will accommodate the installation of properly sized ductwork for a future Ohio School Design Manual approved system. The overall heating system is evaluated as being unsafe and in inefficient working order, and long term life expectancy of the existing system is not anticipated. The structure is not equipped with central air conditioning. The site does not contain underground fuel tanks.

**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. Convert to ducted system to facilitate efficient exchange of conditioned air.

Item	Cost	Unit	Whole Building	Original Construction (1949) 44,096 ft <sup>2</sup>	Office Addition (1973) 1,090 ft <sup>2</sup>	Kindergarten Addition (2006) 1,461 ft <sup>2</sup>	Sum	Comments
HVAC System Replacement:	\$26.12	sq.ft. (of entire building addition)		Required	Required	Required	\$1,218,419.64	(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	Required	Required	\$373,176.00	(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:			\$1,591,595.64	\$1,504,555.52	\$37,190.80	\$49,849.32		



Natural Gas Fired Steam Boilers



Fin Tube Heater

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B. Roofing

**Description:** The roof over the Original Construction and the 1973 Office Addition is an EPDM system that was installed approximately in 2005, and is in fair condition. There is also a small section of slate roof in fair condition over the Original Construction. The roof over the 2006 Kindergarten Addition is a TPO system that was installed in 2006, and is in good condition. There are no District reports of current leaking. No signs of past leaking were observed during the physical assessment. Access to the roof was gained by access hatch in good condition and access ladder that is in poor condition. The ladder is unsafe as the ceiling plane passes through the ladder. Fall safety protection cages are not required, and are not provided. Access to the 1973 Office Addition is through a window. An access door could be provided in this location. There is no access to the 2006 Kindergarten Addition. There were observations of standing water on the roof. Metal cap flashings and stone copings are in good condition. Roof storm drainage is addressed through a system of gutters and downspouts and roof drains, which are properly located, and in good condition. The roof of the 1973 Office Addition is not equipped with overflow roof drains though they will be required in areas of roof replacement. Overflow drains are not required in the rest of the school. Several roof penetrations have some flashings that are loose. There are not any covered walkways attached to this structure.

**Rating:** 3 Needs Replacement

**Recommendations:** The roof over the Original Construction and the 1973 Office Addition, with the exception of the slate roof area, requires replacement to meet Ohio School Design Manual guidelines due to age of system and projected lifecycle. Due to existing conditions one section of downspout requires repair or replacement. Provide one overflow drain for the 1973 Office Addition. Provide one access hatch and ladder for the 2006 Kindergarten Addition. Replace one access ladder in the Original Construction. Install tapered insulation to correct ponding at the Original Construction. Install insulation in areas where the roof is being replaced throughout the overall facility. See Section S for new access door.

Item	Cost	Unit	Whole Building	Original Construction (1949)	Office Addition (1973)	Kindergarten Addition (2006)	Sum	Comments
Membrane (all types):	\$8.70	sq.ft. (Qty)		44,096 ft <sup>2</sup> 17,104 Required	1,090 ft <sup>2</sup> 1,123 Required	1,461 ft <sup>2</sup> 1,504 Required	\$171,659.70	(unless under 10,000 sq.ft.)
Gutters/Downspouts	\$13.10	n.ft.		12 Required			\$157.20	
Overflow Roof Drains and Piping:	\$2,500.00	each			1 Required		\$2,500.00	
Roof Insulation:	\$3.20	sq.ft. (Qty)		17,104 Required	1,123 Required	1,504 Required	\$63,139.20	(non-tapered insulation for use in areas without drainage problems)
Roof Insulation:	\$4.70	sq.ft. (Qty)		171 Required	112 Required		\$1,330.10	(tapered insulation for limited area use to correct ponding)
Roof Access Hatch:	\$2,000.00	each				1 Required	\$2,000.00	(remove and replace)
Roof Access Ladder with Fall Protection Cage:	\$100.00	n.ft.		14 Required		12 Required	\$2,600.00	(remove and replace)
<b>Sum:</b>			\$243,386.20	\$205,898.50	\$16,390.10	\$21,097.60		



Typical EPDM Roofing of the Original Construction



Unsafe Roof Access Ladder of the Original Construction

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C. Ventilation / Air Conditioning

**Description:** The overall facility is not equipped with a central air conditioning system. Window units are not present in the overall facility. Isolated room systems consisting of thru-wall PTAC units are located in the Administrative Offices and Health Clinic. Isolated room systems consisting of ducted and ductless split AC units (with condensing units pad-mounted on the exterior and on the roof of the overall facility) are located in the 1973 Addition, Computer Lab, and various other locations throughout the overall facility. The ventilation system in the overall facility consists of unit ventilators, original to each addition and in fair condition, providing fresh air to Classrooms and Media Center and air handlers, original to each addition and in fair condition, providing fresh air to other miscellaneous spaces such as the Gymnasium and Student Dining areas. Relief air venting is provided by unit ventilators, transfer grilles to corridors, central relief fans, thru-wall PTAC units, and air handlers. The ventilation system does not appear to 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. The Art program is equipped with a kiln and the kiln ventilation system is inadequate. General building exhaust systems for Restrooms, Storage Rooms, Art Rooms, and Custodial Closets do not appear to be inadequately placed, and in fair condition.

**Rating:** 2 Needs Repair

**Recommendations:** Provide an air conditioning system to meet with Ohio Building Code and Ohio School Design Manual requirements. Replace general building exhaust systems located in Restrooms, Storage Rooms, Art Rooms, and Custodial Closets. Pricing included in Item A. Provide the Art program with a kiln ventilation system to meet Ohio Building Code and Ohio School Design Manual requirements.

Item	Cost	Unit	Whole Building	Original Construction (1949)	Office Addition (1973)	Kindergarten Addition (2006)	Sum	Comments
				44,096 ft <sup>2</sup>	1,090 ft <sup>2</sup>	1,461 ft <sup>2</sup>		
Kiln Exhaust System:	\$5,000.00	each		1 Required			\$5,000.00	
Sum:			\$5,000.00	\$5,000.00	\$0.00	\$0.00		



Ductless Split AC Condensing Unit



Unit Ventilator

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D. Electrical Systems

**Description:** The electrical system provided to the 1949 Original Construction is a 208Y/120V volts, 1,600 amp, 3 phase and 4 wire system installed in 1949 with upgrades in 2006, and is in fair condition. The systems in the 1973 and 2006 Additions are an extension of that found in the 1949 Original Construction. Power is provided to the school by a single utility owned, pad-mounted transformer located outside the Mechanical Room, and appears to be in fair condition. The Eaton panel systems, original to each addition with upgrades in 2006, are in fair condition, and for the most part cannot be expanded to add additional capacity. The Classrooms are not equipped with adequate electrical outlets. The typical Classroom contains (5) general purpose outlets, (0) dedicated outlets for each Classroom computer, and (1) dedicated outlet for each Classroom television. Some Classrooms are equipped with as many as (6) 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 appear to be 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 do not appear to be provided. Stage lighting power system including control panel, breakers, and dimmers is inadequately provided, in fair condition and does not meet OSDM requirements. The overall electrical system does not fully 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 and due to lack of OSDM-required features and to accommodate the addition of an air conditioning system. 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 control panel, dimmers, and breakers to support the Stage lighting system, with funding included in the electrical system replacement.

Item	Cost	Unit	Whole Building	Original Construction (1949)	Office Addition (1973)	Kindergarten Addition (2006)	Sum	Comments
System Replacement:	\$16.23	sq. ft. (of entire building addition)		44,096 ft <sup>2</sup>	1,090 ft <sup>2</sup>	1,461 ft <sup>2</sup>	\$757,080.81	(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)
<b>Sum:</b>			\$757,080.81	\$715,678.08	\$17,690.70	\$23,712.03		



Main Electrical Distribution Panel



Pad Mounted Transformer

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E. Plumbing and Fixtures

Description:

The service entrance is equipped with a reduced pressure back flow preventer in good condition. A water treatment system is not provided, though none is needed. The domestic water supply piping in the 1949 Original Construction is reported to be mostly galvanized steel with limited copper. The galvanized steel is original to the 1949 Original Construction. The galvanized steel is in fair condition and the copper is in good condition. The 1973 Addition and the 2006 Addition is reported to be mostly copper with limited galvanized steel. The copper is in good condition and the galvanized steel is in fair condition in the 1973 Addition and in good condition in the 2006 Addition. The facility is systematically replacing the galvanized steel with copper as needed. No replacement is needed in the 2006 Addition. The waste piping in the 1949 Original Construction is reported to be mostly cast iron with limited PVC. The cast iron is original to the 1949 Original Construction. The cast iron is in fair condition and the PVC is in good condition. The 1973 Addition and the 2006 Addition is reported to be mostly PVC with limited cast iron. The cast iron is in fair condition and the PVC are in good condition. The facility is systematically replacing the cast iron with PVC as needed. No replacement is needed in the 2006 Addition. The facility is equipped with a 91 gallon gas water heater which is in good condition. The school contains 2 Large Group Restrooms for boys, 2 Large Group Restrooms for girls, 2 Restrooms associated with specialty Classrooms and 4 Restrooms for staff. Boys' Large Group Restrooms contain 2 ADA and 5 non-ADA floor mounted flush valve toilets, 3 ADA and 6 non-ADA wall mounted flush valve urinals, as well as 2 ADA and 2 non-ADA wall mounted lavatories. Girls' Large Group Restrooms contain 2 ADA and 10 non-ADA floor mounted flush valve toilets, as well as 3 ADA and 1 non-ADA wall mounted lavatories. The Restrooms associated with Specialty Classrooms contain 0 ADA and 1 non-ADA floor mounted flush valve toilets, 1 ADA and 0 non-ADA wall mounted flush valve toilet, as well as 1 ADA and 0 non-ADA wall mounted lavatory. No urinals are associated with these Restrooms. Staff Restrooms contain 0 ADA and 2 non-ADA floor mounted flush valve toilets, 1 ADA and 1 non-ADA wall mounted flush valve toilets, as well as 2 ADA and 1 non-ADA wall mounted lavatories. In addition, the Art Room contains (1) 3 station modular sink. Condition of fixtures is good to fair. The facility is equipped with 0 ADA and 0 non-ADA drinking fountains, as well as 2 ADA and 2 non-ADA electric water coolers, in good to fair condition. The 18 Elementary Classrooms are mostly equipped with ADA or non-ADA sink mounted type drinking fountains. The Classrooms which do have a sink mounted type drinking fountain are in good to fair condition. No Special Education Classroom was observed at this facility. Kitchen is not equipped with the required Restroom. Health Clinic is equipped with the required Restroom and the fixtures are in fair condition. Kindergarten Classrooms are equipped with Restroom facilities and the fixtures are in good to fair condition. Kitchen fixtures consist of 1 triple compartment sink, 1 double compartment sink, 1 rinse sink with disposal, 2 hand wash sinks, 1 rinse hose and 1 commercial dishwasher, which are in fair condition due to age. The Kitchen is equipped with a satisfactory grease interceptor which is in good condition. The Kitchen is provided the required 140 degree hot water supply via a heat booster which is in good condition. The school does not 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 14 toilets, 5 urinals, 14 lavatories, 18 Classroom sink mounted drinking fountains, and 5 electric water coolers. Observations revealed that the school is currently equipped with 25 toilets, 9 urinals, 12 lavatories, 16 Classroom sink mounted drinking fountains and 4 electric water coolers. ADA requirements are not met for fixtures and drinking fountains. Custodial Closets are properly located and are adequately provided with required service sinks or floor drain sinks which are in good 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 not provided.

Rating:

3 Needs Replacement

Recommendations:

In the overall facility, due to age and condition, replace the remaining galvanized steel domestic water piping and the remaining cast iron waste piping in the 1949 Original Construction and the 1973 Addition. Due to age and condition and to facilitate the school's compliance with OBC and OSFC fixture requirements, in the 1949 Original Construction, replace 21 toilets, 2 lavatories (include ADA compliant faucets) and 2 electric water coolers. Provide 4 additional wall mounted lavatories with ADA compliant faucets, 1 per Boy's and Girl's Restroom. Provide 2 additional electric water coolers in the 1949 Original Construction. Replace 1 lavatory faucet with an ADA compliant faucet, in the Boy's Restroom in the 1949 Original Construction. Due to age, condition, LEED, OBC and OSFC, replace 44 faucets and valves throughout the overall facility. Provide 3 new and replace 4 in Classroom sinks with deck mounted drinking fountain in the 1949 Original Construction. All fixtures, whether new or replaced, to be mounted at ADA compliant heights. Provide a solids interceptor in the Art Room. Provide 4 additional exterior wall hydrants. See Item O for replacement of fixtures related to ADA requirements, as well as the reconfiguration of 2 Staff Restrooms, 1 Restroom in the Health Clinic and 1 Kindergarten Restroom.

Item	Cost	Unit	Whole Building	Original Construction (1949)	Office Addition (1973)	Kindergarten Addition (2006)	Sum	Comments
				44,096 ft <sup>2</sup>	1,090 ft <sup>2</sup>	1,461 ft <sup>2</sup>		
Domestic Supply Piping:	\$3.50	sq.ft. (of entire building addition)		Required	Required		\$158,151.00	(remove / replace)
Sanitary Waste Piping:	\$3.50	sq.ft. (of entire building addition)		Required	Required		\$158,151.00	(remove / replace)
Toilet:	\$1,500.00	unit		21 Required			\$31,500.00	(remove / replace) See Item O
Sink:	\$2,500.00	unit		4 Required			\$10,000.00	(new)
Sink:	\$1,500.00	unit		2 Required			\$3,000.00	(remove / replace)
Electric water cooler:	\$3,000.00	unit		4 Required			\$12,000.00	(double ADA)
Replace faucets and flush valves	\$500.00	per unit		37 Required	3 Required	4 Required	\$22,000.00	(average cost to remove/replace)
Other: Classroom Sink with Deck Mounted Drinking Fountain	\$3,800.00	each		7 Required			\$26,600.00	Provide new Classroom sink with deck mounted drinking fountain. Includes fixture, demolition, supply piping, drains and floor repair.
Other: Exterior Wall Hydrant	\$1,400.00	each		3 Required		1 Required	\$5,600.00	Provide additional exterior wall hydrants.
Other: Lavatory faucets	\$250.00	each		1 Required			\$250.00	Provide new lavatory faucet. Includes removal and re-installation.
Other: Solids Interceptor	\$2,000.00	each		1 Required			\$2,000.00	Provide solids interceptor for Art Room.
<b>Sum:</b>			\$429,252.00	\$416,722.00	\$9,130.00	\$3,400.00		



Commercial Dish Washer



Large Group Restroom-Girls

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F. Windows

**Description:** The Original Construction and 1973 Office Addition is equipped with thermally broken aluminum frame windows with insulated glazing type window system, which was installed at an unknown date, and is in fair to poor condition. The circular and arch-top windows of the Original Construction are wood frame windows with single glazed type window system, which was installed in 1949, and is in fair to poor condition. The window system features operable windows throughout the building, and operable windows are not equipped with opening limiters, but do contain insect screens in fair to poor condition. Window system seals are in fair to poor condition, with minimal air and water infiltration being experienced. Window system hardware is in fair to poor condition. The window system features no blinds. This facility is not equipped with any curtain wall systems. This facility does not feature any glass block windows. The 2006 Kindergarten Addition is equipped with thermally broken aluminum frame windows with insulated glazing type window system, which was installed in 2006, and is in fair condition. The window system features operable windows throughout the building, and operable windows are equipped with opening limiters in fair condition and insect screens in fair to poor condition. Window system seals are in fair condition, with no air and water infiltration being experienced. Window system hardware is in fair to poor condition. The window system features integral blinds, which are in fair condition. This facility is not equipped with any curtain wall systems. This facility does not feature any glass block windows. The exterior doors in the overall facility are equipped with thermally broken aluminum frame sidelights and transoms with tempered insulated glazing, in good condition. Exterior door vision panels are tempered insulated glazing. The school does not contain any skylights. The school does not contain any clerestories. Interior glass is OSDM-compliant. Window security grilles are not provided for ground floor windows. 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.

Item	Cost	Unit	Whole Building	Original Construction (1949)	Office Addition (1973)	Kindergarten Addition (2006)	Sum	Comments
				44,096 ft <sup>2</sup>	1,090 ft <sup>2</sup>	1,461 ft <sup>2</sup>		
Insulated Glass/Panels	\$60.00	sq.ft. (Qty)		4,084 Required	100 Required	180 Required	\$261,840.00	(includes blinds)
Sum:			\$261,840.00	\$245,040.00	\$6,000.00	\$10,800.00		



Typical Aluminum Windows of the Original Construction



Typical Wood Arch Top Windows

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G. Structure: Foundation

**Description:** The Original Construction and the 1973 Office Addition 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. The 2006 Kindergarten Addition is equipped with concrete masonry unit 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 no 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 (1949)	Office Addition (1973)	Kindergarten Addition (2006)	Sum	Comments
				44,096 ft <sup>2</sup>	1,090 ft <sup>2</sup>	1,461 ft <sup>2</sup>		
Sum:			\$0.00	\$0.00	\$0.00	\$0.00		



Typical Concrete Foundation



Typical Concrete Masonry Foundation of the 2006 Kindergarten Addition

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H. Structure: Walls and Chimneys

**Description:** The Original Construction and 1973 Office Addition has a brick veneer on load bearing masonry wall system, which displayed locations minor locations of deterioration, and is in good to fair condition. These portions of the school do not contain control or expansion joints and none are needed, as there is no indication of exterior masonry cracking or separation. The 2006 Kindergarten Addition has a brick veneer on load bearing masonry wall system, which displayed locations no locations of deterioration, and is in good condition. The exterior masonry appears to have appropriately spaced and adequately caulked control joints in good condition. Control joints are provided at lintel locations, at doors and windows, building corners, and wall offsets and are in good condition. The school does have sufficient expansion joints, and they are in good condition. Exterior walls in the Original Construction and 1973 Office Addition are inadequately insulated. Brick veneer masonry walls are not cavity walls. Exterior walls in the 2006 Kindergarten Addition are adequately insulated. Brick veneer masonry walls are cavity walls. Weep holes and vents are not provided or required in the Original Construction and 1973 Office Addition. In the 2006 Kindergarten Addition, weep holes are provided in sufficient quantity at lintels, below sills, and the base of masonry cavity walls, and are in good condition. Weep holes are not rope type weeps. Vents are provided in sufficient quantity. The exterior masonry of the Original Construction has not been cleaned and sealed in recent years, and has locations of mold. Architectural exterior accent materials consist of stone, which is in fair condition. Exterior building fenestration in the Original Construction represents 17.76% of the exterior surfaces. The exterior masonry of the 1973 Office Addition has not been cleaned and sealed in recent years, and has locations of mold. Architectural exterior accent materials consist of stone, which is in fair condition. Exterior building fenestration in the 1973 Office Addition represents 7.72% of the exterior surfaces. The exterior masonry of the 2006 Kindergarten Addition has not yet needed to be cleaned and sealed, showing no evidence of mortar deterioration Architectural exterior accent materials consist of stone, which is in good condition. Exterior building fenestration in the 2006 Kindergarten Addition represents 8.44% of the exterior surfaces. Most classrooms in the Original Construction have unit ventilators which will be removed. Masonry infill will be required. Interior Corridor and demising walls are concrete masonry units and glazed block, project full height from floor to bottom of deck, and are in good condition. Interior masonry appears to have adequately spaced and caulked control joints in good condition. Interior soffits are of plaster type construction, and in good condition. The window sills are stone, and are in good condition. The exterior lintels are steel, and are in fair condition. Chimneys are in poor condition, requiring tuckpointing. Canopies over entrances are stone, concrete, and wood type construction, and are in good to fair condition. Exterior soffits are of wood type construction, and in fair 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 in the Original Construction. Provide masonry cleaning and sealing as required through the overall facility. Prep and paint exposed steel lintels through the Original Construction as required. Exterior wall insulation deficiencies are addressed in Item J. Prep and paint wood soffits and canopies. Infill masonry openings from removed unit ventilators. Patch the concrete canopies of the Original Construction.

Item	Cost	Unit	Whole Building	Original Construction (1949)	Office Addition (1973)	Kindergarten Addition (2006)	Sum	Comments
				44,096 ft <sup>2</sup>	1,090 ft <sup>2</sup>	1,461 ft <sup>2</sup>		
Tuckpointing:	\$5.25	sq.ft. (Qty)		214 Required			\$1,123.50	(wall surface)
Exterior Masonry Cleaning:	\$1.50	sq.ft. (Qty)		18,916 Required	1,296 Required	2,132 Required	\$33,516.00	(wall surface)
Exterior Masonry Sealing:	\$1.00	sq.ft. (Qty)		18,916 Required	1,296 Required	2,132 Required	\$22,344.00	(wall surface)
<b>Other:</b> Masonry Infill	\$27.00	sq.ft. (Qty)		60 Required			\$1,620.00	Provide masonry infill at removed unit ventilators.
<b>Other:</b> Paint lintels	\$2.75	sq.ft. (Qty)		20 Required			\$55.00	Paint steel lintels.
<b>Other:</b> Paint wood soffits.	\$2.75	sq.ft. (Qty)		40 Required			\$110.00	Prep and paint wood soffits.
<b>Other:</b> Repair Concrete Canopy	\$50.00	sq.ft. (Qty)		64 Required			\$3,200.00	Repair concrete canopies.
<b>Sum:</b>			\$61,968.50	\$53,398.50	\$3,240.00	\$5,330.00		



Typical Masonry and Stone Accents of the Original Construction



Chimney Tuckpointing Required

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I. Structure: Floors and Roofs

**Description:** The floor construction of the base floor of the overall facility is concrete slab on grade type construction, and is in fair condition. There is a crawl space under half of the Original Construction. The floor construction of the intermediate floors of the Original Construction is cast-in-place concrete T's 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 Original Construction is a combination of gypsum and steel deck on steel joist type construction, and is in fair condition. The roof construction of the 1973 Office Addition and 2006 Kindergarten Addition is steel deck on steel joist type construction, and is in good to fair condition.

**Rating:** 1 Satisfactory

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

Item	Cost	Unit	Whole Building	Original Construction (1949)	Office Addition (1973)	Kindergarten Addition (2006)	Sum	Comments
				44,096 ft <sup>2</sup>	1,090 ft <sup>2</sup>	1,461 ft <sup>2</sup>		
Sum:			\$0.00	\$0.00	\$0.00	\$0.00		



Typical First Floor Framing of the Original Construction



Combination of Gypsum and Steel Roof Deck of the Original Construction

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J. General Finishes

Description:

The 1949 Original Construction features conventionally partitioned Classrooms with VCT or marmoleum type flooring, acoustical tile type ceilings, as well as glazed block and painted block type wall finishes, and they are in fair condition. The 1974 Addition features administrative areas. The 2006 Addition features a single Classroom with marmoleum type flooring, acoustical tile type ceilings, as well as painted block type wall finishes, and they are in good condition. The overall facility has Corridors with marmoleum or terrazzo type flooring, acoustical tile type ceilings, as well as glazed block and painted block type wall finishes, and they are in fair condition. The overall facility has Restrooms with terrazzo type flooring, acoustical tile type ceilings, as well as glazed block and painted block type wall finishes, and they are in fair condition. Toilet partitions are plastic, and are in good condition. Classroom casework in the 1949 Original Construction is wood type construction with plastic laminate tops, is adequately provided, and in fair to poor condition. Classroom casework in the 2006 Addition is wood type construction with plastic laminate tops, is adequately provided and in good condition. The typical Classroom contains 12 lineal feet of casework, and Classroom casework provided ranges from 12 to 24 feet. Classrooms are provided adequate chalkboards, markerboards, and tackboards which are in fair condition. Lockers, located in both the Corridors and some Classrooms are adequately provided and in fair condition. Classroom storage cubbies, located in some of the Classrooms, are adequately provided, and in fair condition. The Art program is not equipped with a kiln. The 1949 Original Construction and 1974 Addition is equipped with wood non-louvered interior doors that are partially recessed with proper ADA hardware and clearances, and in fair condition. The 2006 Addition is equipped with wood non-louvered interior doors that are partially recessed with proper ADA hardware and clearances, and in good condition. The Gymnasium space has marmoleum type flooring, acoustical tile type ceilings, as well as glazed block and painted block type wall finishes, and they are in fair condition. The Gymnasium is not equipped with stands. Two Gymnasium basketball backboards are a fixed type, and are in fair condition. The Media Center, located in the basement of the 1949 Original Construction, has marmoleum type flooring, acoustical tile and exposed type ceilings, as well as painted block and painted concrete type wall finishes, and they are in fair condition. Student Dining, shared with the Art Room, has marmoleum type flooring, acoustical tile type ceilings, as well as painted concrete type wall finishes, and they are in fair condition. OSDM-required fixed equipment for Stage is adequately provided, and in fair to poor condition. Existing Student Dining and Music spaces are adequately provided with appropriate sound attenuation acoustical surface treatments. Existing Gymnasium and Media Center spaces are inadequately provided with appropriate sound attenuation acoustical surface treatments. The existing Kitchen is a Warming Kitchen only, is slightly oversized based on current enrollment, and the existing Kitchen equipment, installed at an unknown date, is in good to fair condition. The Kitchen hood is in good to fair condition, and is not equipped with the required UL 300 compliant wet chemical fire suppression system. The required 6" overhang on all three exposed sides of the cooking equipment is provided by the hood. Kitchen hood exhaust ductwork is of proper construction, material, insulation, and installed as required by the OSDM and OBCMC. Reach-in coolers and freezers are located within the Kitchen spaces, and are in good to fair condition.

Rating:

3 Needs Replacement

Recommendations:

Provide complete replacement of finishes and casework except in the 2006 Addition due to condition and installation of systems outlined in Items A, C, D, E, I, K, L, M, N, T, U, and W. Provide for the replacement of interior doors due to age and condition. Provide for the replacement of the Warming Kitchen Hood to meet OSDM standards. Provide for an Art program kiln, with funding for exhaust system provided in Item C. Provide for the replacement of toilet accessories. Provide for the repair of terrazzo flooring due to condition. Provide for the replacement of basketball backboards due to age and condition. Provide for Gymnasium bleachers. Provide for appropriate sound attenuation acoustical surface treatments in the Gymnasium and Media Center. Provide for Stage Equipment. Provide for additional wall insulation. Remove Corridor transfer grilles, fill voids, and coordinate with adjacent finishes.

Item	Cost	Unit	Whole Building	Original Construction (1949)	Office Addition (1973)	Kindergarten Addition (2006)	Sum	Comments
Complete Replacement of Finishes and Casework (Elementary):	\$15.90	sq.ft. (of entire building addition)		44,096 ft <sup>2</sup>	1,090 ft <sup>2</sup>	1,461 ft <sup>2</sup>	\$718,457.40	(elementary, per building area, with removal of existing)
Toilet Accessory Replacement	\$0.20	sq.ft. (of entire building addition)		Required	Required	Required	\$9,329.40	(per building area)
Door, Frame, and Hardware:	\$1,300.00	each		76 Required	7 Required		\$107,900.00	(non-ADA)
Terrazzo Floor Repair	\$25.00	sq.ft. (Qty)		300 Required			\$7,500.00	(floor area affected; max. area to be 300 sf)
Basketball Backboard Replacement	\$3,200.00	each		2 Required			\$6,400.00	(non-electric)
Bleacher Replacement	\$110.00	per seat		262 Required			\$28,820.00	(based on current enrollment)
Art Program Kiln:	\$2,750.00	each		1 Required			\$2,750.00	
Additional Wall Insulation	\$6.00	sq.ft. (Qty)		18,916 Required	1,296 Required		\$121,272.00	(includes the furring out of the existing walls, insulation and abuse resistant GWB)
Hard Plaster Replacement	\$9.00	sq.ft. (Qty)		1,000 Required			\$9,000.00	(Hazardous Material Replacement Cost - See T.)
Gypsum Board Replacement	\$4.00	sq.ft. (Qty)		1,600 Required			\$6,400.00	(Hazardous Material Replacement Cost - See T.)
Kitchen Exhaust Hood:	\$56,000.00	per unit		1 Required			\$56,000.00	(includes fans, exhaust & ductwork)
Other: Sound Control	\$3.00	sq.ft. (Qty)		4,156 Required			\$12,468.00	Provide for appropriate sound attenuation acoustical surface treatments in the Gymnasium and Media Center.
Other: Stage Equipment	\$14,000.00	allowance		Required			\$14,000.00	Provide for a Stage Equipment allowance.
Other: Transfer Grilles	\$48.00	sq.ft. (Qty)		32 Required			\$1,536.00	Remove Corridor transfer grilles, fill voids, and coordinate with adjacent finishes.
<b>Sum:</b>				<b>\$1,101,832.80</b>	<b>\$1,067,115.60</b>	<b>\$292.20</b>		



Media Center Finishes



Typical Classroom Casework

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K. Interior Lighting

**Description:** The typical Classrooms in the overall facility are equipped with T-8 2x4 lay-in direct fluorescent fixture type lighting, with dual level switching. Classroom fixtures are in fair condition, providing an average illumination of 58 FC, thus complying with the 40 FC recommended by the OSDM. The typical Corridors in the overall facility are equipped with T-8 2x4 lay-in direct fluorescent fixture type lighting, with single level switching. Corridor fixtures are in fair condition, providing an average illumination of 22 FC, thus complying with the 15 FC recommended by the OSDM. The Gymnasium spaces are equipped with T-8 2x4 lay-in direct fluorescent fixture type lighting, in fair condition, providing an average illumination of 27 FC, which is less than the 30 FC recommended by the OSDM. The Media Center is equipped with T-8 1x4 lay-in direct fluorescent fixture type lighting, in fair condition, providing an average illumination of 58 FC, thus complying with the 30 FC recommended by the OSDM. The Student Dining spaces are equipped with T-8 2x4 lay-in direct fluorescent fixture type lighting, in fair condition, providing an average illumination of 37 FC, which is less than the 40 FC recommended by the OSDM. The Kitchen spaces are equipped with T-8 2x4 lay-in direct fluorescent fixture type lighting, with single level switching. Kitchen fixtures are in fair condition, providing an average illumination of 43 FC, which is less than the 50 FC recommended by the OSDM. The Service Areas in the overall facility are equipped with surface mount incandescent and T-8 1x4 suspended and surface mount fluorescent fixture type lighting, in fair condition, providing inadequate illumination based on OSDM requirements. The typical Administrative spaces in the overall facility are equipped with T-8 2x4 lay-in direct fluorescent fixture type lighting, in fair condition, providing inadequate illumination based on OSDM requirements. The overall lighting systems of the facility are not fully compliant with Ohio School Design Manual requirements due to age and condition, inadequate lighting levels, utilization of incandescent fixtures, and lack of multi-level switching.

**Rating:** 3 Needs Replacement

**Recommendations:** Provide complete replacement of lighting system due to age, condition, lighting levels, lack of multilevel switching, utilization of incandescent fixtures, and installation of systems outlined in Items A, C, J, and U.

Item	Cost Unit	Whole Building	Original Construction (1949)	Office Addition (1973)	Kindergarten Addition (2006)	Sum	Comments
Complete Building Lighting Replacement	\$5.00/sq.ft. (of entire building addition)		44,096 ft <sup>2</sup> Required	1,090 ft <sup>2</sup> Required	1,461 ft <sup>2</sup> Required	\$233,235.00	Includes demo of existing fixtures
<b>Sum:</b>		\$233,235.00	\$220,480.00	\$5,450.00	\$7,305.00		



Gymnasium Fluorescent Light Fixtures



Classroom Fluorescent Light Fixtures

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L. Security Systems

**Description:** The overall facility contains a Sonitrol motion detector, door contact, and CCTV type security system in fair condition. Motion detectors are inadequately provided in main entries, central gathering areas, offices, main Corridors, and spaces where 6 or more computers are located. Exterior doors are inadequately equipped with door contacts. An automatic visitor control system is provided. Compliant color CCTV cameras are inadequately 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. A compliant computer controlled access control system integrating alarms and video signals, with appropriate UPS backup, is not provided. The system is equipped with card 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 surface mounted HID high pressure sodium and LED entry lights in fair condition. Pedestrian walkways are not illuminated onsite. Parking and bus pick-up / drop off areas are illuminated by pole mounted LED 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 (1949)	Office Addition (1973)	Kindergarten Addition (2006)	Sum	Comments
Security System:	\$1.85	sq.ft. (of entire building addition)		44,096 ft <sup>2</sup>	1,090 ft <sup>2</sup>	1,461 ft <sup>2</sup>	\$86,296.95	(complete, area of building)
Exterior Site Lighting:	\$1.00	sq.ft. (of entire building addition)		Required	Required	Required	\$46,647.00	(complete, area of building)
<b>Sum:</b>			\$132,943.95	\$125,673.60	\$3,106.50	\$4,163.85		



Security System Motion Sensor



Security System Card Reader

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M. Emergency/Egress Lighting

**Description:** The overall facility is inadequately equipped with an emergency egress lighting system consisting of non-compliant plastic construction exit signs, as well as OSDM compliant red lettered and LED illuminated exit signs, and the system is in fair condition. The facility is inadequately equipped with emergency egress floodlighting (which consists mainly of emergency egress lighting attached to exit signs), but is also equipped with some recessed fluorescent lighting used as emergency egress lighting, and the system is in fair condition. The system is not provided with appropriate battery backup or emergency generator on separate circuits. 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 (1949)	Office Addition (1973)	Kindergarten Addition (2006)	Sum	Comments
Emergency/Egress Lighting:	\$1.00	sq.ft. (of entire building addition)		44,096 ft <sup>2</sup>	1,090 ft <sup>2</sup>	1,461 ft <sup>2</sup>		
Sum:			\$46,647.00	\$44,096.00	\$1,090.00	\$1,461.00	\$46,647.00	(complete, area of building)



Exit Sign



Exit Sign and Emergency Egress Lighting Fixture

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N. Fire Alarm

**Description:** The overall facility is equipped with a Notifier Fire-Warden 100 addressable type fire alarm system, installed in 1949 with upgrades in 2006, and in fair condition, consisting of manual pull stations and horn and strobe indicating devices. The system is automatic and is monitored by a third party. The system appears to be equipped with sufficient audible horns and strobe indicating devices. The system is not equipped with sufficient smoke detectors. The system is not equipped with any flow switches, tamper switches, and heat sensors. The systems thus will not support future fire suppression systems. The systems are not adequately provided throughout, and does not have additional zone capabilities. The systems are not fully compliant with Ohio Building Code, NFPA, and Ohio School Design Manual requirements.

**Rating:** 3 Needs Replacement

**Recommendations:** Provide complete replacement of fire alarm systems to meet OBC, NFPA, and Ohio School Design Manual guidelines.

Item	Cost	Unit	Whole Building	Original Construction (1949)	Office Addition (1973)	Kindergarten Addition (2006)	Sum	Comments
Fire Alarm System:	\$1.50	sq.ft. (of entire building addition)		44,096 ft <sup>2</sup>	1,090 ft <sup>2</sup>	1,461 ft <sup>2</sup>		
Sum:			\$69,970.50	\$66,144.00	\$1,635.00	\$2,191.50	\$69,970.50	(complete new system, including removal of existing)



Fire Alarm Control Panel



Fire Alarm Audible Horn and Visual Strobe Indicating Device

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O. Handicapped Access

**Description:** At the site, there is not accessible routes provided from the public right-of-way, the accessible parking areas, and from the passenger unloading zone to the main entrance. There is an accessible route connecting most areas of the site. The exterior entrances are mostly not ADA accessible at the 1949 Original Construction, due to steps at the entrances. The exterior entrances at the 2006 Addition are ADA accessible. 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 equipped with ADA hardware. Building entrances should be equipped with 3 ADA power assist doors and 0 are provided. Playground layout and equipping are not compliant, due to no access provided. On the interior of the building, space allowances and reach ranges are mostly compliant. There is not an accessible route through to through the 1949 Original Construction which does include protruding objects. There is an accessible route through, the 1973 Addition and the 2006 Addition as they are all one story. Electric water coolers are not recessed, but due to wide hallways, do not impede the traffic flow. Ground and floor surfaces are compliant. Stairs in the 1949 Original Construction do not meet all ADA requirements, due to slip surfaces on treads and handrails. Elevation changes within the overall facility are facilitated by 5 non-compliant stairwells in good condition. The 1949 Original Construction 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, ramp or other. Interior doors are both recessed and not recessed. Doors that are not recessed, open all the way and do not impede the traffic flow. Doors are provided adequate clearances and are provided with ADA-compliant hardware. 8 ADA-compliant toilets are required, and 7 are currently provided. 8 ADA-compliant Restroom lavatories are required, and 8 are currently provided. 3 ADA-compliant urinals are required, and 3 are currently provided. 5 ADA-compliant electric water coolers are required, and 2 are currently provided. Toilet partitions are plastic and do provide appropriate ADA clearances where present. ADA-compliant accessories are 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 Restroom is not compliant with ADA requirements. No Special Education Classrooms were observed at this facility. Adequate ADA signage is provided in the interior, but not the exterior.

**Rating:** 3 Needs Replacement

**Recommendations:** To facilitate the school's meeting of ADA requirements, throughout the overall facility: Provide ADA-compliant signage. Provide an accessible elevator in the 1949 Original Construction. Provide 3 power assisted doors with one being at the main entrance. Provide a total of 4 chair lifts, 1 at Gymnasium stairs, 1 at east stairway, 1 at rear corner stairway and 1 for Stage access. Reconfigure and enlarge 3 existing Staff Restrooms (including the Health Clinic) and 1 Kindergarten Restroom, to include 4 toilets, 4 lavatories and 4 full sets of accessories including grab bars. Provide new ADA compliant Unisex Restroom in the Kitchen, to include 1 toilet, 1 lavatory and 1 full set of accessories including grab bars. All fixtures, whether new or replaced, to be mounted at correct ADA compliant heights. Provide 15 ADA compliant pipe wrap throughout the overall facility. Provide non-slip strips on 5 non-compliant stairways. Rework the access to the playground to incorporate smooth transition into area. Provide new exterior ADA accessibility ramps at the main entrance and the east entrance. Funding provided in Item E for electric water coolers, classroom sink with drinking fountains and fixtures not included in Item O. Funding for replacement of handrails is provided for in Item U. Funding for re-striping of the parking lot to provide additional handicap parking spaces is provided for in Item P. Funding for replacement of toilets and lavatories to be mounted at ADA compliant heights is provided for in Item E.

Item	Cost	Unit	Whole Building	Original Construction (1949)	Office Addition (1973)	Kindergarten Addition (2006) 1,461 ft²	Sum	Comments
Signage:	\$0.20	sq.ft. (of entire building addition)		Required	Required	Required	\$9,329.40	(per building area)
Ramps:	\$40.00	sq.ft. (Qty)		130 Required			\$5,200.00	(per ramp/interior-exterior complete)
Lifts:	\$15,000.00	unit		1 Required			\$15,000.00	(complete)
Elevators:	\$42,000.00	each		3 Required			\$126,000.00	(per stop, \$84,000 minimum)
ADA Assist Door & Frame:	\$7,500.00	unit		3 Required			\$22,500.00	(openers, electrical, patching, etc)
Other: ADA Access to Playground Equipment	\$1,000.00	allowance		Required			\$1,000.00	Rework access to playground to incorporate smooth transition.
Other: ADA Pipe Wrap	\$50.00	each		13 Required	1 Required	1 Required	\$750.00	Provide ADA compliant pipe wrap on all wall mounted lavatories.
Other: Add unisex toilet room	\$10,000.00	per restroom		1 Required			\$10,000.00	Provide new unisex toilet room for Kitchen. Includes fixtures, demolition, walls, door and hardware, supply lines and full set of accessories and grab bars.
Other: Non-Slip Tread Strips	\$400.00	per unit		5 Required			\$2,000.00	Provide non-slip tread strips on all stairways. Funding provided is per stairway.
Other: Reconfigure Toilet Room for ADA Compliance	\$10,000.00	per restroom		3 Required	1 Required		\$40,000.00	Enlarge and reconfigure existing Toilet Room to meet ADA requirements. Includes all fixtures, demolition, walls, door and hardware, supply lines, drains and full set of accessories and grab bars.
Other: Wheelchair Stair Lift	\$15,000.00	per level		3 Required			\$45,000.00	Provide new stairway chair lift. Includes lift, demolition, installation and wall/floor repair.
<b>Sum:</b>			\$276,779.40	\$266,169.20	\$10,268.00	\$342.20		



ADA Compliant Exterior Access Ramp



ADA Compliant Unisex Restroom

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P. Site Condition

Description:

The 1.96 acre flat site is located in a small town residential setting with moderate tree, shrub, and floral type landscaping. Outbuildings include a small storage shed. There are apparent minor problems with erosion at pavement edges and parking lot ponding. The site is bordered by moderately traveled city streets. A single entrance is provided onto the site. There is a curbside bus loading and unloading zone in front of and to the side of the school, which is not separated from other vehicular traffic. Staff, and visitor parking is facilitated by an asphalt parking lots in fair condition, containing 32 parking places, which provides adequate parking for staff members and visitors, but not the disabled. The site and parking lot drainage design, consisting of sheet drainage into city sewers as well as catch basins provides adequate evacuation of storm water, although minor problems with parking lot ponding were observed directly to the north of the building. Concrete curbs in fair condition are appropriately placed. Concrete sidewalks are properly sloped, are located to provide a logical flow of pedestrian traffic, and are in fair condition. Trash pick-up and service drive pavement appears heavy duty and is in poor condition, and is equipped with a concrete pad area for dumpsters, which is in good condition. Exterior concrete steps in good to fair condition are appropriately located at several building entrances. One exterior concrete ramp in good to fair condition is provided at one of the buildings north entry. Steel handrails in good to fair condition are provided at all exterior concrete steps and ramps. Existing handrails are mostly compliant, but there are some which need to be brought up to the OBC standards. Steel guardrails are provided around area wells, and are not compliant. Site fencing is not provided around the entire site, but the play areas are completely fenced for security and separation from vehicular traffic. The fence is a steel wire mesh type, and in fair condition. The playground equipment is primarily constructed of coated steel and high density plastic, and is in good to fair condition. Playground equipment is placed to provide compliant fall zones, and on a compliant wood fiber mulch of sufficient depth. Surface painted games, a basketball court, funnel ball, and tether ball are provided on an asphalt surface in fair condition. The site is equipped with sufficient benches in good condition, but sufficient tables are not provided. The athletic facilities are comprised of an open grass field. Site features are suitable for outdoor instruction although adequate tables are not provided. There are no readily evident conditions that might significantly effect master planning with regard to the site. Due to the size of the site, building expansion is not recommended.

Rating:

2 Needs Repair

Recommendations:

Provide for an asphalt wear layer due to age and condition. Provide for replacement of heavy duty asphalt due to age and condition. Provide for an adequate bus drop-off area. Provide for replacement of concrete curbs due to age and condition. Provide for replacement of concrete sidewalks due to age and condition. Provide for exterior steel handrails and guardrails due to condition and where required by the OBC and OSDM standards. Provide for soil stabilization at edges of pavement. Provide for replacement of catch basins due to observed ponding on site. Provide for exterior furnishings for an outdoor learning environment.

Item	Cost	Unit	Whole Building	Original Construction (1949) 44,096 ft <sup>2</sup>	Office Addition (1973) 1,090 ft <sup>2</sup>	Kindergarten Addition (2006) 1,461 ft <sup>2</sup>	Sum	Comments
Replace Existing Asphalt Paving (heavy duty):	\$30.60	sq. yard		425 Required	9 Required	13 Required	\$13,678.20	(including drainage / tear out for heavy duty asphalt)
Asphalt Paving / New Wearing Course:	\$19.00	sq. yard		2,186 Required	46 Required	69 Required	\$43,719.00	(includes minor crack repair in less than 5% of paved area)
Bus Drop-Off for Elementary	\$110.00	per student		228 Required	5 Required	7 Required	\$26,400.00	<b>(Number of students should be rounded up to the nearest 100. \$5500 per bus; 40 students per bus; 80% of elementary school students riding)</b>
Concrete Curb:	\$18.00	n.ft.		109 Required	2 Required	4 Required	\$2,070.00	(new)
Concrete Sidewalk:	\$4.69	sq.ft. (Qty)		736 Required	15 Required	24 Required	\$3,634.75	(5 inch exterior slab)
Stabilize soil erosion:	\$2.50	sq.ft. (Qty)		95 Required	2 Required	3 Required	\$250.00	(includes stripping and re-grading)
Exterior Hand / Guard Rails:	\$43.00	n.ft.		88 Required	2 Required	3 Required	\$3,999.00	
Provide Exterior Parking Lot Catch Basin:	\$2,500.00	each		2 Required			\$5,000.00	
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 <b>one</b> 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	Required	Required	\$69,970.50	include this one <b>or</b> the next. (Each addition should have this item)
<b>Other:</b> Exterior Furniture	\$500.00	each		3 Required	1 Required	1 Required	\$2,500.00	Provide for exterior furnishings for an outdoor learning environment.
<b>Sum:</b>			\$221,221.45	\$211,698.34	\$4,031.75	\$5,491.36		



Concrete Steps and Handrail/Guardrail



Asphalt Parking Lot and Catch Basin

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Q. Sewage System

Description: The sanitary sewer system is tied in to the city system, and is in fair condition. No significant system deficiencies were reported by the 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 (1949)	Office Addition (1973)	Kindergarten Addition (2006)	Sum	Comments
				44,096 ft <sup>2</sup>	1,090 ft <sup>2</sup>	1,461 ft <sup>2</sup>		
Sum:			\$0.00	\$0.00	\$0.00	\$0.00		



Sanitary Waste Piping



Sanitary Waste Piping

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R. Water Supply

**Description:** The domestic water supply system is tied in to the municipal system, features 4" service and water meter, and is in fair 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 not equipped with an automated fire suppression system, and the existing water supply will not provide adequate support for a future system. The domestic water service is not equipped with a water booster pump, and none is required. The system does not provide adequate pressure and capacity for the future needs of the school.

**Rating:** 1 Satisfactory

**Recommendations:** Provide a new city water supply line of adequate capacity to support the existing needs of the facility, as well as a future automated fire suppression system. Funding provided in Item U.

Item	Cost	Unit	Whole Building	Original Construction (1949)	Office Addition (1973)	Kindergarten Addition (2006)	Sum	Comments
				44,096 ft <sup>2</sup>	1,090 ft <sup>2</sup>	1,461 ft <sup>2</sup>		
Sum:			\$0.00	\$0.00	\$0.00	\$0.00		



Incoming Domestic Water Service Line



Incoming Domestic Water Service Meter

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S. Exterior Doors

**Description:** Typical exterior doors in the overall facility are hollow metal type construction, installed on hollow metal frames, and in fair to poor condition. Typical exterior doors feature insulated glass vision panels, and appropriate hardware. Entrance doors in the overall facility are aluminum type construction, installed on aluminum frames, and in good condition. Entrance doors feature insulated tempered glass vision panels, transoms, sidelights, and appropriate hardware. The facility is not equipped with any roof access doors, but one should be provided to access the roof of the 1973 Office Addition. There are no overhead doors in the facility.

**Rating:** 2 Needs Repair

**Recommendations:** Replace all exterior hollow metal doors due to poor condition. Provide one roof access door.

Item	Cost	Unit	Whole Building	Original Construction (1949) 44,096 ft <sup>2</sup>	Office Addition (1973) 1,090 ft <sup>2</sup>	Kindergarten Addition (2006) 1,461 ft <sup>2</sup>	Sum	Comments
Door Leaf/Frame and Hardware:	\$2,000.00	per leaf		3 Required	1 Required		\$8,000.00	(includes removal of existing)
<b>Sum:</b>			\$8,000.00	\$6,000.00	\$2,000.00	\$0.00		



Typical Entrance Doors of the Original Construction



Typical Hollow Metal Exterior Door

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T. Hazardous Material

**Description:** The School District provided the AHERA three year reinspection reports, prepared by Westech Environmental Solutions, and dated 2013, documenting known and assumed locations of asbestos and other hazardous materials. Hard Plaster, Cove Base Mastic, Marmoleum Floor Mastic, Window and Door Caulking, Fire and Solid Core Doors, Pipe insulation, Sink Undercoating, Drywall Joint Compound, Chalk Board Mastic, Cement Board, Boiler Components, and a Stage Curtain containing hazardous materials are located in the 1949 Original Construction and 1973 Addition in fair to poor condition. These materials were described in the report and open to observation and found to be in both friable and non-friable condition with moderate to light damage. There are no underground storage tanks on the site. Due to the construction date, there is a potential for lead based paint. Fluorescent lighting will require special disposal.

**Rating:** 2 Needs Repair

**Recommendations:** Remove all hazardous materials, inclusive of asbestos-containing materials in the overall facility except 2006 Addition, 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.

Item	Cost	Unit	Whole Building	Original Construction (1949) 44,096 ft²	Office Addition (1973) 1,090 ft²	Kindergarten Addition (2006) 1,461 ft²	Sum	Comments
<b>Other:</b> Chalk Board Mastic Removal	\$1.00	sq.ft. (Qty)		100 Required			\$100.00	Provide for removal of Chalk Board mastic
<b>Other:</b> Cove Base Mastic Removal	\$2.00	ln.ft.		100 Required			\$200.00	Provide for removal of Cove Base Mastic
<b>Other:</b> Marmoleum and Mastic Removal	\$3.00	sq.ft. (Qty)		100 Required			\$300.00	Provide for removal of Marmoleum and Mastic
<b>Other:</b> Stage Curtain Removal	\$1.00	sq.ft. (Qty)		100 Required			\$100.00	Provide for the removal of the Stage Curtain
<b>Sum:</b>			\$700.00	\$700.00	\$0.00	\$0.00		



Fire Door



Stage Curtain

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U. Life Safety

**Description:** The overall facility is not equipped with a compliant automated fire suppression system. Exit Corridors are situated such that dead-end Corridors are not present. The facility features 4 interior stair towers, 3 of which are not protected by a compliant two hour fire enclosure and 1 which is protected by a compliant two hour fire enclosure. The facility does not have any exterior stairways from intermediate floors. Guard rails on all stairways are attached to wall structures and do not extend past the top and bottom stair risers as required by the Ohio Building Code. The Kitchen hood is in fair condition due to age and does not include equipment that requires fire suppression. Fire extinguishers are not 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 insufficient to meet the future fire suppression needs of the school. Rooms with a capacity greater than 50 occupants are equipped with adequate egress.

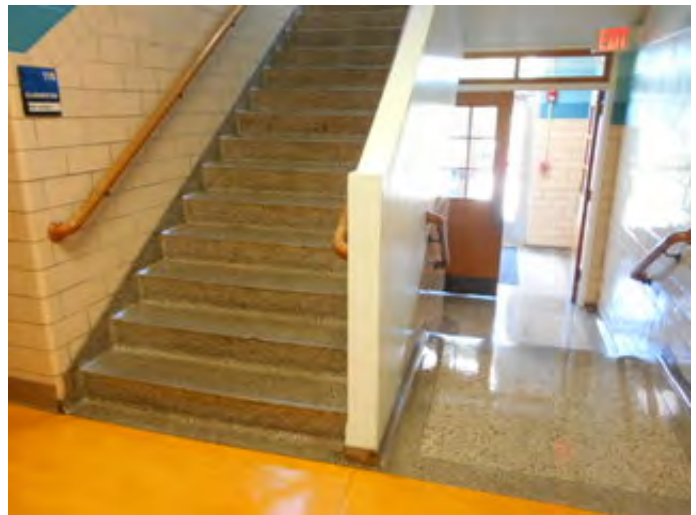
**Rating:** 3 Needs Replacement

**Recommendations:** Provide new automated fire suppression system to meet Ohio School Design Manual guidelines. Provide increased water service of a capacity sufficient to support the fire suppression system, funding included in fire suppression funding. Provide new emergency generator, with funding provided via complete replacement of electrical system in Item D. Provide new handrails at all interior stairways in the overall facility. Provide fire-rated enclosure around 3 existing interior stair towers. Provide 3 additional fire extinguishers.

Item	Cost	Unit	Whole Building	Original Construction (1949)	Office Addition (1973)	Kindergarten Addition (2006)	Sum	Comments
Sprinkler / Fire Suppression System:	\$3.20	sq.ft. (Qty)		44,096 Required	1,090 Required	1,461 Required	\$149,270.40	(includes increase of service piping, if required)
Interior Stairwell Closure:	\$5,000.00	per level		8 Required			\$40,000.00	(includes associated doors, door frames and hardware)
Handrails:	\$5,000.00	per level		14 Required			\$70,000.00	
Provide Fire Extinguisher and Wall Cabinet:	\$585.00	each		3 Required			\$1,755.00	(includes preparation of wall to receive recessed cabinet)
<b>Sum:</b>			\$261,025.40	\$252,862.20	\$3,488.00	\$4,675.20		



Compliant Fire Extinguisher



Non-Compliant Stair Tower

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V. Loose Furnishings

**Description:** The typical Classroom furniture is mismatched, and in generally fair condition, consisting of student desks & chairs, teacher desks & chairs, desk height file cabinets, reading tables, computer workstations, bookcases, and wastebaskets. 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 6 due to observed conditions, and due to the fact that it lacks some of the Design Manual required elements.

**Rating:** 2 Needs Repair

**Recommendations:** Provide for replacement of outdated or inadequate furnishings.

Item	Cost	Unit	Whole Building	Original Construction (1949)	Office Addition (1973)	Kindergarten Addition (2006)	Sum	Comments
CEFPI Rating	6	\$3.00/sq.ft. (of entire building addition)		44,096 ft <sup>2</sup>	1,090 ft <sup>2</sup>	1,461 ft <sup>2</sup>		
				Required	Required	Required	\$139,941.00	
<b>Sum:</b>			\$139,941.00	\$132,288.00	\$3,270.00	\$4,383.00		



Typical Teacher Desk and Chair



Typical Student Desk and Chair

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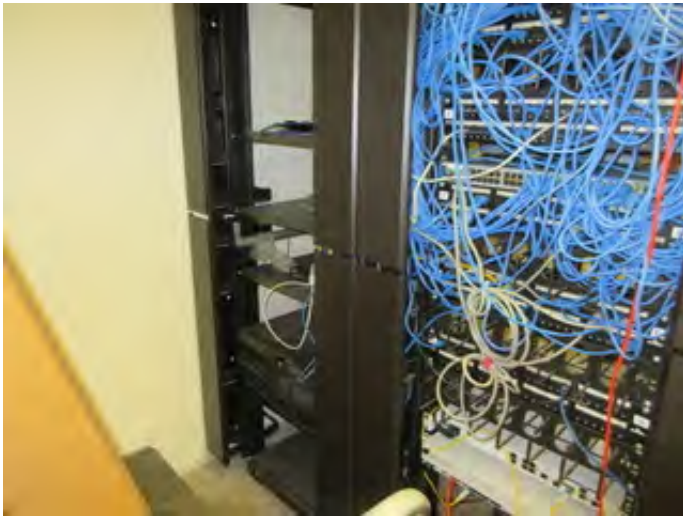
W. Technology

**Description:** The typical Classroom is equipped with the required one data port for teacher use, one voice port with a digitally based phone system, one cable port and monitor, and a 2-way PA system that can be initiated by either party to meet Ohio School Design Manual requirements. The typical Classroom is not fully equipped with the required four technology data ports for student use to meet Ohio School Design Manual requirements. The facility is equipped with a centralized clock system. Specialized electrical / sound system requirements of Gymnasium, Stage, Student Dining, and Music spaces appear to be inadequately provided, and in fair condition. OSDM-compliant computer network infrastructure does not appear to be provided. The facility does contain a media distribution center, and provides Computer Labs for use by students. Elevators are not present in this overall facility.

**Rating:** 3 Needs Replacement

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

Item	Cost	Unit	Whole Building	Original Construction (1949)	Office Addition (1973)	Kindergarten Addition (2006)	Sum	Comments
ES portion of building with total SF < 50,000	\$13.18	sq.ft. (Qty)		44,096 ft <sup>2</sup>	1,090 ft <sup>2</sup>	1,461 ft <sup>2</sup>		
Sum:			\$614,807.46	\$581,185.28	\$14,366.20	\$19,255.98	\$614,807.46	



IT Data Rack



Computer Lab

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X. Construction Contingency / Non-Construction Cost

<b>Renovation Costs (A-W)</b>		\$6,457,227.11
7.00%	Construction Contingency	\$452,005.90
<b>Subtotal</b>		\$6,909,233.01
16.29%	Non-Construction Costs	\$1,125,514.06
<b>Total Project</b>		<b>\$8,034,747.06</b>

Construction Contingency	\$452,005.90
Non-Construction Costs	\$1,125,514.06
<b>Total for X.</b>	<b>\$1,577,519.95</b>

<b>Non-Construction Costs Breakdown</b>		
Land Survey	0.03%	\$2,072.77
Soil Borings / Phase I Envir. Report	0.10%	\$6,909.23
Agency Approval Fees (Bldg. Code)	0.25%	\$17,273.08
Construction Testing	0.40%	\$27,636.93
Printing - Bid Documents	0.15%	\$10,363.85
Advertising for Bids	0.02%	\$1,381.85
Builder's Risk Insurance	0.12%	\$8,291.08
Design Professional's Compensation	7.50%	\$518,192.48
CM Compensation	6.00%	\$414,553.98
Commissioning	0.60%	\$41,455.40
Non-Construction Contingency (includes partnering and mediation services)	1.12%	\$77,383.41
<b>Total Non-Construction Costs</b>	<b>16.29%</b>	<b>\$1,125,514.06</b>

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School Facility Appraisal

**Name of Appraiser** Bernie Merritt **Date of Appraisal** 2016-08-06  
**Building Name** Forest Elementary  
**Street Address** 413 East Canal Street  
**City/Town, State, Zip Code** Troy, 45373  
**Telephone Number(s)** (937) 332.6746  
**School District** Troy City

**Setting:** Small City

Site-Acreage	1.96	Building Square Footage	46,647
Grades Housed	K-5	Student Capacity	360
Number of Teaching Stations	22	Number of Floors	2
Student Enrollment	262		
Dates of Construction	1949,1973,2006		

**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**

Load bearing masonry  
 Steel frame  
 Concrete frame  
 Wood  
 Steel Joists

**Exterior Surfacing**

Brick  
 Stucco  
 Metal  
 Wood  
 Stone

**Floor Construction**

Wood Joists  
 Steel Joists  
 Slab on grade  
 Structural slab

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# 1.0 The School Site

## School Facility Appraisal

		Points Allocated	Points
1.1	<p><b>Site is large enough</b> to meet educational needs as defined by state and local requirements</p> <p><i>The site is 1.96 acres compared to 13 acres required by the OSDM.</i></p>	25	5
1.2	<p><b>Site is easily accessible</b> and conveniently located for the present and future population</p> <p><i>The School is centrally located within the School District, and is easily accessible. The site is accessible from city streets that are suitable for buses, cars, and service vehicles. Only one entry point is provided into the site.</i></p>	20	10
1.3	<p><b>Location</b> is removed from undesirable business, industry, traffic, and natural hazards</p> <p><i>The site is adjacent to residential uses, and there are no undesirable features adjacent to the School site.</i></p>	10	8
1.4	<p>Site is <b>well landscaped and developed</b> to meet educational needs</p> <p><i>The site is moderately landscaped with mature shade trees, ornamental trees, and shrubs which define the property and emphasize the building entrance. Lawn areas where mowing is required do not exceed 3:1 slope.</i></p>	10	8
1.5	<p>ES Well equipped <b>playgrounds are separated</b> from streets and parking areas</p> <p>MS Well equipped <b>athletic and intermural areas are separated</b> from streets and parking</p> <p>HS Well equipped <b>athletic areas</b> are adequate with sufficient solid-surface parking</p> <p><i>Playground areas consist of coated steel and high density plastic type play equipment, which is in good to fair condition, and is located on wood fiber mulch which is an approved soft surface material. Play equipment is ADA accessible, and includes an accessible route to equipment. Hard surface play areas provide educational features painted on an asphalt surface, which is in fair condition. A basketball court and funnel ball are provided on the hard surface, and is separated from vehicular use areas with a fence.</i></p>	10	8
1.6	<p><b>Topography</b> is varied enough to provide desirable appearance and without steep inclines</p> <p><i>The site is gently sloped to provided positive drainage across the site. A flat area is provided to accommodate buildings, perimeter walks, vehicular circulation, parking areas, outdoor play areas, and physical education spaces, and is desirable.</i></p>	5	4
1.7	<p>Site has stable, well drained <b>soil free of erosion</b></p> <p><i>Minor signs of soil erosion are evident at edges of sidewalks and pavement. Minor signs of ponding water were observed on asphalt pavement.</i></p>	5	3
1.8	<p>Site is suitable for <b>special instructional needs</b>, e.g., outdoor learning</p> <p><i>The site has been developed to accommodate outdoor learning, though adequate related equipment has not been provided to facilitate doing so.</i></p>	5	3
1.9	<p><b>Pedestrian services</b> include adequate sidewalk with designated crosswalks, curb cuts, and correct slopes</p> <p><i>Sidewalks are adequately provided to accommodate safe pedestrian circulation including designated crosswalks, curb cuts, and correct slopes.</i></p>	5	4
1.10	<p>ES/MS Sufficient <b>on-site, solid surface parking</b> for faculty and staff is provided</p> <p>HS Sufficient <b>on-site, solid surface parking</b> is provided for faculty, students, staff and community</p> <p><i>Adequate parking is provided for faculty, staff, and community parking, and is located on asphalt pavement in fair condition. Parking for disabled is not adequately provided.</i></p>	5	3
<b>TOTAL - The School Site</b>		<b>100</b>	<b>56</b>

## 2.0 Structural and Mechanical Features

### School Facility Appraisal

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Structural	Points Allocated	Points
2.1 Structure meets all <b>barrier-free</b> requirements both externally and internally <i>The 1949 Original Construction and 1973 Addition do not meet all ADA requirements. The 2006 Addition meets all ADA requirements.</i>	15	7
2.2 <b>Roofs</b> appear sound, have positive drainage, and are weather tight <i>The roofs over portions of the building are in fair condition. The roofs over other portions are in fair condition, and require replacement due to the age of the system.</i>	15	8
2.3 <b>Foundations</b> are strong and stable with no observable cracks <i>Foundations are in good condition with no observable cracks.</i>	10	9
2.4 <b>Exterior and interior walls</b> have sufficient expansion joints and are free of deterioration <i>Exterior and interior walls are in good condition, have sufficient control and expansion joints, and are free from deterioration.</i>	10	8
2.5 <b>Entrances and exits</b> are located so as to permit efficient student traffic flow <i>Corridor/building layout does not provide an efficient means of circulation throughout the building.</i>	10	6
2.6 <b>Building "envelope"</b> generally provides for energy conservation (see criteria) <i>Building envelope does not meet minimum energy conservation requirements.</i>	10	6
2.7 Structure is <b>free of friable asbestos</b> and <b>toxic materials</b> <i>The building is reported to contain asbestos and other hazardous materials.</i>	10	5
2.8 Interior walls permit sufficient <b>flexibility</b> for a variety of class sizes <i>Interior walls throughout the facility are mostly fixed walls and are not flexible. One Classroom is equipped with a flexible partition, allowing the Classroom to double in size if needed.</i>	10	6

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Mechanical/Electrical	Points Allocated	Points
2.9 <b>Adequate light sources</b> are well maintained, and properly placed and are not subject to overheating <i>Light sources are improperly placed and provide inadequate lighting in some areas. Fixtures are well maintained in most areas. Light fixtures do not appear to be subject to overheating.</i>	15	6
2.10 <b>Internal water supply</b> is adequate with sufficient pressure to meet health and safety requirements <i>Internal water supply will not support a future fire suppression system, but is adequate for current requirements.</i>	15	6
2.11 Each teaching/learning area has adequate convenient <b>wall outlets</b> , phone and computer cabling for technology applications <i>Classrooms have an inadequate number of outlets and data jacks for technology applications.</i>	15	2

2.12	<b>Electrical controls</b> are safely protected with <b>disconnect switches</b> easily accessible <i>Disconnect switches are provided in required easily accessible locations to allow for safe servicing of equipment.</i>	10	8
2.13	<b>Drinking fountains</b> are adequate in number and placement, and are properly maintained including provisions for the disabled <i>Drinking fountains are not adequate in number, placement, and do not meet ADA requirements. Drinking fountains are properly maintained.</i>	10	4
2.14	Number and size of <b>restrooms meet requirements</b> <i>The number and size of Restrooms meet requirements.</i>	10	9
2.15	<b>Drainage systems</b> are properly maintained and meet requirements <i>Drainage systems exhibit some signs of past leakage and repairs.</i>	10	7
2.16	<b>Fire alarms, smoke detectors, and sprinkler systems</b> are properly maintained and meet requirements <i>The facility is not sprinkled. Fire alarm systems are not provided with all required devices. Smoke detectors are inadequately provided.</i>	10	6
2.17	<b>Intercommunication system</b> consists of a central unit that allows dependable <b>two-way communication</b> between the office and instructional areas <i>The central intercommunication system provides reliable communication between the Administration area and all teaching/learning areas.</i>	10	8
2.18	<b>Exterior water supply</b> is sufficient and available for normal usage <i>Exterior wall hydrants are inadequately provided around the exterior of the facility.</i>	5	3
<b>TOTAL - Structural and Mechanical Features</b>		<b>200</b>	<b>114</b>

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### 3.0 Plant Maintainability

School Facility Appraisal

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	Points Allocated	Points
3.1 <b>Windows, doors, and walls</b> are of material and finish requiring minimum maintenance <i>Exterior materials for walls require minimum maintenance. Materials and finishes for doors and windows require some maintenance.</i>	15	9
3.2 <b>Floor surfaces</b> throughout the building require minimum care <i>Flooring throughout the facility consists of VCT, wood, terrazzo, sealed concrete, and marmoleum, which is somewhat well maintained throughout the facility.</i>	15	10
3.3 <b>Ceilings and walls</b> throughout the building, including service areas, are easily cleaned and resistant to stain <i>Painted block and glazed block is easily cleaned and resistant to stain. Acoustical tile ceilings are not easily cleaned or resistant to stain.</i>	10	7
3.4 <b>Built-in equipment</b> is designed and constructed for ease of maintenance <i>Casework is wood type construction with plastic laminate tops, is well constructed and in ranges from good to poor condition.</i>	10	6
3.5 <b>Finishes and hardware</b> , with compatible keying system, are of durable quality <i>Door hardware is consistent throughout the facility, and meets ADA requirements.</i>	10	6
3.6 <b>Restroom fixtures</b> are wall mounted and of quality finish <i>Fixtures are wall and floor mounted and are of good to fair quality.</i>	10	6
3.7 Adequate <b>custodial storage space</b> with water and drain is accessible throughout the building <i>Custodial storage space is adequately located throughout the facility, including provisions for water and drains.</i>	10	10
3.8 Adequate <b>electrical outlets and power</b> , to permit routine cleaning, are available in every area <i>Electrical outlets are adequately provided in Corridors and allow for convenient routine cleaning.</i>	10	8
3.9 <b>Outdoor light fixtures, electrical outlets</b> , equipment, and other fixtures are accessible for repair and replacement <i>Outdoor light fixtures are provided inadequately, but are accessible for repair and replacement. Electrical outlets are inadequately provided around the exterior of the facility.</i>	10	2
<b>TOTAL - Plant Maintainability</b>	<b>100</b>	<b>64</b>

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## 4.0 Building Safety and Security

### School Facility Appraisal

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Site Safety	Points Allocated	Points
4.1 <b>Student loading areas</b> are segregated from other vehicular traffic and pedestrian walkways <i>Student loading occurs in the street, and is not separated from other vehicular traffic.</i>	15	6
4.2 <b>Walkways</b> , both on and offsite, are available for safety of pedestrians <i>Walkways are adequately provided both on and off-site for pedestrian safety.</i>	10	8
4.3 <b>Access streets</b> have sufficient signals and signs to permit safe entrance to and exit from school area <i>School signs are located as required on adjacent access streets.</i>	5	4
4.4 <b>Vehicular entrances and exits</b> permit safe traffic flow <i>Buses load and unload on the street. Other vehicular traffic is provided only one entrance and exit point to the site, which does not provide safe vehicular traffic flow.</i>	5	2
4.5    ES <b>Playground equipment</b> is free from hazard MS        Location and types of <b>intramural equipment</b> are free from hazard HS <b>Athletic field equipment</b> is properly located and is free from hazard <i>Playground equipment consists of coated steel and high density plastic type equipment in good to fair condition, appears to be free from hazard, and is located on an approved soft surface material to a sufficient depth.</i>	5	4

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Building Safety	Points Allocated	Points
4.6 <b>The heating unit(s)</b> is located away from student occupied areas <i>Heating boilers are located in rooms that are not accessible by students. Unit ventilators are located in the Classrooms and other learning areas.</i>	20	10
4.7            Multi-story buildings have at least <b>two stairways</b> for student egress <i>The building does have 2 stairways, which are not enclosed and are not fully ADA and OBC compliant.</i>	15	8
4.8 <b>Exterior doors</b> open outward and are equipped with panic hardware <i>Exterior doors open in the direction of travel and are equipped with panic hardware.</i>	10	8
4.9 <b>Emergency lighting</b> is provided throughout the entire building with exit signs on separate electrical circuits <i>Emergency light fixtures and exit signs are not on separate circuits and are inadequately provided.</i>	10	4
4.10 <b>Classroom doors</b> are recessed and open outward <i>Classroom doors are both recessed and not recessed from the Corridor. Doors open outward, but do not impede traffic flow in the Corridors.</i>	10	7
4.11 <b>Building security systems</b> are provided to assure uninterrupted operation of the educational program	10	2

Security systems are inadequately provided and are in fair condition.

4.12	<b>Flooring</b> (including ramps and stairways) is maintained in a non-slip condition  <i>Terrazzo and VCT flooring has been well maintained throughout the facility. Main stairways are not maintained in a non-slip condition.</i>	5	3
4.13	<b>Stair risers</b> (interior and exterior) do not exceed 6 1/2 inches and range in number from 3 - 16  <i>Stair treads and risers are properly designed and meet requirements. Stair risers do not exceed 7 inches permitted by the OBC. The 1973 Addition and 2006 Addition are one story without stairways.</i>	5	4
4.14	<b>Glass</b> is properly located and protected with wire or safety material to prevent accidental student injury  <i>Glass at door transoms and sidelights is tempered for safety.</i>	5	4
4.15	<b>Fixed Projections</b> in the traffic areas do not extend more than eight inches from the corridor wall  <i>Drinking fountains and electric water coolers are not recessed in the Corridor wall. Corridors are wide enough so that non-recessed fixture does not impede traffic flow in Corridors.</i>	5	4
4.16	<b>Traffic areas</b> terminate at an exit or a stairway leading to an egress  <i>Exits are properly located to allow safe egress from the building. Entry and exit points to the building have been adequately provided. Corridor and building layout does provide an efficient means of circulation throughout the building. There are no dead-end Corridors in the building. Stairways are not enclosed.</i>	5	4

**Emergency Safety**

Points Allocated      Points

4.17	Adequate <b>fire safety equipment</b> is properly located  <i>The facility is not sprinkled. Fire alarm devices are not provided adequately. Fire extinguishers are not adequately provided.</i>	15	2
4.18	There are at least <b>two independent exits</b> from any point in the building  <i>Multiple exits are provided from Corridors throughout the facility. There are no dead-end Corridors in the building.</i>	15	13
4.19	<b>Fire-resistant materials</b> are used throughout the structure  <i>The structure is a masonry load bearing system with steel joist and concrete deck. Interior walls are masonry. Finishes comply with OBBC requirements.</i>	15	12
4.20	Automatic and manual <b>emergency alarm system</b> with a distinctive sound and flashing light is provided  <i>The fire alarm is provided with manual and automatic actuation, but is not provided with all required fire alarm devices.</i>	15	4

**TOTAL - Building Safety and Security**

**200**

**113**

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## 5.0 Educational Adequacy

### School Facility Appraisal

Academic Learning Space		Points Allocated	Points
5.1	<p><b>Size of academic learning areas</b> meets desirable standards</p> <p><i>The average Classroom is 900 SF compared to 900 SF required by the OSDM.</i></p>	25	25
5.2	<p><b>Classroom space</b> permits arrangements for small group activity</p> <p><i>Classrooms are large enough to allow effective small group activity spaces.</i></p>	15	12
5.3	<p><b>Location of academic learning areas</b> is near related educational activities and away from disruptive noise</p> <p><i>The Gymnasium and Music program are properly isolated from the academic learning areas to reduce distractions.</i></p>	10	8
5.4	<p><b>Personal space</b> in the classroom away from group instruction allows privacy time for individual students</p> <p><i>Classrooms are large enough to allow privacy time for individual students.</i></p>	10	8
5.5	<p><b>Storage for student materials</b> is adequate</p> <p><i>Lockers, located in both the Corridors and some Classrooms are adequately provided and in fair condition. Classroom storage cubbies, located in some of the Classrooms, are adequately provided, and in fair condition.</i></p>	10	8
5.6	<p><b>Storage for teacher materials</b> is adequate</p> <p><i>Casework is adequately provided for storage of teacher materials, and ranges from good to poor condition.</i></p>	10	6

Special Learning Space		Points Allocated	Points
5.7	<p><b>Size of special learning area(s)</b> meets standards</p> <p><i>The Special Education Classroom is 1,145 SF compared to 900 SF recommended in the OSDM, and is equipped with a flexible partition which provides an option for multiple Special Education spaces.</i></p>	15	12
5.8	<p><b>Design of specialized learning area(s)</b> is compatible with instructional need</p> <p><i>Special Education spaces are properly designed to meet instructional needs.</i></p>	10	8
5.9	<p><b>Library/Resource/Media Center</b> provides appropriate and attractive space</p> <p><i>The Media Center is 1,303 SF compared to 786 SF recommended in the OSDM. The Media Center is an attractive space, including natural light and sufficient book storage space.</i></p>	10	10
5.10	<p><b>Gymnasium (or covered P.E. area)</b> adequately serves physical education instruction</p> <p><i>The Gymnasium is 2,853 SF compared to 3,500-10,000 SF recommended in the OSDM. The Gymnasium is undersized for effective physical education instruction.</i></p>	5	2
5.11	<p>ES <b>Pre-kindergarten and kindergarten space</b> is appropriate for age of students and nature of instruction</p> <p>MS/HS <b>Science</b> program is provided sufficient space and equipment</p>	10	8

Pre-K and Kindergarten spaces are adequate for age of students served.

5.12	<b>Music Program</b> is provided adequate sound treated space	5	3
	<i>The Music Room is 844 SF compared to 1,800-3,000 recommended in the OSDM. Music instruction is provided in a standard Classroom, but includes acoustic panels on walls and ceilings.</i>		
5.13	<b>Space for art</b> is appropriate for special instruction, supplies, and equipment	5	3
	<i>The Art Room is 391 SF compared to 1,200 SF recommended in the OSDM. The Art Room also utilizes the Student Dining space, which is adjacent to the Art Room and 1,709 SF. A flexible partition is provided between the two areas.</i>		

<b>School Facility Appraisal</b>	Points Allocated	Points	
5.14	<b>Space for technology education</b> permits use of state-of-the-art equipment	5	4
	<i>The facility is provided with Computer Labs for student use.</i>		
5.15	Space for <b>small groups and remedial instruction</b> is provided adjacent to classrooms	5	2
	<i>No spaces have been provided adjacent to Classrooms for small groups or remedial instruction.</i>		
5.16	<b>Storage for student and teacher material</b> is adequate	5	3
	<i>Lockers have been adequately provided for storage of student materials. Casework has been adequately provided for storage of teacher materials.</i>		

<b>Support Space</b>	Points Allocated	Points	
5.17	<b>Teacher's lounge and work areas</b> reflect teachers as professionals	10	6
	<i>The Teacher's Lounge is 217 SF compared to 450-900 SF, for 8-24 staff, recommended in the OSDM. Limited work space is provided for preparation of teacher materials.</i>		
5.18	<b>Cafeteria/Kitchen</b> is attractive with sufficient space for seating/dining, delivery, storage, and food preparation	10	5
	<i>The Student Dining space is 1,709 SF compared to 3,000 SF recommended in the OSDM. The Warming Kitchen space is 734 SF compared to 524 SF recommended in the OSDM. The Student Dining space has limited visual appeal with limited seating capacity.</i>		
5.19	<b>Administrative offices</b> provided are consistent in appearance and function with the maturity of the students served	5	3
	<i>Administrative Offices are adequately provided for Elementary School students, although spaces are located throughout the building and not centrally located.</i>		
5.20	<b>Counselor's office</b> insures privacy and sufficient storage	5	3
	<i>The Counselor's Office is 117 SF compared to 120 SF, plus 100 SF for Storage and 200 SF for Conference, recommended in the OSDM. The space provided for the Counselor does insure privacy, but lacks sufficient storage space.</i>		
5.21	<b>Clinic</b> is near administrative offices and is equipped to meet requirements	5	3
	<i>The Clinic is 190 SF compared to 370 SF recommended in the OSDM. The Clinic is located within the Administrative Offices and is provided with required equipment.</i>		
5.22	<b>Suitable reception space</b> is available for students, teachers, and visitors	5	4
	<i>Reception space consists of approximately 264 SF compared to 200-400 SF recommended by the OSDM.</i>		



5.23 **Administrative personnel** are provided **sufficient work space and privacy** 5 2

*The Administrative area consists of approximately 1,142 SF for the principal, assistant principal, secretary, Conference Room, Storage, Copy Room, and Restroom, compared to 2,600 SF recommended by the OSDM.*

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**TOTAL - Educational Adequacy** 200 148

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## 6.0 Environment for Education

### School Facility Appraisal

Exterior Environment	Points Allocated	Points
6.1 Overall <b>design is aesthetically pleasing</b> to age of students <i>The building is a traditional design with classical detailing, which is aesthetically pleasing.</i>	15	9
6.2 Site and building are <b>well landscaped</b> <i>The site is moderately landscaped with mature shade trees, ornamental trees, and shrubs which define the property and emphasize the building entrance. Lawn areas where mowing is required do not exceed 3:1 slope.</i>	10	8
6.3 <b>Exterior noise and poor environment</b> do not disrupt learning <i>The site is adjacent to residential uses, and there are no undesirable features adjacent to the school site.</i>	10	8
6.4 <b>Entrances and walkways are sheltered</b> from sun and inclement weather <i>Exits are partially sheltered from sun and inclement weather.</i>	10	4
6.5 <b>Building materials</b> provide attractive color and texture <i>Exterior building materials consist of brick and stone, which does provide an attractive color and texture. Interior building materials consist of glazed block and painted concrete block which does provide an attractive color and texture.</i>	5	3

Interior Environment	Points Allocated	Points
6.6 <b>Color schemes, building materials, and decor</b> provide an impetus to learning <i>Overall building design and materials reflect a dated décor which does not enhance learning.</i>	20	8
6.7 <b>Year around comfortable temperature and humidity</b> are provided throughout the building <i>The facility is not air conditioned to provide year-round temperature and humidity control.</i>	15	2
6.8 <b>Ventilating system</b> provides adequate quiet circulation of clean air and meets 15cfm VBC requirement <i>The ventilating systems do not provide an adequate quantity of ventilation air to the spaces. Ventilation systems introduce minimal noise into the teaching and learning areas.</i>	15	4
6.9 <b>Lighting system</b> provides proper intensity, diffusion, and distribution of illumination <i>The lighting system does not provide proper intensity in some areas. Location of lighting fixtures provides uneven distribution of illumination. Diffusion of illumination is adequately provided by the light fixture lenses.</i>	15	8
6.10 <b>Drinking fountains and restroom facilities</b> are conveniently located <i>Drinking fountains are not conveniently located and Restroom facilities are conveniently located.</i>	15	9
6.11 <b>Communication among students</b> is enhanced by commons area(s) for socialization <i>There are areas for students to gather in the Student Dining area and Gymnasium, as well as a small gathering area at the entrance to the school.</i>	10	8

6.12	<b>Traffic flow</b> is aided by appropriate foyers and corridors <i>Corridors and Foyers are adequately designed for efficient traffic flow. Classroom doorways are not recessed, but do not impede traffic flow. Entry and exit points to the building have been adequately provided. Corridor and building layout does provide an efficient means of circulation throughout the building.</i>	10	8
6.13	<b>Areas for students to interact</b> are suitable to the age group <i>There are areas for students to gather in the Student Dining area and Gymnasium, as well as a small gathering area at the entrance to the school.</i>	10	8
6.14	<b>Large group areas are designed</b> for effective management of students <i>The Gymnasium is undersized to allow effective management of large groups of students.</i>	10	5
6.15	<b>Acoustical treatment</b> of ceilings, walls, and floors provides effective sound control <i>Existing Student Dining and Music spaces are adequately provided with appropriate sound attenuation acoustical surface treatments. Existing Gymnasium and Media Center spaces are inadequately provided with appropriate sound attenuation acoustical surface treatments.</i>	10	6
6.16	<b>Window design</b> contributes to a pleasant environment <i>The windows are fairly well designed to contribute to a pleasant environment.</i>	10	6
6.17	<b>Furniture and equipment</b> provide a pleasing atmosphere <i>Classroom furniture is mismatched and in fair condition.</i>	10	6
<b>TOTAL - Environment for Education</b>		<b>200</b>	<b>110</b>

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# LEED Observation Notes

<b>School District:</b>	Troy City
<b>County:</b>	Miami
<b>School District IRN:</b>	44925
<b>Building:</b>	Forest Elementary
<b>Building IRN:</b>	11924

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## 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)

The amount of asphalt contributes to the heat island effect for non-roofs (see SS Credit 7.1). Open space is effectively maximized at this urban site (see SS Credit 5.2). The size of the parking area exceeds the amount required with 32 spaces provided and 29 spaces required (see SS Credit 4.4). Reducing the amount of redundant asphalt and providing softer landscape elements including grasses, shrubs and flora, would contribute to a reduction in the heat island effect. Most of the roof surfaces have high reflectance and low thermal emittance, which helps mitigate the heat island effect.

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## 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)

Currently there are no overall facility measures to reduce wastewater or water usage. The site is in an urban area with limited areas of grass, deciduous trees, conifers, shrubs and area of flora. The overall facility does not contain water-efficient fixtures or appliances to meet LEED requirements. Battery operated or electrical flush sensors on the fixtures could provide reduced water use. Use of non-potable water on landscape is another area where reduced water usage could be utilized.

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## 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)

The overall facility is equipped with HVAC equipment that, due to age, condition, and inefficiency, does not provide appropriate energy controls or recovery to meet LEED requirements. Most equipment in the overall facility is natural gas fired, but could be updated to electric fired. The District does not produce their own energy or buy energy credits to meet LEED requirements. The site is such that some measure of solar panel installation could be accomplished. By replacing all light switches in the facility with sensor switches, the school would see a reduction in the energy usage and, subsequently, a cost savings as well.

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## 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 them 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)

The facility provides storage and collection of recyclables (see MR Prerequisite 1). By providing containers designated for the collection of paper, plastic and glass bottles and cans reduces the solid waste impact on the environment and is a simple way to achieve LEED credits.

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## 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)

Corridors and Classrooms feature hard, easy to clean surfaces, but do not provide acoustical measure other than ceiling tile (see EQ Credit 9). The overall facility is equipped with HVAC equipment that, due to age, condition, and inefficiency, does not provide appropriate indoor air quality or controls to meet LEED requirements. Existing site and building layout, along with existing window opening sizes, may make achieving LEED credits for this section difficult and costly.

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## 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)

This facility does not implement innovative building features or sustainable building knowledge which is needed to exceed results that are required by the LEED Rating System.

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***Justification for Allocation of Points***

Building Name and Level: **Forest Elementary**

**K-5**

**Building features that clearly exceed criteria:**

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

**Building features that are non-existent or very inadequate:**

1. The facility is reported to contain asbestos.
2. The facility is not fully ADA compliant.
3. The facility is not equipped with an automated fire suppression system.
4. The facility is not equipped with a compliant security system.
- 5.
- 6.

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# Environmental Hazards Assessment Cost Estimates

<b>Owner:</b>	Troy City
<b>Facility:</b>	Forest Elementary
<b>Date of Initial Assessment:</b>	Aug 6, 2016
<b>Date of Assessment Update:</b>	Dec 11, 2016
<b>Cost Set:</b>	2016

<b>District IRN:</b>	44925
<b>Building IRN:</b>	11924
<b>Firm:</b>	SBDP

**Scope remains unchanged after cost updates.**

Building Addition	Addition Area (sf)	Total of Environmental Hazards Assessment Cost Estimates	
		Renovation	Demolition
1949 Original Construction	44,096	\$700.00	\$0.00
1973 Office Addition	1,090	\$0.00	\$0.00
2006 Kindergarten Addition	1,461	\$0.00	\$0.00
<b>Total</b>	<b>46,647</b>	<b>\$700.00</b>	<b>\$0.00</b>
Total with Regional Cost Factor (97.49%)	—	\$682.43	\$0.00
<b>Regional Total with Soft Costs &amp; Contingency</b>	<b>—</b>	<b>\$849.15</b>	<b>\$0.00</b>