

Building Information - Willoughby-Eastlake City SD (45104) - Royalview Elementary School

Program Type	Expedited Local Partnership Program (ELPP)
Setting	Suburban
Assessment Name	Royalview E_2010_TCI
Assessment Date	2010-03-16
Cost Set:	2010
Building Name	Royalview Elementary School
Building IRN	32904
Building Address	31500 Royalview Dr
Building City	Willowick
Building Zipcode	44094
Building Phone	440/944-3130
Acreage	9.00
Current Grades	K-5
Teaching Stations	47
Number of Floors	2
Student Capacity	1175
Current Enrollment	829
Enrollment Date	2010-04-01
Enrollment Date is the date in which the current enrollment was taken.	
Number of Classrooms	47
Historical Register	NO
Building's Principal	Ms. Tamee Tucker
Building Type	Elementary

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North elevation photo:



East elevation photo:



South elevation photo:



West elevation photo:



GENERAL DESCRIPTION

85,554 Total Existing Square Footage
1956,1958,1962,1966 Building Dates
K-5 Grades
829 Current Enrollment
47 Teaching Stations
9.00 Site Acreage

Royalview Elementary, which is not on the National Register of Historic Buildings, and originally constructed in 1956, is a 2 story, 85,554 square foot brick school building located in a suburban residential setting. The existing facility features a conventionally partitioned design, and does not utilize modular buildings. The structure of the overall facility contains steel frame brick veneer exterior wall construction, with concrete block wall construction in the interior. The floor system consists of slab on grade first floor with metal deck and joist system on the second floor. The roof structure is primarily metal deck and bar joist. The roofing system of the overall facility is built-up asphalt with gravel ballast, installed in 1956. The ventilation system of the building is inadequate to 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 Multipurpose space. The electrical system for the facility is inadequate. The facility is not equipped with a compliant security. The building does have a compliant automatic fire alarm system. The facility is not equipped with an automated fire suppression system. The building is reported to contain asbestos and other hazardous materials. The overall building is not compliant with ADA accessibility requirements. The school is located on 9 acres of a 27.7 campus site shared with and adjoined to Willowick Middle School adjacent to residential properties. The property and playgrounds and play areas athletic facilities are partially fenced for security. Access onto the site is unrestricted. Site circulation is fair / poor. There is dedicated space for school buses to load and unload on the site. Parking for staff, visitors and community events is adequate.

The overall facility roof is the original system and is failing in several areas. The canopy on the north side of the 1966 Addition is visually unlevel. Beams are substantially rusted and the foundation has settled unlevel.

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Building Construction Information - Willoughby-Eastlake City SD (45104) - Royalview Elementary School (32904)

Name	Year	Handicapped Access	Floors	Square Feet
1956 Original	1956	no	1	27,967
1958 Addition	1958	no	1	10,658
1962 Addition	1962	no	1	4,360
1966 Addition	1966	no	2	42,569

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Building Component Information - Willoughby-Eastlake City SD (45104) - Royalview Elementary School (32904)

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
1956 Original (1956)		5188												
1958 Addition (1958)		1386												
1962 Addition (1962)		566												
1966 Addition (1966)		8923		3529	2041			389						
Master Planning Considerations														

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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 - Royalview Elementary School (32904)

District: Willoughby-Eastlake City SD				County: Lake		Area: Northeastern Ohio (8)	
Name: Royalview Elementary School				Contact: Ms. Tamee Tucker			
Address: 31500 Royalview Dr Willowick, OH 44094				Phone: 440/944-3130			
Bldg. IRN: 32904				Date Prepared: 2010-03-16		By: Karen L Walker	
				Date Revised: 2010-06-23		By: Karen L Walker	
Current Grades		K-5	Acreage:	9.00	CEFPI Appraisal Summary		
Proposed Grades		N/A	Teaching Stations:	47			
Current Enrollment		829	Classrooms:	47			
Projected Enrollment		N/A					
Addition		Date	HA	Number of Floors	Current Square Feet		
1956 Original		1956	no	1	27,967		
1958 Addition		1958	no	1	10,658		
1962 Addition		1962	no	1	4,360		
1966 Addition		1966	no	2	42,569		
Total					85,554		
*HA		=		Handicapped Access			
*Rating		=1		Satisfactory			
		=2		Needs Repair			
		=3		Needs Replacement			
*Const P/S		=		Present/Scheduled Construction			
FACILITY ASSESSMENT				Rating	Dollar	C	
Cost Set: 2010					Assessment		
A. Heating System				3	\$2,780,505.00	Renovation Cost Factor	
B. Roofing				3	\$1,006,108.29	Cost to Renovate (Cost Factor applied)	
C. Ventilation / Air Conditioning				1	\$5,000.00	\$15,342,115.45	
D. Electrical Systems				3	\$1,481,795.28	The Replacement Cost Per SF and the Renovate/Replace ratio are only provided when this summary is requested from a Master Plan.	
E. Plumbing and Fixtures				3	\$1,050,078.00		
F. Windows				3	\$596,766.04		
G. Structure: Foundation				2	\$20,000.00		
H. Structure: Walls and Chimneys				2	\$110,563.00		
I. Structure: Floors and Roofs				1	\$0.00		
J. General Finishes				3	\$1,302,099.20		
K. Interior Lighting				3	\$427,770.00		
L. Security Systems				3	\$235,273.50		
M. Emergency/Egress Lighting				3	\$85,554.00		
N. Fire Alarm				3	\$128,331.00		
O. Handicapped Access				2	\$608,800.40		
P. Site Condition				2	\$335,592.70		
Q. Sewage System				3	\$90,000.00		
R. Water Supply				3	\$80,000.00		
S. Exterior Doors				3	\$56,000.00		
T. Hazardous Material				3	\$194,590.00		
U. Life Safety				3	\$328,050.50		
V. Loose Furnishings				2	\$256,662.00		
W. Technology				3	\$657,910.26		
X. Construction Contingency / Non-Construction Cost				-	\$2,891,924.34		
Total					\$14,729,373.51		

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1956 Original (1956) Summary

District: Willoughby-Eastlake City SD				County: Lake		Area: Northeastern Ohio (8)		
Name: Royalview Elementary School				Contact: Ms. Tamee Tucker				
Address: 31500 Royalview Dr Willowick, OH 44094				Phone: 440/944-3130				
Bldg. IRN: 32904				Date Prepared: 2010-03-16		By: Karen L Walker		
				Date Revised: 2010-06-23		By: Karen L Walker		
Current Grades		K-5	Acreage:		9.00			
Proposed Grades		N/A	Teaching Stations:		47			
Current Enrollment		829	Classrooms:		47			
Projected Enrollment		N/A						
Addition				CEFPI Appraisal Summary				
Date	HA	Number of Floors	Current Square Feet		Section			
1956 Original	1956 no	1	27,967		Points Possible			
1958 Addition	1958 no	1	10,658		Points Earned			
1962 Addition	1962 no	1	4,360		Percentage			
1966 Addition	1966 no	2	42,569		Rating			
Total				85,554		Category		
*HA = Handicapped Access				1.0 The School Site				
*Rating =1 Satisfactory				2.0 Structural and Mechanical Features				
=2 Needs Repair				3.0 Plant Maintainability				
=3 Needs Replacement				4.0 Building Safety and Security				
*Const P/S = Present/Scheduled Construction				5.0 Educational Adequacy				
				6.0 Environment for Education				
				LEED Observations				
				Commentary				
				Total				
				Enhanced Environmental Hazards Assessment Cost Estimates				
				C=Under Contract				
FACILITY ASSESSMENT				Cost Set: 2010				
			Rating	Dollar Assessment				
A.	Heating System		3	\$908,927.50	Renovation Cost Factor			
B.	Roofing		3	\$430,317.35	Cost to Renovate (Cost Factor applied)			
C.	Ventilation / Air Conditioning		1	\$5,000.00	104.16%			
D.	Electrical Systems		3	\$484,388.44	\$5,609,275.06			
E.	Plumbing and Fixtures		3	\$467,069.00	<i>The Replacement Cost Per SF and the Renovate/Replace ratio are only provided when this summary is requested from a Master Plan.</i>			
F.	Windows		3	\$273,196.90				
G.	Structure: Foundation		2	\$0.00				
H.	Structure: Walls and Chimneys		2	\$56,397.50				
I.	Structure: Floors and Roofs		1	\$0.00				
J.	General Finishes		3	\$434,851.60				
K.	Interior Lighting		3	\$139,835.00				
L.	Security Systems		3	\$76,909.25				
M.	Emergency/Egress Lighting		3	\$27,967.00				
N.	Fire Alarm		3	\$41,950.50				
O.	Handicapped Access		2	\$198,791.70				
P.	Site Condition		2	\$249,212.20				
Q.	Sewage System		3	\$22,500.00				
R.	Water Supply		3	\$20,000.00				
S.	Exterior Doors		3	\$36,000.00				
T.	Hazardous Material		3	\$64,750.00				
U.	Life Safety		3	\$90,892.75				
V.	Loose Furnishings		2	\$83,901.00				
W.	Technology		3	\$215,066.23				
- X.	Construction Contingency / Non-Construction Cost		-	\$1,057,324.80				
Total				\$5,385,248.72				

1958 Addition (1958) Summary

District: Willoughby-Eastlake City SD				County: Lake		Area: Northeastern Ohio (8)	
Name: Royalview Elementary School				Contact: Ms. Tamee Tucker			
Address: 31500 Royalview Dr Willowick, OH 44094				Phone: 440/944-3130			
Bldg. IRN: 32904				Date Prepared: 2010-03-16		By: Karen L Walker	
				Date Revised: 2010-06-23		By: Karen L Walker	
Current Grades		K-5	Acreage:		9.00		
Proposed Grades		N/A	Teaching Stations:		47		
Current Enrollment		829	Classrooms:		47		
Projected Enrollment		N/A					
Addition				CEFPI Appraisal Summary			
Date	HA	Number of Floors	Current Square Feet				
1956 Original	1956	no	1	27,967			
1958 Addition	1958	no	1	10,658			
1962 Addition	1962	no	1	4,360			
1966 Addition	1966	no	2	42,569			
Total			85,554				
*HA = Handicapped Access							
*Rating =1 Satisfactory							
=2 Needs Repair							
=3 Needs Replacement							
*Const P/S = Present/Scheduled Construction							
FACILITY ASSESSMENT				Section			
Cost Set: 2010				Points Possible			
Rating				Points Earned			
Dollar Assessment				Percentage			
C				Rating			
				Category			
A. Heating System				1.0 The School Site			
B. Roofing				2.0 Structural and Mechanical Features			
C. Ventilation / Air Conditioning				3.0 Plant Maintainability			
D. Electrical Systems				4.0 Building Safety and Security			
E. Plumbing and Fixtures				5.0 Educational Adequacy			
F. Windows				6.0 Environment for Education			
G. Structure: Foundation				LEED Observations			
H. Structure: Walls and Chimneys				Commentary			
I. Structure: Floors and Roofs				Total			
J. General Finishes				Enhanced Environmental Hazards Assessment Cost Estimates			
K. Interior Lighting				C=Under Contract			
L. Security Systems				Renovation Cost Factor			
M. Emergency/Egress Lighting				Cost to Renovate (Cost Factor applied)			
N. Fire Alarm				The Replacement Cost Per SF and the Renovate/Replace ratio are only provided when this summary is requested from a Master Plan.			
O. Handicapped Access							
P. Site Condition							
Q. Sewage System							
R. Water Supply							
S. Exterior Doors							
T. Hazardous Material							
U. Life Safety							
V. Loose Furnishings							
W. Technology							
X. Construction Contingency / Non-Construction Cost							
Total				\$1,854,413.69			

1962 Addition (1962) Summary

District: Willoughby-Eastlake City SD				County: Lake		Area: Northeastern Ohio (8)	
Name: Royalview Elementary School				Contact: Ms. Tamee Tucker			
Address: 31500 Royalview Dr Willowick, OH 44094				Phone: 440/944-3130			
Bldg. IRN: 32904				Date Prepared: 2010-03-16		By: Karen L Walker	
				Date Revised: 2010-06-23		By: Karen L Walker	
Current Grades		K-5	Acreage:		9.00		
Proposed Grades		N/A	Teaching Stations:		47		
Current Enrollment		829	Classrooms:		47		
Projected Enrollment		N/A					
Addition		Date	HA	Number of Floors	Current Square Feet		
<u>1956 Original</u>		1956	no	1	27,967		
<u>1958 Addition</u>		1958	no	1	10,658		
1962 Addition		1962	no	1	4,360		
<u>1966 Addition</u>		1966	no	2	42,569		
Total					85,554		
*HA =		Handicapped Access					
*Rating =1		Satisfactory					
=2		Needs Repair					
=3		Needs Replacement					
*Const P/S =		Present/Scheduled Construction					
FACILITY ASSESSMENT Cost Set: 2010				Rating	Dollar	Assessment C	
A. <u>Heating System</u>				3	\$141,700.00	-	
B. <u>Roofing</u>				3	\$68,369.70	-	
C. <u>Ventilation / Air Conditioning</u>				1	\$0.00	-	
D. <u>Electrical Systems</u>				3	\$75,515.20	-	
E. <u>Plumbing and Fixtures</u>				3	\$35,620.00	-	
F. <u>Windows</u>				3	\$52,474.90	-	
G. Structure: Foundation				2	\$0.00	-	
H. <u>Structure: Walls and Chimneys</u>				2	\$4,988.50	-	
I. <u>Structure: Floors and Roofs</u>				1	\$0.00	-	
J. <u>General Finishes</u>				3	\$64,528.00	-	
K. <u>Interior Lighting</u>				3	\$21,800.00	-	
L. <u>Security Systems</u>				3	\$11,990.00	-	
M. <u>Emergency/Egress Lighting</u>				3	\$4,360.00	-	
N. <u>Fire Alarm</u>				3	\$6,540.00	-	
O. <u>Handicapped Access</u>				2	\$24,836.00	-	
P. <u>Site Condition</u>				2	\$6,540.00	-	
Q. <u>Sewage System</u>				3	\$22,500.00	-	
R. <u>Water Supply</u>				3	\$20,000.00	-	
S. Exterior Doors				3	\$0.00	-	
T. <u>Hazardous Material</u>				3	\$9,810.00	-	
U. <u>Life Safety</u>				3	\$14,170.00	-	
V. <u>Loose Furnishings</u>				2	\$13,080.00	-	
W. <u>Technology</u>				3	\$33,528.40	-	
- X. <u>Construction Contingency / Non-Construction Cost</u>				-	\$154,485.17	-	
Total					\$786,835.87		
CEFPI Appraisal Summary							
Section		Points Possible	Points Earned	Percentage	Rating	Category	
<u>Cover Sheet</u>							
1.0 <u>The School Site</u>		100	71	71%	Satisfactory		
2.0 <u>Structural and Mechanical Features</u>		200	105	53%	Borderline		
3.0 <u>Plant Maintainability</u>		100	65	65%	Borderline		
4.0 <u>Building Safety and Security</u>		200	153	77%	Satisfactory		
5.0 <u>Educational Adequacy</u>		200	140	70%	Satisfactory		
6.0 <u>Environment for Education</u>		200	139	70%	Satisfactory		
<u>LEED Observations</u>							
<u>Commentary</u>							
Total		1000	673	67%	Borderline		
<u>Enhanced Environmental Hazards Assessment Cost Estimates</u>							
C=Under Contract							
Renovation Cost Factor						104.16%	
Cost to Renovate (Cost Factor applied)						\$819,568.25	
<i>The Replacement Cost Per SF and the Renovate/Replace ratio are only provided when this summary is requested from a Master Plan.</i>							

1966 Addition (1966) Summary

District: Willoughby-Eastlake City SD				County: Lake		Area: Northeastern Ohio (8)			
Name: Royalview Elementary School				Contact: Ms. Tamee Tucker					
Address: 31500 Royalview Dr Willowick, OH 44094				Phone: 440/944-3130					
Bldg. IRN: 32904				Date Prepared: 2010-03-16		By: Karen L Walker			
				Date Revised: 2010-06-23		By: Karen L Walker			
Current Grades		K-5	Acreage:		9.00				
Proposed Grades		N/A	Teaching Stations:		47				
Current Enrollment		829	Classrooms:		47				
Projected Enrollment		N/A							
Addition				CEFPI Appraisal Summary					
Date	HA	Number of Floors	Current Square Feet						
1956 Original	no	1	27,967						
1958 Addition	no	1	10,658						
1962 Addition	no	1	4,360						
1966 Addition	no	2	42,569						
Total			85,554						
*HA = Handicapped Access									
*Rating =1 Satisfactory									
=2 Needs Repair									
=3 Needs Replacement									
*Const P/S = Present/Scheduled Construction									
FACILITY ASSESSMENT				Section					
Cost Set: 2010				Points Possible					
Rating				Points Earned					
Dollar Assessment				Percentage					
C				Rating					
				Category					
A.	Heating System	3	\$1,383,492.50	1.0	The School Site	100	71	71%	Satisfactory
B.	Roofing	3	\$346,816.57	2.0	Structural and Mechanical Features	200	105	53%	Borderline
C.	Ventilation / Air Conditioning	1	\$0.00	3.0	Plant Maintainability	100	65	65%	Borderline
D.	Electrical Systems	3	\$737,295.08	4.0	Building Safety and Security	200	153	77%	Satisfactory
E.	Plumbing and Fixtures	3	\$437,183.00	5.0	Educational Adequacy	200	140	70%	Satisfactory
F.	Windows	3	\$158,721.44	6.0	Environment for Education	200	139	70%	Satisfactory
G.	Structure: Foundation	2	\$20,000.00	LEED Observations					
H.	Structure: Walls and Chimneys	2	\$39,397.00	Commentary					
I.	Structure: Floors and Roofs	1	\$0.00	Total					
J.	General Finishes	3	\$640,981.20	1000 673 67% Borderline					
K.	Interior Lighting	3	\$212,845.00	Enhanced Environmental Hazards Assessment Cost Estimates					
L.	Security Systems	3	\$117,064.75	C=Under Contract					
M.	Emergency/Egress Lighting	3	\$42,569.00	Renovation Cost Factor					
N.	Fire Alarm	3	\$63,853.50	Cost to Renovate (Cost Factor applied)					
O.	Handicapped Access	2	\$322,006.90	104.16%					
P.	Site Condition	2	\$63,853.50	\$6,981,714.84					
Q.	Sewage System	3	\$22,500.00	The Replacement Cost Per SF and the Renovate/Replace ratio are only provided when this summary is requested from a Master Plan.					
R.	Water Supply	3	\$20,000.00						
S.	Exterior Doors	3	\$20,000.00						
T.	Hazardous Material	3	\$94,860.00						
U.	Life Safety	3	\$188,349.25						
V.	Loose Furnishings	2	\$127,707.00						
W.	Technology	3	\$327,355.61						
- X.	Construction Contingency / Non-Construction Cost	-	\$1,316,023.93						
Total				\$6,702,875.23					

A. Heating System

Description: The existing heating system for the overall facility is composed of two major hot water boilers centrally located in the main mechanical room which were installed in 1956. The units are in good condition. The heating system in the overall facility is part of the Original Construction and is a 2-pipe system supplying hot water heating. With very limited capacity for simultaneous heating and cooling operation, this system is not compliant with the OSDM requirements for basic system type. The forced draft hot water boilers, manufactured by Steampak were installed in 1956 and are in decent condition. Heating hot water is distributed to terminal units consisting of unit ventilators, cabinet heaters, unit heaters, and fin tubes. The terminal equipment was installed in 1956 and new with each addition and is in fair condition. The system does not comply with the 15 CFM per person fresh air requirements of the Ohio Building Code mechanical code and Ohio School Design Manual. The non DDC type system temperature controls were installed in 1956 and are in working condition. The system does feature individual heating temperature controls in all spaces required by the OSDM. The overall system does not feature any central energy recovery systems. The facility is equipped with louvered interior doors in classrooms, storage and utility rooms to facilitate Corridor utilization as return air plenums while the classrooms have a return air systems. The existing system is not ducted, and floor to structural deck heights will not accommodate the installation of properly sized ductwork for a future Ohio School Design Manual approved system. The overall heating system is evaluated as being not in safe and efficient working order, though long term life expectancy of the existing system is anticipated. The structure is not equipped with central air conditioning. The site does not contain underground fuel tanks that are currently in use.

Rating: 3 Needs Replacement

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

Item	Cost	Unit	Whole Building	1956 Original (1956)	1958 Addition (1958)	1962 Addition (1962)	1966 Addition (1966)	Sum	Comments
HVAC System Replacement:	\$25.00	sq.ft.		27,967 ft ²	10,658 ft ²	4,360 ft ²	42,569 ft ²	\$2,138,850.00	(includes demo of existing system and reconfiguration of piping layout and new controls, air conditioning)
Convert To Ducted System Replacement	\$7.50	sq.ft.		Required	Required	Required	Required	\$641,655.00	(includes cost 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:			\$2,780,505.00	\$908,927.50	\$346,385.00	\$141,700.00	\$1,383,492.50		



Typical Unit Ventilator



Gas Fired Hot Water Boilers

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B. Roofing

Description: The roof over the 1956 Original Construction, 1958 Addition, and 1962 Addition is a built-up system that are original to each area and are in poor condition. The roof over the 1962 Addition is a built-up system that was installed in 1989 and is in poor condition. There are District reports of current leaking in the 1966 Gymnasium, near the joint between the 1958 Addition, 1956 Original Construction and 1966 Addition, near the girls restroom in the 1956 Original Construction, in the area between the 1962 Addition and the 1958 Addition, and in several other locations. Signs of past leaking were observed during the physical assessment, including damage to the masonry walls due to water infiltration. The roof leaks extensively. Access to the roof was gained by access hatches that are in poor condition. Fall safety protection cages are not required. There were observations of standing water on the roof, particularly on the canopy of the 1966 Addition. Metal cap flashings are in poor condition. Roof storm drainage is addressed through a system of roof drains which are properly located, and in poor condition. The roof is not equipped with overflow roof drains though they are needed on this building. Roof penetrations are in poor condition consistent with the roofing materials. There are covered walkways attached to this structure. The covered walkway on the 1956 Original Construction is steel structure with built-up roof and are in poor condition.

Rating: 3 Needs Replacement

Recommendations: The roof over the overall facility requires replacement to meet Ohio School Design Manual guidelines for age of system and due to condition. Include insulation in roof replacement. The flashing and coping on the overall facility require replacement due to condition. Due to existing conditions roof drains require replacement. Two roof hatches require replacement. Gutters and downspouts on the community room area of the 1956 Original Construction require replacement.

Item	Cost	Unit	Whole Building	1956 Original (1956)	1958 Addition (1958)	1962 Addition (1962)	1966 Addition (1966)	Sum	Comments
				27,967 ft ²	10,658 ft ²	4,360 ft ²	42,569 ft ²		
Membrane (all types):	\$8.27	sq.ft. (Qty)		29,505 Required	11,221 Required	4,610 Required	24,491 Required	\$577,469.29	(unless under 10,000 sq.ft.)
Repair/replace cap flashing and coping:	\$17.50	in.ft.		1,157 Required	355 Required	120 Required	791 Required	\$42,402.50	
Gutters/Downspouts	\$12.50	in.ft.		160 Required				\$2,000.00	
Remove/replace existing roof Drains and Sump:	\$1,200.00	each		10 Required	3 Required	2 Required	9 Required	\$28,800.00	
Overflow Roof Drains and Piping:	\$2,500.00	each		8 Required	3 Required	2 Required	5 Required	\$45,000.00	
Roof Insulation:	\$4.50	sq.ft. (Qty)		28,903 Required	11,221 Required	4,610 Required	23,363 Required	\$306,436.50	(tapered insulation for limited area use to correct ponding)
Roof Access Hatch:	\$2,000.00	each		1 Required			1 Required	\$4,000.00	(remove and replace)
Sum:			\$1,006,108.29	\$430,317.35	\$160,604.67	\$68,369.70	\$346,816.57		



Patched roof over 1956 Original Construction



Covered walkway on 1966 Addition

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C. Ventilation / Air Conditioning

Description: The overall facility is not equipped with a central air conditioning system. Window units are provided in miscellaneous locations such as offices, library, and media center. The ventilation system in the overall facility consists of unit ventilators and ducted air handlers installed initially in 1956 and are in fair condition, providing fresh air to classrooms and other miscellaneous spaces such as Gymnasiums, Student Dining, Media Center etc. Relief air venting is provided by relief fans and roof vents. The ventilation system does not meet the Ohio Building Code 15 CFM per occupant fresh air requirement. The overall system is not compliant with Ohio Building Code and Ohio School Design Manual requirements. Dust collection systems are not required in this facility and no system is provided. The Art program is equipped with a kiln, and existing kiln ventilation is without a hood, and is in working condition. Exhaust systems for Restrooms, Locker Rooms, Kitchen, Gymnasiums, Storage Rooms, Custodial Closets and Career Tech specialized areas are adequately placed, and in working condition.

Rating: 1 Satisfactory

Recommendations: Provide an air conditioning system to meet with Ohio Building Code and Ohio School Design Manual requirements. Pricing included in Item A. Provide kiln exhaust system for kiln listed in item J.

Item	Cost	Unit	Whole Building	1956 Original (1956)	1958 Addition (1958)	1962 Addition (1962)	1966 Addition (1966)	Sum	Comments
Kiln Exhaust System:	\$5,000.00	each		1 Required				\$5,000.00	
Sum:			\$5,000.00	\$5,000.00	\$0.00	\$0.00	\$0.00		



Split Air Condenser Unit & Exhaust Fans



Art Kiln Unit

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D. Electrical Systems

Description: The electrical systems provided to the overall facility is a dual voltage system of a 800 amp 120/240 volt, 1 phase, 3 wire original system from the year 1956, and is in fair condition. An up-graded second power system of 1200 amps at the voltage of 120/240 volt 3 phase 3 wire incorporated in the year 1966. Power is provided to the school by pole mounted utility owned transformers. The main distribution panel cannot be expanded to add additional capacity that would be required by the OSDM air conditioning requirements. The Classrooms are not equipped with adequate electrical outlets in some of the original areas per OSFC recommendations. The typical Classroom contains usually 2 to 3 general purpose outlets with certain classrooms having added outlets used for Classroom computers, and television. There are some spaces that have no electrical outlets such as storage areas and Janitor Closets. Most Corridors are equipped with adequate electrical outlets for electrical servicing. Adequate GFI protected exterior outlets are not provided around the perimeter of the building. The facility is not equipped with an emergency generator. There is a 100 amp emergency panel 'E', which feeds items such as exit lights, emergency lights and the Fire Alarm panel. Panel 'E' is fed directly from a 30 amp 240 V. disconnect switch. Adequate building lightning protection safeguards are not provided. The overall electrical system does not meet Ohio School Design Manual requirements, 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 due to lack of OSDM - required features and to accommodate the addition of an air conditioning system.

Item	Cost	Unit	Whole Building	1956 Original (1956)	1958 Addition (1958)	1962 Addition (1962)	1966 Addition (1966)	Sum	Comments
System Replacement:	\$17.32	sq.ft.		27,967 ft ²	10,658 ft ²	4,360 ft ²	42,569 ft ²	\$1,481,795.28	(Includes demo of existing system. Includes generator for life safety systems. Does not include telephone or data cable or equipment) (Use items below ONLY when the entire system is NOT being replaced)
Sum:			\$1,481,795.28	\$484,388.44	\$184,596.56	\$75,515.20	\$737,295.08		



Main Utility Switch



Electric Utility Meter

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E. Plumbing and Fixtures

Description: The school contains 3 Large Group Restrooms for boys, 3 Large Group Restrooms for girls, and 6 Restrooms for staff. First floor kitchen area contains 1 triple bowl sink, 1 hand sink and 1 electric water cooler. Boys' first floor Large Group Restrooms contain 6 non-ADA wall mounted flush valve toilets, 12 non-ADA wall mounted flush valve urinals, 7 non-ADA wall mounted lavatories. Girls' first floor Large Group Restrooms contain 15 non-ADA wall mounted flush valve toilets, as well as 7 non-ADA wall mounted lavatories. Staff Restrooms contain 4 non-ADA wall mounted flush valve toilets, and 4 non-ADA wall mounted lavatories. The facility class rooms are equipped with 4 non-ADA wall mounted flush valve toilets, 1 non-ADA wall mounted lavatory. 5 non ADA class room sinks in good condition, 2 electric water coolers, 3 drinking fountains in good condition, 1 double bowl Kitchen sink and 1 mop sink. Condition of fixtures is good. The school does not meet the OBC requirements for fixtures. ADA requirements are not met for fixtures and drinking fountains see Item O. Custodial Closets are properly located and are adequately provided with required service sinks, which are in fair condition. Adequate exterior wall hydrants are provided.

Rating: 3 Needs Replacement

Recommendations: Provide all new plumbing fixtures, faucets and flush valves to replace the existing because of ADA requirements and condition of old plumbing fixtures. Replace existing water heater with new high efficient gas fired water heaters. The recommendation for domestic water piping is in section R. The recommendation for sanitary drainage piping is in section Q.

Item	Cost	Unit	Whole Building	1956 Original (1956)	1958 Addition (1958)	1962 Addition (1962)	1966 Addition (1966)	Sum	Comments
				27,967 ft ²	10,658 ft ²	4,360 ft ²	42,569 ft ²		
Back Flow Preventer:	\$5,000.00	unit		1 Required				\$5,000.00	
Domestic Supply Piping:	\$3.50	sq.ft.		Required	Required	Required	Required	\$299,439.00	(remove / replace)
Sanitary Waste Piping:	\$3.50	sq.ft.		Required	Required	Required	Required	\$299,439.00	(remove / replace)
Domestic Water Heater:	\$5,100.00	per unit		1 Required	1 Required	1 Required	1 Required	\$20,400.00	(remove / replace)
Toilet:	\$3,800.00	unit		21 Required			8 Required	\$110,200.00	(new)
Urinal:	\$3,800.00	unit		8 Required			4 Required	\$45,600.00	(new)
Sink:	\$2,500.00	unit		10 Required	5 Required		9 Required	\$60,000.00	(new)
Electric water cooler:	\$3,000.00	unit		3 Required	1 Required			\$12,000.00	(double ADA)
Two Station Modular Lavatory:	\$3,000.00	unit		39 Required	5 Required		22 Required	\$198,000.00	(remove / replace)
Sum:			\$1,050,078.00	\$467,069.00	\$110,206.00	\$35,620.00	\$437,183.00		



Toilet room fixtures



Toilet room fixtures

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F. Windows

Description: The overall facility is equipped with non-thermally broken aluminum frame windows with single glazed non-insulated glazing type window system, which were installed at the dates of construction, and are in poor condition. Window system seals are in poor condition, with frequent air and water infiltration being experienced. Window system hardware is in poor condition. The window system features surface mounted blinds, which are in moderate condition. The window system is not equipped with insect screens on operable windows. Aluminum and hollow metal frame storefront window systems, with single tempered and non-tempered glazing are found in the overall facility and are in fair to poor condition. This facility does not feature any glass block windows. The school does not contain skylights. 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. Replace curtainwall/storefront system.

Item	Cost	Unit	Whole Building	1956 Original (1956) 27,967 ft²	1958 Addition (1958) 10,658 ft²	1962 Addition (1962) 4,360 ft²	1966 Addition (1966) 42,569 ft²	Sum	Comments
Insulated Glass/Panels:	\$57.10	sq.ft. (Qty)		3,846 Required	1,968 Required	919 Required	2,456 Required	\$524,691.90	(includes blinds)
Curtain Wall/Storefront System:	\$64.18	sq.ft. (Qty)		835 Required			288 Required	\$72,074.14	(remove and replace)
Sum:			\$596,766.04	\$273,196.90	\$112,372.80	\$52,474.90	\$158,721.44		



Typical aluminum windows.



Typical aluminum windows.

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G. Structure: Foundation

Description: The 1956 Original Construction foundation starter course masonry with trench concrete footings. Information for the 1958 Addition is not available. The 1962 and 1966 Additions are masonry with trench concrete footings. Dampproofing is not called out on the overall facility and perimeter insulation is minimal. Locations of significant differential settlement, and cracking, were observed at the 1966 entry canopy addition. The District reports that there has been no past leaking. Some grading / site drainage deficiencies were noted around the perimeter of the structure that could contribute to foundation / wall structural deterioration.

Rating: 2 Needs Repair

Recommendations: Provide foundation reinforcement at the entry canopy location of the 1966 addition.

Item	Cost	Unit	Whole Building	1956 Original (1956)	1958 Addition (1958)	1962 Addition (1962)	1966 Addition (1966)	Sum	Comments
				27,967 ft²	10,658 ft²	4,360 ft²	42,569 ft²		
Other: Repair foundation concrete.	\$2,500.00	per unit					8 Required	\$20,000.00	Repair settled concrete pier foundations.
Sum:			\$20,000.00	\$0.00	\$0.00	\$0.00	\$20,000.00		



Typical foundation condition.



Typical foundation condition.

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H. Structure: Walls and Chimneys

Description: The overall facility has a brick veneer on a masonry bearing wall system, which displayed locations of deterioration, and is in fair condition. The exterior masonry appears to have inappropriately spaced and adequately caulked control joints in poor condition. Control joints are not provided at lintel locations at doors and windows. The school has sufficient expansion joints, and they are in poor condition, particularly the expansion joint between the 1966 Addition and Willowick Middle School which is visibly separating beyond the width of the expansion joint. The exterior masonry has not been cleaned and sealed in recent years, and shows evidence of mortar deterioration on the South wall of the 1956 Original Construction particularly, on most of the piers of the 1956 Original Construction and the 1958 Addition, and the masonry piers of the canopies at the 1966 Addition. Interior walls are concrete masonry units and are in fair condition. Interior masonry appears to have no caulked control joints and cracking is apparent, possibly from water infiltration from the roof. Soffits are in poor condition. The window sills are an element of the aluminum window system, and are in poor condition. The exterior lintels are steel, and are rusting and in fair to poor condition. Chimneys are in poor condition with deteriorated grout throughout and a damaged precast coping. Canopies over entrances are cement board or asbestos panel type construction, and are in poor condition.

Rating: 2 Needs Repair

Recommendations: Provide tuckpointing in all areas of mortar deterioration as required through the overall facility. Replace brick damaged by water infiltration and rusting lintels as required in the 1956 Original Construction, 1958 Addition, and 1966 Addition. Provide masonry cleaning and sealing as required through the overall facility. Recaulk existing control joints. Replace masonry lintels as required in the 1956 Original Construction and the 1966 Addition. Scrape, prime and paint lintels as required through the overall facility. Re-build the top four feet of chimney and replace the precast coping. Install control joints. Cost for canopies and soffits included in item I.

Item	Cost	Unit	Whole Building	1956 Original (1956) 27,967 ft²	1958 Addition (1958) 10,658 ft²	1962 Addition (1962) 4,360 ft²	1966 Addition (1966) 42,569 ft²	Sum	Comments
Tuckpointing:	\$5.00	sq.ft. (Qty)		2,562 Required	93 Required	114 Required	239 Required	\$15,040.00	(wall surface)
Exterior Masonry Cleaning:	\$1.50	sq.ft. (Qty)		6,965 Required	2,760 Required	1,479 Required	8,212 Required	\$29,124.00	(wall surface)
Exterior Masonry Sealing:	\$1.00	sq.ft. (Qty)		6,965 Required	2,760 Required	1,479 Required	8,212 Required	\$19,416.00	(wall surface)
Exterior Caulking:	\$5.50	n.ft.		10 Required		52 Required	104 Required	\$913.00	(removing and replacing)
Replace Brick Veneer System:	\$35.00	sq.ft. (Qty)		277 Required	29 Required		61 Required	\$12,845.00	(total removal and replacement including pinning and shoring)
Lintel Replacement:	\$250.00	n.ft.		40 Required			25 Required	\$16,250.00	(total removal and replacement including pinning and shoring)
Coping Replacement Stone and Masonry:	\$100.00	n.ft.		23 Required				\$2,300.00	(remove and replace)
Install Control Joints	\$60.00	n.ft.		27 Required	4 Required			\$1,860.00	
Other: Prep and Paint Steel Lintels	\$5.00	n.ft.		501 Required	232 Required	87 Required	63 Required	\$4,415.00	sand, prime, and paint lintels
Other: Steel Lintel Replacement	\$150.00	n.ft.					56 Required	\$8,400.00	Replace steel support beams at entry canopy.
Sum:			\$110,563.00	\$56,397.50	\$9,780.00	\$4,988.50	\$39,397.00		



Chimney at 1956 Original Construction



Damaged lintels and brick at 1956 Original Construction

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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 construction, and is in fair condition. There is no crawl space. The floor construction of second floor of the 1966 Addition is bar joists with metal deck and lightweight concrete construction, and is in good condition. Ceiling to structural deck spaces are insufficient to accommodate HVAC, electrical, and plumbing scopes of work in required renovations. Conversion to a ducted system would require lowering the ceiling height from 10 feet. The roof construction of the overall facility is metal deck on bar joists and is in fair condition. The 1956 Original Construction also has portions of concrete slab.

Rating: 1 Satisfactory

Recommendations: Replace canopies and soffits per item H.

Item	Cost	Unit	Whole Building	1956 Original (1956)	1958 Addition (1958)	1962 Addition (1962)	1966 Addition (1966)	Sum	Comments
				27,967 ft ²	10,658 ft ²	4,360 ft ²	42,569 ft ²		
Sum:			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		



Roof



Roof

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J. General Finishes

Description: The overall facility features conventionally partitioned Classrooms with vinyl tile flooring in fair to poor condition, acoustical tile ceilings in poor condition, as well as painted block wall finishes in fair to poor condition. The overall facility has Corridors with vinyl tile and terazzo flooring in fair condition, acoustical tile ceilings in poor condition, as well as glazed block wall finishes in good condition. The overall facility has Restrooms with ceramic mosaic tile flooring in good condition, acoustical tile ceilings in poor condition, as well as glazed block wall finishes in good condition. Toilet partitions are metal, and are in fair to poor condition. Classroom casework in the overall facility is wood construction with plastic laminate tops, is inadequately provided, and in poor condition. The typical Classroom contains 4 lineal feet of casework, and Classroom casework provided ranges from 4 to 11 feet. Classrooms are provided adequate chalkboards, markerboards, and tackboards, which are in fair condition. The Student Storage is a shelf and hooks, located in the Corridors, adequately provided, and in poor condition. The building has a kiln that is not available to the Art program. The facility is equipped with mostly wood louvered and non-louvered interior doors, with and without glazing, that are flush mounted and recessed without proper ADA hardware and clearances, and in fair to poor condition. The Gymnasium space has vinyl tile flooring, acoustical tile ceilings, as well as painted block wall finishes, and they are in fair condition. The Gymnasium does not have seating. Gymnasium basketball backboards are fixed, and are in fair condition. The Media Center, located in the 1966 Addition, has carpet flooring, Student Dining shares the Gymnasium space. OSDM-required fixed equipment for Stage is inadequately provided, and in poor condition. The existing Kitchen is full service a satellite from Willowick Middle School facility, is undersized based on current enrollment, and the existing Kitchen equipment, installed in before 2000, is in fair condition. The Kitchen does not have a hood. The Kitchen does not have a walk-in cooler/freezer.

Rating: 3 Needs Replacement

Recommendations: Provide complete replacement of finishes and casework due to installation of systems outlined in Items A,C, D, E, K, L, M, N, T and U and non conformance with design manual. Funding for replacement of interior doors is provided in Item O, including doors here noted as being in poor condition. Provide a heat removal hood for the Art program kilns. Replace toilet partitions and toilet accessories. Rework walls addressed in item O.

Item	Cost	Unit	Whole Building	1956 Original (1956)	1958 Addition (1958)	1962 Addition (1962)	1966 Addition (1966)	Sum	Comments
Complete Replacement of Finishes and Casework (Elementary):	\$14.60	sq.ft.		27,967 ft ²	10,658 ft ²	4,360 ft ²	42,569 ft ²	\$1,249,088.40	(elementary, per building area, with removal of existing)
Toilet Partitions:	\$1,000.00	per stall		17 Required	4 Required		10 Required	\$31,000.00	(removing and replacing)
Toilet Accessory Replacement	\$0.20	sq.ft.		Required	Required	Required	Required	\$17,110.80	(per building area)
Art Program Kiln:	\$2,500.00	each		1 Required				\$2,500.00	
Other: Rework Non-ADA Toilet Room Walls	\$10.00	sq.ft. (Qty)		144 Required			96 Required	\$2,400.00	Rework walls to provide ADA clearance in toilet rooms
Sum:			\$1,302,099.20	\$434,851.60	\$161,738.40	\$64,528.00	\$640,981.20		



Corridor



Classroom casework

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K. Interior Lighting

Description:

The typical Classrooms of the facility are equipped with T-12 1'X4' pendant mounted style fluorescent fixtures with single level switching. Some of these Classrooms provide 50 to 60 footcandles while others only provide 35 to 45 footcandles of light which is below the recommended 50 FC. The typical Corridors in the overall facility are equipped with T-12, 1'X4' surface mounted fluorescent fixtures with single level switching. Corridor fixtures are in fair condition, providing an average illumination of 15 to 20 FC; Sometimes complying with the 20 FC recommended by the OSDM and sometimes not. The Multi Purpose / Cafeteria area / Gymnasium is equipped with surface mounted modular fluorescent type lighting in fair condition, providing an average illumination of 40 FC; not complying with the 50 FC recommended by the OSDM. The Library is equipped with T-12, 1'X4' pendant mounted fluorescent type lighting in fair condition, providing an average illumination of 40 to 50 FC; not complying with the 50 FC recommended by the OSDM. The Kitchen space is equipped with T-12 1'X4' surface mounted fluorescent type lighting fixtures with single level switching. Kitchen fixtures are in fair condition, providing an average illumination of 55 to 60 FC, which is less than the 75-80 FC recommended by the OSDM. The Service Areas in the overall facility are equipped with pendant or chain mounted fluorescent type lighting and surface mounted incandescent fixtures in poor condition. The typical Administrative spaces in the overall facility are equipped with 1'X4' surface mounted T-12 wrap-around fluorescent type lighting in fair condition, providing inadequate illumination based on OSDM requirements. The overall lighting systems of the facility are not compliant with Ohio School Design Manual requirements due to age, condition of the lighting fixtures and installation of a fire protection system.

Rating:

3 Needs Replacement

Recommendations:

Provide complete replacement of lighting system due to age, condition of lighting fixtures and installation of a fire protection system.

Item	Cost	Unit	Whole Building	1956 Original (1956)	1958 Addition (1958)	1962 Addition (1962)	1966 Addition (1966)	Sum	Comments
Complete Building Lighting Replacement	\$5.00	sq.ft.		27,967 ft²	10,658 ft²	4,360 ft²	42,569 ft²	\$427,770.00	Includes demo of existing fixtures
Sum:			\$427,770.00	\$139,835.00	\$53,290.00	\$21,800.00	\$212,845.00		



Typical Classroom Lighting



Hallway Lighting

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L. Security Systems

Description: The overall facility contains a security system including head-end equipment and security buzzer at main entry. The security system is not adequately provided throughout, and is not fully compliant with Ohio School Design Manual guidelines regarding security lighting throughout the site. The exterior building lighting system is equipped with incandescent wall mounted lights and incandescent spot lights; all in poor condition. Parking and bus pick-up / drop off areas are illuminated with pole mounted par 38 floodlight fixtures in fair condition. The exterior site lighting system provides inadequate coverage per the OSDM guidelines.

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	1956 Original (1956)	1958 Addition (1958)	1962 Addition (1962)	1966 Addition (1966)	Sum	Comments
				27,967 ft ²	10,658 ft ²	4,360 ft ²	42,569 ft ²		
Security System:	\$1.75	sq.ft.		Required	Required	Required	Required	\$149,719.50	(complete, area of building)
Exterior Site Lighting:	\$1.00	sq.ft.		Required	Required	Required	Required	\$85,554.00	building
Sum:			\$235,273.50	\$76,909.25	\$29,309.50	\$11,990.00	\$117,064.75		



Security Device



Security System Panel

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M. Emergency/Egress Lighting

Description: The overall facility is equipped with an emergency egress lighting system consisting of exit lighting fed from the emergency panel and emergency lighting. There are some stand alone emergency floodlight units in several areas of the entire facility. The exterior egress doors have par 38 incandescent type wall-pack or incandescent wall mounted fixtures, but are not provided with emergency lighting heads. Most of the system is in poor condition and in need of repair and / or additional emergency lighting equipment. The emergency egress lighting units that are provided with appropriate battery backup but, no written battery replacement schedule was available. The system is not adequately provided throughout, and does not meet Ohio School Design Manual and Ohio Building Code requirements in all cases.

Rating: 3 Needs Replacement

Recommendations: Provide complete replacement of the emergency / egress lighting system throughout to meet the Ohio School Design Manual guidelines.

Item	Cost	Unit	Whole Building	1956 Original (1956)	1958 Addition (1958)	1962 Addition (1962)	1966 Addition (1966)	Sum	Comments
Emergency/Egress Lighting:	\$1.00	sq.ft.		27,967 ft ²	10,658 ft ²	4,360 ft ²	42,569 ft ²		
			Required	Required	Required	Required	Required	\$85,554.00	(complete, area of building)
Sum:			\$85,554.00	\$27,967.00	\$10,658.00	\$4,360.00	\$42,569.00		



Typical Exit Sign



Emergency Lighting

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N. Fire Alarm

Description: The overall facility is equipped with a zoned Fire Alarm system. Due to the age of this system it cannot handle the requirements of the Ohio School Design Manual. Devices are not located in areas that are required by code and the system installed is not an addressable type and therefore will not meet the Ohio School Design Manual and Ohio Building Code requirements.

Rating: 3 Needs Replacement

Recommendations: Recommend providing a complete new Fire Alarm System to meet the Ohio School Design Manual and the Ohio Building Code.

Item	Cost	Unit	Whole Building	1956 Original (1956)	1958 Addition (1958)	1962 Addition (1962)	1966 Addition (1966)	Sum	Comments
Fire Alarm System:	\$1.50	sq.ft.		27,967 ft ²	10,658 ft ²	4,360 ft ²	42,569 ft ²		
Sum:			\$128,331.00	\$41,950.50	\$15,987.00	\$6,540.00	\$63,853.50	\$128,331.00	(complete new system, including removal of existing)



Main Fire Alarm Panel



Typical Manual Pull Station

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O. Handicapped Access

Description: At the site, there is an accessible route provided from the public right-of-way, the accessible parking areas, and from the passenger unloading zone to the main entrance of the school. There is an accessible route connecting most areas of the site. The exterior entrances are mostly ADA accessible. Access from the parking / drop-off area to the building entries is compromised by steps or steep ramps. Adequate handicap parking is not provided. Exterior doors are equipped with ADA hardware. The main entry is not equipped with an ADA power assist door. Playground layout and equipping are mostly compliant. On the interior of the building, space allowances and reach ranges are mostly compliant. Coat racks project into the accessible route through the building. Ground and floor surfaces are compliant. Ramps and stairs are mostly compliant. Elevation changes within the 1966 Addition are facilitated by two ramps and four staircases in fair condition. In the single story 1956 Original Construction and 1958 and 1962 Additions, special provisions for floor level changes are not required. Access to the two Stages is not facilitated by a chair lift or ramp. Interior doors throughout the facility are mostly recessed, are not provided adequate clearances, and are not provided with ADA-compliant hardware. In the 1956 Original Construction and the 1966 Addition, toilet partitions are metal and do not provide appropriate ADA clearances, ADA compliant accessories are not adequately provided and mounted, and mirrors do not meet ADA requirements for mounting height. Multi-handicap accessible group toilets are provided in the 1958 Addition. Most electric water coolers are compliant. ADA signage is not adequately provided on either the interior or the exterior of the building.

Rating: 2 Needs Repair

Recommendations: Provide ADA compliant signage. Provide a power assist door opener at the main entry. Provide chair lifts at the Stages. Provide an elevator accessing the second floor of the 1966 Addition. Provide compliant toilet partitions and accessories and remount mirrors to compliant height. Replacement of plumbing fixtures is covered in Item E. Parking issues are corrected in Item P. Rework door openings to provide adequate clearances where required. Replace doors addressed as poor in item J.

Item	Cost	Unit	Whole Building	1956 Original (1956) 27,967 ft²	1958 Addition (1958) 10,658 ft²	1962 Addition (1962) 4,360 ft²	1966 Addition (1966) 42,569 ft²	Sum	Comments
Signage:	\$0.10	sq.ft.		Required	Required	Required	Required	\$8,555.40	(per building area)
Lifts:	\$15,000.00	unit		1 Required			1 Required	\$30,000.00	(complete)
Elevators:	\$50,000.00	each					2 Required	\$100,000.00	(per stop, \$100,000 minimum)
Toilet Partitions:	\$1,000.00	stall		2 Required			8 Required	\$10,000.00	(ADA - grab bars, accessories included)
ADA Assist Door & Frame:	\$7,500.00	unit		1 Required				\$7,500.00	(openers, electrical, patching, etc)
Replace Doors:	\$1,100.00	leaf		45 Required	11 Required	4 Required	29 Required	\$97,900.00	(standard 3070 wood door, HM frame-classroom door/light, includes hardware)
Replace Doors:	\$5,000.00	leaf		3 Required			8 Required	\$55,000.00	(rework narrow opening to provide 3070 wood door, HM frame, door/light, includes hardware)
Replace Doors:	\$5,000.00	leaf		21 Required	10 Required	4 Required	24 Required	\$295,000.00	(rework opening and corridor wall to accommodate ADA standards when door opening is set back from edge of corridor and cannot accommodate a wheelchair.)
Remount Restroom Mirrors to Handicapped Height:	\$285.00	per restroom		7 Required			10 Required	\$4,845.00	
Sum:			\$608,800.40	\$198,791.70	\$63,165.80	\$24,836.00	\$322,006.90		



Multi-handicap accessible toilet room



Typical recessed classroom door

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P. Site Condition

Description: The building sits on a 9.0 acre site within a 26.7 acre campus shared with Willowick Middle School. The relatively flat site is located in a suburban residential setting with moderate tree and shrub landscaping. Evidence of poor drainage was observed near the building perimeter. No evidence of erosion was observed. Also located on the campus are baseball and softball fields, a running track, a football field, tennis courts and several outbuildings associated with the athletic facilities. The site is bordered by lightly traveled city streets. Multiple entrances onto the site facilitate site circulation. A one way bus loop which is separated from other vehicular traffic is provided in front of the school for student loading and unloading. The bus loop is shared with Willowick Middle School. Staff and visitor parking is facilitated by multiple asphalt parking lots in fair to poor condition, containing 122 parking places, which provides adequate parking for staff members and visitors. Adequate designated parking for the disabled is not provided. The site and parking lot drainage design, consisting of sheet drainage, catch basins, and storm sewers, provides adequate evacuation of storm water, and no problems with parking lot ponding were observed. Concrete curbs in fair to poor condition are appropriately placed. The service drive is not heavy duty concrete. A concrete dumpster pad is not provided. The school is not equipped with a loading dock. Concrete sidewalks are properly sloped, are located to provide a logical flow of pedestrian traffic, and are in fair to poor condition. A well landscaped courtyard provides an opportunity for outdoor instruction, though no related equipment has been provided. The site is bordered on all sides by single family residences. Paved paths and concrete sidewalks connect the site to the adjacent residential neighborhoods. The site is mostly flat and well drained. There is sufficient space on site for an addition to the building.

Rating: 2 Needs Repair

Recommendations: Provide new wearing course on entry drives, parking lots, paved play areas and paved bicycle parking lot. Replace concrete sidewalks and curbs where required. Costs for shared entry drives and sidewalks are divided between the Willowick Middle School and Royalview Elementary School assessments. Costs for paved play areas and bicycle parking lot are covered in the Royalview Elementary School assessment. Costs associated with athletic facilities are covered in the Willowick Middle School assessment. Designate additional accessible parking spaces convenient to the entries to both buildings. Costs for ADA signage are covered in item O of both building reports.

Item	Cost	Unit	Whole Building	1956 Original (1956) 27,967 ft²	1958 Addition (1958) 10,658 ft²	1962 Addition (1962) 4,360 ft²	1966 Addition (1966) 42,569 ft²	Sum	Comments
Asphalt Paving / New Wearing Course:	\$18.65	sq. yard	7,670 Required					\$143,045.50	(includes minor crack repair in less than 5% of paved area)
Concrete Curb:	\$17.87	ln.ft.	310 Required					\$5,539.70	(new)
Concrete Sidewalk:	\$4.69	sq.ft. (Qty)	1,850 Required					\$8,676.50	(5 inch exterior slab)
Base Sitework Allowance for Unforeseen Circumstances	\$50,000.00	allowance	Required					\$50,000.00	Include this and one of the next two. (Applies for whole building, so only one addition should have this item)
Sitework Allowance for Unforeseen Circumstances for buildings between 0 SF and 100,000 SF	\$1.50	sq.ft.	Required	Required	Required	Required	Required	\$128,331.00	Include this one or the next. (Each addition should have this item)
Sum:				\$335,592.70	\$249,212.20	\$15,987.00	\$6,540.00	\$63,853.50	



Bus loop



Curb in poor condition

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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: 3 Needs Replacement

Recommendations: Replace existing system due to age of pipe.

Item	Cost	Unit	Whole Building	1956 Original (1956)	1958 Addition (1958)	1962 Addition (1962)	1966 Addition (1966)	Sum	Comments
				27,967 ft ²	10,658 ft ²	4,360 ft ²	42,569 ft ²		
Sewage Main:	\$45.00	in.ft.		500 Required	500 Required	500 Required	500 Required	\$90,000.00	(include excavation and backfilling)
Sum:			\$90,000.00	\$22,500.00	\$22,500.00	\$22,500.00	\$22,500.00		



Sanitary drainage Piping



Sanitary drainage Piping

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R. Water Supply

Description: The domestic water supply system is tied in to the municipal system. The water meter, is in good condition. The District was not able to provide water supply flow test data. The existing domestic water service does 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.

Rating: 3 Needs Replacement

Recommendations: The system does not provide adequate capacity for the future needs of the school.

Item	Cost	Unit	Whole Building	1956 Original (1956)	1958 Addition (1958)	1962 Addition (1962)	1966 Addition (1966)	Sum	Comments
				27,967 ft ²	10,658 ft ²	4,360 ft ²	42,569 ft ²		
Domestic Water Main	\$40.00	in.ft.		500 Required	500 Required	500 Required	500 Required	\$80,000.00	(new)
Sum:			\$80,000.00	\$20,000.00	\$20,000.00	\$20,000.00	\$20,000.00		



Domestic water in plumbing chase



Domestic water in plumbing chase

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S. Exterior Doors

Description: Typical exterior doors in the 1956 Original Construction are aluminum type construction, installed on aluminum frames, and are in fair to poor condition. Typical exterior doors feature single glazed non-insulated tempered and non-tempered glass vision panels. There are hollow metal doors on hollow metal frames that are in poor condition. There is a wood door in poor condition on a hollow metal frame. Typical exterior doors in the 1966 Addition are hollow metal type construction, installed on hollow metal frames, and are in poor condition. Typical exterior doors feature single glazed non-insulated tempered and non-tempered glass vision panels. There are no exterior doors on the 1958 and 1962 additions. There are no overhead doors in the facility.

Rating: 3 Needs Replacement

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

Item	Cost	Unit	Whole Building	1956 Original (1956)	1958 Addition (1958)	1962 Addition (1962)	1966 Addition (1966)	Sum	Comments
Door Leaf/Frame and Hardware:	\$2,000.00	per leaf		27,967 ft ²	10,658 ft ²	4,360 ft ²	42,569 ft ²		
Sum:			\$56,000.00	\$36,000.00	\$0.00	\$0.00	\$20,000.00		18 Required 10 Required (includes removal of existing)



Typical hollow metal entry doors.



Typical hollow metal doors.

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T. Hazardous Material

Description: The School District provided the AHERA three year reinspection reports, prepared by CTG Environmental, LLC, and dated 2006, documenting known and assumed locations of asbestos and other hazardous materials. Vinyl asbestos floor tile and mastic, pipe insulation, fittings, and containing hazardous materials are located in the overall facility in fair to poor condition. These materials were described in the report and open to observation and found to be in friable and non-friable condition with significant to light damage. There are no underground fuel oil storage tankson the site. Due to the construction date, there is a potential for lead based paint. Fluorescent lighting will require special disposal.

Rating: 3 Needs Replacement

Recommendations: Remove all hazardous materials, inclusive of asbestos-containing materials in the overall facility, as noted in the attached Environmental Hazards Assessment. Provide for the testing of paint that has the potential of being lead-based.

Item	Cost	Unit	Whole Building	1956 Original (1956)	1958 Addition (1958)	1962 Addition (1962)	1966 Addition (1966)	Sum	Comments
				27,967 ft ²	10,658 ft ²	4,360 ft ²	42,569 ft ²		
<i>Environmental Hazards Form</i>				EHA Form	EHA Form	EHA Form	EHA Form		
Pipe Insulation Removal	\$10.00	ln.ft.		150 Required	100 Required	0 Required	0 Required	\$2,500.00	
Pipe Fitting Insulation Removal	\$20.00	each		20 Required	10 Required	0 Required	0 Required	\$600.00	
Resilient Flooring Removal, Including Mastic	\$3.00	sq.ft. (Qty)		20,950 Required	7,990 Required	3,270 Required	31,620 Required	\$191,490.00	See J
Sum:			\$194,590.00	\$64,750.00	\$25,170.00	\$9,810.00	\$94,860.00		



9x9 tile



Pipe insulation

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U. Life Safety

Description: The overall facility is not equipped with an automated fire suppression system. Exit corridors are situated such that dead-end corridors are not present. The facility features 4 interior stair towers, which are not protected by a two hour fire enclosure. The facility does not have any exterior stairways from intermediate floors. Guardrails are constructed with vertical bars with less than 4" clearance do not meet the 4" ball test, and do not extend past the top and bottom stair risers as required by the Ohio Building Code. Ramps are not provided with adequate handrails. The Kitchen does not include equipment that requires fire suppression. The cooking equipment is not interlocked to shut down in the event of discharge of the fire suppression system. Fire extinguishers are provided in sufficient quantity. Existing fire extinguishers are adequately spaced. The facility is not equipped with an emergency generator. The existing water supply is provided by a tie-in to the municipal system, and is 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 handrails to meet the requirements of the Ohio Building Code. Stair tower enclosures are not recommended due to automatic fire suppression system.

Item	Cost	Unit	Whole Building	1956 Original (1956)	1958 Addition (1958)	1962 Addition (1962)	1966 Addition (1966)	Sum	Comments
Sprinkler / Fire Suppression System:	\$3.25	sq.ft. (Qty)		27,967 ft ²	10,658 ft ²	4,360 ft ²	42,569 ft ²	\$278,050.50	(includes increase of service piping, if required)
Handrails:	\$5,000.00	level					10 Required	\$50,000.00	
Sum:			\$328,050.50	\$90,892.75	\$34,638.50	\$14,170.00	\$188,349.25		



Ramp with non compliant handrail



Stair and non compliant handrail

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V. Loose Furnishings

Description: The typical Classroom furniture is of mismatched, and in generally fair condition, consisting of student desks & chairs, teacher desks & chairs, desk height file cabinets, reading tables, computer workstations, bookcases, wastebaskets, and other. 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 furniture.

Item	Cost	Unit	Whole Building	1956 Original (1956)	1958 Addition (1958)	1962 Addition (1962)	1966 Addition (1966)	Sum	Comments
				27,967 ft ²	10,658 ft ²	4,360 ft ²	42,569 ft ²		
CEFPI Rating	6	\$3.00/sq.ft.		Required	Required	Required	Required	\$256,662.00	
Sum:			\$256,662.00	\$83,901.00	\$31,974.00	\$13,080.00	\$127,707.00		



Classroom furniture



Classroom furniture

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W. Technology

Description: The typical Classroom is equipped with one or two data ports per outlet and no voice ports used with a digitally based phone system to meet Ohio School Design Manual requirements. The typical Classroom is not equipped with the required four technology data ports for teacher and student use and a 2-way PA system that can be initiated by either party to meet Ohio School Design Manual requirements. The facility is equipped with a centralized clock system. The Sound System provides devices for most required spaces but due to the age the infrastructure is inadequately provided for each space of this facility. The facility does contain a media distribution center, but does not provide a Computer Lab for use by most students.

Rating: 3 Needs Replacement

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

Item	Cost	Unit	Whole Building	1956 Original (1956)	1958 Addition (1958)	1962 Addition (1962)	1966 Addition (1966)	Sum	Comments
				27,967 ft ²	10,658 ft ²	4,360 ft ²	42,569 ft ²		
ES portion of building with total SF > 69,360	\$7.69	sq.ft. (Qty)		27,967 Required	10,658 Required	4,360 Required	42,569 Required	\$657,910.26	
Sum:			\$657,910.26	\$215,066.23	\$81,960.02	\$33,528.40	\$327,355.61		



Technology Cabinet



Typical Technology Outlet

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X. Construction Contingency / Non-Construction Cost

Renovation Costs (A-W)		\$11,837,449.17
7.00%	Construction Contingency	\$828,621.44
Subtotal		\$12,666,070.61
16.29%	Non-Construction Costs	\$2,063,302.90
Total Project		\$14,729,373.51

Construction Contingency	\$828,621.44
Non-Construction Costs	\$2,063,302.90
Total for X.	\$2,891,924.34

Non-Construction Costs Breakdown		
Land Survey	0.03%	\$3,799.82
Soil Borings / Phase I Envir. Report	0.10%	\$12,666.07
Agency Approval Fees (Bldg. Code)	0.15%	\$18,999.11
Construction Testing	0.25%	\$31,665.18
Printing - Bid Documents	0.27%	\$34,198.39
Advertising for Bids	0.03%	\$3,799.82
Builder's Risk Insurance	0.11%	\$13,932.68
Design Professional's Compensation	7.50%	\$949,955.30
CM Compensation	6.00%	\$759,964.24
Commissioning	0.42%	\$53,197.50
Maintenance Plan Advisor	0.11%	\$13,932.68
Non-Construction Contingency (includes partnering and mediation services)	1.32%	\$167,192.13
Total Non-Construction Costs	16.29%	\$2,063,302.90

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School Facility Appraisal

Name of Appraiser Karen L Walker **Date of Appraisal** 2010-03-16
Building Name Royalview Elementary School
Street Address 31500 Royalview Dr
City/Town, State, Zip Code Willowick, OH 44094
Telephone Number(s) 440/944-3130
School District Willoughby-Eastlake City SD

Setting: Suburban

Site-Acreage	9.00	Building Square Footage	85,554
Grades Housed	K-5	Student Capacity	1,175
Number of Teaching Stations	47	Number of Floors	2
Student Enrollment	829		
Dates of Construction	1956,1958,1962,1966		

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	Site is large enough to meet educational needs as defined by state and local requirements <i>The 9 acre site is below the 18.29 required by the design manual.</i>	25	15
1.2	Site is easily accessible and conveniently located for the present and future population <i>The site is easily accessible and conveniently located for the present and future population. The site is located within the community it serves and convenient to major circulation routes.</i>	20	18
1.3	Location is removed from undesirable business, industry, traffic, and natural hazards <i>The location is removed from undesirable business, industry, traffic and natural hazards. The site is buffered by residential lots on all sides and is well insulated from noise and hazard.</i>	10	10
1.4	Site is well landscaped and developed to meet educational needs <i>The site is moderately landscaped. Tall trees along the site perimeter provide pleasant views in all directions. Landscaped courtyards provide pleasant views and opportunities to outdoor learning.</i>	10	7
1.5	ES Well equipped playgrounds are separated from streets and parking areas MS Well equipped athletic and intermural areas are separated from streets and parking HS Well equipped athletic areas are adequate with sufficient solid-surface parking <i>Well equipped playgrounds are separated from streets and busy traffic. A parking lot abuts the play area.</i>	10	3
1.6	Topography is varied enough to provide desirable appearance and without steep inclines <i>Topography is mostly flat, with a slight slope up to the athletic fields.</i>	5	2
1.7	Site has stable, well drained soil free of erosion <i>The soil is well drained and mostly free from erosion. Some ponding was observed near the building perimeter due to faulty roof drainage system.</i>	5	3
1.8	Site is suitable for special instructional needs , e.g., outdoor learning <i>A landscaped courtyard provides opportunity for outdoor instruction.</i>	5	3
1.9	Pedestrian services include adequate sidewalk with designated crosswalks, curb cuts, and correct slopes <i>Adequate properly sloped sidewalks, crosswalks and curb cuts are provided. Paved walks connect the site to surrounding neighborhoods.</i>	5	5
1.10	ES/MS Sufficient on-site, solid surface parking for faculty and staff is provided HS Sufficient on-site, solid surface parking is provided for faculty, students, staff and community <i>Sufficient on-site, solid surface parking is provided. The site exceeds OSDM parking requirements.</i>	5	5
TOTAL - The School Site		100	71

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2.0 Structural and Mechanical Features

School Facility Appraisal

Structural	Points Allocated	Points
2.1 Structure meets all barrier-free requirements both externally and internally <i>The building is not ADA accessible.</i>	15	5
2.2 Roofs appear sound, have positive drainage, and are weather tight <i>The roof is original and showing signs of failure.</i>	15	0
2.3 Foundations are strong and stable with no observable cracks <i>Foundation damage was noted at the entry canopy.</i>	10	5
2.4 Exterior and interior walls have sufficient expansion joints and are free of deterioration <i>Joints are showing deterioration and are insufficient in quantity.</i>	10	5
2.5 Entrances and exits are located so as to permit efficient student traffic flow <i>Traffic flow is adequate through the facility.</i>	10	9
2.6 Building "envelope" generally provides for energy conservation (see criteria) <i>The building envelope does not meet current ASHRAE standards.</i>	10	2
2.7 Structure is free of friable asbestos and toxic materials <i>The building is reported to contain asbestos and other hazardous materials.</i>	10	2
2.8 Interior walls permit sufficient flexibility for a variety of class sizes <i>Most Classrooms are within design manual tolerances and permit flexibility.</i>	10	7

Mechanical/Electrical	Points Allocated	Points
2.9 Adequate light sources are well maintained, and properly placed and are not subject to overheating <i>Most areas are maintained and properly placed while other area lighting needs repair or replaced due to being incandescent type. No lighting was noticed as being subject to overheating.</i>	15	6
2.10 Internal water supply is adequate with sufficient pressure to meet health and safety requirements <i>The system does not provide adequate capacity for the future needs of the school. Provide a reduced pressure backflow preventer on the incoming supply, as well as future automated fire suppression system. Funding provided in Item U.</i>	15	15
2.11 Each teaching/learning area has adequate convenient wall outlets , phone and computer cabling for technology applications <i>Some up-dating has occurred in Technology for the teaching / learning areas. Still more up-dating is needed regarding outlets, phones and computer cabling.</i>	15	6

2.12	Electrical controls are safely protected with disconnect switches easily accessible	10	4
	<i>The electrical controls noticed are safely protected with disconnect switches or over current protection devices and was easily accessible but, due to the age of the equipment it does not meet the requirements of the OSDM.</i>		
2.13	Drinking fountains are adequate in number and placement, and are properly maintained including provisions for the disabled	10	10
	<i>Electric water coolers do not meet ADA requirements.</i>		
2.14	Number and size of restrooms meet requirements	10	8
	<i>The quantity of fixtures is adequate for the population served.</i>		
2.15	Drainage systems are properly maintained and meet requirements	10	10
	<i>Replace sanitary waste piping in the overall facility due to the age of drainage piping.</i>		
2.16	Fire alarms, smoke detectors, and sprinkler systems are properly maintained and meet requirements	10	2
	<i>The electrical controls noticed are safely protected with disconnect switches or over current protection devices and was easily accessible but, due to the age of the equipment it does not meet the requirements of the OSDM.</i>		
2.17	Intercommunication system consists of a central unit that allows dependable two-way communication between the office and instructional areas	10	4
	<i>Intercommunication system consists of a central unit via telephones that allow two-way communication between the Office and certain areas but, also needs replacement per the OSDM requirements.</i>		
2.18	Exterior water supply is sufficient and available for normal usage	5	5
	<i>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.</i>		
TOTAL - Structural and Mechanical Features		200	105

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3.0 Plant Maintainability

School Facility Appraisal

		Points Allocated	Points
3.1	Windows, doors, and walls are of material and finish requiring minimum maintenance <i>Exterior materials, due to age, are beginning to require additional care.</i>	15	10
3.2	Floor surfaces throughout the building require minimum care <i>Flooring requires little maintenance.</i>	15	13
3.3	Ceilings and walls throughout the building, including service areas, are easily cleaned and resistant to stain <i>Walls and ceilings are stained from roof failures.</i>	10	3
3.4	Built-in equipment is designed and constructed for ease of maintenance <i>Built-in equipment is marginal and not well maintained.</i>	10	5
3.5	Finishes and hardware , with compatible keying system, are of durable quality <i>Door hardware is compatible with the district system, but not ADA compliant.</i>	10	8
3.6	Restroom fixtures are wall mounted and of quality finish <i>Fixtures are not water efficient, but are well maintained.</i>	10	7
3.7	Adequate custodial storage space with water and drain is accessible throughout the building <i>Custodial storage is adequately provided.</i>	10	9
3.8	Adequate electrical outlets and power , to permit routine cleaning, are available in every area <i>Electrical outlets and power for routine cleaning is not available in most areas due to that fact that very few outlets are provided in such areas as classrooms and none in other areas such as small toilet rooms or storage areas.</i>	10	6
3.9	Outdoor light fixtures, electrical outlets , equipment, and other fixtures are accessible for repair and replacement <i>Outdoor light fixtures are maintained and accessible for repair and / or replacement, but exterior electrical outlets are non-existent in many cases as required by the Ohio School Design Manual.</i>	10	4
TOTAL - Plant Maintainability		100	65

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4.0 Building Safety and Security

School Facility Appraisal

Site Safety	Points Allocated	Points
4.1 Student loading areas are segregated from other vehicular traffic and pedestrian walkways <i>Student loading areas are segregated from other vehicular traffic and pedestrian walkways. A bus loop is provided.</i>	15	12
4.2 Walkways , both on and offsite, are available for safety of pedestrians <i>Ample walkways, both on and offsite, are available for safety of pedestrians.</i>	10	10
4.3 Access streets have sufficient signals and signs to permit safe entrance to and exit from school area <i>Access streets have sufficient signals and signs to permit safe entrance to and exit from school area.</i>	5	5
4.4 Vehicular entrances and exits permit safe traffic flow <i>Vehicular entrances and exits permit safe one-way traffic flow. Wayfinding is somewhat confusing at the vehicular entry.</i>	5	2
4.5 ES Playground equipment is free from hazard MS Location and types of intramural equipment are free from hazard HS Athletic field equipment is properly located and is free from hazard <i>Playground equipment is free from hazard.</i>	5	5

Building Safety	Points Allocated	Points
4.6 The heating unit(s) is located away from student occupied areas <i>The heating units are away from student activity.</i>	20	18
4.7 Multi-story buildings have at least two stairways for student egress <i>Four stairways are provided for student egress.</i>	15	15
4.8 Exterior doors open outward and are equipped with panic hardware <i>Exterior doors open outward and are equipped with panic hardware, but some are difficult to operate.</i>	10	8
4.9 Emergency lighting is provided throughout the entire building with exit signs on separate electrical circuits <i>Emergency lighting and exit signs are provided throughout the entire building. Exits signs have battery backup but are not on a separate electrical circuit. Some emergency units are per the Ohio Building Code or the NEC.</i>	10	4
4.10 Classroom doors are recessed and open outward <i>Classroom doors are recessed and open outward, but lack proper ADA clearances.</i>	10	5
4.11 Building security systems are provided to assure uninterrupted operation of the educational program	10	6

Building security systems are provided to assure uninterrupted operation of the educational program. The system does not meet all requirements of the OSDM.

4.12	Flooring (including ramps and stairways) is maintained in a non-slip condition <i>Flooring is maintained in a non-slip condition.</i>	5	5
4.13	Stair risers (interior and exterior) do not exceed 6 1/2 inches and range in number from 3 - 16 <i>Stair risers are code compliant.</i>	5	5
4.14	Glass is properly located and protected with wire or safety material to prevent accidental student injury <i>Most glass provided is not safety glass.</i>	5	1
4.15	Fixed Projections in the traffic areas do not extend more than eight inches from the corridor wall <i>Fixed projections extend more than eight inches from the corridor wall.</i>	5	0
4.16	Traffic areas terminate at an exit or a stairway leading to an egress <i>Traffic areas terminate at an exit or a stairway leading to an exit.</i>	5	5

Emergency Safety	Points Allocated	Points
4.17 <i>Adequate fire safety equipment is adequately located.</i>	15	13
4.18 <i>There are at least two independent exits from any point in the building.</i>	15	15
4.19 <i>Most materials within the building are fire resistant.</i>	15	13
4.20 <i>Automatic and manual emergency alarm system with a distinctive sound is provided. Alarms are also equipped with strobe lights. The Fire Alarm System is not per the OSDM requirements.</i>	15	6
TOTAL - Building Safety and Security	200	153

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5.0 Educational Adequacy

School Facility Appraisal

Academic Learning Space		Points Allocated	Points
5.1	Size of academic learning areas meets desirable standards <i>Size of academic learning are mostly within design manual tolerances. Classrooms in the 1966 Addition are undersized.</i>	25	18
5.2	Classroom space permits arrangements for small group activity <i>Most classrooms permits arrangements for small group activity.</i>	15	10
5.3	Location of academic learning areas is near related educational activities and away from disruptive noise <i>Location of academic learning areas is near related educational activities and away from disruptive noise.</i>	10	9
5.4	Personal space in the classroom away from group instruction allows privacy time for individual students <i>Most classrooms have space for private consultation.</i>	10	8
5.5	Storage for student materials is adequate <i>Storage for student materials is a shelf and hook.</i>	10	5
5.6	Storage for teacher materials is adequate <i>Storage for teacher materials in inadequate.</i>	10	5

Special Learning Space		Points Allocated	Points
5.7	Size of special learning area(s) meets standards <i>Special learning areas are adequately sized.</i>	15	11
5.8	Design of specialized learning area(s) is compatible with instructional need <i>Specialized learning areas are adapted standard classrooms.</i>	10	6
5.9	Library/Resource/Media Center provides appropriate and attractive space <i>Library provides appropriate and attractive space. The Library faces the courtyard and is daylit and pleasant.</i>	10	10
5.10	Gymnasium (or covered P.E. area) adequately serves physical education instruction <i>Gymnasium is undersized for the number of students.</i>	5	2
5.11	ES Pre-kindergarten and kindergarten space is appropriate for age of students and nature of instruction MS/HS Science program is provided sufficient space and equipment <i>Kindergarten spaces are appropriate for age of students and nature of instruction. They are a bit undersized.</i>	10	7

5.12	Music Program is provided adequate sound treated space <i>The music room is not sound treated.</i>	5	3
5.13	Space for art is appropriate for special instruction, supplies, and equipment <i>No dedicated space is provided for art instruction.</i>	5	1

School Facility Appraisal

		Points Allocated	Points
5.14	Space for technology education permits use of state-of-the-art equipment <i>Space for technology education permits use of state-of-the-art equipment.</i>	5	5
5.15	Space for small groups and remedial instruction is provided adjacent to classrooms <i>Conference rooms are available for small groups and remedial instruction.</i>	5	4
5.16	Storage for student and teacher material is adequate <i>Storage for student and teacher material is inadequate.</i>	5	2

Support Space

		Points Allocated	Points
5.17	Teacher's lounge and work areas reflect teachers as professionals <i>Multiple teacher lounges and work areas, as well as a teachers' dining room, reflect teachers as professionals.</i>	10	10
5.18	Cafeteria/Kitchen is attractive with sufficient space for seating/dining, delivery, storage, and food preparation <i>The kitchen is undersized. Student Dining space also serves as the Gymnasium.</i>	10	5
5.19	Administrative offices provided are consistent in appearance and function with the maturity of the students served <i>Administrative offices provided are consistent in appearance and function with the maturity of the students served.</i>	5	4
5.20	Counselor's office insures privacy and sufficient storage <i>Counselor's office insures privacy and sufficient storage.</i>	5	3
5.21	Clinic is near administrative offices and is equipped to meet requirements <i>Clinic is neat administrative offices and is equipped to meet requirements. Clinic toilet room is not ADA compliant. A second clinic is located near the multi-handicap restrooms.</i>	5	4
5.22	Suitable reception space is available for students, teachers, and visitors <i>Suitable reception space is available for students, teachers and visitors.</i>	5	4
5.23	Administrative personnel are provided sufficient work space and privacy <i>Administrative personnel are provided sufficient work space and privacy.</i>	5	4

TOTAL - Educational Adequacy

200

140

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6.0 Environment for Education

School Facility Appraisal

Exterior Environment	Points Allocated	Points
6.1 Overall design is aesthetically pleasing to age of students <i>The building reflects a 1960s design aesthetic.</i>	15	12
6.2 Site and building are well landscaped <i>Site and building are moderately landscaped. A well landscaped courtyard provides pleasant views and opportunities for outdoor education.</i>	10	9
6.3 Exterior noise and poor environment do not disrupt learning <i>Exterior noise and poor environment do not disrupt learning. The site is well insulated from traffic noise.</i>	10	9
6.4 Entrances and walkways are sheltered from sun and inclement weather <i>Entrances are sheltered by canopies in poor condition. Walkways are not sheltered.</i>	10	5
6.5 Building materials provide attractive color and texture <i>Building materials are attractive in color and texture.</i>	5	4

Interior Environment	Points Allocated	Points
6.6 Color schemes, building materials, and decor provide an impetus to learning <i>The color palette is dated. Dark finishes in corridors create an ominous atmosphere.</i>	20	12
6.7 Year around comfortable temperature and humidity are provided throughout the building <i>Year around comfortable temperature and humidity are not provided throughout the building. Humidity control and air conditioning are not present in much of the building.</i>	15	8
6.8 Ventilating system provides adequate quiet circulation of clean air and meets 15cfm VBC requirement <i>Ventilation system does not meet requirements.</i>	15	5
6.9 Lighting system provides proper intensity, diffusion, and distribution of illumination <i>Lighting system does not provide proper intensity, diffusion and distribution of illumination. The corridors are not adequately illuminated.</i>	15	7
6.10 Drinking fountains and restroom facilities are conveniently located <i>Drinking fountains and restroom facilities are conveniently located.</i>	15	12
6.11 Communication among students is enhanced by commons area(s) for socialization <i>Communication among students is enhanced by common areas for socialization. Corridors widths are generous.</i>	10	9
6.12 Traffic flow is aided by appropriate foyers and corridors	10	9

Traffic flow is aided by appropriate foyers and corridors.

6.13	Areas for students to interact are suitable to the age group <i>Areas for students to interact are suitable to the age group.</i>	10	9
6.14	Large group areas are designed for effective management of students <i>Large group areas are designed for effective management of students.</i>	10	9
6.15	Acoustical treatment of ceilings, walls, and floors provides effective sound control <i>Acoustical treatment is inadequate.</i>	10	5
6.16	Window design contributes to a pleasant environment <i>Window design contributes to a pleasant environment. All classrooms and some corridors and other spaces are daylight.</i>	10	9
6.17	Furniture and equipment provide a pleasing atmosphere <i>The furniture is mismatched, but in fair condition and lacking a few design manual elements.</i>	10	6

TOTAL - Environment for Education

200

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LEED Observation Notes

School District: Willoughby-Eastlake City SD
County: Lake
School District IRN: 45104
Building: Royalview Elementary School
Building IRN: 32904

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)

Construction activity pollution prevention can be successfully managed on this site. The building is known to contain hazardous materials. The site is not known to be prime agricultural farmland, within a flood plain, habitat for an endangered species, within or near a wetland, or near a previously undeveloped body of water. The site is not within a community having a density of more than 60,000 square feet per acre. The site is not located on a previously developed site within 1/2 mile of a residential area with density of more than 10 units per acre. The site is not located within 1/2 mile of 10 basic services. The site does not have pedestrian access between the school and basic services. The site is not a brownfield. The site is not located within 1/4 mile walking of a bus stop or 1/2 mile walking of a rail station. School busses do have a dedicated lane on site. The site does have sufficient bicycle storage but lacks changing facilities. The site does not have dedicated parking for fuel efficient or low emitting vehicles. The site meets exceeds current OSDM parking requirements. The site does have sufficient area to restore 50% to a natural state. The site has more than 20% vegetative spaces. Storm water management and detention is not mitigated through storm sewers and catch basins. The hard surfaces of the site do not meet the high albedo reflectance requirements to mitigate heat island effect. The roof material does not meet the high albedo reflectance requirement to mitigate heat island effect. Light pollution on the site is created from parking fixtures. The site has sufficient area to create a master plan with stormwater management, open space, parking capacity, and heat island non-roof. The property is used by the community during or after hours.

characters remaining in Sustainable Sites.

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)

The building plumbing fixtures are not water conserving models. The site does not irrigate. Recommendations in items E, Q and R enhance water use reduction targets. A baseline water consumption report is required for water efficiency LEED credits.

characters remaining in Water Efficiency.

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)

An energy audit or fundamental commissioning of the system is required for a baseline for any energy optimization measures. The system does contain equipment with CFCs or HCFCs. The building does not comply with current ASHRAE envelop standards. The system does not comply with current energy consumption requirements. Renewable energy appliances are not present on the site. The property does have sufficient area for wind turbines. The building does have sufficient roof area for solar panels. The building does not have a measurement and verification plan in place. The building does not purchase green power.

characters remaining in Energy & Atmosphere.

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 building does have an area for the collection of recyclables. The building shell is viable for renovation. The interior partitions are mostly viable for renovation. The classrooms mostly meet OSDM standards. No comments relating to construction credits of recycled content, regional products, rapidly renewable materials, or certified wood are included.

characters remaining in Material & Resources.

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)

The building does not meet the ASHRAE standards for indoor air quality. Smoking is not permitted on site. The building does not have adequate acoustical separation of spaces. Outdoor air monitoring is not provided. Fresh air intake is through roof and side wall ventilators. The building ventilation is inadequate. Refer to items A and C for additional information. Individual controls for thermal comfort and lighting levels are provided. The building does not meet ASHRAE standards for thermal comfort levels. The building does not have a thermal comfort verification plan in place. The building does not have sufficient daylight to meet the 35 foot candle LEED requirement for some classrooms and other occupied spaces. The building does not have a system in place for mold prevention.

characters remaining in Indoor Environmental Quality.

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)

The school is within the region CGB271 Urban-Rural which capitalizes on credits pertaining to site storm water management quality and quantity, wastewater innovation, renewable energy, construction waste management, and rapidly renewable materials.

characters remaining in Innovation & Design Process.

Justification for Allocation of Points

Building Name and Level: **Royalview Elementary School**

K-5

Building features that clearly exceed criteria:

1. The building has a generously landscaped courtyard.
2. There is an abundance of daylight in the classrooms.
3. Cross categorical handicap accessible toilet rooms are provided to accomodate the needs of Special Education students.
4. The site is located in a quiet and pleasant residential area and is well insulated from noise and traffic.
5. Most corridors are generous in width, have views into the courtyards and are daylight.
6. Parking provided exceeds design manual requirements.

Building features that are non-existent or very inadequate:

1. The roof has substantial problems with leaking and is overdue for replacement.
2. The building contains asbestos and other hazardous materials.
3. The gymnasium is undersized.
4. The building is not ADA compliant. The second floor is not wheelchair accessible, and most doors are not provided with compliant clearances or hardware.
5. The building is not air conditioned.
6. The windows are drafty and are neither weathertight nor insulated.

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Environmental Hazards Assessment Cost Estimates

Owner:	Willoughby-Eastlake City SD
Facility:	Royalview Elementary School
Date of Initial Assessment:	Mar 16, 2010
Date of Assessment Update:	Jun 23, 2010
Cost Set:	2010

District IRN:	45104
Building IRN:	32904
Firm:	The Collaborative, Inc.

Scope remains unchanged after cost updates.

Building Addition	Addition Area (sf)	Total of Environmental Hazards Assessment Cost Estimates	
		Renovation	Demolition
1956 1956 Original	27,967	\$64,750.00	\$1,900.00
1958 1958 Addition	10,658	\$25,170.00	\$1,200.00
1962 1962 Addition	4,360	\$9,810.00	\$0.00
1966 1966 Addition	42,569	\$94,860.00	\$0.00
Total	85,554	\$194,590.00	\$3,100.00
Total with Regional Cost Factor (104.16%)		\$202,684.94	\$3,228.96
Regional Total with Soft Costs & Contingency		\$252,201.48	\$4,017.80

Building Summary - Royalview Elementary School (32904)

District: Willoughby-Eastlake City SD				County: Lake		Area: Northeastern Ohio (8)	
Name: Royalview Elementary School				Contact: Ms. Tamee Tucker			
Address: 31500 Royalview Dr Willowick, OH 44094				Phone: 440/944-3130			
Bldg. IRN: 32904				Date Prepared: 2010-03-16		By: Karen L Walker	
				Date Revised: 2010-06-23		By: Karen L Walker	
Current Grades		K-5	Acreage:		9.00		
Proposed Grades		N/A	Teaching Stations:		47		
Current Enrollment		829	Classrooms:		47		
Projected Enrollment		N/A					
Addition		Date	HA	Number of Floors	Current Square Feet		
1956 Original		1956	no	1	27,967		
1958 Addition		1958	no	1	10,658		
1962 Addition		1962	no	1	4,360		
1966 Addition		1966	no	2	42,569		
Total					85,554		
*HA		= Handicapped Access					
*Rating		=1 Satisfactory					
		=2 Needs Repair					
		=3 Needs Replacement					
*Const P/S		= Present/Scheduled Construction					
CEFPI Appraisal Summary							
Section							
Points Possible							
Points Earned							
Percentage							
Rating							
Category							
Cover Sheet							
1.0 The School Site							
2.0 Structural and Mechanical Features							
3.0 Plant Maintainability							
4.0 Building Safety and Security							
5.0 Educational Adequacy							
6.0 Environment for Education							
LEED Observations							
Commentary							
Total							
1000							
673							
67%							
Borderline							
Enhanced Environmental Hazards Assessment Cost Estimates							
C=Under Contract							
Renovation Cost Factor							
104.16%							
Cost to Renovate (Cost Factor applied)							
\$15,342,115.45							
<i>The Replacement Cost Per SF and the Renovate/Replace ratio are only provided when this summary is requested from a Master Plan.</i>							
FACILITY ASSESSMENT		Cost Set: 2010		Rating	Dollar Assessment		
A. Heating System				3	\$2,780,505.00		
B. Roofing				3	\$1,006,108.29		
C. Ventilation / Air Conditioning				1	\$5,000.00		
D. Electrical Systems				3	\$1,481,795.28		
E. Plumbing and Fixtures				3	\$1,050,078.00		
F. Windows				3	\$596,766.04		
G. Structure: Foundation				2	\$20,000.00		
H. Structure: Walls and Chimneys				2	\$110,563.00		
I. Structure: Floors and Roofs				1	\$0.00		
J. General Finishes				3	\$1,302,099.20		
K. Interior Lighting				3	\$427,770.00		
L. Security Systems				3	\$235,273.50		
M. Emergency/Egress Lighting				3	\$85,554.00		
N. Fire Alarm				3	\$128,331.00		
O. Handicapped Access				2	\$608,800.40		
P. Site Condition				2	\$335,592.70		
Q. Sewage System				3	\$90,000.00		
R. Water Supply				3	\$80,000.00		
S. Exterior Doors				3	\$56,000.00		
T. Hazardous Material				3	\$194,590.00		
U. Life Safety				3	\$328,050.50		
V. Loose Furnishings				2	\$256,662.00		
W. Technology				3	\$657,910.26		
- X. Construction Contingency / Non-Construction Cost				-	\$2,891,924.34		
Total					\$14,729,373.51		

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Environmental Hazards - Willoughby-Eastlake City SD (45104) - Royalview Elementary School (32904) - 1956 Original

Owner: Willoughby-Eastlake City SD **Bldg. IRN:** 32904
Facility: Royalview Elementary School **BuildingAdd:** 1956 Original
Date: **Consultant Name:**

A. Asbestos Containing Material (ACM)		AFM=Asbestos Free Material		
ACM Found	Status	Quantity	Unit Cost	Estimated Cost
1. Boiler/Furnace Insulation Removal	Not Present	0	\$10.00	\$0.00
2. Breeching Insulation Removal	Not Present	0	\$10.00	\$0.00
3. Tank Insulation Removal	Not Present	0	\$8.00	\$0.00
4. Duct Insulation Removal	Not Present	0	\$8.00	\$0.00
5. Pipe Insulation Removal	Reported Asbestos-Containing Material	150	\$10.00	\$1,500.00
6. Pipe Fitting Insulation Removal	Reported Asbestos-Containing Material	20	\$20.00	\$400.00
7. Pipe Insulation Removal (Crawlspace/Tunnel)	Not Present	0	\$12.00	\$0.00
8. Pipe Fitting Insulation Removal (Crawlspace/Tunnel)	Not Present	0	\$30.00	\$0.00
9. Pipe Insulation Removal (Hidden in Walls/Ceilings)	Not Present	0	\$15.00	\$0.00
10. Dismantling of Boiler/Furnace/Incinerator	Not Present	0	\$2,000.00	\$0.00
11. Flexible Duct Connection Removal	Not Present	0	\$100.00	\$0.00
12. Acoustical Plaster Removal	Not Present	0	\$7.00	\$0.00
13. Fireproofing Removal	Not Present	0	\$15.00	\$0.00
14. Hard Plaster Removal	Not Present	0	\$7.00	\$0.00
15. Gypsum Board Removal	Not Present	0	\$6.00	\$0.00
16. Acoustical Panel/Tile Ceiling Removal	Not Present	0	\$3.00	\$0.00
17. Laboratory Table/Counter Top Removal	Not Present	0	\$100.00	\$0.00
18. Cement Board Removal	Not Present	0	\$5.00	\$0.00
19. Electric Cord Insulation Removal	Not Present	0	\$1.00	\$0.00
20. Light (Reflector) Fixture Removal	Not Present	0	\$50.00	\$0.00
21. Sheet Flooring with Friable Backer Removal	Not Present	0	\$4.00	\$0.00
22. Fire Door Removal	Not Present	0	\$100.00	\$0.00
23. Door and Window Panel Removal	Not Present	0	\$100.00	\$0.00
24. Decontamination of Crawlspace/Chase/Tunnel	Not Present	0	\$3.00	\$0.00
25. Soil Removal	Not Present	0	\$150.00	\$0.00
26. Non-ACM Ceiling/Wall Removal (for access)	Not Present	0	\$2.00	\$0.00
27. Window Component (Compound, Tape, or Caulk) - Reno & Demo	Not Present	0	\$300.00	\$0.00
28. Window Component (Compound, Tape, or Caulk) - Reno Only	Not Present	0	\$300.00	\$0.00
29. Resilient Flooring Removal, Including Mastic	Reported Asbestos-Containing Material	20950	\$3.00	\$62,850.00
30. Carpet Mastic Removal	Not Present	0	\$2.00	\$0.00
31. Carpet Removal (over RFC)	Not Present	0	\$1.00	\$0.00
32. Acoustical Tile Mastic Removal	Not Present	0	\$3.00	\$0.00
33. Sink Undercoating Removal	Not Present	0	\$100.00	\$0.00
34. Roofing Removal	Not Present	0	\$2.00	\$0.00
35. (Sum of Lines 1-34)	Total Asb. Hazard Abatement Cost for Renovation Work			\$64,750.00
36. (Sum of Lines 1-27)	Total Asb. Hazard Abatement Cost for Demolition Work			\$1,900.00

B. Removal Of Underground Storage Tanks <input type="checkbox"/> None Reported					
Tank No.	Location	Age	Product Stored	Size	Est.Rem.Cost
1. (Sum of Lines 1-0)	Total Cost For Removal Of Underground Storage Tanks				\$0.00

C. Lead-Based Paint (LBP) - Renovation Only <input type="checkbox"/> Addition Constructed after 1980	
1. Estimated Cost For Abatement Contractor to Perform Lead Mock-Ups	\$0.00
2. Special Engineering Fees for LBP Mock-Ups	\$0.00
3. (Sum of Lines 1-2)	Total Cost for Lead-Based Paint Mock-Ups \$0.00

D. Fluorescent Lamps & Ballasts Recycling/Incineration <input type="checkbox"/> Not Applicable			
Area Of Building Addition	Square Feet w/Fluorescent Lamps & Ballasts	Unit Cost	Total Cost
1. 27967	0	\$0.10	\$0.00

E. Other Environmental Hazards/Remarks <input type="checkbox"/> None Reported		
Description	Cost Estimate	
1. (Sum of Lines 1-0)	Total Cost for Other Environmental Hazards - Renovation \$0.00	
2. (Sum of Lines 1-0)	Total Cost for Other Environmental Hazards - Demolition \$0.00	

F. Environmental Hazards Assessment Cost Estimate Summaries		
1. A35, B1, C3, D1, and E1	Total Cost for Env. Hazards Work - Renovation	\$64,750.00
2. A36, B1, D1, and E2	Total Cost for Env. Hazards Work - Demolition	\$1,900.00

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

- a. Unless reported otherwise by the District, materials installed after 1980 are assumed to be asbestos-free.
- b. Unless reported otherwise by the District, small quantities (less than 1,000 square feet) of the following materials are assumed to be asbestos free: hard plaster, acoustical plaster and gypsum board systems; acoustical panels and tiles; fireproofing; 12"x12" floor tile and mastic.
- c. Unless reported otherwise by the District, all roofing materials are assumed to be asbestos-free.

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

Environmental Hazards - Willoughby-Eastlake City SD (45104) - Royalview Elementary School (32904) - 1958 Addition

Owner: Willoughby-Eastlake City SD Bldg. IRN: 32904
 Facility: Royalview Elementary School BuildingAdd: 1958 Addition
 Date: Consultant Name:

A. Asbestos Containing Material (ACM)		AFM=Asbestos Free Material		
ACM Found	Status	Quantity	Unit Cost	Estimated Cost
1. Boiler/Furnace Insulation Removal	Not Present	0	\$10.00	\$0.00
2. Breeching Insulation Removal	Not Present	0	\$10.00	\$0.00
3. Tank Insulation Removal	Not Present	0	\$8.00	\$0.00
4. Duct Insulation Removal	Not Present	0	\$8.00	\$0.00
5. Pipe Insulation Removal	Assumed Asbestos-Containing Material	100	\$10.00	\$1,000.00
6. Pipe Fitting Insulation Removal	Assumed Asbestos-Containing Material	10	\$20.00	\$200.00
7. Pipe Insulation Removal (Crawlspace/Tunnel)	Not Present	0	\$12.00	\$0.00
8. Pipe Fitting Insulation Removal (Crawlspace/Tunnel)	Not Present	0	\$30.00	\$0.00
9. Pipe Insulation Removal (Hidden in Walls/Ceilings)	Not Present	0	\$15.00	\$0.00
10. Dismantling of Boiler/Furnace/Incinerator	Not Present	0	\$2,000.00	\$0.00
11. Flexible Duct Connection Removal	Not Present	0	\$100.00	\$0.00
12. Acoustical Plaster Removal	Not Present	0	\$7.00	\$0.00
13. Fireproofing Removal	Not Present	0	\$15.00	\$0.00
14. Hard Plaster Removal	Not Present	0	\$7.00	\$0.00
15. Gypsum Board Removal	Not Present	0	\$6.00	\$0.00
16. Acoustical Panel/Tile Ceiling Removal	Not Present	0	\$3.00	\$0.00
17. Laboratory Table/Counter Top Removal	Not Present	0	\$100.00	\$0.00
18. Cement Board Removal	Not Present	0	\$5.00	\$0.00
19. Electric Cord Insulation Removal	Not Present	0	\$1.00	\$0.00
20. Light (Reflector) Fixture Removal	Not Present	0	\$50.00	\$0.00
21. Sheet Flooring with Friable Backer Removal	Not Present	0	\$4.00	\$0.00
22. Fire Door Removal	Not Present	0	\$100.00	\$0.00
23. Door and Window Panel Removal	Not Present	0	\$100.00	\$0.00
24. Decontamination of Crawlspace/Chase/Tunnel	Not Present	0	\$3.00	\$0.00
25. Soil Removal	Not Present	0	\$150.00	\$0.00
26. Non-ACM Ceiling/Wall Removal (for access)	Not Present	0	\$2.00	\$0.00
27. Window Component (Compound, Tape, or Caulk) - Reno & Demo	Not Present	0	\$300.00	\$0.00
28. Window Component (Compound, Tape, or Caulk) - Reno Only	Not Present	0	\$300.00	\$0.00
29. Resilient Flooring Removal, Including Mastic	Reported Asbestos-Containing Material	7990	\$3.00	\$23,970.00
30. Carpet Mastic Removal	Not Present	0	\$2.00	\$0.00
31. Carpet Removal (over RFC)	Not Present	0	\$1.00	\$0.00
32. Acoustical Tile Mastic Removal	Not Present	0	\$3.00	\$0.00
33. Sink Undercoating Removal	Not Present	0	\$100.00	\$0.00
34. Roofing Removal	Not Present	0	\$2.00	\$0.00
35. (Sum of Lines 1-34)	Total Asb. Hazard Abatement Cost for Renovation Work			\$25,170.00
36. (Sum of Lines 1-27)	Total Asb. Hazard Abatement Cost for Demolition Work			\$1,200.00

B. Removal Of Underground Storage Tanks <input type="checkbox"/> None Reported					
Tank No.	Location	Age	Product Stored	Size	Est.Rem.Cost
1. (Sum of Lines 1-0)	Total Cost For Removal Of Underground Storage Tanks				\$0.00

C. Lead-Based Paint (LBP) - Renovation Only <input type="checkbox"/> Addition Constructed after 1980	
1. Estimated Cost For Abatement Contractor to Perform Lead Mock-Ups	\$0.00
2. Special Engineering Fees for LBP Mock-Ups	\$0.00
3. (Sum of Lines 1-2)	Total Cost for Lead-Based Paint Mock-Ups \$0.00

D. Fluorescent Lamps & Ballasts Recycling/Incineration <input type="checkbox"/> Not Applicable			
Area Of Building Addition	Square Feet w/Fluorescent Lamps & Ballasts	Unit Cost	Total Cost
1. 10658	0	\$0.10	\$0.00

E. Other Environmental Hazards/Remarks <input type="checkbox"/> None Reported		
Description	Cost Estimate	
1. (Sum of Lines 1-0)	Total Cost for Other Environmental Hazards - Renovation \$0.00	
2. (Sum of Lines 1-0)	Total Cost for Other Environmental Hazards - Demolition \$0.00	

F. Environmental Hazards Assessment Cost Estimate Summaries		
1. A35, B1, C3, D1, and E1	Total Cost for Env. Hazards Work - Renovation	\$25,170.00
2. A36, B1, D1, and E2	Total Cost for Env. Hazards Work - Demolition	\$1,200.00

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

- a. Unless reported otherwise by the District, materials installed after 1980 are assumed to be asbestos-free.
- b. Unless reported otherwise by the District, small quantities (less than 1,000 square feet) of the following materials are assumed to be asbestos free: hard plaster, acoustical plaster and gypsum board systems; acoustical panels and tiles; fireproofing; 12"x12" floor tile and mastic.
- c. Unless reported otherwise by the District, all roofing materials are assumed to be asbestos-free.

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

Environmental Hazards - Willoughby-Eastlake City SD (45104) - Royalview Elementary School (32904) - 1962 Addition

Owner: Willoughby-Eastlake City SD Bldg. IRN: 32904
 Facility: Royalview Elementary School BuildingAdd: 1962 Addition
 Date: Consultant Name:

A. Asbestos Containing Material (ACM)		AFM=Asbestos Free Material		
ACM Found	Status	Quantity	Unit Cost	Estimated Cost
1. Boiler/Furnace Insulation Removal	Not Present	0	\$10.00	\$0.00
2. Breeching Insulation Removal	Not Present	0	\$10.00	\$0.00
3. Tank Insulation Removal	Not Present	0	\$8.00	\$0.00
4. Duct Insulation Removal	Not Present	0	\$8.00	\$0.00
5. Pipe Insulation Removal	Not Present	0	\$10.00	\$0.00
6. Pipe Fitting Insulation Removal	Not Present	0	\$20.00	\$0.00
7. Pipe Insulation Removal (Crawlspace/Tunnel)	Not Present	0	\$12.00	\$0.00
8. Pipe Fitting Insulation Removal (Crawlspace/Tunnel)	Not Present	0	\$30.00	\$0.00
9. Pipe Insulation Removal (Hidden in Walls/Ceilings)	Not Present	0	\$15.00	\$0.00
10. Dismantling of Boiler/Furnace/Incinerator	Not Present	0	\$2,000.00	\$0.00
11. Flexible Duct Connection Removal	Not Present	0	\$100.00	\$0.00
12. Acoustical Plaster Removal	Not Present	0	\$7.00	\$0.00
13. Fireproofing Removal	Not Present	0	\$15.00	\$0.00
14. Hard Plaster Removal	Not Present	0	\$7.00	\$0.00
15. Gypsum Board Removal	Not Present	0	\$6.00	\$0.00
16. Acoustical Panel/Tile Ceiling Removal	Not Present	0	\$3.00	\$0.00
17. Laboratory Table/Counter Top Removal	Not Present	0	\$100.00	\$0.00
18. Cement Board Removal	Not Present	0	\$5.00	\$0.00
19. Electric Cord Insulation Removal	Not Present	0	\$1.00	\$0.00
20. Light (Reflector) Fixture Removal	Not Present	0	\$50.00	\$0.00
21. Sheet Flooring with Friable Backer Removal	Not Present	0	\$4.00	\$0.00
22. Fire Door Removal	Not Present	0	\$100.00	\$0.00
23. Door and Window Panel Removal	Not Present	0	\$100.00	\$0.00
24. Decontamination of Crawlspace/Chase/Tunnel	Not Present	0	\$3.00	\$0.00
25. Soil Removal	Not Present	0	\$150.00	\$0.00
26. Non-ACM Ceiling/Wall Removal (for access)	Not Present	0	\$2.00	\$0.00
27. Window Component (Compound, Tape, or Caulk) - Reno & Demo	Not Present	0	\$300.00	\$0.00
28. Window Component (Compound, Tape, or Caulk) - Reno Only	Not Present	0	\$300.00	\$0.00
29. Resilient Flooring Removal, Including Mastic	Reported Asbestos-Containing Material	3270	\$3.00	\$9,810.00
30. Carpet Mastic Removal	Not Present	0	\$2.00	\$0.00
31. Carpet Removal (over RFC)	Not Present	0	\$1.00	\$0.00
32. Acoustical Tile Mastic Removal	Not Present	0	\$3.00	\$0.00
33. Sink Undercoating Removal	Not Present	0	\$100.00	\$0.00
34. Roofing Removal	Not Present	0	\$2.00	\$0.00
35. (Sum of Lines 1-34)	Total Asb. Hazard Abatement Cost for Renovation Work			\$9,810.00
36. (Sum of Lines 1-27)	Total Asb. Hazard Abatement Cost for Demolition Work			\$0.00

B. Removal Of Underground Storage Tanks <input type="checkbox"/> None Reported					
Tank No.	Location	Age	Product Stored	Size	Est.Rem.Cost
1. (Sum of Lines 1-0)	Total Cost For Removal Of Underground Storage Tanks				\$0.00

C. Lead-Based Paint (LBP) - Renovation Only <input type="checkbox"/> Addition Constructed after 1980			
1. Estimated Cost For Abatement Contractor to Perform Lead Mock-Ups			\$0.00
2. Special Engineering Fees for LBP Mock-Ups			\$0.00
3. (Sum of Lines 1-2)	Total Cost for Lead-Based Paint Mock-Ups		\$0.00

D. Fluorescent Lamps & Ballasts Recycling/Incineration <input type="checkbox"/> Not Applicable			
Area Of Building Addition	Square Feet w/Fluorescent Lamps & Ballasts	Unit Cost	Total Cost
1. 4360	0	\$0.10	\$0.00

E. Other Environmental Hazards/Remarks <input type="checkbox"/> None Reported		
	Description	Cost Estimate
1. (Sum of Lines 1-0)	Total Cost for Other Environmental Hazards - Renovation	\$0.00
2. (Sum of Lines 1-0)	Total Cost for Other Environmental Hazards - Demolition	\$0.00

F. Environmental Hazards Assessment Cost Estimate Summaries		
1. A35, B1, C3, D1, and E1	Total Cost for Env. Hazards Work - Renovation	\$9,810.00
2. A36, B1, D1, and E2	Total Cost for Env. Hazards Work - Demolition	\$0.00

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

- a. Unless reported otherwise by the District, materials installed after 1980 are assumed to be asbestos-free.
- b. Unless reported otherwise by the District, small quantities (less than 1,000 square feet) of the following materials are assumed to be asbestos free: hard plaster, acoustical plaster and gypsum board systems; acoustical panels and tiles; fireproofing; 12"x12" floor tile and mastic.
- c. Unless reported otherwise by the District, all roofing materials are assumed to be asbestos-free.

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

Environmental Hazards - Willoughby-Eastlake City SD (45104) - Royalview Elementary School (32904) - 1966 Addition

Owner: Willoughby-Eastlake City SD Bldg. IRN: 32904
 Facility: Royalview Elementary School BuildingAdd: 1966 Addition
 Date: Consultant Name:

A. Asbestos Containing Material (ACM)		AFM=Asbestos Free Material		
ACM Found	Status	Quantity	Unit Cost	Estimated Cost
1. Boiler/Furnace Insulation Removal	Not Present	0	\$10.00	\$0.00
2. Breeching Insulation Removal	Not Present	0	\$10.00	\$0.00
3. Tank Insulation Removal	Not Present	0	\$8.00	\$0.00
4. Duct Insulation Removal	Not Present	0	\$8.00	\$0.00
5. Pipe Insulation Removal	Not Present	0	\$10.00	\$0.00
6. Pipe Fitting Insulation Removal	Not Present	0	\$20.00	\$0.00
7. Pipe Insulation Removal (Crawlspace/Tunnel)	Not Present	0	\$12.00	\$0.00
8. Pipe Fitting Insulation Removal (Crawlspace/Tunnel)	Not Present	0	\$30.00	\$0.00
9. Pipe Insulation Removal (Hidden in Walls/Ceilings)	Not Present	0	\$15.00	\$0.00
10. Dismantling of Boiler/Furnace/Incinerator	Not Present	0	\$2,000.00	\$0.00
11. Flexible Duct Connection Removal	Not Present	0	\$100.00	\$0.00
12. Acoustical Plaster Removal	Not Present	0	\$7.00	\$0.00
13. Fireproofing Removal	Not Present	0	\$15.00	\$0.00
14. Hard Plaster Removal	Not Present	0	\$7.00	\$0.00
15. Gypsum Board Removal	Not Present	0	\$6.00	\$0.00
16. Acoustical Panel/Tile Ceiling Removal	Not Present	0	\$3.00	\$0.00
17. Laboratory Table/Counter Top Removal	Not Present	0	\$100.00	\$0.00
18. Cement Board Removal	Not Present	0	\$5.00	\$0.00
19. Electric Cord Insulation Removal	Not Present	0	\$1.00	\$0.00
20. Light (Reflector) Fixture Removal	Not Present	0	\$50.00	\$0.00
21. Sheet Flooring with Friable Backer Removal	Not Present	0	\$4.00	\$0.00
22. Fire Door Removal	Not Present	0	\$100.00	\$0.00
23. Door and Window Panel Removal	Not Present	0	\$100.00	\$0.00
24. Decontamination of Crawlspace/Chase/Tunnel	Not Present	0	\$3.00	\$0.00
25. Soil Removal	Not Present	0	\$150.00	\$0.00
26. Non-ACM Ceiling/Wall Removal (for access)	Not Present	0	\$2.00	\$0.00
27. Window Component (Compound, Tape, or Caulk) - Reno & Demo	Not Present	0	\$300.00	\$0.00
28. Window Component (Compound, Tape, or Caulk) - Reno Only	Not Present	0	\$300.00	\$0.00
29. Resilient Flooring Removal, Including Mastic	Reported Asbestos-Containing Material	31620	\$3.00	\$94,860.00
30. Carpet Mastic Removal	Not Present	0	\$2.00	\$0.00
31. Carpet Removal (over RFC)	Not Present	0	\$1.00	\$0.00
32. Acoustical Tile Mastic Removal	Not Present	0	\$3.00	\$0.00
33. Sink Undercoating Removal	Not Present	0	\$100.00	\$0.00
34. Roofing Removal	Not Present	0	\$2.00	\$0.00
35. (Sum of Lines 1-34)	Total Asb. Hazard Abatement Cost for Renovation Work			\$94,860.00
36. (Sum of Lines 1-27)	Total Asb. Hazard Abatement Cost for Demolition Work			\$0.00

B. Removal Of Underground Storage Tanks <input type="checkbox"/> None Reported					
Tank No.	Location	Age	Product Stored	Size	Est.Rem.Cost
1. (Sum of Lines 1-0)	Total Cost For Removal Of Underground Storage Tanks				\$0.00

C. Lead-Based Paint (LBP) - Renovation Only <input type="checkbox"/> Addition Constructed after 1980			
1. Estimated Cost For Abatement Contractor to Perform Lead Mock-Ups			\$0.00
2. Special Engineering Fees for LBP Mock-Ups			\$0.00
3. (Sum of Lines 1-2)	Total Cost for Lead-Based Paint Mock-Ups		\$0.00

D. Fluorescent Lamps & Ballasts Recycling/Incineration <input type="checkbox"/> Not Applicable				
Area Of Building Addition	Square Feet w/Fluorescent Lamps & Ballasts	Unit Cost	Total Cost	
1. 42569	0	\$0.10	\$0.00	

E. Other Environmental Hazards/Remarks <input type="checkbox"/> None Reported			
	Description	Cost Estimate	
1. (Sum of Lines 1-0)	Total Cost for Other Environmental Hazards - Renovation	\$0.00	
2. (Sum of Lines 1-0)	Total Cost for Other Environmental Hazards - Demolition	\$0.00	

F. Environmental Hazards Assessment Cost Estimate Summaries			
1. A35, B1, C3, D1, and E1	Total Cost for Env. Hazards Work - Renovation		\$94,860.00
2. A36, B1, D1, and E2	Total Cost for Env. Hazards Work - Demolition		\$0.00

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

- a. Unless reported otherwise by the District, materials installed after 1980 are assumed to be asbestos-free.
- b. Unless reported otherwise by the District, small quantities (less than 1,000 square feet) of the following materials are assumed to be asbestos free: hard plaster, acoustical plaster and gypsum board systems; acoustical panels and tiles; fireproofing; 12"x12" floor tile and mastic.
- c. Unless reported otherwise by the District, all roofing materials are assumed to be asbestos-free.

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