

Building Information - Willoughby-Eastlake City SD (45104) - Washington Elem

Program Type	Expedited Local Partnership Program (ELPP)
Setting	Suburban
Assessment Name	Washington E_2010_TCI
Assessment Date	2010-03-16
Cost Set:	2010
Building Name	Washington Elem
Building IRN	39321
Building Address	503 Vegas Dr
Building City	Eastlake
Building Zipcode	44095
Building Phone	440/975-3710
Acreage	9.27
Current Grades	K-5
Teaching Stations	34
Number of Floors	2
Student Capacity	775
Current Enrollment	470
Enrollment Date	2010-04-01
Enrollment Date is the date in which the current enrollment was taken.	
Number of Classrooms	31
Historical Register	NO
Building's Principal	Ms. Betty Stevens
Building Type	Elementary

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North elevation photo:



East elevation photo:



South elevation photo:



West elevation photo:



GENERAL DESCRIPTION

54,734 Total Existing Square Footage
1961,1963 Building Dates
K-5 Grades
470 Current Enrollment
34 Teaching Stations
9.27 Site Acreage

Washington Elementary, which is not on the National Register of Historic Buildings, and originally constructed in 1961, is a 2 story, 54734 square foot brick school building located in a suburban residential setting. The existing facility features a conventionally partitioned design with some operable partitions, and does not utilize modular buildings. The structure of the overall facility contains steel frame with masonry back up for brick and metal panel siding veneer exterior wall construction, with masonry block and wood stud with drywall construction in the interior. The floor system consists of slab on grade and bar joists with metal deck and concrete topping. The roof structure is bar joists with metal deck. The roofing system of the overall facility is ballasted membrane installed before 2000. The ventilation system of the building is inadequate to meet the needs of the users. The Classrooms are within design manual tolerances in terms of the current standards established by the State of Ohio. Physical Education and Student Dining spaces consist of one Gymnasium and separate Student Dining. The electrical system for the facility is inadequate. The facility is not equipped with a non-compliant security system. The building does have an 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 a 9.27 acre site adjacent to residential properties. The property, playgrounds, and play areas athletic facilities are not fenced for security. Access onto the site is unrestricted. Site circulation is 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 building is reported to leak. Building deliver/drop off and student playgrounds are not separated.

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Building Construction Information - Willoughby-Eastlake City SD (45104) - Washington Elem (39321)

Name	Year	Handicapped Access	Floors	Square Feet
1961 Original	1961	no	1	38,970
1963 Addition	1963	no	2	15,764

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Building Component Information - Willoughby-Eastlake City SD (45104) - Washington Elem (39321)

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
1961 Original (1961)		9773			1323		2586	78						
1963 Addition (1963)		1008		2512										
Master Planning Considerations														

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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 - Washington Elem (39321)

District: Willoughby-Eastlake City SD				County: Lake		Area: Northeastern Ohio (8)			
Name: Washington Elem				Contact: Ms. Betty Stevens					
Address: 503 Vegas Dr Eastlake, OH 44095				Phone: 440/975-3710					
Bldg. IRN: 39321				Date Prepared: 2010-03-16		By: Karen L Walker			
				Date Revised: 2010-06-23		By: Karen L Walker			
Current Grades		K-5	Acreage:		9.27				
Proposed Grades		N/A	Teaching Stations:		34				
Current Enrollment		470	Classrooms:		31				
Projected Enrollment		N/A							
Addition		Date	HA	Number of Floors	Current Square Feet				
1961 Original		1961	no	1	38,970				
1963 Addition		1963	no	2	15,764				
Total					54,734				
*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
				<u>Cover Sheet</u>	<	<	<	<	<
				1.0 <u>The School Site</u>	100	72	72%		Satisfactory
				2.0 <u>Structural and Mechanical Features</u>	200	91	46%		Poor
				3.0 <u>Plant Maintainability</u>	100	61	61%		Borderline
				4.0 <u>Building Safety and Security</u>	200	138	69%		Borderline
				5.0 <u>Educational Adequacy</u>	200	135	68%		Borderline
				6.0 <u>Environment for Education</u>	200	133	67%		Borderline
				<u>LEED Observations</u>	<	<	<	<	<
				<u>Commentary</u>	<	<	<	<	<
				Total	1000	630	63%		Borderline
Enhanced Environmental Hazards Assessment Cost Estimates									
FACILITY ASSESSMENT				Rating	Dollar Assessment				
Cost Set: 2010									
A.	<u>Heating System</u>			3	\$1,778,855.00 -				
B.	<u>Roofing</u>			3	\$628,039.88 -				
C.	<u>Ventilation / Air Conditioning</u>			1	\$5,000.00 -				
D.	<u>Electrical Systems</u>			3	\$947,992.88 -				
E.	<u>Plumbing and Fixtures</u>			3	\$648,838.00 -				
F.	<u>Windows</u>			3	\$233,999.62 -				
G.	<u>Structure: Foundation</u>			1	\$0.00 -				
H.	<u>Structure: Walls and Chimneys</u>			2	\$155,619.00 -				
I.	<u>Structure: Floors and Roofs</u>			1	\$0.00 -				
J.	<u>General Finishes</u>			3	\$890,363.20 -				
K.	<u>Interior Lighting</u>			3	\$273,670.00 -				
L.	<u>Security Systems</u>			3	\$150,518.50 -				
M.	<u>Emergency/Egress Lighting</u>			3	\$54,734.00 -				
N.	<u>Fire Alarm</u>			3	\$82,101.00 -				
O.	<u>Handicapped Access</u>			2	\$386,283.40 -				
P.	<u>Site Condition</u>			2	\$393,000.45 -				
Q.	<u>Sewage System</u>			3	\$67,500.00 -				
R.	<u>Water Supply</u>			3	\$60,000.00 -				
S.	<u>Exterior Doors</u>			3	\$46,000.00 -				
T.	<u>Hazardous Material</u>			3	\$135,524.00 -				
U.	<u>Life Safety</u>			3	\$197,885.50 -				
V.	<u>Loose Furnishings</u>			3	\$273,670.00 -				
W.	<u>Technology</u>			3	\$490,416.64 -				
- X.	<u>Construction Contingency / Non-Construction Cost</u>			-	\$1,929,996.40 -				
Total					\$9,830,007.47				
					C=Under Contract				
					Renovation Cost Factor				
					104.16%				
					Cost to Renovate (Cost Factor applied)				
					\$10,238,935.79				
								<i>The Replacement Cost Per SF and the Renovate/Replace ratio are only provided when this summary is requested from a Master Plan.</i>	

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1961 Original (1961) Summary

District: Willoughby-Eastlake City SD				County: Lake		Area: Northeastern Ohio (8)	
Name: Washington Elem				Contact: Ms. Betty Stevens			
Address: 503 Vegas Dr Eastlake, OH 44095				Phone: 440/975-3710			
Bldg. IRN: 39321				Date Prepared: 2010-03-16		By: Karen L Walker	
				Date Revised: 2010-06-23		By: Karen L Walker	
Current Grades		K-5	Acreage:		9.27		
Proposed Grades		N/A	Teaching Stations:		34		
Current Enrollment		470	Classrooms:		31		
Projected Enrollment		N/A					
Addition		Date	HA	Number of Floors	Current Square Feet		
1961 Original		1961	no	1	38,970		
1963 Addition		1963	no	2	15,764		
Total						54,734	
*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	
<u>Cover Sheet</u>							
1.0 <u>The School Site</u>		100		72		72% Satisfactory	
2.0 <u>Structural and Mechanical Features</u>		200		91		46% Poor	
3.0 <u>Plant Maintainability</u>		100		61		61% Borderline	
4.0 <u>Building Safety and Security</u>		200		138		69% Borderline	
5.0 <u>Educational Adequacy</u>		200		135		68% Borderline	
6.0 <u>Environment for Education</u>		200		133		67% Borderline	
<u>LEED Observations</u>							
<u>Commentary</u>							
Total		1000		630		63% Borderline	
Enhanced Environmental Hazards Assessment Cost Estimates							
FACILITY ASSESSMENT				Rating		Dollar Assessment	
Cost Set: 2010							
A. <u>Heating System</u>				3		\$1,266,525.00 -	
B. <u>Roofing</u>				3		\$380,424.50 -	
C. <u>Ventilation / Air Conditioning</u>				1		\$5,000.00 -	
D. <u>Electrical Systems</u>				3		\$674,960.40 -	
E. <u>Plumbing and Fixtures</u>				3		\$453,890.00 -	
F. <u>Windows</u>				3		\$191,745.62 -	
G. <u>Structure: Foundation</u>				1		\$0.00 -	
H. <u>Structure: Walls and Chimneys</u>				2		\$94,244.00 -	
I. <u>Structure: Floors and Roofs</u>				1		\$0.00 -	
J. <u>General Finishes</u>				3		\$628,596.00 -	
K. <u>Interior Lighting</u>				3		\$194,850.00 -	
L. <u>Security Systems</u>				3		\$107,167.50 -	
M. <u>Emergency/Egress Lighting</u>				3		\$38,970.00 -	
N. <u>Fire Alarm</u>				3		\$58,455.00 -	
O. <u>Handicapped Access</u>				2		\$175,067.00 -	
P. <u>Site Condition</u>				2		\$369,354.45 -	
Q. <u>Sewage System</u>				3		\$45,000.00 -	
R. <u>Water Supply</u>				3		\$40,000.00 -	
S. <u>Exterior Doors</u>				3		\$46,000.00 -	
T. <u>Hazardous Material</u>				3		\$88,032.00 -	
U. <u>Life Safety</u>				3		\$136,652.50 -	
V. <u>Loose Furnishings</u>				3		\$194,850.00 -	
W. <u>Technology</u>				3		\$349,171.20 -	
- X. <u>Construction Contingency / Non-Construction Cost</u>						\$1,353,183.36 -	
Total						\$6,892,138.53	
						C=Under Contract	
						Renovation Cost Factor	
						104.16%	
						Cost to Renovate (Cost Factor applied)	
						\$7,178,851.50	
<i>The Replacement Cost Per SF and the Renovate/Replace ratio are only provided when this summary is requested from a Master Plan.</i>							

1963 Addition (1963) Summary

District: Willoughby-Eastlake City SD				County: Lake		Area: Northeastern Ohio (8)	
Name: Washington Elem				Contact: Ms. Betty Stevens			
Address: 503 Vegas Dr Eastlake, OH 44095				Phone: 440/975-3710			
Bldg. IRN: 39321				Date Prepared: 2010-03-16		By: Karen L Walker	
				Date Revised: 2010-06-23		By: Karen L Walker	
Current Grades		K-5	Acreage:		9.27		
Proposed Grades		N/A	Teaching Stations:		34		
Current Enrollment		470	Classrooms:		31		
Projected Enrollment		N/A					
Addition		Date	HA	Number of Floors	Current Square Feet		
1961 Original		1961	no	1	38,970		
1963 Addition		1963	no	2	15,764		
Total					54,734		
*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	
<u>Cover Sheet</u>							
1.0 <u>The School Site</u>		100		72		72% Satisfactory	
2.0 <u>Structural and Mechanical Features</u>		200		91		46% Poor	
3.0 <u>Plant Maintainability</u>		100		61		61% Borderline	
4.0 <u>Building Safety and Security</u>		200		138		69% Borderline	
5.0 <u>Educational Adequacy</u>		200		135		68% Borderline	
6.0 <u>Environment for Education</u>		200		133		67% Borderline	
<u>LEED Observations</u>							
<u>Commentary</u>							
Total		1000		630		63% Borderline	
Enhanced Environmental Hazards Assessment Cost Estimates							
FACILITY ASSESSMENT							
Cost Set: 2010				Rating		Dollar Assessment	
A. <u>Heating System</u>		3		\$512,330.00		-	
B. <u>Roofing</u>		3		\$247,615.38		-	
C. <u>Ventilation / Air Conditioning</u>		1		\$0.00		-	
D. <u>Electrical Systems</u>		3		\$273,032.48		-	
E. <u>Plumbing and Fixtures</u>		3		\$194,948.00		-	
F. <u>Windows</u>		3		\$42,254.00		-	
G. <u>Structure: Foundation</u>		1		\$0.00		-	
H. <u>Structure: Walls and Chimneys</u>		2		\$61,375.00		-	
I. <u>Structure: Floors and Roofs</u>		1		\$0.00		-	
J. <u>General Finishes</u>		3		\$261,767.20		-	
K. <u>Interior Lighting</u>		3		\$78,820.00		-	
L. <u>Security Systems</u>		3		\$43,351.00		-	
M. <u>Emergency/Egress Lighting</u>		3		\$15,764.00		-	
N. <u>Fire Alarm</u>		3		\$23,646.00		-	
O. <u>Handicapped Access</u>		2		\$211,216.40		-	
P. <u>Site Condition</u>		2		\$23,646.00		-	
Q. <u>Sewage System</u>		3		\$22,500.00		-	
R. <u>Water Supply</u>		3		\$20,000.00		-	
S. <u>Exterior Doors</u>		3		\$0.00		-	
T. <u>Hazardous Material</u>		3		\$47,492.00		-	
U. <u>Life Safety</u>		3		\$61,233.00		-	
V. <u>Loose Furnishings</u>		3		\$78,820.00		-	
W. <u>Technology</u>		3		\$141,245.44		-	
- X. <u>Construction Contingency / Non-Construction Cost</u>		-		\$576,813.04		-	
Total						\$2,937,868.94	
C=Under Contract							
Renovation Cost Factor						104.16%	
Cost to Renovate (Cost Factor applied)						\$3,060,084.29	
<i>The Replacement Cost Per SF and the Renovate/Replace ratio are only provided when this summary is requested from a Master Plan.</i>							

A. Heating System

Description: The existing 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 1961. 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. 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 York were installed in 1961 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 1961 and new with the 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 1961 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	1961 Original (1961)	1963 Addition (1963)	Sum	Comments
HVAC System Replacement:	\$25.00	sq.ft.		38,970 ft ²	15,764 ft ²		Required
Convert To Ducted System Replacement	\$7.50	sq.ft.		Required	Required	\$1,368,350.00	(includes demo of existing system and reconfiguration of piping layout and new controls, air conditioning)
Sum:			\$1,778,855.00	\$1,266,525.00	\$512,330.00		\$410,505.00 (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)



Gas Fired Hot Water Boilers



Ceiling Unit Heater

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B. Roofing

Description: The roof of the overall facility is a gravel-ballasted built-up system that was installed in 1998, and is in poor condition. There are District reports of current leaking. The roof reportedly leaks at the southwest area of the north roof surface, on the 1963 addition just to the north of the gymnasium and just to the southwest of the gymnasium, and on the south roof surface just to the southwest of the courtyard. Signs of past leaking were observed in these locations during the physical assessment. The roof does not have positive slope to drain. Access to the roof was gained by portable ladder and between different roof surfaces by a metal ladder. Fall safety protection cages are not required, and are not provided. Evidence of recent ponding on the southern roof surface of the 1961 Original Construction was observed. Metal cap flashings and stone copings are in poor condition. Roof storm drainage is addressed through a system of roof drains, which are properly located, and in fair condition. The roof is not equipped with overflow roof drains though they are needed on this building. Flashing at the chimney and at the vent fans near the chimney were in need of attention. The expansion joint cover flashing at the edges of the 1963 addition were in need of repair or replacement. There are not any covered walkways attached to this structure.

Rating: 3 Needs Replacement

Recommendations: The roofing requires replacement with single-ply membrane roofing to meet Ohio School Design Manual guidelines for lack of insulation and lack of positive slope. The flashing and coping require replacement due to condition. Overflow drainage is needed, along with new roof drains with the new roofing system. Tapered insulation is needed both to give the roof positive slope and to provide compliant thermal insulation.

Item	Cost	Unit	Whole Building	1961 Original (1961)	1963 Addition (1963)	Sum	Comments
Membrane (all types):	\$8.27	sq.ft. (Qty)		25,850 Required	16,094 Required	\$346,876.88	(unless under 10,000 sq.ft.)
Repair/replace cap flashing and coping:	\$17.50	ln.ft.		1,184 Required	714 Required	\$33,215.00	
Remove/replace existing roof Drains and Sump:	\$1,200.00	each		8 Required	8 Required	\$19,200.00	
Overflow Roof Drains and Piping:	\$2,500.00	each		8 Required	8 Required	\$40,000.00	
Roof Insulation:	\$4.50	sq.ft. (Qty)		25,850 Required	16,094 Required	\$188,748.00	(tapered insulation for limited area use to correct ponding)
Sum:			\$628,039.88	\$380,424.50	\$247,615.38		



Evidence of ponding on roof



Hood with flashing that possibly leaks

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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 1961 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 non-existent. 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 art kiln listed in item J.

Item	Cost	Unit	Whole Building	1961 Original (1961) 38,970 ft ²	1963 Addition (1963) 15,764 ft ²	Sum	Comments
Kiln Exhaust System:	\$5,000.00	each		1 Required		\$5,000.00	
Sum:			\$5,000.00	\$5,000.00	\$0.00		



Exhaust Fans / Roof Ventilator



Thru-the-Wall Air Conditioner

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D. Electrical Systems

Description: The electrical system provided to the overall facility is a 400 amp 120/208 volt, 3 phase, 4 wire original system from the year 1961, and is in fair condition. 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 60 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 due to lack of OSDM - required features and to accommodate the addition of an air conditioning system.

Item	Cost	Unit	Whole Building	1961 Original (1961)	1963 Addition (1963)	Sum	Comments
System Replacement:	\$17.32	sq.ft.		38,970 ft ²	15,764 ft ²	\$947,992.88	(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:			\$947,992.88	\$674,960.40	\$273,032.48		



Pole Mounted Power Transformer



Main Electrical Switch Panel

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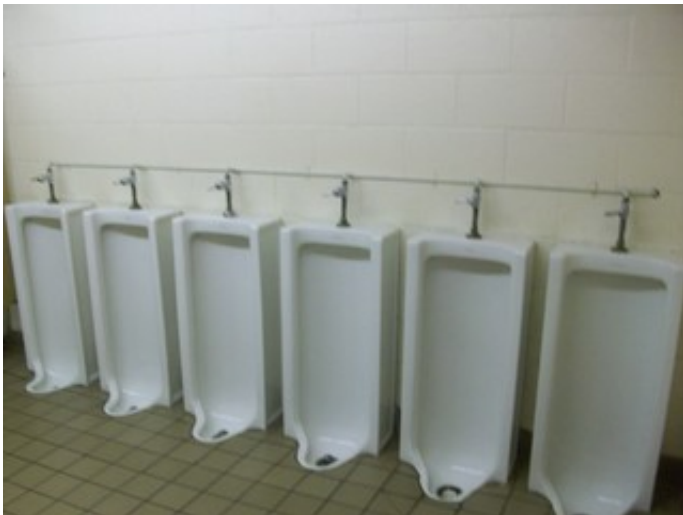
E. Plumbing and Fixtures

Description: This school has 27 wall hung water closets, 10 urinals, 28 lavatories, 5 wall hung electric water coolers, 27 sinks, and 3 mop sinks. Most of the plumbing fixtures are in fair condition, but ADA requirements are not met for plumbing fixtures. A 3 inch reduced principle backflow preventer is required. The building has a 3 inch domestic water supply line. This water heater appears to be in very good condition. Domestic water piping is copper and appears to be in good condition. Sanitary drainage and vent piping is cast iron that appears to be in good condition.

Rating: 3 Needs Replacement

Recommendations: Provide all new plumbing fixtures, faucets and flush valves to replace the existing because of ADA requirements, water efficiency, and condition of old plumbing fixtures. Replace existing water heater with new high efficient gas fired boilers. 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	1961 Original (1961)	1963 Addition (1963)	Sum	Comments
				38,970 ft ²	15,764 ft ²		
Back Flow Preventer:	\$5,000.00	unit		1 Required	0 Required	\$5,000.00	
Domestic Supply Piping:	\$3.50	sq.ft.		Required	Required	\$191,569.00	(remove / replace)
Sanitary Waste Piping:	\$3.50	sq.ft.		Required	Required	\$191,569.00	(remove / replace)
Domestic Water Heater:	\$5,100.00	per unit		1 Required		\$5,100.00	(remove / replace)
Toilet:	\$3,800.00	unit		19 Required	8 Required	\$102,600.00	(new)
Urinal:	\$3,800.00	unit		6 Required	4 Required	\$38,000.00	(new)
Sink:	\$2,500.00	unit		18 Required	9 Required	\$67,500.00	(new)
Electric water cooler:	\$3,000.00	unit		3 Required	2 Required	\$15,000.00	(double ADA)
Replace faucets and flush valves	\$500.00	per unit		44 Required	21 Required	\$32,500.00	(average cost to remove/replace)
Sum:			\$648,838.00	\$453,890.00	\$194,948.00		



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F. Windows

Description: The overall facility is equipped with non-thermally broken aluminum windows with single glazed type window system, which were installed in 1961 and 1963, and are generally in poor condition. Window system seals are in moderate condition, with moderate air and water infiltration being experienced. Window system hardware is in moderate condition. The window system features surface mounted shades which are in moderate condition. The window system is not equipped with insect screens on operable window. Aluminum frame storefront systems are found in the overall facility, in fair to poor condition. This facility does not feature any glass block windows. The exterior doors in the overall facility are equipped with non-thermally broken aluminum sidelights and transoms with single glazing in poor condition. Glazing panels are a combination of tempered, non-tempered, and wired glass, with some fiberglass spandrel panels. Window security grilles are not provided for ground floor windows. The school does not contain skylights. 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 storefront wall system in the overall facility to meet with Ohio School Design Manual requirements. Replace window transoms / sidelights in exterior doors of the overall facility with approved safety glass to meet with Ohio School Design Manual requirements.

Item	Cost	Unit	Whole Building	1961 Original (1961)	1963 Addition (1963)	Sum	Comments
				38,970 ft ²	15,764 ft ²		
Insulated Glass/Panels:	\$57.10	sq.ft. (Qty)		1,898 Required	740 Required	\$150,629.80	(includes blinds)
Curtain Wall/Storefront System:	\$64.18	sq.ft. (Qty)		1,299 Required		\$83,369.82	(remove and replace)
Sum:			\$233,999.62	\$191,745.62	\$42,254.00		



Typical aluminum window system.



Aluminum storefront window system damage.

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G. Structure: Foundation

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

Rating: 1 Satisfactory

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

Item	Cost	Unit	Whole Building	1961 Original (1961)	1963 Addition (1963)	Sum	Comments
				38,970 ft ²	15,764 ft ²		
Sum:			\$0.00	\$0.00	\$0.00		



Typical foundation condition.

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H. Structure: Walls and Chimneys

Description: The overall facility has a steel frame with brick veneer and curtain wall system which displayed no locations of deterioration, and is in fair condition. The exterior masonry appears to have appropriately spaced and inadequately caulked control joints in poor condition. Control joints are not provided at lintel locations at doors and windows. The 1961 Original Construction has sufficient expansion joints, and they are in poor condition and need repair. The exterior masonry has not been cleaned and sealed in recent years, and shows evidence of mortar deterioration at the base of the South side, at the base of the wall on the North wall of the entry canopy, at the base of the wall on the walls just East and West of the North entries. Extensive efflorescence and spalling has occurred at the base of the south wall between the entries. Exterior metal panels are located in both the 1961 Original Building and the 1963 Addition, and are in fair condition. Metal panel flashings and joints are in poor condition. Interior walls are concrete masonry units with some wood framed partitions with gypsum board and are in fair condition. Interior masonry appears to have adequately spaced and caulked control joints in fair condition. Soffits are in fair condition, but flashing between soffits and metal wall panels 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 condition. Chimneys are in poor condition with spalling brick veneer and a deteriorated coping.

Rating: 2 Needs Repair

Recommendations: Provide tuckpointing in all areas of mortar deterioration as required in the 1961 Original Construction. Provide masonry cleaning and sealing through the overall facility. Recaulk existing control joints. Sawcut and caulk new appropriately spaced expansion joints in existing masonry in the 1961 Original Construction. Replace spalling brick at the base of the building along the South wall of the 1961 Original Construction where salt damage has occurred. Replace metal panels in the overall facility. Replace chimneys with brick veneer and coping in poor condition.

Item	Cost	Unit	Whole Building	1961 Original (1961) 38,970 ft ²	1963 Addition (1963) 15,764 ft ²	Sum	Comments
Tuckpointing:	\$5.00	sq.ft. (Qty)		666 Required		\$3,330.00	(wall surface)
Exterior Masonry Cleaning:	\$1.50	sq.ft. (Qty)		10,440 Required	3,074 Required	\$20,271.00	(wall surface)
Exterior Masonry Sealing:	\$1.00	sq.ft. (Qty)		10,440 Required	3,074 Required	\$13,514.00	(wall surface)
Exterior Caulking:	\$5.50	ln.ft.		48 Required		\$264.00	(removing and replacing)
Replace Brick Veneer System:	\$35.00	sq.ft. (Qty)			267 Required	\$9,345.00	(total removal and replacement including pinning and shoring)
Coping Replacement Stone and Masonry:	\$100.00	ln.ft.		20 Required		\$2,000.00	(remove and replace)
Install Control Joints	\$60.00	ln.ft.		12 Required		\$720.00	
Other: Corrugated Metal Panels and Insulation	\$20.00	sq.ft. (Qty)		2,926 Required	2,149 Required	\$101,500.00	Remove existing metal panels and replace with new insulated corrugated metal panels
Other: Prep and Paint Steel Lintels	\$5.00	ln.ft.		662 Required	273 Required	\$4,675.00	sand, prime and paint lintels
Sum:			\$155,619.00	\$94,244.00	\$61,375.00		



Damaged brick and coping at chimney



Damaged brick at South wall

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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 good condition. No crawl space is present. The floor construction of the second floor of the 1963 Addition is metal form deck on steel joist construction, and is in good condition. Ceiling to structural deck spaces are marginal to accommodate HVAC, electrical, and plumbing scopes of work in required renovations. Floor to ceiling height is 9 feet. The roof construction of the overall facility is metal deck on steel bar joist construction, and is in good condition.

Rating: 1 Satisfactory

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

Item	Cost	Unit	Whole Building	1961 Original (1961)	1963 Addition (1963)	Sum	Comments
				38,970 ft ²	15,764 ft ²		
Sum:			\$0.00	\$0.00	\$0.00		



Roof structure



Roof structure

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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 lay in tile ceilings in fair to poor condition, as well as painted block wall finishes in fair condition. The overall facility has Corridors with vinyl tile and ceramic tile flooring in fair condition, acoustical lay in tile ceilings in fair condition, as well as painted block wall finishes in fair condition. The overall facility has Restrooms with ceramic tile type flooring, acoustical lay in tile ceilings, as well as painted block and ceramic tile wall finishes, and they are in poor condition. Toilet partitions are metal, and are in poor condition. Classroom casework in the overall facility is wood construction with plastic laminate tops, is inadequately provided in some locations, and in poor condition. The typical Classroom contains 25 lineal feet of casework, and Classroom casework provided ranges from 4 to 26 feet. Classrooms are provided adequate chalkboards, markerboards, and tackboards, which are in fair condition. The Classroom storage cubbies, located in the Corridors of the 1961 Original Construction are adequately provided, and in fair condition. Student classroom storage in the 1963 Addition is in the classrooms and in poor condition. The Art program is not equipped with a kiln. The program does not have a dedicated classroom space. The facility is equipped with wood louvered interior doors that are flush mounted and recessed without proper ADA hardware and clearances, and in poor condition. The Gymnasium space has vinyl tile flooring, acoustical tile ceilings, as well as painted block wall finishes, and they are in poor condition. The Gymnasium does not have telescoping stands or fixed seating. Gymnasium basketball backboards are fixed, and are in poor condition. The Media Center, located in the 1961 Original Construction, has carpet flooring, acoustical lay in tile ceilings, as well as painted block wall finishes, and they are in fair condition. Student Dining, located in the 1961 Original Construction, has vinyl tile flooring, acoustical tile ceilings, as well as painted block wall finishes, and they are in fair condition. OSDM-required fixed equipment for Stage is not provided. The existing Kitchen is a satellite from North High School facility, is undersized based on current enrollment, and the existing Kitchen equipment, installed at an unknown date, is in fair condition. The Kitchen does not contain a hood. Walk-in coolers / freezers are not located on the property.

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, T and U and condition. Provide a kiln for Art program. Provide funding for door replacement not addressed in item O. Provide new toilet partitions and accessories. Replace Gymnasium backboards. Rework Non-ADA Toilet Room Walls.

Item	Cost	Unit	Whole Building	1961 Original (1961)	1963 Addition (1963)	Sum	Comments
Complete Replacement of Finishes and Casework (Elementary):	\$14.60	sq.ft.		38,970 ft ²	15,764 ft ²		
Toilet Partitions:	\$1,000.00	per stall		14 Required	4 Required	\$18,000.00	(elementary, per building area, with removal of existing)
Toilet Accessory Replacement	\$0.20	sq.ft.		Required	Required	\$10,946.80	(removing and replacing)
Door, Frame, and Hardware:	\$1,140.00	each		31 Required	15 Required	\$52,440.00	(per building area)
Basketball Backboard Replacement	\$3,200.00	each			2 Required	\$6,400.00	(non-ADA)
Art Program Kiln:	\$2,500.00	each		1 Required		\$2,500.00	(non-electric)
Other: Rework Non-ADA Toilet Room Walls	\$10.00	sq.ft. (Qty)			96 Required	\$960.00	Rework walls to provide ADA clearance in toilet rooms
Sum:			\$890,363.20	\$628,596.00	\$261,767.20		



Toilet partitions



Corridor

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K. Interior Lighting

Description: The typical Classrooms of the facility are equipped with T-8 1'X4' tandem pendant mounted style fluorescent fixtures with single level switching. Some of these Classrooms provide 60 to 70 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-8, 1'X4' tandem 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 recessed mounted incandescent 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-8, 1'X4' tandem 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-8 1'X4' tandem 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' pendant fluorescent fixtures and 1'X4' surface mounted T-8 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	1961 Original (1961)	1963 Addition (1963)	Sum	Comments
				38,970 ft ²	15,764 ft ²		
Complete Building Lighting Replacement	\$5.00	sq.ft.		Required	Required	\$273,670.00	Includes demo of existing fixtures
Sum:			\$273,670.00	\$194,850.00	\$78,820.00		



Typical Classroom Lighting



Gymnasium 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	1961 Original (1961)	1963 Addition (1963)	Sum	Comments
				38,970 ft ²	15,764 ft ²		
Security System:	\$1.75	sq.ft.		Required	Required	\$95,784.50	(complete, area of building)
Exterior Site Lighting:	\$1.00	sq.ft.		Required	Required	\$54,734.00	building
Sum:			\$150,518.50	\$107,167.50	\$43,351.00		



Main Entrance CCTV Camera



Main Entrance Visitor Intercom

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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	1961 Original (1961)	1963 Addition (1963)	Sum	Comments
Emergency/Egress Lighting:	\$1.00	sq.ft.		38,970 ft ²	15,764 ft ²		
				Required	Required	\$54,734.00	(complete, area of building)
Sum:			\$54,734.00	\$38,970.00	\$15,764.00		



Typical Exit Sign



Typical Emergency Lighting Unit

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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	1961 Original (1961)	1963 Addition (1963)	Sum	Comments
				38,970 ft ²	15,764 ft ²		
Fire Alarm System:	\$1.50	sq.ft.		Required	Required	\$82,101.00	(complete new system, including removal of existing)
Sum:			\$82,101.00	\$58,455.00	\$23,646.00		



Main Fire Alarm Panel



Typical Fire Alarm Devices

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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 ADA accessible. Access from the parking / drop-off area to the building entries is not compromised by steps or steep ramps. Adequate handicap parking is not provided. Exterior doors are equipped with ADA hardware. 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. Ground and floor surfaces are compliant. Student cubbies project into the accessible route in the 1961 Original Construction. The single story 1961 Original Construction includes compliant ramps accessing the lower floor level of the multi-purpose room. The 1963 Addition, which occupies the second floor, is accessed by two non-compliant sets of stairs. The building does not have an elevator. No Stage is provided. Interior courtyards in the 1961 Original Construction are accessible. Interior doors are recessed, are not provided adequate clearances and are not provided with ADA-compliant hardware. Toilet partitions are metal, and most do not provide appropriate ADA clearances. Private toilet rooms do not provide adequate clearances or compliant accessories. Water coolers are compliant. Some mirrors do not meet ADA requirements for mounting heights. ADA signage is inadequate on both the interior and exterior of the building.

Rating: 2 Needs Repair

Recommendations: Provide ADA compliant signage. Provide a power assist door opener at the main entry in the 1961 Original Construction. Provide compliant toilet partitions and accessories at group toilet rooms where required. Provide compliant accessories at all private toilet rooms. Remount mirrors to compliant height where required. At all private toilets, rework walls to provide adequate clearances. Costs for reworked walls are covered in Item J. 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 noted in poor condition in item J.

Item	Cost	Unit	Whole Building	1961 Original (1961)	1963 Addition (1963)	Sum	Comments
				38,970 ft ²	15,764 ft ²		
Signage:	\$0.10	sq.ft.		Required	Required	\$5,473.40	(per building area)
Elevators:	\$50,000.00	each			2 Required	\$100,000.00	(per stop, \$100,000 minimum)
Toilet Partitions:	\$1,000.00	stall		4 Required	2 Required	\$6,000.00	(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		31 Required	15 Required	\$50,600.00	(standard 3070 wood door, HM frame-classroom door/light, includes hardware)
Replace Doors:	\$5,000.00	leaf		1 Required	2 Required	\$15,000.00	(rework narrow opening to provide 3070 wood door, HM frame, door/light, includes hardware)
Replace Doors:	\$5,000.00	leaf		24 Required	16 Required	\$200,000.00	(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		2 Required	4 Required	\$1,710.00	
Sum:			\$386,283.40	\$175,067.00	\$211,216.40		



Accessible toilet stall



Typical recessed classroom door

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P. Site Condition

Description: The 9.27 acre flat site is located in a suburban residential setting with moderate tree and shrub type landscaping. There are no apparent problems with erosion or ponding. A small storage shed is located on site. The site is located on a lightly traveled residential street. A single entrance to the site impedes proper separation of bus and other vehicular traffic. There is a curbside bus loading and unloading zone in front of the school which is not separated from other vehicular traffic. A dedicated bus loop is not provided. Parking is facilitated by multiple asphalt parking lots in fair to poor condition, containing 94 parking places, which provides adequate parking for staff and visitors. Designated parking for the disabled is not provided. The site and parking lot drainage design, consisting of sheet drainage 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 present. No service drive is present. The concrete pad area for dumpsters are in fair to poor condition. 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. The playground equipment is in good condition, is placed to provide compliant fall zones, and is located on a compliant soft surface of sufficient depth. The athletic facilities are comprised of four kickball fields in good condition and a basketball court on asphalt surface in fair condition. Two generously landscaped interior courtyards provide opportunities for outdoor instruction. The site adjoins a public park to the east and abuts single family homes to the south and apartment complexes to the north. Paths connect the site to the apartments and to the public park. The site is mostly flat and is bordered by rows of tall trees. The site is well insulated from traffic and noise. There is sufficient space on the site for a future addition to the building.

Rating: 2 Needs Repair

Recommendations: Provide dedicated bus loop. Provide new wearing course on both parking lots, entry drive and basketball court. Replace concrete dumpster pad. Replace all concrete sidewalks. Replace concrete paving at both interior courtyards (included with concrete sidewalks). Provide pipe bollards at east entry where food deliveries are received. Designate four accessible parking spaces. Costs for ADA signage are covered in item O.

Item	Cost	Unit	Whole Building	1961 Original (1961)	1963 Addition (1963)	Sum	Comments
Asphalt Paving / New Wearing Course:	\$18.65	sq. yard		8,184 Required	15,764 ft ²	\$152,631.60	(includes minor crack repair in less than 5% of paved area)
Bus Drop-Off for Elementary	\$110.00	per student		400 Required		\$44,000.00	(Number of students should be rounded up to the nearest 100. \$5500 per bus; 40 students per bus; 80% of elementary school students riding)
Concrete Sidewalk:	\$4.69	sq.ft. (Qty)		12,765 Required		\$59,867.85	(5 inch exterior slab)
Provide Concrete Dumpster Pad:	\$2,400.00	each		1 Required		\$2,400.00	(for two dumpsters)
Base Sitework Allowance for Unforeseen Circumstances	\$50,000.00	allowance		Required		\$50,000.00	Include this and one of the next two. (Applies for whole building, so only one addition should have this item)
Sitework Allowance for Unforeseen Circumstances for buildings between 0 SF and 100,000 SF	\$1.50	sq.ft.		Required	Required	\$82,101.00	Include this one or the next. (Each addition should have this item)
Other: Pipe bollards	\$500.00	per unit		4 Required		\$2,000.00	Provide pipe bollard
Sum:			\$393,000.45	\$369,354.45	\$23,646.00		



Landscaped courtyard



Playground and athletic facilities

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Q. Sewage System

Description: The sanitary drainage system is connected into the city sewage system. The sanitary drainage piping is below slab inside of walls and is not visible. The sanitary drainage is working. Most of the plumbing fixtures are in fair condition, but ADA requirements are not met for plumbing fixtures. A 3 inch reduced principle backflow preventer is required. The building has a 3 inch domestic water supply line. This water heater appears to be in very good condition. Domestic water piping is copper and appears to be in good condition. Sanitary drainage and vent piping is cast iron that appears to be in good condition.

Rating: 3 Needs Replacement

Recommendations: The sanitary drainage system is 49 years old. Recommend replacing with new sanitary and vent piping.

Item	Cost	Unit	Whole Building	1961 Original (1961)	1963 Addition (1963)	Sum	Comments
				38,970 ft ²	15,764 ft ²		
Sewage Main:	\$45.00	ln.ft.		1,000 Required	500 Required	\$67,500.00	(include excavation and backfilling)
Sum:			\$67,500.00	\$45,000.00	\$22,500.00		



Sanitary drain below sink



Sanitary drain below sink

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R. Water Supply

Description: The domestic water is supplied from the city site water main. a reduced pressure backflow preventer is required to meet the plumbing code.

Rating: 3 Needs Replacement

Recommendations: The existing domestic water piping is 49 years old. Recommend replacing with new domestic water piping from the city site main. Backflow preventer provided in item E.

Item	Cost	Unit	Whole Building	1961 Original (1961)	1963 Addition (1963)	Sum	Comments
				38,970 ft ²	15,764 ft ²		
Domestic Water Main	\$40.00	n.ft.		1,000 Required	500 Required	\$60,000.00	(new)
Sum:			\$60,000.00	\$40,000.00	\$20,000.00		



Domestic Water Piping



Domestic Water Piping

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S. Exterior Doors

Description: Typical exterior doors in the overall facility are a combination of aluminum and hollow metal construction, installed on aluminum and hollow metal frames, and range from good to poor condition. Typical exterior doors feature single pane non-insulated glazing with a combination, tempered glass, and non-tempered vision panels. Entrance doors in the overall facility are aluminum construction, non-installed on aluminum frames, and range from good to fair condition. Typical entry doors feature single glazed non-insulated glazing with a combination of tempered glass, and non-tempered vision panels. There are no overhead doors in the facility.

Rating: 3 Needs Replacement

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

Item	Cost	Unit	Whole Building	1961 Original (1961)	1963 Addition (1963)	Sum	Comments
				38,970 ft ²	15,764 ft ²		
Door Leaf/Frame and Hardware:	\$2,000.00	per leaf		23 Required		\$46,000.00	(includes removal of existing)
Sum:			\$46,000.00	\$46,000.00	\$0.00		



Typical aluminum 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 ,carpet mastic, ceiling tile, pipe insulation and fittings containing hazardous materials are located in the overall facility in fair condition. These materials were described in the report and open to observation and found to be in non-friable condition with light damage. No underground fuel oil storage tanks are on the site 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.

Item	Cost	Unit	Whole Building	1961 Original (1961)	1963 Addition (1963)	Sum	Comments
				38,970 ft ²	15,764 ft ²		
<i>Environmental Hazards Form</i>				EHA Form	EHA Form		
Boiler/Furnace Insulation Removal	\$10.00	sq.ft. (Qty)		30 Required	0 Required	\$300.00	
Pipe Insulation Removal	\$10.00	ln.ft.		50 Required	0 Required	\$500.00	
Pipe Fitting Insulation Removal	\$20.00	each		80 Required	10 Required	\$1,800.00	
Resilient Flooring Removal, Including Mastic	\$3.00	sq.ft. (Qty)		28,544 Required	15,764 Required	\$132,924.00	See J
Sum:			\$135,524.00	\$88,032.00	\$47,492.00		



Vinyl 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 two 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 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. 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 inadequately spaced. The facility is not equipped with an emergency generator. The existing water supply is provided by a tie-in to the municipal system, and is insufficient to meet the future fire suppression needs of the school. Rooms with a capacity greater than 50 occupants are equipped with adequate egress.

Rating: 3 Needs Replacement

Recommendations: Provide new automated fire suppression system to meet Ohio School Design Manual guidelines. Provide increased water service of a capacity sufficient to support the fire suppression system, funding included in fire suppression funding. Provide new emergency generator, with funding provided via complete replacement of electrical system in Item D. Provide new handrails to meet the requirements of the Ohio Building Code. Due to new fire suppression system, fire-rated enclosure around existing stair towers are not required.

Item	Cost	Unit	Whole Building	1961 Original (1961)	1963 Addition (1963)	Sum	Comments
				38,970 ft ²	15,764 ft ²		
Sprinkler / Fire Suppression System:	\$3.25	sq.ft. (Qty)		38,970 Required	15,764 Required	\$177,885.50	(includes increase of service piping, if required)
Handrails:	\$5,000.00	level		2 Required	2 Required	\$20,000.00	
Sum:			\$197,885.50	\$136,652.50	\$61,233.00		



Fire extinguisher cabinet



Stairway

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V. Loose Furnishings

Description: The typical Classroom furniture is mismatched, and in generally fair to poor condition, consisting of student desks & chairs, teacher desks & chairs, desk height file cabinets, reading tables, computer workstations, bookcases, wastebaskets, and other items. 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 3 due to observed conditions, and due to the fact that it lacks some of the Design Manual required elements.

Rating: 3 Needs Replacement

Recommendations: Provide for replacement of outdated or inadequate furniture.

Item	Cost	Unit	Whole Building	1961 Original (1961)	1963 Addition (1963)	Sum	Comments
				38,970 ft ²	15,764 ft ²		
CEFPI Rating 0 to 3	\$5.00	sq.ft.		Required	Required	\$273,670.00	
Sum:			\$273,670.00	\$194,850.00	\$78,820.00		



Classroom furniture



Classroom furniture

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W. Technology

Description: The typical Classroom is equipped with two data ports per outlet and two voice ports but not used for teachers' use 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	1961 Original (1961)	1963 Addition (1963)	Sum	Comments
				38,970 ft ²	15,764 ft ²		
ES portion of building with total SF 50,000 to 69,360	\$8.96	sq.ft. (Qty)		38,970 Required	15,764 Required	\$490,416.64	
Sum:			\$490,416.64	\$349,171.20	\$141,245.44		



MDF Technology Main Frame



Typical Classroom Technology Port

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X. Construction Contingency / Non-Construction Cost

Renovation Costs (A-W)		\$7,900,011.07
7.00%	Construction Contingency	\$553,000.77
Subtotal		\$8,453,011.84
16.29%	Non-Construction Costs	\$1,376,995.63
Total Project		\$9,830,007.47

Construction Contingency	\$553,000.77
Non-Construction Costs	\$1,376,995.63
Total for X.	\$1,929,996.40

Non-Construction Costs Breakdown		
Land Survey	0.03%	\$2,535.90
Soil Borings / Phase I Envir. Report	0.10%	\$8,453.01
Agency Approval Fees (Bldg. Code)	0.15%	\$12,679.52
Construction Testing	0.25%	\$21,132.53
Printing - Bid Documents	0.27%	\$22,823.13
Advertising for Bids	0.03%	\$2,535.90
Builder's Risk Insurance	0.11%	\$9,298.31
Design Professional's Compensation	7.50%	\$633,975.89
CM Compensation	6.00%	\$507,180.71
Commissioning	0.42%	\$35,502.65
Maintenance Plan Advisor	0.11%	\$9,298.31
Non-Construction Contingency (includes partnering and mediation services)	1.32%	\$111,579.76
Total Non-Construction Costs	16.29%	\$1,376,995.63

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School Facility Appraisal

Name of Appraiser Karen L Walker **Date of Appraisal** 2010-03-16
Building Name Washington Elem
Street Address 503 Vegas Dr
City/Town, State, Zip Code Eastlake, OH 44095
Telephone Number(s) 440/975-3710
School District Willoughby-Eastlake City SD

Setting: Suburban

Site-Acreage	9.27	Building Square Footage	54,734
Grades Housed	K-5	Student Capacity	775
Number of Teaching Stations	34	Number of Floors	2
Student Enrollment	470		
Dates of Construction	1961,1963		

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

Type of Construction
 Load bearing masonry
 Steel frame
 Concrete frame
 Wood
 Steel Joists

Exterior Surfacing
 Brick
 Stucco
 Metal
 Wood
 Stone

Floor Construction
 Wood Joists
 Steel Joists
 Slab on grade
 Structural slab

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1.0 The School Site

School Facility Appraisal

		Points Allocated	Points
1.1	<p>Site is large enough to meet educational needs as defined by state and local requirements</p> <p><i>The 9.27 acre site is not large enough to meet the design manual requirement of 14.7 for the current student population.</i></p>	25	15
1.2	<p>Site is easily accessible and conveniently located for the present and future population</p> <p><i>The site is located at the heart of the residential neighborhood it serves, adjacent to a public park and convenient to two shopping and service areas. One-way traffic on the street leading to the site causes some inconvenience upon exiting.</i></p>	20	15
1.3	<p>Location is removed from undesirable business, industry, traffic, and natural hazards</p> <p><i>The site is removed from undesirable business, industry, traffic and natural hazards. The site is surrounded by trees and residential areas on three sides and a public park to the east. The site is not adjacent to busy roads.</i></p>	10	10
1.4	<p>Site is well landscaped and developed to meet educational needs</p> <p><i>The front yard is landscaped with trees and shrubs. The interior courtyards are landscaped with flowers, trees and ground cover. The playground area features several large shade trees. Generous lawns and tall trees along the perimeter of the site provide pleasant views.</i></p>	10	10
1.5	<p>ES Well equipped playgrounds are separated from streets and parking areas</p> <p>MS Well equipped athletic and intermural areas are separated from streets and parking</p> <p>HS Well equipped athletic areas are adequate with sufficient solid-surface parking</p> <p><i>Large, well equipped playgrounds and kickball fields are located far from the street and bus drop-off, however some parking is located adjacent to the playground. Delivery trucks are permitted to access the east entry via the paved play area.</i></p>	10	4
1.6	<p>Topography is varied enough to provide desirable appearance and without steep inclines</p> <p><i>The site is predominantly flat.</i></p>	5	1
1.7	<p>Site has stable, well drained soil free of erosion</p> <p><i>The soil appears stable and well drained. No signs of erosion were observed.</i></p>	5	5
1.8	<p>Site is suitable for special instructional needs, e.g., outdoor learning</p> <p><i>Well appointed interior courtyards provide opportunities for outdoor learning.</i></p>	5	5
1.9	<p>Pedestrian services include adequate sidewalk with designated crosswalks, curb cuts, and correct slopes</p> <p><i>Pedestrian services include adequate sidewalks with correct slopes. No crosswalk is provided at the adjacent street.</i></p>	5	2
1.10	<p>ES/MS Sufficient on-site, solid surface parking for faculty and staff is provided</p> <p>HS Sufficient on-site, solid surface parking is provided for faculty, students, staff and community</p> <p><i>Sufficient on-site, solid surface parking is provided for faculty and staff.</i></p>	5	5
TOTAL - The School Site		100	72

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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 does not have handicap access to the second floor.</i>	15	5
2.2 Roofs appear sound, have positive drainage, and are weather tight <i>The roofs are reported to leak and do not have positive drainage.</i>	15	5
2.3 Foundations are strong and stable with no observable cracks <i>The foundations appear strong with no observable cracks.</i>	10	9
2.4 Exterior and interior walls have sufficient expansion joints and are free of deterioration <i>Walls have sufficient joints, but need to be recaulked.</i>	10	5
2.5 Entrances and exits are located so as to permit efficient student traffic flow <i>Student flow to and from the building is appropriate. Student flow within the building is awkward.</i>	10	5
2.6 Building "envelope" generally provides for energy conservation (see criteria) <i>The building does not meet ASHRAE envelope standards.</i>	10	2
2.7 Structure is free of friable asbestos and toxic materials <i>The structure 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>The classrooms are withing design manual standards and permit flexibility of configuration.</i>	10	8

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 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>	15	5
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 provided is sufficient for the current population.</i>		
2.15	Drainage systems are properly maintained and meet requirements	10	2
	<i>The waste piping in the overall facility is cast iron, was installed in 1961. 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>Provide a complete new fire alarm system to meet OBC, NFPA and Ohio School Design Manual guidelines</i>		
2.17	Intercommunication system consists of a central unit that allows dependable two-way communication between the office and instructional areas	10	6
	<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	1
	<i>Exterior water supply is insufficient and available for normal usage .</i>		
TOTAL - Structural and Mechanical Features		200	91

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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>The building envelope materials require minimum maintenance.</i>	15	14
3.2 Floor surfaces throughout the building require minimum care <i>The floor surfaces do not require excessive maintenance.</i>	15	14
3.3 Ceilings and walls throughout the building, including service areas, are easily cleaned and resistant to stain <i>The ceiling tiles show stains.</i>	10	5
3.4 Built-in equipment is designed and constructed for ease of maintenance <i>The built in equipment is in poor condition and not easily maintained.</i>	10	2
3.5 Finishes and hardware , with compatible keying system, are of durable quality <i>The building keying system is not consistent throughout and not all rooms comply with the district master system.</i>	10	3
3.6 Restroom fixtures are wall mounted and of quality finish <i>Restroom fixtures are not water conservative models.</i>	10	5
3.7 Adequate custodial storage space with water and drain is accessible throughout the building <i>Custodial storage is adequate.</i>	10	8
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	61

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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 not segregated from other vehicular traffic and pedestrian walkways.</i>	15	0
4.2 Walkways , both on and offsite, are available for safety of pedestrians <i>Safe pedestrian walkways are available on-site. Adjacent streets lack sidewalks and crosswalks.</i>	10	5
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 to permit safe entrance to and exit from school area.</i>	5	5
4.4 Vehicular entrances and exits permit safe traffic flow <i>The lack of curbs separating the street from the front parking lot and drop-off area compromises safety. One way traffic at entry and exit increases safety.</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 hazards.</i>	5	5

Building Safety	Points Allocated	Points
4.6 The heating unit(s) is located away from student occupied areas <i>The heating unit is located away from student occupied areas</i>	20	18
4.7 Multi-story buildings have at least two stairways for student egress <i>The building has two stairways for student egress.</i>	15	14
4.8 Exterior doors open outward and are equipped with panic hardware <i>Exterior doors open outward and are equipped with panic hardware.</i>	10	9
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 do not comply with 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 egress.</i>	5	5

Emergency Safety	Points Allocated	Points	
4.17	Adequate fire safety equipment is properly located <i>Adequate fire safety equipment is properly located.</i>	15	14
4.18	There are at least two independent exits from any point in the building <i>There are at least two independent exits from any point in the building.</i>	15	15
4.19	Fire-resistant materials are used throughout the structure <i>Fire-resistant materials are used throughout the structure.</i>	15	14
4.20	Automatic and manual emergency alarm system with a distinctive sound and flashing light is provided <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	138

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5.0 Educational Adequacy

School Facility Appraisal

Academic Learning Space		Points Allocated	Points
5.1	<p>Size of academic learning areas meets desirable standards</p> <p><i>Most classroom sizes are within design manual standards. Kindergarten classrooms are undersized per the manual.</i></p>	25	15
5.2	<p>Classroom space permits arrangements for small group activity</p> <p><i>The classrooms permit flexible arrangements.</i></p>	15	14
5.3	<p>Location of academic learning areas is near related educational activities and away from disruptive noise</p> <p><i>Academic spaces are adjacent to the Gymnasium.</i></p>	10	5
5.4	<p>Personal space in the classroom away from group instruction allows privacy time for individual students</p> <p><i>Personal space is available in classrooms, and individual instruction areas are available outside of the classroom.</i></p>	10	8
5.5	<p>Storage for student materials is adequate</p> <p><i>Student material storage is shelf and hooks in corridors that do not meet the design manual.</i></p>	10	5
5.6	<p>Storage for teacher materials is adequate</p> <p><i>Workrooms provide sufficient teacher storage. Casework within some classrooms is inadequate.</i></p>	10	8

Special Learning Space		Points Allocated	Points
5.7	<p>Size of special learning area(s) meets standards</p> <p><i>The size of special education classrooms are within design manual standards.</i></p>	15	14
5.8	<p>Design of specialized learning area(s) is compatible with instructional need</p> <p><i>The special education rooms are not outfitted per the design manual.</i></p>	10	7
5.9	<p>Library/Resource/Media Center provides appropriate and attractive space</p> <p><i>The Media Center is an attractive space with abundant daylight.</i></p>	10	9
5.10	<p>Gymnasium (or covered P.E. area) adequately serves physical education instruction</p> <p><i>The Gymnasium is undersized and acoustically insufficient.</i></p>	5	2
5.11	<p>ES Pre-kindergarten and kindergarten space is appropriate for age of students and nature of instruction</p> <p>MS/HS Science program is provided sufficient space and equipment</p> <p><i>Kindergarten spaces are undersized.</i></p>	10	5

5.12	Music Program is provided adequate sound treated space <i>Music is provided in a standard classroom and not acoustically treated.</i>	5	2
5.13	Space for art is appropriate for special instruction, supplies, and equipment <i>Art is provided in a standard classroom with insufficient storage.</i>	5	2

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	4
5.15	Space for small groups and remedial instruction is provided adjacent to classrooms <i>Space for small groups and remedial instruction is provided adjacent to classrooms.</i>	5	5
5.16	Storage for student and teacher material is adequate <i>Storage for student and teacher material is not adequate in some areas.</i>	5	3

Support Space

		Points Allocated	Points
5.17	Teacher's lounge and work areas reflect teachers as professionals <i>Teachers lounges are adequate.</i>	10	7
5.18	Cafeteria/Kitchen is attractive with sufficient space for seating/dining, delivery, storage, and food preparation <i>The Cafeteria is well sized, but the Kitchen is a converted classroom.</i>	10	5
5.19	Administrative offices provided are consistent in appearance and function with the maturity of the students served <i>Administrative offices are appropriate for the students served.</i>	5	4
5.20	Counselor's office insures privacy and sufficient storage <i>A counselor's office was not located.</i>	5	0
5.21	Clinic is near administrative offices and is equipped to meet requirements <i>The clinic is within the administrative suite and equipped to meet requirements.</i>	5	4
5.22	Suitable reception space is available for students, teachers, and visitors <i>Reception spaces are suitable for students and visitors.</i>	5	4
5.23	Administrative personnel are provided sufficient work space and privacy <i>Administrative personnel do not have sufficient privacy.</i>	5	3

TOTAL - Educational Adequacy

200

135

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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 design is reflective of mid twentieth century architecture with an emphasis on natural light.</i>	15	11
6.2 Site and building are well landscaped <i>Site and building are well landscaped with trees and plantings.</i>	10	8
6.3 Exterior noise and poor environment do not disrupt learning <i>Exterior noise and poor environment do not disrupt learning.</i>	10	10
6.4 Entrances and walkways are sheltered from sun and inclement weather <i>Entrances are sheltered from sun and inclement weather, and walkways are not protected.</i>	10	8
6.5 Building materials provide attractive color and texture <i>Building materials provide attractive 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 interior color palette is neutral, but dated.</i>	20	12
6.7 Year around comfortable temperature and humidity are provided throughout the building <i>Year round comfortable temperature and humidity are not provided throughout the building. The building has no air conditioning.</i>	15	5
6.8 Ventilating system provides adequate quiet circulation of clean air and meets 15cfm VBC requirement <i>The system does not provide adequate air exchanges.</i>	15	5
6.9 Lighting system provides proper intensity, diffusion, and distribution of illumination <i>The lighting system does not adequately illuminate all areas of the facility and due to age and condition does not meet the requirements of the OSDM.</i>	15	6
6.10 Drinking fountains and restroom facilities are conveniently located <i>Drinking fountains and restroom facilities are conveniently located on the first floor, but not conveniently located on the second floor.</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. Entry lobbies, student dining area, and courtyards enhance socialization.</i>	10	10
6.12 Traffic flow is aided by appropriate foyers and corridors	10	7

LEED Observation Notes

School District: Willoughby-Eastlake City SD
County: Lake
School District IRN: 45104
Building: Washington Elem
Building IRN: 39321

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 site is not known to contain hazardous materials. 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 located within 1/2 mile of 10 basic services. The site has 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 not have a dedicated lane on site. The site has ample 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 has 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 sustainable means. 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. The site does not appear to create light pollution. 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, 2001:9)

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

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 not contain any 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 not have an area for the collection of recyclables, including yard waste. The building shell is viable for renovation. The interior partitions are viable for renovation. The classrooms do meet OSDM standards. No comments relating to construction credits for 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 on site. The building has does not have adequate acoustical separation of spaces. Outdoor air monitoring is not provided. Fresh air intake is through operable windows. The building ventilation is inadequate. Refer to items A and C for additional information. Indoor chemical and pollution is not controlled. Individual controls for thermal comfort are not provided and lighting levels controls 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 has ample daylight, but was not measured to verify the 35 foot candle LEED requirement. All classrooms have natural light with operable windows. 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: **Washington Elem**

K-5

Building features that clearly exceed criteria:

1. The building has two courtyards for contained outdoor learning.
2. The site is well landscaped.
3. The classrooms are within design manual tolerances and allow for flexibility of class configurations.
4. The building has ample areas for students to socialize.
5. The building has an abundance of teacher workrooms and other areas to provide small group and individual instruction.
6. All regular classrooms have natural light.

Building features that are non-existent or very inadequate:

1. The building has a poor interior circulation pattern.
2. The site has a poor vehicular circulation pattern.
3. The building is reported to contain asbestos and other hazardous materials.
4. The building does not have an elevator for handicap accessibility to the second floor.
5. The building is not air conditioned.
6. The structure has poor acoustical separation of classroom spaces to areas of disruptive activity like Gymnasium and Student Dining.

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Environmental Hazards Assessment Cost Estimates

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

District IRN:	45104
Building IRN:	39321
Firm:	The Collaborative, Inc.

Scope remains unchanged after cost updates.

Building Addition	Addition Area (sf)	Total of Environmental Hazards Assessment Cost Estimates	
		Renovation	Demolition
1961 1961 Original	38,970	\$88,032.00	\$2,400.00
1963 1963 Addition	15,764	\$47,492.00	\$200.00
Total	54,734	\$135,524.00	\$2,600.00
Total with Regional Cost Factor (104.16%)	<	\$141,161.80	\$2,708.16
Regional Total with Soft Costs & Contingency	<	\$175,648.05	\$3,369.77

Environmental Hazards - Willoughby-Eastlake City SD (45104) - Washington Elem (39321) - 1961 Original

Owner: Willoughby-Eastlake City SD
Facility: Washington Elem
Date:

Bldg. IRN: 39321
BuildingAdd: 1961 Original
Consultant Name:

A. Asbestos Containing Material (ACM)		AFM=Asbestos Free Material		
ACM Found	Status	Quantity	Unit Cost	Estimated Cost
1. Boiler/Furnace Insulation Removal	Reported Asbestos-Containing Material	30	\$10.00	\$300.00
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	50	\$10.00	\$500.00
6. Pipe Fitting Insulation Removal	Reported Asbestos-Containing Material	80	\$20.00	\$1,600.00
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	28544	\$3.00	\$85,632.00
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			\$88,032.00
36. (Sum of Lines 1-27)	Total Asb. Hazard Abatement Cost for Demolition Work			\$2,400.00

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. 38970	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	\$88,032.00
2. A36, B1, D1, and E2	Total Cost for Env. Hazards Work - Demolition	\$2,400.00

* 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) - Washington Elem (39321) - 1963 Addition

Owner: Willoughby-Eastlake City SD
Facility: Washington Elem
Date:

Bldg. IRN: 39321
BuildingAdd: 1963 Addition
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	Reported 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	15764	\$3.00	\$47,292.00
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			\$47,492.00
36. (Sum of Lines 1-27)	Total Asb. Hazard Abatement Cost for Demolition Work			\$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. 15764	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	\$47,492.00	
2. A36, B1, D1, and E2	Total Cost for Env. Hazards Work - Demolition	\$200.00	

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

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