

**Building Information - Troy City (44925) - Troy Junior High**

Program Type	Classroom Facilities Assistance Program (CFAP) - Regular
Setting	Small City
Assessment Name	Troy Junior High School (65292) FINAL
Assessment Date (on-site; non-EEA)	2016-08-06
Kitchen Type	Full Kitchen
Cost Set:	2016
Building Name	Troy Junior High
Building IRN	65292
Building Address	556 Adams Street
Building City	Troy
Building Zipcode	45373
Building Phone	(937) 332.6720
Acreage	49.54
Current Grades:	7-8
Teaching Stations	45
Number of Floors	2
Student Capacity	975
Current Enrollment	706
Enrollment Date	2016-08-06
Enrollment Date is the date in which the current enrollment was taken.	
Number of Classrooms	39
Historical Register	<b>NO</b>
Building's Principal	Mr. Dave Dilbone
Building Type	Middle

[Next Page](#)

North elevation photo:



East elevation photo:



South elevation photo:



West elevation photo:



#### GENERAL DESCRIPTION

**103,261** Total Existing Square Footage

**1973** Building Dates

**7-8** Grades

**706** Current Enrollment

**45** Teaching Stations

**49.54** Site Acreage

Troy Junior High School, which is not on the National Register of Historic Buildings, and originally constructed in 1973, is a two story, 103,261 square foot brick and stone school building located in a small town school campus setting. The existing facility features a conventionally partitioned design, and does not utilize modular buildings. The structure of the overall facility contains brick veneer on load bearing masonry type exterior wall construction, with load bearing masonry type wall construction in the interior. The floor system of the base floor consists of concrete slab on grade. The floor system of the second floor consists of steel deck on steel joist type construction. The roof structure of the overall facility is steel deck on steel joist type construction. The roofing system of the overall facility is a modified bitumen system by Tremco, installed in 2014. The ventilation system of the building is inadequate to meet the needs of the users. The Classrooms are undersized in terms of the current standards established by the State of Ohio. Physical Education and Student Dining spaces consist of one Gymnasium and separate Student Dining. The electrical system for the facility is inadequate. The facility is not equipped with a compliant security system. The building has a non-compliant automatic fire alarm system. The facility is not equipped with an automated fire suppression system. The building contains asbestos. The overall building is not compliant with ADA accessibility requirements. The school is located on a 49.54 acre site shared with Troy High School, District Bus Garage, and Board Offices, adjacent to school athletic facilities, residential, and community properties. The property is partially fenced for security. Access onto the site is unrestricted. Site circulation is fair. There is dedicated space for school buses to load and unload on the site. Parking for staff, visitors and community events is adequate.

*No Significant Findings*

**Building Construction Information - Troy City (44925) - Troy Junior High (65292)**

<b>Name</b>	<b>Year</b>	<b>Handicapped Access</b>	<b>Floors</b>	<b>Square Feet</b>	<b>Non OSDM Addition</b>
Original Construction	1973	no	2	103,261	no

[Previous Page](#)

[Next Page](#)

**Building Component Information - Troy City (44925) - Troy Junior High (65292)**

Addition	Auditorium Fixed Seating	Corridors	Agricultural Education Lab	Primary Gymnasium	Media Center	Vocational Space	Student Dining	Kitchen	Natatorium	Indoor Tracks	Adult Education	Board Offices	Outside Agencies	Auxiliary Gymnasium
Original Construction (1973)		18055		7686	5495		3569	4141						
Total	0	18,055	0	7,686	5,495	0	3,569	4,141	0	0	0	0	0	0
<b>Master Planning Considerations</b>		There are no readily evident conditions that might significantly effect master planning with regard to the site. Building expansion is not recommended due to the size of the site, other shared facilities on the site, parking inefficiencies, and adjacent residential properties within close proximity to the school. Railroad tracks are located to the northwest of the site, which may be distracting. No trains were noticed or observed during the physical assessment.												

[Previous Page](#)

[Next Page](#)

# Existing CT Programs for Assessment

[Next Page](#)

[Previous Page](#)

Program Type	Program Name	Related Space	Square Feet
No Records Found			

## Legend:

Not in current design manual

In current design manual but missing from assessment

Building Summary - Troy Junior High (65292)

<b>District:</b> Troy City				<b>County:</b> Miami		<b>Area:</b> West Central Ohio (2)	
<b>Name:</b> Troy Junior High				<b>Contact:</b> Mr. Dave Dilbone			
<b>Address:</b> 556 Adams Street Troy, OH 45373				<b>Phone:</b> (937) 332.6720			
<b>Bldg. IRN:</b> 65292				<b>Date Prepared:</b> 2016-08-06		<b>By:</b> Julie Apt	
				<b>Date Revised:</b> 2016-12-11		<b>By:</b> Bernie Merritt	
Current Grades		7-8	Acreage:		49.54		
Proposed Grades		N/A	Teaching Stations:		45		
Current Enrollment		706	Classrooms:		39		
Projected Enrollment		N/A					
Addition		Date	HA	Number of Floors	Current Square Feet		
<u>Original Construction</u>		1973	no	2	103,261		
<b>Total</b>				<b>103,261</b>			
		*HA	=	Handicapped Access			
		*Rating	=	1 Satisfactory			
			=	2 Needs Repair			
			=	3 Needs Replacement			
		*Const P/S	=	Present/Scheduled Construction			
FACILITY ASSESSMENT Cost Set: 2016				Rating	Dollar Assessment	C	
A. <u>Heating System</u>				3	\$3,523,265.32	-	
B. <u>Roofing</u>				1	\$0.00	-	
C. <u>Ventilation / Air Conditioning</u>				2	\$5,000.00	-	
D. <u>Electrical Systems</u>				3	\$1,675,926.03	-	
E. <u>Plumbing and Fixtures</u>				3	\$1,155,326.00	-	
F. <u>Windows</u>				3	\$236,100.00	-	
G. <u>Structure: Foundation</u>				2	\$1,540.00	-	
H. <u>Structure: Walls and Chimneys</u>				2	\$92,201.50	-	
I. <u>Structure: Floors and Roofs</u>				1	\$0.00	-	
J. <u>General Finishes</u>				3	\$3,251,988.10	-	
K. <u>Interior Lighting</u>				3	\$516,305.00	-	
L. <u>Security Systems</u>				3	\$294,293.85	-	
M. <u>Emergency/Egress Lighting</u>				3	\$103,261.00	-	
N. <u>Fire Alarm</u>				3	\$154,891.50	-	
O. <u>Handicapped Access</u>				3	\$127,472.20	-	
P. <u>Site Condition</u>				2	\$467,429.70	-	
Q. <u>Sewage System</u>				1	\$0.00	-	
R. <u>Water Supply</u>				1	\$0.00	-	
S. <u>Exterior Doors</u>				3	\$52,000.00	-	
T. <u>Hazardous Material</u>				3	\$406,255.90	-	
U. <u>Life Safety</u>				3	\$440,435.20	-	
V. <u>Loose Furnishings</u>				2	\$309,783.00	-	
W. <u>Technology</u>				3	\$874,620.67	-	
X. <u>Construction Contingency / Non-Construction Cost</u>				-	\$3,344,042.67	-	
<b>Total</b>					\$17,032,137.64		
<b>CEFPI Appraisal Summary</b>							
<b>Section</b>		<b>Points Possible</b>	<b>Points Earned</b>	<b>Percentage</b>	<b>Rating</b>	<b>Category</b>	
<u>Cover Sheet</u>							
1.0 <u>The School Site</u>		100	78	78%	Satisfactory		
2.0 <u>Structural and Mechanical Features</u>		200	130	65%	Borderline		
3.0 <u>Plant Maintainability</u>		100	64	64%	Borderline		
4.0 <u>Building Safety and Security</u>		200	121	61%	Borderline		
5.0 <u>Educational Adequacy</u>		200	129	65%	Borderline		
6.0 <u>Environment for Education</u>		200	126	63%	Borderline		
<u>LEED Observations</u>							
<u>Commentary</u>							
<b>Total</b>		<b>1000</b>	<b>648</b>	<b>65%</b>	<b>Borderline</b>		
<u>Enhanced Environmental Hazards Assessment Cost Estimates</u>							
<b>C=Under Contract</b>							
Renovation Cost Factor						97.49%	
Cost to Renovate (Cost Factor applied)						\$16,604,630.98	
<i>The Replacement Cost Per SF and the Renovate/Replace ratio are only provided when this summary is requested from a Master Plan.</i>							

[Previous Page](#)

Original Construction (1973) Summary

<b>District:</b> Troy City				<b>County:</b> Miami		<b>Area:</b> West Central Ohio (2)	
<b>Name:</b> Troy Junior High				<b>Contact:</b> Mr. Dave Dilbone			
<b>Address:</b> 556 Adams Street Troy, OH 45373				<b>Phone:</b> (937) 332.6720			
<b>Bldg. IRN:</b> 65292				<b>Date Prepared:</b> 2016-08-06		<b>By:</b> Julie Apt	
				<b>Date Revised:</b> 2016-12-11		<b>By:</b> Bernie Merritt	
Current Grades		7-8	Acreage:		49.54		
Proposed Grades		N/A	Teaching Stations:		45		
Current Enrollment		706	Classrooms:		39		
Projected Enrollment		N/A					
<b>Addition</b>		<b>Date</b>	<b>HA</b>	<b>Number of Floors</b>	<b>Current Square Feet</b>		
<b>Original Construction</b>		<b>1973</b>	<b>no</b>	<b>2</b>	<b>103,261</b>		
<b>Total</b>							<b>103,261</b>
		*HA	=	Handicapped Access			
		*Rating	=	1 Satisfactory			
			=	2 Needs Repair			
			=	3 Needs Replacement			
		*Const P/S	=	Present/Scheduled Construction			
<b>FACILITY ASSESSMENT</b>				<b>Rating</b>	<b>Dollar Assessment</b>		
Cost Set: 2016							
A. <a href="#">Heating System</a>				3	\$3,523,265.32 -		
B. <a href="#">Roofing</a>				1	\$0.00 -		
C. <a href="#">Ventilation / Air Conditioning</a>				2	\$5,000.00 -		
D. <a href="#">Electrical Systems</a>				3	\$1,675,926.03 -		
E. <a href="#">Plumbing and Fixtures</a>				3	\$1,155,326.00 -		
F. <a href="#">Windows</a>				3	\$236,100.00 -		
G. <a href="#">Structure: Foundation</a>				2	\$1,540.00 -		
H. <a href="#">Structure: Walls and Chimneys</a>				2	\$92,201.50 -		
I. <a href="#">Structure: Floors and Roofs</a>				1	\$0.00 -		
J. <a href="#">General Finishes</a>				3	\$3,251,988.10 -		
K. <a href="#">Interior Lighting</a>				3	\$516,305.00 -		
L. <a href="#">Security Systems</a>				3	\$294,293.85 -		
M. <a href="#">Emergency/Egress Lighting</a>				3	\$103,261.00 -		
N. <a href="#">Fire Alarm</a>				3	\$154,891.50 -		
O. <a href="#">Handicapped Access</a>				3	\$127,472.20 -		
P. <a href="#">Site Condition</a>				2	\$467,429.70 -		
Q. <a href="#">Sewage System</a>				1	\$0.00 -		
R. <a href="#">Water Supply</a>				1	\$0.00 -		
S. <a href="#">Exterior Doors</a>				3	\$52,000.00 -		
T. <a href="#">Hazardous Material</a>				3	\$406,255.90 -		
U. <a href="#">Life Safety</a>				3	\$440,435.20 -		
V. <a href="#">Loose Furnishings</a>				2	\$309,783.00 -		
W. <a href="#">Technology</a>				3	\$874,620.67 -		
X. <a href="#">Construction Contingency / Non-Construction Cost</a>				-	\$3,344,042.67 -		
<b>Total</b>					<b>\$17,032,137.64</b>		
<b>CEFPI Appraisal Summary</b>							
<b>Section</b>		<b>Points Possible</b>	<b>Points Earned</b>	<b>Percentage</b>	<b>Rating</b>	<b>Category</b>	
<a href="#">Cover Sheet</a>							
1.0 <a href="#">The School Site</a>		100	78	78%	Satisfactory		
2.0 <a href="#">Structural and Mechanical Features</a>		200	130	65%	Borderline		
3.0 <a href="#">Plant Maintainability</a>		100	64	64%	Borderline		
4.0 <a href="#">Building Safety and Security</a>		200	121	61%	Borderline		
5.0 <a href="#">Educational Adequacy</a>		200	129	65%	Borderline		
6.0 <a href="#">Environment for Education</a>		200	126	63%	Borderline		
<a href="#">LEED Observations</a>							
<a href="#">Commentary</a>							
<b>Total</b>		<b>1000</b>	<b>648</b>	<b>65%</b>	<b>Borderline</b>		
<b>Enhanced Environmental Hazards Assessment Cost Estimates</b>							
<b>C=Under Contract</b>							
<b>Renovation Cost Factor</b>							
<b>Cost to Renovate (Cost Factor applied)</b>							
<b>97.49%</b>							
<b>Cost to Renovate (Cost Factor applied)</b>							
<b>\$16,604,630.98</b>							
<i>The Replacement Cost Per SF and the Renovate/Replace ratio are only provided when this summary is requested from a Master Plan.</i>							

A. Heating System

**Description:** The existing system for the overall facility is a natural gas fired ducted packaged roof top unit type heating system, installed in 1973, and is in fair condition. 2-pipe vs. 4-pipe designations are not applicable in this facility due to the central air condition system being a DX/refrigerant type cooling system. Heated air is distributed via multiple 20-ton multi-zone ducted packaged roof top units, manufactured by Carrier, installed in 1973, and in fair condition. The system does not appear to comply with the 15 CFM per person fresh air requirements of the Ohio Building Code mechanical code and Ohio School Design Manual. The electric and DDC type system temperature controls were installed in 1973 with upgrades in 1995 and are in fair condition. The system does not feature individual temperature controls in all spaces required by the OSDM. The overall system does not feature any central energy recovery systems. The facility is equipped with widespread louvered interior doors to facilitate Corridor utilization as return air plenums. The existing system is ducted, but the ductwork cannot be integrated into a possible future system due to arrangement, air volume, and routing of existing ductwork. The overall heating system is evaluated as being in safe but inefficient working order, and long term life expectancy of the existing system is not anticipated. The structure is equipped with central air conditioning. The site does not contain underground fuel tanks.

**Rating:** 3 Needs Replacement

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

Item	Cost	Unit	Whole Building	Original Construction (1973)	Sum	Comments
HVAC System Replacement:	\$26.12	sq.ft. (of entire building addition)		103,261 ft <sup>2</sup> Required	\$2,697,177.32	(includes demo of existing system and reconfiguration of piping layout and new controls, air conditioning)
Convert To Ducted System	\$8.00	sq.ft. (of entire building addition)		Required	\$826,088.00	(includes costs for vert. & horz. chases, cut openings, soffits, etc. Must be used in addition to HVAC System Replacement if the existing HVAC system is non-ducted)
<b>Sum:</b>			\$3,523,265.32	\$3,523,265.32		



Cabinet Heater



Cabinet Heater

[Back to Assessment Summary](#)



B. Roofing

**Description:** The roof over the overall facility is a modified bitumen system that was installed in 2014, and is in good condition. There are no District reports of current leaking. No signs of past leaking were observed during the physical assessment. Access to the roof was gained by access hatch and access ladders that are in fair condition. Fall safety protection cages are not required, and are not provided. There were no observations of standing water on the roof. Metal cap flashings copings are in good condition. Roof storm drainage is addressed through a system of roof drains, which are properly located, and in good condition. The roof is equipped with overflow roof drains in sufficient quantity and in good condition. No problems requiring attention were encountered with any roof penetrations. There are not any covered walkways attached to this structure.

**Rating:** 1 Satisfactory

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

Item	Cost	Unit	Whole Building	Original Construction (1973)	Sum	Comments
				103,261 ft <sup>2</sup>		
Sum:			\$0.00	\$0.00		



Typical Coping and Roofing



Typical Primary and Overflow Drains

[Back to Assessment Summary](#)

C. Ventilation / Air Conditioning

**Description:** The overall facility is equipped with an electric fired DX/refrigerant type central air conditioning system, installed in 1973, and in fair condition. The system consists of multiple 20-ton multi-zone ducted packaged roof top units, manufactured by Carrier, installed in 1973, and in fair condition. Window units and isolated room systems are not present in the overall facility. The ventilation system in the overall facility consists of multiple roof top units, installed in 1973 and in fair condition, providing fresh air to Classrooms, and other miscellaneous spaces such as Gymnasiums, Student Dining, and Media Center. Relief air venting is provided by louvered interior doors, ceiling plenums, and the RTUs. The ventilation system does not appear to meet the Ohio Building Code 15 CFM per occupant fresh air requirement. The overall system is not compliant with Ohio Building Code and Ohio School Design Manual requirements. Dust collection systems are not required in this facility. The Art program is equipped with a kiln and the kiln ventilation system is inadequate. General building exhaust systems for Restrooms, Storage Rooms, Art Rooms, and Custodial Closets do not appear to be adequately placed, and in fair condition.

**Rating:** 2 Needs Repair

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

Item	Cost	Unit	Whole Building	Original Construction (1973)	Sum	Comments
				103,261 ft <sup>2</sup>		
Kiln Exhaust System:	\$5,000.00	each		1 Required	\$5,000.00	
Sum:			\$5,000.00	\$5,000.00		



Carrier RTUs



Carrier RTUs

[Back to Assessment Summary](#)

D. Electrical Systems

**Description:** The electrical system provided to the overall facility is a 277/480 volts, 3,000 amp, 3 phase and 4 wire system installed in 1973, and is in fair condition. Power is provided to the school by a single utility owned, pad-mounted transformer located outside the Mechanical Room, and in fair condition. The Arrow Hart Continental Division panel system, installed in 1973, is in fair condition, and for the most part cannot be expanded to add additional capacity. The Classrooms are not equipped with adequate electrical outlets. The typical Classroom contains (5) general purpose outlets, (0) dedicated outlets for each Classroom computer, and (1) dedicated outlet for each Classroom television. Some Classrooms are equipped with as many as (6) general purpose outlets, while others are equipped with as few as (4) general purpose outlets. There are not any spaces that have no electrical outlets. The Corridors are equipped with adequate electrical outlets for servicing. Adequate GFI protected exterior outlets are not provided around the perimeter of the building. The facility is not equipped with an emergency generator. Adequate lightning protection safeguards are not provided. Stage lighting power system including control panel, breakers, and dimmers is inadequately provided, in fair condition and does not meet OSDM requirements. The overall electrical system does not fully meet Ohio School Design Manual requirements in supporting the current needs of the school, and will be inadequate to meet the facility's future needs.

**Rating:** 3 Needs Replacement

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

Item	Cost	Unit	Whole Building	Original Construction (1973)	Sum	Comments
System Replacement:	\$16.23	sq.ft. (of entire building addition)		103,261 ft <sup>2</sup> Required	\$1,675,926.03	(Includes demo of existing system. Includes generator for life safety systems. Does not include telephone or data or equipment) (Use items below ONLY when the entire system is NOT being replaced)
Sum:			\$1,675,926.03	\$1,675,926.03		



Main Electrical Distribution Panel



Pad Mounted Transformer

[Back to Assessment Summary](#)

## E. Plumbing and Fixtures

**Description:** The service entrance is equipped with a reduced pressure back flow preventer in good condition. A water treatment system is provided for the Kitchen and is in good condition. The domestic water supply piping in the overall facility is reported to be mostly galvanized steel with limited copper. The galvanized steel is original to the building. The galvanized steel is in fair condition and the copper is in good condition. The facility is systematically replacing the galvanized steel with copper as needed. The waste piping in the overall facility is reported to be mostly cast iron with limited PVC. The cast iron is original to the building. The cast iron is in fair condition and the PVC is in good condition. The facility is systematically replacing the cast iron with PVC as needed. The facility is equipped with 2 gas water heaters in good condition, with 3 separate 91 - gallon storage tanks in good condition. The school contains 3 Large Group Restrooms for boys, 3 Large Group Restrooms for girls, 1 Locker Room Restroom for boys, 1 Locker Room Restroom for girls, 0 Restrooms associated with specialty Classrooms, and 10 Restrooms for staff. Boys' Large Group Restrooms contain 2 ADA and 4 non-ADA wall mounted flush valve toilets, 0 ADA and 14 non-ADA wall mounted flush valve urinals, as well as 0 ADA and 12 non-ADA wall mounted lavatories. Girls' Large Group Restrooms contain 2 ADA and 13 non-ADA wall mounted flush valve toilets, as well as 1 ADA and 11 non-ADA wall mounted lavatories. Boys' Locker Room Restroom contains 0 ADA and 2 non-ADA wall mounted flush valve toilets, 0 ADA and 3 non-ADA wall mounted flush valve urinals, 0 ADA and 3 non-ADA wall mounted lavatories, as well as 0 ADA and 12 non-ADA showers. Girls' Locker Room Restroom contains 0 ADA and 4 non-ADA wall mounted flush valve toilets, as well as 0 ADA and 3 non-ADA wall mounted lavatories, as well as 0 ADA and 12 non-ADA showers. Staff Restrooms contain 0 ADA and 10 non-ADA wall mounted flush valve toilets, 0 ADA and 0 non-ADA wall or floor mounted urinals, as well as 1 ADA and 10 non-ADA wall mounted lavatories and 0 ADA and 2 non-ADA showers. Condition of fixtures is good to fair. The facility is equipped with 0 ADA and 0 non-ADA drinking fountain, as well as 3 ADA and 3 non-ADA electric water coolers, in good to fair condition. Junior High School Special Education Classroom is not equipped with ADA or non-ADA sink mounted type drinking fountains. Special Education Classroom is not equipped with the required Restroom facilities. The Special Education Classroom is located adjacent to an ADA compliant Restroom. Kitchen is equipped with 2 Restrooms and the fixtures are in fair condition. Health Clinic is equipped with the required Restroom and the fixtures are in good condition. Due to existing grade configuration, Kindergarten / Pre-K Classroom Restroom considerations are not relevant. Kitchen fixtures consist of 2 hand wash sinks, 4 rinse sinks, 1 triple compartment sink, 2 rinse sinks with disposals and 1 commercial dishwasher, which are in fair condition due to age. The Kitchen is not equipped with a satisfactory grease interceptor, though none is required. The Kitchen is provided the required 140 degree hot water supply via 1 gas water heater in good condition, with 2 separate 91 - gallon storage tanks in good condition. The school does not meet the OBC requirements for fixtures. Relative to LEED requirements, the school is not equipped with low flow type fixtures. Per OBC and OSDM requirements this facility should be equipped with 30 toilets, 14 urinals, 30 lavatories, 1 Classroom sink mounted drinking fountain, and 10 electric water coolers. Observations revealed that the school is currently equipped with 37 toilets, 17 urinals, 41 lavatories, 0 Classroom sink mounted drinking fountains, and 6 electric water coolers. ADA requirements are not met for fixtures and drinking fountains. Custodial Closets are properly located and are adequately provided with required service sinks or floor drain sinks which are in good condition. Science Classrooms are not equipped with required utility sink, gas / compressed air connections, and safety shower / eyewash. Biology and Chemistry Classrooms are not equipped with acid waste systems and neutralization tanks. Adequate exterior wall hydrants are provided. In addition, 1 interior wall hydrant was observed in the Kitchen.

**Rating:** 3 Needs Replacement

**Recommendations:** In the overall facility, replace the remaining galvanized steel domestic water piping and the remaining cast iron waste piping due to age and condition. Water treatment system is currently being installed. Due to age and condition and to facilitate the school's compliance with OBC and OSFC fixture requirements, in the overall facility, replace 29 toilets, 19 lavatories (include ADA compliant faucets), 5 urinals and 2 electric water coolers. Provide 2 additional electric water coolers. Due to age, condition, LEED, OBC and OSFC, replace 165 faucets and valves throughout the overall facility. Provide 1 in Classroom sink with deck mounted drinking fountain. Replace 2 shower towers in Boy's Locker Room. Shower towers to have 1 ADA compliant shower head. Provide (12) 4 station lab workstations with dual faucet/gas/compressed air connection combination. Provide 6 ADA compliant lab workstations. Provide 6 emergency safety shower/eyewash combinations. Provide 6 utility sinks. Provide 3 instructor prep/demo workstations with faucet/gas/compressed air connection combinations. Provide 6 point of use acid waste and neutralization tanks. All fixtures, whether new or replaced, to be mounted at ADA compliant heights. See Item O for replacement of fixtures related to ADA requirements, as well as reconfiguration of toilet stalls in Boys and Girls Locker Rooms and 1 stall in Girl's Restroom. Full reconfiguration of 4 Staff Restrooms and partial reconfiguration of 6 Staff Restrooms including 2 Staff Restrooms in the Locker Rooms and 2 Staff Restrooms in the Health Clinic. Funding for fixtures and equipment replacement in Kitchen is provided for in Item J. Water treatment system for Kitchen was recently installed; no funding is required.

Item	Cost	Unit	Whole Building	Original Construction (1973) 103,261 ft²	Sum	Comments
Domestic Supply Piping:	\$3.50	sq.ft. (of entire building addition)		Required	\$361,413.50	(remove / replace)
Sanitary Waste Piping:	\$3.50	sq.ft. (of entire building addition)		Required	\$361,413.50	(remove / replace)
Toilet:	\$1,500.00	unit		29 Required	\$43,500.00	(remove / replace) See Item O
Urinal:	\$1,500.00	unit		5 Required	\$7,500.00	(remove / replace)
Sink:	\$1,500.00	unit		19 Required	\$28,500.00	(remove / replace)
Electric water cooler:	\$3,000.00	unit		4 Required	\$12,000.00	(double ADA)
Replace faucets and flush valves	\$500.00	per unit		165 Required	\$82,500.00	(average cost to remove/replace)
<b>Other:</b> ADA Compliant Lab Workstation (mobile)	\$10,519.00	per unit		6 Required	\$63,114.00	Provide 1 ADA compliant lab workstation. Includes workstation, 1 lab faucet/gas/compressed air combination, drains (blue lab grade PVC) and floor repair.
<b>Other:</b> Classroom Sink with Deck Mounted Drinking Fountain	\$3,800.00	each		1 Required	\$3,800.00	Provide new classroom sink with deck mounted drinking fountain. Includes fixture, demolition, supply piping, drains and wall/floor repair.
<b>Other:</b> Emergency Safety Shower and Eyewash Station	\$2,500.00	per unit		6 Required	\$15,000.00	Provide an emergency safety shower and eyewash station in Science Classrooms.
<b>Other:</b> Four Station Student Lab Workstation	\$10,519.00	per unit		12 Required	\$126,228.00	Provide 4 station student lab workstation. Includes workstation, 2 lab faucet/gas/compressed air combinations, demolition, supply lines, drain pipes (blue lab grade PVC) and floor repair.
<b>Other:</b> Instructor Prep Lab Workstation	\$5,319.00	per unit		3 Required	\$15,957.00	Provide instructor demonstration workstation. Includes 1 lab faucet/gas/compressed air combination, demolition, supply lines, drains (blue lab grade PVC) and floor repair.
<b>Other:</b> Shower Tower with ADA Shower Head	\$7,000.00	each		2 Required	\$14,000.00	Provide new shower tower in locker room with ADA shower head.
<b>Other:</b> Under Counter Point of Use Acid Neutralization 5 Gallon Tank	\$1,000.00	per unit		6 Required	\$6,000.00	Provide a point of use under counter gallon acid neutralization tank at each instructor's demonstration/prep station.
<b>Other:</b> Utility Sink	\$2,400.00	per unit		6 Required	\$14,400.00	Provide utility sink in Science Classrooms. Includes sink, faucet, supply lines drains (blue lab grade PVC) and floor/wall repair.
<b>Sum:</b>			\$1,155,326.00	\$1,155,326.00		



Large Group Restroom-Girl's



Reduced Pressure Backflow Preventer

[Back to Assessment Summary](#)

F. Windows

**Description:** The overall facility is equipped with aluminum frame windows with single glazed type window system, which was installed in 1973, and is in poor condition. The window system features operable windows throughout the building, and operable windows are not equipped with opening limiters and insect screens. Window system seals are in fair to poor condition, with moderate air and water infiltration being experienced. Window system hardware is in poor condition. The window system features no blinds. This facility is not equipped with any curtain wall systems. This facility does not feature any glass block windows. The exterior doors in the overall facility are equipped with aluminum frame sidelights and transoms with tempered single pane glazing, in poor condition. Exterior door vision panels are tempered single pane glazing. The school does not contain any skylights. The school does not contain any clerestories. Interior glass is OSDM-compliant. Window security grilles are not provided for ground floor windows. There is not a Greenhouse associated with this school.

**Rating:** 3 Needs Replacement

**Recommendations:** Provide a new insulated window system with integral blinds to meet with Ohio School Design Manual requirements. Replace window transoms and sidelights at exterior doors of the overall facility. Exterior door vision panel replacement is addressed in Item S in exterior door replacement scope.

Item	Cost	Unit	Whole Building	Original Construction (1973)	Sum	Comments
				103,261 ft <sup>2</sup>		
Insulated Glass/Panels:	\$60.00	sq.ft. (Qty)		3,935 Required	\$236,100.00	(includes blinds)
Sum:			\$236,100.00	\$236,100.00		



Typical Sidelights and Transoms



Typical Aluminum Windows

[Back to Assessment Summary](#)

G. Structure: Foundation

**Description:** The overall facility is equipped with concrete foundation walls on concrete footings, which displayed no locations of significant differential settlement, cracking, or leaking, and are in fair condition. Areas of minor cracking and spalling were observed through the overall facility. 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:** 2 Needs Repair

**Recommendations:** Repair areas of minor cracking and spalling through the overall facility.

Item	Cost	Unit	Whole Building	Original Construction (1973)	Sum	Comments
				103,261 ft <sup>2</sup>		
<b>Other:</b> Patch foundation	\$28.00	sq.ft. (Qty)		55 Required	\$1,540.00	Repair minor foundation cracking and spalling.
<b>Sum:</b>			\$1,540.00	\$1,540.00		



Typical Concrete Foundation



Minor Foundation Repair

[Back to Assessment Summary](#)

H. Structure: Walls and Chimneys

**Description:** The overall facility has a brick veneer on load bearing masonry wall system, which displayed minor locations of deterioration, and is in good to fair condition. The exterior masonry appears to have appropriately spaced and adequately caulked control joints in fair condition. Control joints are provided at lintel locations, at doors and windows, building corners, and wall offsets and are in fair condition. The school does have sufficient expansion joints, and they are in fair condition. Exterior walls in the overall facility are inadequately insulated. Brick veneer masonry walls are not cavity walls. Weep holes and vents are not provided or required. The exterior masonry has not been cleaned and sealed in recent years, and has locations of efflorescence and mold. Architectural exterior accent materials consist of precast concrete aggregate panels, which are in fair condition. Exterior building fenestration in the overall facility represents 10.71% of the exterior surfaces. Interior Corridor and demising walls are concrete masonry units and brick, project full height from floor to bottom of deck, and are in good condition. Interior masonry appears to have adequately spaced and caulked control joints in good condition. Interior soffits are of plaster type construction, and in good condition. The window sills are an element of the aluminum window system, and are in fair condition. The exterior lintels are steel, and are in good condition. There are no chimneys. Canopies over entrances are plaster type construction, and are in good condition. There are no exterior soffits. The school is provided with a covered concrete and masonry conventional loading dock to facilitate the receipt of product, supplies, and foodstuffs, 244 square feet in size and featuring hollow metal type conventional man doors. The dock itself is in poor condition, and is equipped with bumper pads in poor condition. The concrete steps and metal railing for the loading dock are in poor condition.

**Rating:** 2 Needs Repair

**Recommendations:** Provide tuckpointing in all areas of mortar deterioration as required through the overall facility. Provide masonry cleaning and sealing as required through the overall facility. Recaulk existing control joints. Exterior wall insulation deficiencies are addressed in Item J. Replace the loading dock bumper pads. Replace the loading dock steps and railing.

Item	Cost	Unit	Whole Building	Original Construction (1973)	Sum	Comments
				103,261 ft <sup>2</sup>		
Tuckpointing:	\$5.25	sq.ft. (Qty)		160 Required	\$840.00	(wall surface)
Exterior Masonry Cleaning:	\$1.50	sq.ft. (Qty)		32,810 Required	\$49,215.00	(wall surface)
Exterior Masonry Sealing:	\$1.00	sq.ft. (Qty)		32,810 Required	\$32,810.00	(wall surface)
Exterior Caulking:	\$5.50	ln.ft.		657 Required	\$3,613.50	(removing and replacing)
<b>Other:</b> Loading dock	\$325.00	sq.ft. (Qty)		15 Required	\$4,875.00	Replace concrete steps and metal railing.
<b>Other:</b> Replace Dock Bumpers	\$212.00	each		4 Required	\$848.00	Replace loading dock bumpers.
<b>Sum:</b>			\$92,201.50	\$92,201.50		



Precast Concrete Panels



Masonry Cleaning

[Back to Assessment Summary](#)



I. Structure: Floors and Roofs

**Description:** The floor construction of the base floor of the overall facility is concrete slab on grade type construction, and is in fair condition. There is no crawl space. The floor construction of the second floor of the overall facility is steel deck on steel joist type construction, and is in good condition. Ceiling to structural deck spaces are sufficient to accommodate HVAC, electrical, and plumbing scopes of work in required renovations. The roof construction of the overall facility is steel deck on steel joist type 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	Original Construction (1973)	Sum	Comments
				103,261 ft <sup>2</sup>		
Sum:			\$0.00	\$0.00		



Steel Joist Roof Structure



Steel Joist Roof Structure

[Back to Assessment Summary](#)

J. General Finishes

**Description:** The overall facility features conventionally partitioned Classrooms with marmoleum or VAT type flooring, acoustical tile type ceilings, as well as painted block type wall finishes, and they are in fair condition. The overall facility has Corridors with terrazzo, marmoleum type flooring, acoustical tile type ceilings, as well as painted block, painted plaster, and brick type wall finishes, and they are in fair condition. The overall facility has Restrooms with ceramic tile type flooring, acoustical tile type ceilings, as well as painted block type wall finishes, and they are in fair condition. Toilet partitions are metal, and are in good to fair condition. Classroom casework in the overall facility is wood type construction with plastic laminate or black resin tops, is inadequately provided, and in fair to poor condition. The typical Classroom contains 0 lineal feet of casework, and Classroom casework provided ranges from 0 to 24 feet. Classrooms are provided adequate chalkboards, markerboards, tackboards which are in fair condition. The lockers, located in the Corridors, are adequately provided, and in fair condition. The Art program is equipped with a kiln in good condition, and existing kiln ventilation is inadequate. The facility is equipped with wood louvered interior doors that are flush mounted, and in fair condition. Most doors are not equipped with proper ADA hardware. Two doors in the overall facility do not have proper clearances. The Gymnasium space has wood type flooring, exposed type ceilings, as well as painted block, painted plaster, and brick type wall finishes, and they are in fair condition. Wood Gymnasium flooring has been well maintained, will accommodate multiple future sandings and refinishing, and is rated at a median stage of its product lifecycle. Gymnasium telescoping stands are a wood and metal type construction in fair to poor condition. Gymnasium basketball backboards are electrically operated type, and are in good to fair condition. The Media Center, openly located between Corridors, has marmoleum type flooring, acoustical tile type ceilings, as well as painted block and brick type wall finishes, and they are in fair condition. Student Dining, has VCT type flooring, acoustical tile type ceilings, as well as painted block and painted plaster type wall finishes, and they are in fair condition. OSDM-required fixed equipment for Stage is adequately provided, and in fair to poor condition. Existing Gymnasium, Student Dining, and Media Center spaces are inadequately provided with appropriate sound attenuation acoustical surface treatments. Existing Music spaces are adequately provided with appropriate sound attenuation acoustical surface treatments. The existing Kitchen is full service, is oversized based on current enrollment, and the existing Kitchen equipment, installed over 20 years ago, is in fair condition. The Kitchen hood is in fair condition, and is equipped with the required UL 300 compliant wet chemical fire suppression system. The required 6" overhang on all three exposed sides of the cooking equipment is provided by the hood. Kitchen hood exhaust ductwork is of proper construction, material, insulation, and installed as required by the OSDM and OBCMC. Walk-in cooler and freezer are located within the Kitchen spaces, and are in fair condition.

**Rating:** 3 Needs Replacement

**Recommendations:** Provide complete replacement of finishes and casework due to condition and installation of systems outlined in Items A, C, D, E, I, K, L, M, N, T, U, and W. Provide for the complete replacement of interior doors due to age and condition. Funding for replacement of two interior doors with inadequate clearances is provided in Item O. Provide for the replacement of kitchen equipment due to age and condition. Provide for the replacement of walk-in cooler and freezer due to age and condition. Provide for the replacement of Kitchen hood due to age and condition. Provide for terrazzo floor repair due to condition. Provide for replacement of toilet accessories. Provide for additional wall insulation. Provide for Stage equipment allowance. Provide for the replacement of Gymnasium bleachers due to age and condition. Provide for appropriate sound attenuation acoustical surface treatments in the Gymnasium, Media Center, and Student Dining. Provide for the replacement of Hard Plaster, Gypsum Board, and Laboratory Counter tops due to work in Item T. Funding for the replacement of resilient flooring due to work in Item T is provided for in Complete Replacement of Finishes.

Item	Cost	Unit	Whole Building	Original Construction (1973)	Sum	Comments
				103,261 ft <sup>2</sup>		
Complete Replacement of Finishes and Casework (Middle):	\$15.90	sq.ft. (of entire building addition)		Required	\$1,641,849.90	(middle, per building area, with removal of existing)
Toilet Accessory Replacement	\$0.20	sq.ft. (of entire building addition)		Required	\$20,652.20	(per building area)
Door, Frame, and Hardware:	\$1,300.00	each		154 Required	\$200,200.00	(non-ADA)
Terrazzo Floor Repair	\$25.00	sq.ft. (Qty)		300 Required	\$7,500.00	(floor area affected; max. area to be 300 sf)
Bleacher Replacement	\$110.00	per seat		706 Required	\$77,660.00	(based on current enrollment)
Additional Wall Insulation	\$6.00	sq.ft. (Qty)		32,810 Required	\$196,860.00	(includes the furring out of the existing walls, insulation and abuse resistant GWB)
Hard Plaster Replacement	\$9.00	sq.ft. (Qty)		9,950 Required	\$89,550.00	(Hazardous Material Replacement Cost - See T.)
Gypsum Board Replacement	\$4.00	sq.ft. (Qty)		1,060 Required	\$4,240.00	(Hazardous Material Replacement Cost - See T.)
Laboratory Table / Countertop Replacement	\$150.00	ln.ft.		312 Required	\$46,800.00	(Hazardous Material Replacement Cost - See T.)
Walk-in Coolers/Freezers:	\$29,818.00	per unit		2 Required	\$59,636.00	
Kitchen Exhaust Hood:	\$56,000.00	per unit		1 Required	\$56,000.00	(includes fans, exhaust & ductwork)
Total Kitchen Equipment Replacement:	\$190.00	sq.ft. (Qty)		4,141 Required	\$786,790.00	(square footage based upon only existing area of food preparation, serving, kitchen storage areas and walk-ins. Includes demolition and removal of existing kitchen equipment)
<b>Other: Sound Control</b>	\$3.00	sq.ft. (Qty)		16,750 Required	\$50,250.00	Provide for appropriate sound attenuation acoustical surface treatments in the Gymnasium, Media Center, and Student Dining.
<b>Other: Stage Equipment</b>	\$14,000.00	allowance		Required	\$14,000.00	Provide for Stage equipment allowance due to age and condition.
<b>Sum:</b>			\$3,251,988.10	\$3,251,988.10		



Gymnasium Finishes



Kitchen Hood

[Back to Assessment Summary](#)

K. Interior Lighting

**Description:** The typical Classrooms in the overall facility are equipped with T-8 2x4 lay-in direct fluorescent fixture type lighting, with dual level switching. Classroom fixtures are in fair condition, providing an average illumination of 58 FC, thus complying with the 40 FC recommended by the OSDM. The typical Corridors in the overall facility are equipped with T-8 2x4 lay-in direct fluorescent fixture type lighting, with single level switching. Corridor fixtures are in fair condition, providing an average illumination of 29 FC, thus complying with the 15 FC recommended by the OSDM. The Gymnasium spaces are equipped with T-8 2x4 surface mount and suspended fluorescent fixture type lighting, in fair condition, providing an average illumination of 38 FC, which is less than the 40 FC recommended by the OSDM. The Media Center is equipped with T-8 2x4 lay-in direct fluorescent fixture type lighting, in fair condition, providing an average illumination of 57 FC, thus complying with the 30 FC recommended by the OSDM. The Student Dining spaces are equipped with T-8 2x4 lay-in direct fluorescent fixture type lighting, in fair condition, providing an average illumination of 37 FC, which is less than the 40 FC recommended by the OSDM. The Kitchen spaces are equipped with T-8 2x4 lay-in direct fluorescent fixture type lighting, with single level switching. Kitchen fixtures are in fair condition, providing an average illumination of 42 FC, which is less than the 50 FC recommended by the OSDM. The Service Areas in the overall facility are equipped with T-8 1x4 suspended and surface mount fluorescent fixture type lighting, in fair condition, providing inadequate illumination based on OSDM requirements. The typical Administrative spaces in the overall facility are equipped with T-8 2x4 lay-in direct fluorescent fixture type lighting, in fair condition, providing inadequate illumination based on OSDM requirements. The overall lighting systems of the facility are not fully compliant with Ohio School Design Manual requirements due to age and condition, inadequate lighting levels, and lack of multi-level switching.

**Rating:** 3 Needs Replacement

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

Item	Cost	Unit	Whole Building	Original Construction (1973)	Sum	Comments
Complete Building Lighting Replacement	\$5.00	sq.ft. (of entire building addition)		103,261 ft <sup>2</sup>		
Sum:			\$516,305.00	\$516,305.00		Includes demo of existing fixtures



Gymnasium Fluorescent Lighting Fixtures



Classroom Fluorescent Lighting Fixtures

[Back to Assessment Summary](#)

L. Security Systems

**Description:** The overall facility contains a Sonitrol motion detector, CCTV, door contact type security system in fair condition. Motion detectors are inadequately provided in main entries, central gathering areas, offices, main Corridors, and spaces where 6 or more computers are located. Exterior doors are inadequately equipped with door contacts. An automatic visitor control system is provided. Compliant color CCTV cameras are inadequately provided at main entry areas, parking lots, central gathering areas, and main Corridors. CCTV is monitored in Administrative Area with the use of a LCD monitor and computer based hard disk recording device. A compliant computer controlled access control system integrating alarms and video signals, with appropriate UPS backup, is not provided. The system is not adequately equipped with card / biometric readers. The security system is not adequately provided throughout, and the system is not fully compliant with Ohio School Design Manual guidelines. There are no playground fencing issues requiring attention. The exterior site lighting system is equipped with surface mounted LED and HID high pressure sodium entry lights in good to fair condition. Pedestrian walkways are illuminated with surface mounted LED and HID high pressure sodium fixtures in good to fair condition. Parking and bus pick-up / drop off areas are illuminated by pole mounted HID high pressure sodium fixtures in fair condition. The exterior site lighting system provides inadequate illumination due to insufficient fixture capacity and sparse placement of fixtures.

**Rating:** 3 Needs Replacement

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

Item	Cost	Unit	Whole Building	Original Construction (1973)	Sum	Comments
				103,261 ft <sup>2</sup>		
Security System:	\$1.85	sq.ft. (of entire building addition)		Required	\$191,032.85	(complete, area of building)
Exterior Site Lighting:	\$1.00	sq.ft. (of entire building addition)		Required	\$103,261.00	(complete, area of building)
Sum:			\$294,293.85	\$294,293.85		



Security System Automatic Visitor Control



Security System CCTV Camera

[Back to Assessment Summary](#)

### M. Emergency/Egress Lighting

**Description:** The overall facility is inadequately equipped with an emergency egress lighting system consisting of non-compliant non-illuminated and plastic construction exit signs, as well as OSDM compliant red lettered and LED illuminated exit signs, and the system is in fair condition. The facility is inadequately equipped with emergency egress floodlighting (which consists mainly of emergency egress lighting attached to exit signs), but is also equipped with some recessed fluorescent lighting used as emergency egress lighting, and the system is in fair condition. The system is not provided with appropriate battery backup or emergency generator on separate circuits. The system is not adequately provided throughout, and does not meet Ohio School Design Manual and Ohio Building Code requirements.

**Rating:** 3 Needs Replacement

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

Item	Cost	Unit	Whole Building	Original Construction (1973)	Sum	Comments
Emergency/Egress Lighting:	\$1.00	sq.ft. (of entire building addition)		103,261 ft <sup>2</sup>		
				Required	\$103,261.00	(complete, area of building)
<b>Sum:</b>			\$103,261.00	\$103,261.00		



Exit Sign with Emergency Egress Lighting



Exit Sign with Emergency Egress Lighting

[Back to Assessment Summary](#)

N. Fire Alarm

**Description:** The overall facility is equipped with a Honeywell Silent Knight SK-5208 addressable type fire alarm system, installed in 1973 with incremental upgrades, and in fair condition, consisting of manual pull stations and horn and strobe indicating devices. The system is automatic and is monitored by a third party. The system appears to be equipped with sufficient audible horns and strobe indicating devices. The system does not appear to be equipped with sufficient smoke detectors and heat sensors. The system is not equipped with any flow switches and tamper switches. The systems thus will not support future fire suppression systems. The systems are not adequately provided throughout, and does not have additional zone capabilities. The systems are not fully compliant with Ohio Building Code, NFPA, and Ohio School Design Manual requirements.

**Rating:** 3 Needs Replacement

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

Item	Cost	Unit	Whole Building	Original Construction (1973)	Sum	Comments
Fire Alarm System:	\$1.50	sq.ft. (of entire building addition)		103,261 ft <sup>2</sup>		
Sum:			\$154,891.50	Required	\$154,891.50	(complete new system, including removal of existing)



Fire Alarm System Control Panel



Fire Alarm System Manual Pull Station

[Back to Assessment Summary](#)

O. Handicapped Access

**Description:** At the site, there is an accessible route provided from the public right-of-way, the accessible parking areas, and from the passenger unloading zone to the main entrance of the school. There is an accessible route connecting all or most areas of the site. The exterior entrances are ADA accessible. Access from the parking and drop-off area to the building entries is not compromised by steps or steep ramps. Adequate handicap parking is not provided. Exterior doors are equipped with ADA hardware. Building entrances should be equipped with 1 ADA power assist door and 1 is provided, which is in good condition. No playground issues were considered due to existing grade configuration. On the interior of the building, space allowances and reach ranges are mostly compliant. There is an accessible route through the building which does include protruding objects. Electric water coolers are not recessed, but due to wide hallways, do not impede the traffic flow. Ground and floor surfaces are compliant. Ramps and stairs do not meet all ADA requirements, due to slip surfaces on treads and handrails. Elevation changes within the overall facility are facilitated by 5 non-compliant stairwells in good condition. 1 non-compliant ramp in good condition. This multistory building has a compliant elevator that accesses every floor and is in good condition. Access to the Stage is facilitated by a chair lift. Interior doors are both recessed and not recessed. Doors which are not recessed open all the way and do not impede the traffic flow. Doors are provided adequate clearances, with the exception of Staff Restroom doors on the second floor, and are not provided with ADA-compliant hardware. 15 ADA-compliant toilets are required, and 4 are currently provided. 15 ADA-compliant Restroom lavatories are required, and 2 are currently provided. 6 ADA-compliant Science Classroom lab sinks are required, and 0 are currently provided. 7 ADA-compliant urinals are required, and 0 are currently provided. 4 ADA-compliant showers are required, and 0 are currently provided. 4 ADA-compliant electric water coolers are required, and 3 are currently provided. Toilet partitions are metal and plastic and do provide appropriate ADA clearances where present. ADA-compliant accessories are adequately provided and mounted. Mirrors do meet ADA requirements for mounting heights. Science Classrooms are not compliant with ADA requirements due to 6 Classrooms not having ADA compliant lab workstations. Health Clinic Restroom is not compliant with ADA requirements due to non compliant lavatory faucets and lack of grab bars. The Special Education Classroom does not have an in Classroom Restroom, but is located adjacent to a Restroom, which is ADA compliant. ADA signage is not provided in both the interior and exterior.

**Rating:** 3 Needs Replacement

**Recommendations:** To facilitate the school's meeting of ADA requirements, throughout the overall facility: Provide ADA-compliant signage. Remount a total of 2 urinals per Boy's Restroom and Locker Room. Replace a total of 8 lavatories, 1 lavatory per Boy's and Girl's Locker Room and 1 lavatory per Girl's and Boy's Restrooms. Provide 1 ADA shower in the Girl's Locker Room. Replace fixtures (including toilets and lavatories) and grab bars in 2 Restrooms in the Health Clinic and 2 Staff Restrooms. Replace fixtures (including toilets and lavatories) and grab bars in Staff Restrooms in the Locker Rooms. Replace existing shower heads and controls and provide new ADA compliant shower seats in Staff Restrooms in the Locker Rooms. Reconfigure a total of 3 toilet compartments; 1 per Boys and Girls Locker Rooms and 1 in Girl's Restroom on first floor, to provide a fully ADA compliant toilet compartment. Includes 3 toilets, 3 full sets of accessories, grab bars and partitions. Reconfigure and enlarge 2 existing Staff Restrooms and 2 Staff Restrooms in the Kitchen, to include 4 toilets, 4 lavatories and 4 full sets of accessories including grab bars. All fixtures, whether new or replaced, to be mounted at correct ADA compliant heights. Provide 33 ADA compliant pipe wrap throughout the overall facility. Provide non-slip strips on all stairways. Rework a total of 2 doors to meet ADA clearance requirements. Provide 2 additional Handicap Parking spaces. Funding for replacement of door hardware in the overall facility is provided for in Item J with the complete replacement of doors. Funding provided in Item E for shower tower replacements with ADA shower head in Boy's Locker Room, electric water coolers, classroom sink with deck mounted drinking fountain and fixtures not included in Item O. Funding for replacement of handrails is provided for in Item U. Funding provided in Item J for all toilet partitions not included in Item O. Funding for re-stripping parking spaces to meet ADA requirements for parking is provided for in Item P. Funding for replacement of toilets and lavatories to be mounted at ADA compliant heights is provided for in Item E.

Item	Cost	Unit	Whole Building	Original Construction (1973) 103,261 ft²	Sum	Comments
Signage:	\$0.20	sq.ft. (of entire building addition)		Required	\$20,652.20	(per building area)
Toilet/Urinals/Sinks:	\$1,500.00	unit		20 Required	\$30,000.00	(replacement ADA)
Replace Doors:	\$5,000.00	leaf		2 Required	\$10,000.00	(rework narrow opening to provide 3070 wood door, HM frame, door/light, includes hardware)
Provide ADA Shower:	\$3,000.00	each		1 Required	\$3,000.00	(includes fixtures, walls, floor drain, and supply line of an existing locker room)
<b>Other:</b> ADA Compliant Bar Mounted Hand Held Shower and Shower Seat	\$1,600.00	per unit		2 Required	\$3,200.00	Replace existing shower head and controls with ADA compliant bar mounted hand held shower and shower seat. Includes removal of existing shower head and controls, mounting and wall repair.
<b>Other:</b> ADA Pipe Wrap	\$50.00	each		33 Required	\$1,650.00	Provide pipe wrap insulation on all wall mounted lavatories.
<b>Other:</b> Grab bars	\$345.00	each		6 Required	\$2,070.00	Provide 1 set of grab bars. Includes grab bars, demolition, blocking and wall repair.
<b>Other:</b> Non-Slip Tread Strips	\$400.00	per unit		6 Required	\$2,400.00	Provide non slip tread strips on stairways. Funding provided is per stairway and ramp.
<b>Other:</b> Reconfigure Toilet Room for ADA Compliance	\$10,000.00	per restroom		4 Required	\$40,000.00	Enlarge and reconfigure existing Toilet Room to meet ADA requirements. Includes fixtures, walls, door and hardware, supply lines and full set of accessories and grab bars.
<b>Other:</b> Reconfigure Toilet Stall to meet ADA Compliance	\$2,500.00	per restroom		3 Required	\$7,500.00	Reconfigure existing toilet compartment to create ADA compliant stall. Includes fixture, accessories, grab bars, demolition, floor/wall repair and partitions.
<b>Other:</b> Remount existing urinal	\$1,000.00	each		7 Required	\$7,000.00	Remount existing urinal to ADA compliant height. Includes demolition, rough in and wall repair.
<b>Sum:</b>					\$127,472.20	\$127,472.20





Compliant Elevator



Compliant Power Assisted Door

[Back to Assessment Summary](#)

P. Site Condition

Description:

The 49.54 acre relatively flat site is located in a small town setting with moderate tree, shrub, floral type landscaping. The site is shared with Troy High School, District Bus Garage, and Board Offices, adjacent to athletic facilities, residential, and community properties. Outbuildings include a small storage shed. There are apparent problems with erosion and ponding. Erosion and ponding was observed on the north parking lot and service drive, and at edges of parking lots and walkways. The site is bordered by moderately traveled city streets. Multiple entrances onto the site are provided but proper separation of bus and other vehicular traffic is inadequate, and one-way bus traffic is provided. A bus loop is provided for student loading and unloading. Staff and visitor parking is facilitated by multiple asphalt parking lots in fair to poor condition, containing 160 parking places, which provides adequate parking for staff members and visitors, but not the disabled. The site and parking lot drainage design, consisting of sheet drainage, catch basins, and storm sewers, provides adequate evacuation of storm water in most areas, although problems with parking lot ponding were observed in the north parking lot and service drive. Concrete curbs ranging from good to poor condition are appropriately placed. Concrete sidewalks are properly sloped, are located to provide a logical flow of pedestrian traffic, and are in fair condition. Trash pick-up and service drive pavement appears heavy duty, and is in fair to poor condition, and is equipped with a concrete pad area for dumpsters, which is in fair condition. Exterior steps are provided at the buildings loading dock near the Kitchen, and in poor condition. A steel handrail is provided and is in poor condition. Two sets of concrete steps leading downstairs into the locker rooms are provided, and are in fair condition. Steel handrails are provided, and they are in fair condition. Site fencing is partially provided at the front of the school for separation from street vehicular traffic. Additional fencing is provided around the district bus garage adjacent to the school. Due to existing grade configuration, no playground considerations are relevant. The athletic facilities immediately on the site are comprised of practice football, baseball, and soccer fields as well as tennis courts, and they are in good condition. Other athletic facilities are located across adjacent streets and consist of baseball and softball fields, as well as a football field, track, and grandstands. These off-site facilities do not contain classrooms, and were not closely observed during the time of this assessment. Site features are suitable for outdoor instruction, though no related equipment has been provided to facilitate doing so. There are no readily evident conditions that might significantly effect master planning with regard to the site. Building expansion is not recommended due to the size of the site, other shared facilities on the site, parking inefficiencies, and adjacent residential properties within close proximity to the school. Railroad tracks are located to the northwest of the site, which may be distracting. No trains were noticed or observed during the physical assessment.

Rating:

2 Needs Repair

Recommendations:

Provide for site contingencies due to unforeseen circumstances. Provide for the replacement of light duty asphalt due to age and condition. Provide for the replacement of heavy duty asphalt due to age and condition. Provide for a new asphalt wear layer due to condition. Funding for provision for adequate disable parking places is provided in replacement of asphalt surfaces. Provide for the replacement of concrete curbs due to age and condition. Provide for the replacement of concrete sidewalks due to age and condition. Provide for the replacement of the concrete dumpster pad due to age and condition. Provide for the replacement of exterior concrete steps due to age and condition. Provide for the replacement of exterior steel handrails due to age and condition. Provide for additional parking lot catch basins due to inadequate storm water evacuation in the north parking lot and service drive. Provide for soil erosion stabilization.

Item	Cost	Unit	Whole Building	Original Construction (1973)	Sum	Comments
				103,261 ft <sup>2</sup>		
Asphalt Paving / New Wearing Course:	\$19.00	sq. yard		5,180 Required	\$98,420.00	(includes minor crack repair in less than 5% of paved area)
New Asphalt Paving (heavy duty):	\$27.80	sq. yard		2,583 Required	\$71,807.40	
New Asphalt Paving (light duty):	\$25.80	sq. yard		1,925 Required	\$49,665.00	
Concrete Curb:	\$18.00	in.ft.		711 Required	\$12,798.00	(new)
Concrete Sidewalk:	\$4.69	sq.ft. (Qty)		1,720 Required	\$8,066.80	(5 inch exterior slab)
Stabilize soil erosion:	\$2.50	sq.ft. (Qty)		1,525 Required	\$3,812.50	(includes stripping and re-grading)
Exterior Hand / Guard Rails:	\$43.00	in.ft.		60 Required	\$2,580.00	
Replace Concrete Steps:	\$32.00	sq.ft. (Qty)		90 Required	\$2,880.00	
Provide Exterior Parking Lot Catch Basin:	\$2,500.00	each		6 Required	\$15,000.00	
Provide Concrete Dumpster Pad:	\$2,400.00	each		1 Required	\$2,400.00	(for two dumpsters)
Base Sitework Allowance for Unforeseen Circumstances	\$50,000.00	allowance		Required	\$50,000.00	Include this and one of the next two. (Applies for whole building, so only <b>one</b> addition should have this item)
Sitework Allowance for Unforeseen Circumstances for buildings 100,000 SF or larger	\$150,000.00	allowance		Required	\$150,000.00	Include this one <b>or</b> the previous. (Applies for whole building, so only <b>one</b> addition should have this item)
<b>Sum:</b>				<b>\$467,429.70</b>	<b>\$467,429.70</b>	



Ponding at Pavement Edges



Parking Lot Catch Basin

[Back to Assessment Summary](#)

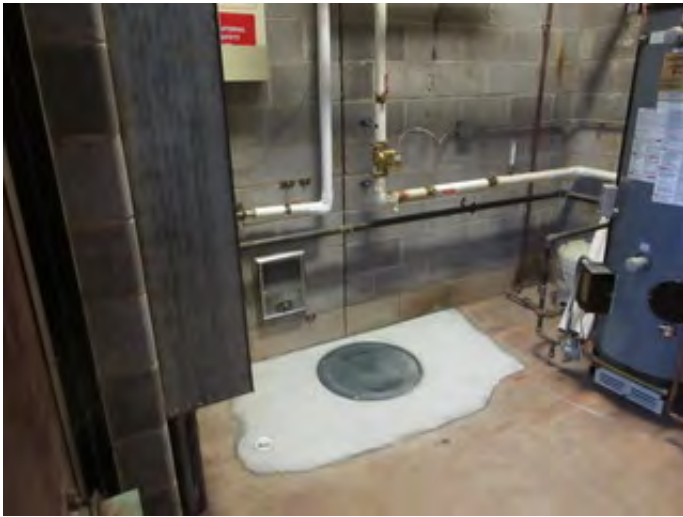
Q. Sewage System

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

Rating: 1 Satisfactory

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

Item	Cost	Unit	Whole Building	Original Construction (1973)	Sum	Comments
				103,261 ft <sup>2</sup>		
Sum:			\$0.00	\$0.00		



Kitchen Grease Trap Interceptor



Waste Vent Piping

[Back to Assessment Summary](#)

R. Water Supply

**Description:** The domestic water supply system is tied in to the municipal system, features 4" service and 3" water meter, and is in fair condition. The District was not able to provide water supply flow test data. The existing domestic water service appears to meet the facility's current needs. The facility is not equipped with an automated fire suppression system, and the existing water supply will not provide adequate support for a future system. The domestic water service is not equipped with a water booster pump, and none is required. The system does not provide adequate pressure and capacity for the future needs of the school.

**Rating:** 1 Satisfactory

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

Item	Cost	Unit	Whole Building	Original Construction (1973)	Sum	Comments
				103,261 ft <sup>2</sup>		
Sum:			\$0.00	\$0.00		



Incoming Domestic Water Service Line



Incoming Domestic Water Service Meter

[Back to Assessment Summary](#)

S. Exterior Doors

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

**Rating:** 3 Needs Replacement

**Recommendations:** Replace all exterior and entrance doors, except for the Locker Room doors, due to poor condition. Replacement of single glazed transoms and sidelights is addressed in Item F.

Item	Cost	Unit	Whole Building	Original Construction (1973)	Sum	Comments
Door Leaf/Frame and Hardware:	\$2,000.00	per leaf		103,261 ft <sup>2</sup>		
Sum:			\$52,000.00	26 Required	\$52,000.00	(includes removal of existing)



Typical Entrance Doors



Typical Exterior Doors

[Back to Assessment Summary](#)

T. Hazardous Material

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

**Rating:** 3 Needs Replacement

**Recommendations:** Remove all hazardous materials, inclusive of asbestos-containing materials in the overall facility, as noted in the attached Environmental Hazards Assessment. Provide for removal of fire doors including all interior solid core doors. Provide for the testing of paint that has the potential of being lead-based. Provide for disposal of fluorescent lighting.

Item	Cost	Unit	Whole Building	Original Construction (1973)	Sum	Comments
				103,261 ft <sup>2</sup>		
<i>Environmental Hazards Form</i>				<a href="#">EHA Form</a>	—	
Estimated Cost For Abatement Contractor to Perform Lead Mock-Ups	\$1.00	per unit		5,000 Required	\$5,000.00	
Special Engineering Fees for LBP Mock-Ups	\$1.00	per unit		5,000 Required	\$5,000.00	
Fluorescent Lamps & Ballasts Recycling/Incineration	\$0.10	sq.ft. (Qty)		82,609 Required	\$8,260.90	
Pipe Insulation Removal	\$10.00	sq.ft.		1,500 Required	\$15,000.00	
Hard Plaster Removal	\$7.00	sq.ft. (Qty)		9,950 Required	\$69,650.00	See J
Gypsum Board Removal	\$6.00	sq.ft. (Qty)		1,060 Required	\$6,360.00	See J
Laboratory Table/Counter Top Removal	\$100.00	each		39 Required	\$3,900.00	See J
Fire Door Removal	\$100.00	each		160 Required	\$16,000.00	See S
Window Component (Compound, Tape, or Caulk) - Reno & Demo	\$300.00	each		243 Required	\$72,900.00	
Resilient Flooring Removal, Including Mastic	\$3.00	sq.ft. (Qty)		15,930 Required	\$47,790.00	See J
Sink Undercoating Removal	\$100.00	each		19 Required	\$1,900.00	
<b>Other:</b> Carpet and Mastic Removal	\$3.00	sq.ft. (Qty)		2,370 Required	\$7,110.00	Provide for removal of carpet and associated mastic.
<b>Other:</b> Chalk Board Mastic Removal	\$1.00	sq.ft. (Qty)		7,000 Required	\$7,000.00	Chalk Board Mastic Removal.
<b>Other:</b> Cove Base Mastic Removal	\$2.00	sq.ft.		7,140 Required	\$14,280.00	Removal of cove base mastic
<b>Other:</b> Marmoleum and Mastic Removal	\$3.00	sq.ft. (Qty)		41,535 Required	\$124,605.00	Provide for removal of marmoleum flooring and associated mastic
<b>Other:</b> Remove Insulated Retractable Wall	\$2.00	sq.ft. (Qty)		250 Required	\$500.00	Provide for removal of one insulated retractable wall.
<b>Other:</b> Stage Curtain Removal	\$1.00	sq.ft. (Qty)		1,000 Required	\$1,000.00	Provide for the removal of the Stage Curtain.
<b>Sum:</b>			\$406,255.90	\$406,255.90		



VAT Flooring



Laboratory Countertops

[Back to Assessment Summary](#)



U. Life Safety

**Description:** The overall facility is not equipped with a compliant automated fire suppression system. Exit Corridors are situated such that dead-end Corridors are not present. The facility features 5 interior stair towers which are not protected by a compliant two hour fire enclosure. The facility does not have any exterior stairways from intermediate floors. Guardrails are constructed with vertical bars with greater than 4" clearance, do not meet the 4" ball test and do not extend past the top and bottom stair risers as required by the Ohio Building Code. The Kitchen hood is in fair condition due to age, and is equipped with the required UL 300 compliant wet chemical fire suppression system. The required 6" overhang of the cooking equipment is provided by the hood. Kitchen hood exhaust ductwork is of proper construction / material / insulation / and is installed as required by the OSDM and OBCMC. The cooking equipment is interlocked to shut down in the event of discharge of the fire suppression system. Fire extinguishers are provided in sufficient quantity. Existing fire extinguishers are adequately spaced. The facility is not equipped with an emergency generator. The existing water supply is provided by a tie-in to the municipal system and is insufficient to meet the future fire suppression needs of the school. Rooms with a capacity greater than 50 occupants are equipped with adequate egress.

**Rating:** 3 Needs Replacement

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

Item	Cost	Unit	Whole Building	Original Construction (1973)	Sum	Comments
				103,261 ft <sup>2</sup>		
Sprinkler / Fire Suppression System:	\$3.20	sq.ft. (Qty)		103,261 Required	\$330,435.20	(includes increase of service piping, if required)
Interior Stairwell Closure:	\$5,000.00	per level		6 Required	\$30,000.00	(includes associated doors, door frames and hardware)
Handrails:	\$5,000.00	level		16 Required	\$80,000.00	
<b>Sum:</b>			\$440,435.20	\$440,435.20		



Compliant Fire Extinguisher



Non-Compliant Stair Tower

[Back to Assessment Summary](#)

V. Loose Furnishings

**Description:** The typical Classroom furniture is mismatched, and in generally fair condition, consisting of student desks & chairs, teacher desks & chairs, desk height file cabinets, reading tables, computer workstations, bookcases, and wastebaskets. The facility's furniture and loose equipment were evaluated in item 6.17 in the CEFPI section of this report, and on a scale of 1 to 10 the overall facility received a rating of 6 due to observed conditions, and due to the fact that it lacks some of the Design Manual required elements.

**Rating:** 2 Needs Repair

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

Item	Cost	Unit	Whole Building	Original Construction (1973)	Sum	Comments
				103,261 ft <sup>2</sup>		
CEFPI Rating	6	\$3.00/sq.ft. (of entire building addition)		Required	\$309,783.00	
Sum:			\$309,783.00	\$309,783.00		



Typical Teacher Desk and Chair



Typical Student Desk and Chair

[Back to Assessment Summary](#)

W. Technology

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

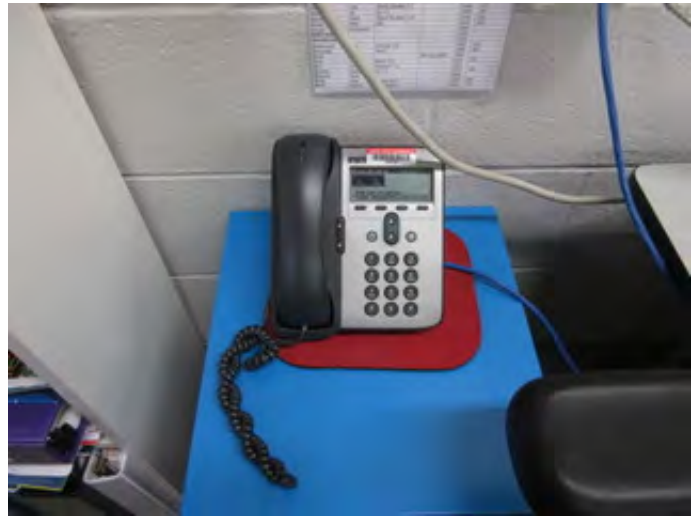
**Rating:** 3 Needs Replacement

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

Item	Cost	Unit	Whole Building	Original Construction (1973)	Sum	Comments
				103,261 ft <sup>2</sup>		
MS portion of building with total SF > 100,000	\$8.47	sq.ft. (Qty)		103,261 Required	\$874,620.67	
<b>Sum:</b>			\$874,620.67	\$874,620.67		



IT Data Rack



Classroom Digitally Based Phone

[Back to Assessment Summary](#)

X. Construction Contingency / Non-Construction Cost

<b>Renovation Costs (A-W)</b>		\$13,688,094.97
7.00%	Construction Contingency	\$958,166.65
<b>Subtotal</b>		\$14,646,261.62
16.29%	Non-Construction Costs	\$2,385,876.02
<b>Total Project</b>		<b>\$17,032,137.64</b>

Construction Contingency	\$958,166.65
Non-Construction Costs	\$2,385,876.02
<b>Total for X.</b>	<b>\$3,344,042.67</b>

<b>Non-Construction Costs Breakdown</b>		
Land Survey	0.03%	\$4,393.88
Soil Borings / Phase I Envir. Report	0.10%	\$14,646.26
Agency Approval Fees (Bldg. Code)	0.25%	\$36,615.65
Construction Testing	0.40%	\$58,585.05
Printing - Bid Documents	0.15%	\$21,969.39
Advertising for Bids	0.02%	\$2,929.25
Builder's Risk Insurance	0.12%	\$17,575.51
Design Professional's Compensation	7.50%	\$1,098,469.62
CM Compensation	6.00%	\$878,775.70
Commissioning	0.60%	\$87,877.57
Non-Construction Contingency (includes partnering and mediation services)	1.12%	\$164,038.13
<b>Total Non-Construction Costs</b>	<b>16.29%</b>	<b>\$2,385,876.02</b>

[Back to Assessment Summary](#)

School Facility Appraisal

**Name of Appraiser** Bernie Merritt **Date of Appraisal** 2016-08-06  
**Building Name** Troy Junior High  
**Street Address** 556 Adams Street  
**City/Town, State, Zip Code** Troy, OH 45373  
**Telephone Number(s)** (937) 332.6720  
**School District** Troy City

**Setting:** Small City

Site-Acreage	49.54	Building Square Footage	103,261
Grades Housed	7-8	Student Capacity	975
Number of Teaching Stations	45	Number of Floors	2
Student Enrollment	706		
Dates of Construction	1973		

**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

[Back to Assessment Summary](#)

# 1.0 The School Site

## School Facility Appraisal

		Points Allocated	Points
1.1	<b>Site is large enough</b> to meet educational needs as defined by state and local requirements <i>The site is 49.54 acres compared to 28 acres required by the OSDM. The site is shared with Troy High School, District Offices, and Bus Maintenance Garages.</i>	25	20
1.2	<b>Site is easily accessible</b> and conveniently located for the present and future population <i>The School is centrally located within the School District, and is easily accessible. The site is accessible from city streets that are suitable for buses, cars, and service vehicles. Two entry points are provided into the site, with appropriate separation of car and bus traffic.</i>	20	20
1.3	<b>Location</b> is removed from undesirable business, industry, traffic, and natural hazards <i>The site is adjacent to residential and community uses, as well as a railroad track to the northwest.</i>	10	7
1.4	Site is <b>well landscaped and developed</b> to meet educational needs <i>The site is moderately landscaped with mature shade trees, ornamental trees, and shrubs which define the property and emphasize the building entrance. Lawn areas where mowing is required do not exceed 3:1 slope.</i>	10	8
1.5	ES Well equipped <b>playgrounds are separated</b> from streets and parking areas MS Well equipped <b>athletic and intermural areas are separated</b> from streets and parking HS Well equipped <b>athletic areas</b> are adequate with sufficient solid-surface parking <i>Athletic facilities include multi-purpose practice fields and tennis courts, as well as other athletic facilities across adjacent streets, which are provided with adequate solid surface parking.</i>	10	7
1.6	<b>Topography</b> is varied enough to provide desirable appearance and without steep inclines <i>The site is gently sloped to provided positive drainage across most of the site. A flat area is provided to accommodate buildings, perimeter walks, vehicular circulation, and parking areas, and is desirable. Ponding was noticed at parking lots and pavement edges.</i>	5	3
1.7	Site has stable, well drained <b>soil free of erosion</b> <i>Ponding was observed and erosion was evident at edges of sidewalks and pavement.</i>	5	2
1.8	Site is suitable for <b>special instructional needs</b> , e.g., outdoor learning <i>The site has been developed to accommodate outdoor learning, though no related equipment has been provided to facilitate doing so.</i>	5	3
1.9	<b>Pedestrian services</b> include adequate sidewalk with designated crosswalks, curb cuts, and correct slopes <i>Sidewalks are adequately provided to accommodate safe pedestrian circulation including designated crosswalks, curb cuts, and correct slopes.</i>	5	4
1.10	ES/MS Sufficient <b>on-site, solid surface parking</b> for faculty and staff is provided HS Sufficient <b>on-site, solid surface parking</b> is provided for faculty, students, staff and community <i>Adequate parking is provided for faculty, staff, and community parking, and is located on asphalt pavement in fair to poor condition.</i>	5	4
<b>TOTAL - The School Site</b>		<b>100</b>	<b>78</b>

## 2.0 Structural and Mechanical Features

### School Facility Appraisal

Structural		Points Allocated	Points
2.1	Structure meets all <b>barrier-free</b> requirements both externally and internally <i>Entire building meets most ADA requirements with the exception of signage , Restrooms and stair treads .</i>	15	10
2.2	<b>Roofs</b> appear sound, have positive drainage, and are weather tight <i>The roofs over the entire building are in good condition.</i>	15	14
2.3	<b>Foundations</b> are strong and stable with no observable cracks <i>Foundations are in good to fair condition with observable cracks.</i>	10	9
2.4	<b>Exterior and interior walls</b> have sufficient expansion joints and are free of deterioration <i>Exterior and interior walls are in good condition, have sufficient control and expansion joints, and are free from deterioration.</i>	10	9
2.5	<b>Entrances and exits</b> are located so as to permit efficient student traffic flow <i>Exits are properly located to allow safe egress from the building.</i>	10	8
2.6	<b>Building "envelope"</b> generally provides for energy conservation (see criteria) <i>Building envelope does not meet minimum energy conservation requirements.</i>	10	4
2.7	Structure is <b>free of friable asbestos</b> and <b>toxic materials</b> <i>The building is reported to contain asbestos and other hazardous materials.</i>	10	5
2.8	Interior walls permit sufficient <b>flexibility</b> for a variety of class sizes <i>Flexible partition walls have been provided between Classrooms and allow for a variety of class sizes.</i>	10	8
Mechanical/Electrical		Points Allocated	Points
2.9	<b>Adequate light sources</b> are well maintained, and properly placed and are not subject to overheating <i>Light sources are improperly placed and provide inadequate lighting in some areas. Fixtures are well maintained in most areas. Light fixtures do not appear to be subject to overheating.</i>	15	6
2.10	<b>Internal water supply</b> is adequate with sufficient pressure to meet health and safety requirements <i>Internal water supply will not support a future fire suppression system, but is adequate for current requirements.</i>	15	6
2.11	Each teaching/learning area has adequate convenient <b>wall outlets</b> , phone and computer cabling for technology applications <i>Classrooms have an inadequate number of outlets and data jacks for technology applications.</i>	15	4

2.12	<b>Electrical controls</b> are safely protected with <b>disconnect switches</b> easily accessible <i>Disconnect switches are provided in required easily accessible locations to allow for safe servicing of equipment.</i>	10	8
2.13	<b>Drinking fountains</b> are adequate in number and placement, and are properly maintained including provisions for the disabled <i>Drinking fountains are not adequate in number and placement, and do not meet ADA requirements. Drinking fountains are properly maintained.</i>	10	5
2.14	Number and size of <b>restrooms meet requirements</b> <i>The number and size of Restrooms meet requirements.</i>	10	9
2.15	<b>Drainage systems</b> are properly maintained and meet requirements <i>Drainage systems exhibit some signs of past leakage and repairs.</i>	10	7
2.16	<b>Fire alarms, smoke detectors, and sprinkler systems</b> are properly maintained and meet requirements <i>The facility is not sprinkled. Fire alarm systems are not fully provided with all required devices. Smoke detectors are inadequately provided.</i>	10	6
2.17	<b>Intercommunication system</b> consists of a central unit that allows dependable <b>two-way communication</b> between the office and instructional areas <i>The central intercommunication system provides reliable communication between the Administration area and all teaching/learning areas.</i>	10	8
2.18	<b>Exterior water supply</b> is sufficient and available for normal usage <i>Exterior wall hydrants are adequately provided around the exterior of the facility.</i>	5	4
<b>TOTAL - Structural and Mechanical Features</b>		<b>200</b>	<b>130</b>

[Back to Assessment Summary](#)



### 3.0 Plant Maintainability

School Facility Appraisal

		Points Allocated	Points
3.1	<b>Windows, doors, and walls</b> are of material and finish requiring minimum maintenance <i>Exterior materials for walls require minimum maintenance. Materials and finishes for doors and windows require some maintenance.</i>	15	9
3.2	<b>Floor surfaces</b> throughout the building require minimum care <i>Flooring throughout the facility consists of VCT, marmoleum, wood, VAT, carpet, terrazzo, sealed concrete, and ceramic tile, which is somewhat well maintained throughout the facility.</i>	15	11
3.3	<b>Ceilings and walls</b> throughout the building, including service areas, are easily cleaned and resistant to stain <i>Acoustical tile ceilings are not easily cleaned or resistant to stain. Painted block and brick is easily cleaned and resistant to stain. Drywall and plaster type wall finishes are not easily cleaned and resistant to stain.</i>	10	7
3.4	<b>Built-in equipment</b> is designed and constructed for ease of maintenance <i>Casework is wood type construction with plastic laminate or black resin tops, that is original to the building, and is in fair to poor condition.</i>	10	4
3.5	<b>Finishes and hardware</b> , with compatible keying system, are of durable quality <i>Door hardware varies throughout the facility, and does not meet ADA requirements.</i>	10	6
3.6	<b>Restroom fixtures</b> are wall mounted and of quality finish <i>Fixtures are wall mounted and are of good to fair quality.</i>	10	7
3.7	Adequate <b>custodial storage space</b> with water and drain is accessible throughout the building <i>Custodial storage space is adequately located throughout the facility, including provisions for water and drains.</i>	10	10
3.8	Adequate <b>electrical outlets and power</b> , to permit routine cleaning, are available in every area <i>Electrical outlets are adequately provided in Corridors and allow for convenient routine cleaning.</i>	10	8
3.9	<b>Outdoor light fixtures, electrical outlets</b> , equipment, and other fixtures are accessible for repair and replacement <i>Outdoor light fixtures are provided inadequately, but are accessible for repair and replacement. Electrical outlets are inadequately provided around the exterior of the facility.</i>	10	2
<b>TOTAL - Plant Maintainability</b>		<b>100</b>	<b>64</b>

[Back to Assessment Summary](#)

## 4.0 Building Safety and Security

### School Facility Appraisal

Site Safety		Points Allocated	Points
4.1	<p><b>Student loading areas</b> are segregated from other vehicular traffic and pedestrian walkways</p> <p><i>Student loading is not separated from other vehicular traffic.</i></p>	15	9
4.2	<p><b>Walkways</b>, both on and offsite, are available for safety of pedestrians</p> <p><i>Walkways are adequately provided both on and off-site for pedestrian safety.</i></p>	10	8
4.3	<p><b>Access streets</b> have sufficient signals and signs to permit safe entrance to and exit from school area</p> <p><i>School signs and signals are located as required on adjacent access streets.</i></p>	5	4
4.4	<p><b>Vehicular entrances and exits</b> permit safe traffic flow</p> <p><i>Buses and other vehicular traffic use the same entrance and exit points to the site, which does not provide safe vehicular traffic flow.</i></p>	5	3
4.5	<p>ES <b>Playground equipment</b> is free from hazard</p> <p>MS Location and types of <b>intramural equipment</b> are free from hazard</p> <p>HS <b>Athletic field equipment</b> is properly located and is free from hazard</p> <p><i>Location and types of intramural equipment are free from hazard.</i></p>	5	4
Building Safety		Points Allocated	Points
4.6	<p><b>The heating unit(s)</b> is located away from student occupied areas</p> <p><i>Heating systems are located on the areas that are not accessible by students.</i></p>	20	18
4.7	<p>Multi-story buildings have at least <b>two stairways</b> for student egress</p> <p><i>The building does have 5 stairways, 3 of which are not enclosed and 2 which are enclosed; the stairways are not fully ADA and OBC compliant.</i></p>	15	8
4.8	<p><b>Exterior doors</b> open outward and are equipped with panic hardware</p> <p><i>Exterior doors open in the direction of travel and are equipped with panic hardware.</i></p>	10	8
4.9	<p><b>Emergency lighting</b> is provided throughout the entire building with exit signs on separate electrical circuits</p> <p><i>Emergency light fixtures and exit signs are not on separate circuits and are inadequately provided.</i></p>	10	4
4.10	<p><b>Classroom doors</b> are recessed and open outward</p> <p><i>Classroom doors are both recessed and not recessed from the Corridor. Doors open outward, but do not impede traffic flow in the Corridors.</i></p>	10	7
4.11	<p><b>Building security systems</b> are provided to assure uninterrupted operation of the educational program</p>	10	2

Security systems are inadequately provided and are in fair condition.

4.12 **Flooring** (including ramps and stairways) is maintained in a non-slip condition 5 3

*Terrazzo and VCT flooring has been well maintained throughout the facility. Stairways and interior ramp are not maintained in a non-slip condition.*

4.13 **Stair risers** (interior and exterior) do not exceed 6 1/2 inches and range in number from 3 - 16 5 4

*Stair treads and risers are properly designed and meet requirements. Stair risers do not exceed 7 inches permitted by the OBC.*

4.14 **Glass** is properly located and protected with wire or safety material to prevent accidental student injury 5 3

*Glass at door transoms and sidelights is tempered for safety.*

4.15 **Fixed Projections** in the traffic areas do not extend more than eight inches from the corridor wall 5 4

*Drinking fountains and electric water coolers are not recessed in the Corridor wall. Corridors are wide enough so that non-recessed fixture does not impede traffic flow in Corridors.*

4.16 **Traffic areas** terminate at an exit or a stairway leading to an egress 5 3

*Exits are properly located to allow safe egress from the building. Entry and exit points to the building have been adequately provided. Corridor and building layout does provide an efficient means of circulation throughout the building. There are no dead-end Corridors in the building. Stairways are not enclosed.*

---

**Emergency Safety**

Points Allocated Points

4.17 Adequate **fire safety equipment** is properly located 15 2

*The facility is not sprinkled. Fire alarm devices are not provided adequately. Fire extinguishers appear to be adequately provided.*

4.18 There are at least **two independent exits** from any point in the building 15 11

*Multiple exits are provided from Corridors throughout the facility. There are no dead-end Corridors in the building.*

4.19 **Fire-resistant materials** are used throughout the structure 15 12

*The structure is a masonry load bearing system with steel joist and concrete deck. Interior walls are masonry. Interior walls in the office area are gypsum on wood studs. Finishes comply with OBBC requirements.*

4.20 Automatic and manual **emergency alarm system** with a distinctive sound and flashing light is provided 15 4

*The fire alarm is provided with manual actuation and is not provided with all required devices.*

---

**TOTAL - Building Safety and Security**

**200 121**

[Back to Assessment Summary](#)

## 5.0 Educational Adequacy

### School Facility Appraisal

<b>Academic Learning Space</b>	Points Allocated	Points
<p>5.1                    <b>Size of academic learning areas</b> meets desirable standards</p> <p><i>The average Classroom is 750 SF compared to 900 SF required by the OSDM.</i></p>	25	12
<p>5.2                    <b>Classroom space</b> permits arrangements for small group activity</p> <p><i>Undersized Classrooms do not allow sufficient space for effective small group activities.</i></p>	15	8
<p>5.3                    <b>Location of academic learning areas</b> is near related educational activities and away from disruptive noise</p> <p><i>The Gymnasium and Music program are properly isolated from the academic learning areas to reduce distractions.</i></p>	10	8
<p>5.4                    <b>Personal space</b> in the classroom away from group instruction allows privacy time for individual students</p> <p><i>Undersized Classrooms do not permit privacy time for individual students.</i></p>	10	5
<p>5.5                    <b>Storage for student materials</b> is adequate</p> <p><i>Lockers, located in the Corridor, are adequately provided for student storage.</i></p>	10	8
<p>5.6                    <b>Storage for teacher materials</b> is adequate</p> <p><i>Casework is inadequately provided for storage of teacher materials.</i></p>	10	4

<b>Special Learning Space</b>	Points Allocated	Points
<p>5.7                    <b>Size of special learning area(s)</b> meets standards</p> <p><i>The Special Education Classroom is 666 SF compared to 900 SF recommended in the OSDM.</i></p>	15	6
<p>5.8                    <b>Design of specialized learning area(s)</b> is compatible with instructional need</p> <p><i>Special Education spaces are not adequately provided to meet instructional needs.</i></p>	10	5
<p>5.9                    <b>Library/Resource/Media Center</b> provides appropriate and attractive space</p> <p><i>The Media Center is an attractive space, including sufficient book storage space, although natural light is sparse.</i></p>	10	8
<p>5.10                  <b>Gymnasium (or covered P.E. area)</b> adequately serves physical education instruction</p> <p><i>The Gymnasium is 7,686 SF compared to 7,000-12,000 SF recommended in the OSDM. The Gymnasium space is adequately sized and equipped for physical education instruction.</i></p>	5	4
<p>5.11      ES            <b>Pre-kindergarten and kindergarten space</b> is appropriate for age of students and nature of instruction</p> <p>MS/HS            <b>Science</b> program is provided sufficient space and equipment</p> <p><i>Science Classrooms are undersized, and are not provided with required equipment.</i></p>	10	6

5.12	<b>Music Program</b> is provided adequate sound treated space	5	5
	<i>The Music Rooms total 4,216 SF compared to 1,800-3,000 recommended in the OSDM. The Music Rooms are designed appropriately, including acoustic panels on walls and ceilings.</i>		
5.13	<b>Space for art</b> is appropriate for special instruction, supplies, and equipment	5	5
	<i>The Art Room is 4,212 SF compared to 1,200 SF recommended in the OSDM. The Art Room is appropriately designed for instruction and includes sufficient space for storage of supplies and equipment.</i>		

---

**School Facility Appraisal**

Points Allocated      Points

5.14	<b>Space for technology education</b> permits use of state-of-the-art equipment	5	4
	<i>The facility is provided with Computer Labs for student use.</i>		
5.15	Space for <b>small groups and remedial instruction</b> is provided adjacent to classrooms	5	3
	<i>Work rooms are provided adjacent to the 2nd Floor Classrooms for small groups and remedial instruction. No spaces have been provided adjacent to Classrooms on the 1st Floor.</i>		
5.16	<b>Storage for student and teacher material</b> is adequate	5	3
	<i>Lockers have been adequately provided for storage of student materials. Casework is not adequately provided for storage of teacher materials.</i>		

---

**Support Space**

Points Allocated      Points

5.17	<b>Teacher's lounge and work areas</b> reflect teachers as professionals	10	8
	<i>The Teacher's Lounge is 567 SF compared to 450-900 SF, for 8-24 staff, recommended in the OSDM. The Teacher's Lounge does reflect a professional environment and includes adequate work space for preparation of teacher materials.</i>		
5.18	<b>Cafeteria/Kitchen</b> is attractive with sufficient space for seating/dining, delivery, storage, and food preparation	10	8
	<i>The Student Dining space is 3,569 SF compared to 3,000 SF recommended in the OSDM. The Student Dining space has limited visual appeal. The Kitchen space is 4,141 SF compared to 2,471 SF recommended in the OSDM.</i>		
5.19	<b>Administrative offices</b> provided are consistent in appearance and function with the maturity of the students served	5	4
	<i>Administrative Offices are adequately provided for Middle School students.</i>		
5.20	<b>Counselor's office</b> insures privacy and sufficient storage	5	3
	<i>The Counselor Office's total is 377 SF compared to 120 SF, plus 100 SF for Storage and 200 SF for Conference, recommended in the OSDM. The space provided for the Counselor does insure privacy, but lacks sufficient storage space.</i>		
5.21	<b>Clinic</b> is near administrative offices and is equipped to meet requirements	5	4
	<i>The Clinic is 282 SF compared to 370 SF recommended in the OSDM. The Clinic is located within the Administrative Offices and is provided with required equipment.</i>		
5.22	<b>Suitable reception space</b> is available for students, teachers, and visitors	5	4
	<i>Reception space consists of approximately 892 SF compared to 200-400 SF recommended by the OSDM.</i>		
5.23	<b>Administrative personnel</b> are provided <b>sufficient work space and privacy</b>	5	4

The Administrative area consists of approximately 2,941 SF for the principal, assistant principal, secretary, Conference Room, Storage, Copy Room, and Restroom, compared to 2,600 SF recommended by the OSDM.

---

**TOTAL - Educational Adequacy**

**200**

**129**

[Back to Assessment Summary](#)

## 6.0 Environment for Education

### School Facility Appraisal

Exterior Environment	Points Allocated	Points
<p>6.1 Overall <b>design is aesthetically pleasing</b> to age of students</p> <p><i>The building is a traditional design with classical detailing, which is aesthetically pleasing.</i></p>	15	9
<p>6.2 Site and building are <b>well landscaped</b></p> <p><i>The site is moderately landscaped with mature shade trees, ornamental trees, and shrubs which define the property and emphasize the building entrance. Lawn areas where mowing is required do not exceed 3:1 slope.</i></p>	10	8
<p>6.3 <b>Exterior noise and poor environment</b> do not disrupt learning</p> <p><i>The site is adjacent to residential and community uses, as well as a railroad track to the northwest.</i></p>	10	6
<p>6.4 <b>Entrances and walkways are sheltered</b> from sun and inclement weather</p> <p><i>The main entrance to the School is partially sheltered.</i></p>	10	6
<p>6.5 <b>Building materials</b> provide attractive color and texture</p> <p><i>Exterior building materials consist of brick and precast concrete, which does provide an attractive color and texture. Interior building materials consist of brick and painted concrete block which does provide an attractive color and texture.</i></p>	5	3

Interior Environment	Points Allocated	Points
<p>6.6 <b>Color schemes, building materials, and decor</b> provide an impetus to learning</p> <p><i>Overall building design and materials reflect a dated décor which does not enhance learning.</i></p>	20	8
<p>6.7 <b>Year around comfortable temperature and humidity</b> are provided throughout the building</p> <p><i>The facility is air conditioned to provide year-round temperature and humidity control.</i></p>	15	14
<p>6.8 <b>Ventilating system</b> provides adequate quiet circulation of clean air and meets 15cfm VBC requirement</p> <p><i>The ventilating systems do not provide an adequate quantity of ventilation air to the spaces. Ventilation systems introduce minimal noise into the teaching and learning areas.</i></p>	15	4
<p>6.9 <b>Lighting system</b> provides proper intensity, diffusion, and distribution of illumination</p> <p><i>The lighting system does not provide proper intensity in some areas. Location of lighting fixtures provides uneven distribution of illumination. Diffusion of illumination is adequately provided by the light fixture lenses.</i></p>	15	8
<p>6.10 <b>Drinking fountains and restroom facilities</b> are conveniently located</p> <p><i>Drinking fountains and Restroom facilities are conveniently located.</i></p>	15	12
<p>6.11 <b>Communication among students</b> is enhanced by commons area(s) for socialization</p> <p><i>There are areas for students to gather in the Student Dining area and Gymnasium, as well as a small gathering area at the entrance to the school.</i></p>	10	8

6.12	<b>Traffic flow</b> is aided by appropriate foyers and corridors <i>Corridors and Foyers are adequately designed for efficient traffic flow. Classroom doorways are not recessed, but do not impede traffic flow. Entry and exit points to the building have been adequately provided. Corridor and building layout does provide an efficient means of circulation throughout the building.</i>	10	8
6.13	<b>Areas for students to interact</b> are suitable to the age group <i>There are areas for students to gather in the Student Dining area and Gymnasium, as well as a small gathering area at the entrance to the school.</i>	10	8
6.14	<b>Large group areas are designed</b> for effective management of students <i>The Gymnasium is adequately designed to manage large groups of students.</i>	10	8
6.15	<b>Acoustical treatment</b> of ceilings, walls, and floors provides effective sound control <i>The Music Spaces have been adequately designed and provided with effective sound control measures. No acoustical treatment has been provided in the Gymnasium, Media Center, and Student Dining.</i>	10	6
6.16	<b>Window design</b> contributes to a pleasant environment <i>The windows are not designed well, and do not contribute to a pleasant environment.</i>	10	4
6.17	<b>Furniture and equipment</b> provide a pleasing atmosphere <i>Classroom furniture is mismatched and in fair condition.</i>	10	6
<b>TOTAL - Environment for Education</b>		<b>200</b>	<b>126</b>

[Back to Assessment Summary](#)



# LEED Observation Notes

<b>School District:</b>	Troy City
<b>County:</b>	Miami
<b>School District IRN:</b>	44925
<b>Building:</b>	Troy Junior High
<b>Building IRN:</b>	65292

---

## Sustainable Sites

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

(source: LEED Reference Guide, 2001:9)

The amount of asphalt contributes to the heat island effect for non-roofs (see SS Credit 7.1). Open space is effectively maximized at this site (see SS Credit 5.2). The size of the parking area exceeds the amount required with 160 spaces provided and 78 spaces required (see SS Credit 4.4). Reducing the amount of redundant asphalt and providing softer landscape elements including grasses, shrubs and flora, would contribute to a reduction in the heat island effect. Most of the roof surfaces have high reflectance and low thermal emittance, which helps mitigate the heat island effect.

---

## Water Efficiency

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

(source: LEED Reference Guide, 2001:65)

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

---

## Energy & Atmosphere

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

(source: LEED Reference Guide, 2001:93)

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

---

## Material & Resources

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

(source: LEED Reference Guide, 2001:167)

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

---

## Indoor Environmental Quality

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

(source: LEED Reference Guide, 2001:215)

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

---

## Innovation & Design Process

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

(source: LEED Reference Guide, 2001:271)

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

---

**Justification for Allocation of Points**

Building Name and Level: **Troy Junior High**

**7-8**

**Building features that clearly exceed criteria:**

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

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

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

[Back to Assessment Summary](#)

# Environmental Hazards Assessment Cost Estimates

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

<b>District IRN:</b>	44925
<b>Building IRN:</b>	65292
<b>Firm:</b>	SBDP

**Scope remains unchanged after cost updates.**

Building Addition	Addition Area (sf)	Total of Environmental Hazards Assessment Cost Estimates	
		Renovation	Demolition
1973 Original Construction	103,261	\$406,255.90	\$241,760.90
<b>Total</b>	<b>103,261</b>	<b>\$406,255.90</b>	<b>\$241,760.90</b>
Total with Regional Cost Factor (97.49%)	—	\$396,058.88	\$235,692.70
Regional Total with Soft Costs & Contingency	—	\$492,817.25	\$293,273.14

**Environmental Hazards - Troy City (44925) - Troy Junior High (65292) - Original Construction**

**Owner:** Troy City                      **Bldg. IRN:** 65292  
**Facility:** Troy Junior High            **BuildingAdd:** Original Construction  
**Date On-Site:**                              **Consultant Name:**

A. Asbestos Containing Material (ACM)		AFM=Asbestos Free Material			
ACM Found		Status	Quantity	Unit Cost	Estimated Cost
1.	Boiler/Furnace Insulation Removal	Not Present	0	\$10.00	\$0.00
2.	Breeching Insulation Removal	Not Present	0	\$10.00	\$0.00
3.	Tank Insulation Removal	Not Present	0	\$8.00	\$0.00
4.	Duct Insulation Removal	Not Present	0	\$8.00	\$0.00
5.	Pipe Insulation Removal	Reported Asbestos-Containing Material	1500	\$10.00	\$15,000.00
6.	Pipe Fitting Insulation Removal	Not Present	0	\$20.00	\$0.00
7.	Pipe Insulation Removal (Crawlspace/Tunnel)	Not Present	0	\$12.00	\$0.00
8.	Pipe Fitting Insulation Removal (Crawlspace/Tunnel)	Not Present	0	\$30.00	\$0.00
9.	Pipe Insulation Removal (Hidden in Walls/Ceilings)	Not Present	0	\$15.00	\$0.00
10.	Dismantling of Boiler/Furnace/Incinerator	Not Present	0	\$2,000.00	\$0.00
11.	Flexible Duct Connection Removal	Not Present	0	\$100.00	\$0.00
12.	Acoustical Plaster Removal	Not Present	0	\$7.00	\$0.00
13.	Fireproofing Removal	Not Present	0	\$25.00	\$0.00
14.	Hard Plaster Removal	Reported Asbestos-Containing Material	9950	\$7.00	\$69,650.00
15.	Gypsum Board Removal	Reported Asbestos-Containing Material	1060	\$6.00	\$6,360.00
16.	Acoustical Panel/Tile Ceiling Removal	Not Present	0	\$3.00	\$0.00
17.	Laboratory Table/Counter Top Removal	Reported Asbestos-Containing Material	39	\$100.00	\$3,900.00
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	Reported Asbestos-Containing Material	160	\$100.00	\$16,000.00
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	Reported Asbestos-Containing Material	243	\$300.00	\$72,900.00
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	15930	\$3.00	\$47,790.00
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	Reported Asbestos-Containing Material	19	\$100.00	\$1,900.00
34.	Roofing Removal	Not Present	0	\$2.00	\$0.00
35.	(Sum of Lines 1-34)	<b>Total Asb. Hazard Abatement Cost for Renovation Work</b>			\$233,500.00
36.	(Sum of Lines 1-34)	<b>Total Asb. Hazard Abatement Cost for Demolition Work</b>			\$233,500.00

B. Removal Of Underground Storage Tanks <input checked="" type="checkbox"/> None Reported						
Tank No.	Location	Age	Product Stored	Size	Est.Rem.Cost	
1. (Sum of Lines 1-0)					<b>Total Cost For Removal Of Underground Storage Tanks</b>	\$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	\$5,000.00
2. Special Engineering Fees for LBP Mock-Ups	\$5,000.00
3. (Sum of Lines 1-2)	<b>Total Cost for Lead-Based Paint Mock-Ups</b>
	\$10,000.00

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. 103261	82609	\$0.10	\$8,260.90

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

F. Environmental Hazards Assessment Cost Estimate Summaries		
1. A35, B1, C3, D1, and E1	<b>Total Cost for Env. Hazards Work - Renovation</b>	\$251,760.90
2. A36, B1, D1, and E2	<b>Total Cost for Env. Hazards Work - Demolition</b>	\$241,760.90

\* 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.