## Building Information - Worthington City (45138) - Granby Elementary School

Program Type Assessment Only

Setting Suburban

Assessment Name Granby Elementary School

Assessment Date (on-site; non-EEA) 2015-09-23
Kitchen Type Full Kitchen

Cost Set: 2015

Building Name Granby Elementary School

Building IRN 98079

Building Address 1490 Hard Rd
Building City Columbus
Building Zipcode 43235

Building Phone 614-450-4500

 Acreage
 17.93

 Current Grades:
 K-6

 Teaching Stations
 18

 Number of Floors
 1

 Student Capacity
 612

 Current Enrollment
 441

Enrollment Date 2015-09-14

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

Number of Classrooms 22
Historical Register NO

Building's Principal Patti Schlaegel
Building Type Elementary

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North elevation photo:



South elevation photo:



West elevation photo:



#### GENERAL DESCRIPTION

**59,004** Total Existing Square Footage

1988 Building Dates

K-6 Grades

441 Current Enrollment

18 Teaching Stations

17.93 Site Acreage

Granby Elementary School, which is not on the National Register of Historic Buildings, and originally constructed in 1988, is a 1 story, 59,004 square foot brick school building located in an suburban residential setting. The existing facility features a conventionally partitioned and open concept design, and does not utilize modular buildings. The structure of the overall facility contains brick on concrete masonry unit type exterior wall construction, with gypsum board on metal stud, exposed CMU, and demountable partition type wall construction in the interior. The floor system consists of concrete slab on grade. The roof structure is metal deck on steel joists and beams. The roofing system of the overall facility is fiberglass shingles and ballasted EPDM roofing installed in 1988. The ventilation system of the building is adequate to meet the needs of the users. The Classrooms are adequately sized in terms of the current standards established by the State of Ohio. Physical Education and Student Dining spaces consist of one Multipurpose space. The building is not reported to contain asbestos and other hazardous materials. The overall building is not compliant with ADA accessibility requirements. The school is located on an 17.93 acre site adjacent to residential properties. The property, playgrounds and play areas are not fenced for security. Access onto the site is unrestricted. Site circulation is good. There is dedicated space for school buses to load and unload on the site. Parking for staff, visitors and community events is adequate.

Significant findings include rusted VCT floor tile which may be indicative of roof leaks. The roof over the overall facility is in poor condition and needs replaced. An area of trapped water was encountered during the onsite assessment. In order to meet all ADA requirements, modifications and upgrades need to be made for Restrooms, Stage access and signage. There are few windows incorporated into the design and as a result, limited daylighting.



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## Building Construction Information - Worthington City (45138) - Granby Elementary School (98079)

Name	Year	Handicapped Access	Floors	Square Feet	Non OSDM Addition
Original Construction	1988	yes	1	59,004	no

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## Building Component Information - Worthington City (45138) - Granby Elementary School (98079)

Addition	Auditorium Fixed Seating	Corridors	Agricultural Education Lab	Primary Gymnasium	Media Center	Vocational Space	Student Dining	Kitchen		Indoor Tracks	Adult Education	Board Offices	Outside Agencies	Auxiliary Gymnasium
Original Construction (1988)		8138		4143	2639		1927	1219						
Total	0	8,138	0	4,143	2,639	0	1,927	1,219	0	0	0	0	0	0
Master Planning Considerations	I		n the current la ground is locate		ition of t	he building a	ind parkir	ng, future	additions mig	ht be po	ssible to the	e north w	here the ex	kisting

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# Existing CT Programs for Assessment

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Program Type Program Name Related Space Square Feet
No Records Found

Legend:

Not in current design manual

In current design manual but missing from assessment

## Building Summary - Granby Elementary School (98079)

District	t: Worthington	n City						County:	Franklin	Δres	a: Central Ohio (0)			
Name:	3	,	v Sch	ool				Contact:	Patti Schlaege		a. Central Onio (0)			
	ss: 1490 Hard		y Och	001				Phone:	614-450-4500					
Addres	Columbus,		25					Date Prepared:		By:	Isaac Ocasio			
Blda II	RN: 98079	JH 432	.33					Date Revised:		Бу. By:				
			14.0				47.00			Бу.	Holly Graffibort			
	Grades		K-6	Acreage:			17.93	CEFPI Appraisal	Summary					
	ed Grades		N/A	Teaching		ons:	18		ection		Deinte Dessible	Dainta Farnad	Davaantama	Dating Catagons
	Enrollment		441	Classroo	ms:		22	Cover Sheet	ection		Points Possible	Points Earned	Percentage	Rating Category
	ed Enrollment		N/A						it.		400		83%	— Catiafa atam
Addition					loors	Current So	quare Feet	1.0 The School S	<u>ille</u> d Machaniael E		100	83		Satisfactory
_	I Construction 1	1988 ye	es	1				2.0 Structural and		eature		145	73%	Satisfactory
Total		1 1					59,004	3.0 Plant Maintair			100	68	68%	Borderline
	*HA	-		pped Acce	ess			4.0 Building Safe			200	129	65%	Borderline
	*Rating	=1 Sa						5.0 Educational A			200	143	72%	Satisfactory
		=2 Ne						6.0 Environment			200	147	74%	Satisfactory
		-		eplaceme				LEED Observation	<u>ons</u>		_	_	_	_
	*Const P/S			Scheduled	d Cons	struction		Commentary			_			_
	FACILITY AS				D - 4'		Dollar	Total			1000	715	72%	Satisfactory
[ <del>22</del> ] A   I	Cost Se	t: 2015			Rating			Enhanced Enviro	nmental Hazar	ds Ass	sessment Cost Estim	<u>ates</u>		
	Heating System				3		3,216.48 -	C=Under Contrac	\ <b>4</b>					
	Roofing				3	\$49	1,698.00 -	C=Officer Contrac	, l					
	/entilation / Air (		oning			07	\$0.00 -	Renovation Cost	Footor					100.00%
	Electrical System				2	<u> </u>	2,951.20 -			nnlind	1\			\$6,371,653.74
	Plumbing and Fix	xtures			3	_	4,100.00 -	Cost to Renovate			e Renovate/Replace	ratio ara anlu r	rovidad whan	. , ,
	<u>Vindows</u>					\$9	0,000.00 -	requested from a		and the	e Renovate/Replace	ratio are orily p	irovidea wrierr	uns summary is
	Structure: Found				1	r.o.	\$0.00 -							
	Structure: Walls			<u>/s</u>	2	\$8	8,750.00 -							
	Structure: Floors		0018		2	<b>COO</b>	\$0.00 -							
	General Finishes	<u> </u>			3		8,159.60 -							
	nterior Lighting Security Systems				3	<del> </del>	5,020.00 -							
		_	tio a		2		8,161.40 -							
	Emergency/Egre	ess Ligi	ıung		3		5,000.00 -							
	Fire Alarm				3	<del></del>	8,506.00 -							
	Handicapped Ac	cess			2	_	5,865.80 -							
	Site Condition					\$43	8,192.00 -							
	Sewage System				1		\$0.00 -							
	Nater Supply				1	64	\$0.00 -							
	Exterior Doors	2121			2		2,000.00 -							
	Hazardous Mate	<u>rıaı</u>			2	+	5,900.40 -							
	<u>life Safety</u>				2		5,000.00 -							
	Loose Furnishing	<u>ys</u>			2		9,004.00 -							
	Fechnology	n4in	a. /		3	<del> </del>	9,136.04 -							
	Construction Cor Non-Construction		Cy /		-	\$1,25	0,992.82 -							
Total						\$6.37	1,653.74							

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## Original Construction (1988) Summary

D:		144 (1.1.	0:1						0	- II	•	0 1 101: (0)			
Distric		Worthington	-						County:	Franklin		a: Central Ohio (0)			
Name		Granby Ele		ary Sch	1001				Contact:	Patti Schlaege					
Addre	ess:	1490 Hard							Phone:	614-450-4500					
		Columbus,	OH 43	3235					Date Prepared:		By:	Isaac Ocasio			
Bldg.	IRN:	: 98079							Date Revised:	2015-12-23	By:	Holly Grambort			
Currer				K-6	Acreage	):		17.93	CEFPI Appraisal	Summary					
Propos	sed (	Grades		N/A	Teachin	g Station	is:	18							
Currer	nt En	rollment		441	Classroo	oms:		22		ection		Points Possible	Points Earned	Percentage I	Rating Category
Projec	ted E	Enrollment		N/A					Cover Sheet			<del>-</del>	_	_	_
Additio	<u>on</u>		<u>Date</u>	<u>HA</u>	Number			t Square	1.0 The School S			100	83	83%	Satisfactory
					Floors	<u>s</u>	<u>F</u>	<u>eet</u>	2.0 Structural and		eature		145	73%	Satisfactory
Origin			<u>1988</u>	<u>yes</u>	<u>1</u>			<u>59,004</u>	3.0 Plant Maintair			100	68	68%	Borderline
Const	ruct	<u>iion</u>						50.004	4.0 Building Safe			200	129	65%	Borderline
<u>Total</u>		****	1.	lone!!-	manad A			59,004	5.0 Educational A			200	143	72%	Satisfactory
		*HA	+ +		apped Acc	ess	$\dashv$		6.0 Environment	for Education		200	147	74%	Satisfactory
		*Rating	-	atisfac			-		LEED Observation	<u>ins</u>		_	_	_	-
			-	leeds F			_		Commentary			_	_	_	_
					Replacem				Total			1000	715	72%	Satisfactory
		*Const P/S				d Consti	ruction		Enhanced Enviro	nmental Hazar	ds Ass	sessment Cost Estim	<u>ates</u>		
	F	FACILITY AS				Dating	٨٥٥	Dollar							
776 A		Cost Se	t: 201	5		Rating		essment C	C=Under Contrac	ct					
<u>□</u> A.		ating System				3		3,216.48 -							
		ofing				3	\$49	1,698.00 -	Renovation Cost	Factor					100.00%
		ntilation / Air (		tioning		1		\$0.00 -	Cost to Renovate	(Cost Factor a	applied	)			\$6,371,653.74
		ctrical Systen	_			2		2,951.20 -			and the	e Renovate/Replace	ratio are only p	rovided when	this summary is
	_	mbing and Fi	xtures	<u> </u>		3		4,100.00 -	requested from a	Master Plan.					
		idows				3	\$9	0,000.00 -							
		ucture: Found				1	•	\$0.00 -							
<u>简</u> H.		ucture: Walls			<u>ys</u>	2	\$8	8,750.00 -							
<u> </u>		ucture: Floors		Roots		1		\$0.00 -							
		neral Finishes	<u> </u>			2		8,159.60 -							
		rior Lighting				3		5,020.00 -							
		urity System	_			3		8,161.40 -							
	_	ergency/Egre	ess Lig	ghting		2		5,000.00 -							
		: Alarm				3		8,506.00 -							
		ndicapped Ac	cess			3		5,865.80 -							
<u>a</u> P.		Condition				2	\$43	8,192.00 -							
		vage System				1		\$0.00 -							
		ter Supply				1		\$0.00 -							
		erior Doors				2		2,000.00 -							
	_	ardous Mate	<u>rial</u>			2	•	5,900.40 -							
		Safety				2	\$5	5,000.00 -							
🋅 V.	Loos	se Furnishing	g <u>s</u>			2	\$5	9,004.00 -							
<mark></mark> ₩.	Tecl	hnology				3	\$67	9,136.04 -							
- X.		nstruction Con n-Construction				-	\$1,25	0,992.82 -							
Total							\$6,37	1,653.74							

#### A. Heating System

Description:

The existing system for the overall facility is a gas fired heating hot water system, installed in 1988, and is in fair condition. The heating and chilled water system in the overall facility is a 2-pipe system, without a capacity for simultaneous heating and cooling operation, which is not compliant with the OSDM requirements for basic system type. The 2 gas fired boilers, manufactured by PK, were installed in 1994 and are in fair condition. Heating water is distributed to terminal units consisting of unit ventilators, cabinet heaters, unit heaters, and air handlers. The terminal equipment was installed in 1988 and is in fair condition. The system does not comply with the 15 CFM per person fresh air requirements of the Ohio Building Code mechanical code and Ohio School Design Manual. The DDC type system temperature controls were installed in 1999 and are in fair condition. The system does feature individual temperature controls in all spaces required by the OSDM. The overall system does not feature any central energy recovery systems. The facility is not equipped with louvered interior doors to facilitate Corridor utilization as return air plenums. The existing system is ducted in the Gymnasium, Cafeteria, Main Office, and Library, but the ductwork cannot be integrated into a possible future system due to arrangement, air volume, and routing of existing ductwork. The existing system is not ducted in the Classrooms, and floor to structural deck heights will not accommodate the installation of properly sized ductwork for a future Ohio School Design Manual approved system. The overall heating system is evaluated as being 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. Convert to ducted system to facilitate efficient exchange of conditioned air. Provide architectural soffits to accommodate the installation of ductwork in the Classrooms.

Item	Cost	Unit	Whole	Original	Sum	Comments
			Building	Construction (1988)		
				59,004 ft <sup>2</sup>		
HVAC System	\$26.12	sq.ft. (of entire		Required	\$1,541,184.48	(includes demo of existing system and reconfiguration of piping layout and new
Replacement:		building addition)				controls, air conditioning)
Convert To Ducted	\$8.00	sq.ft. (of entire		Required	\$472,032.00	(includes costs for vert. & horz. chases, cut openings, soffits, etc. Must be used in
System		building addition)				addition to HVAC System Replacement if the existing HVAC system is
						non-ducted)
Sum:			\$2,013,216.48	\$2,013,216.48		





Pumps

Gas Fired Boilers

## B. Roofing

Description: The roof over the overall facility is a ballasted EPDM roof system and fiberglass shingle system that was installed in 1988 and is in poor condition.

There are no District reports of current leaking. There are some areas of rusted VCT floor within the building, this could be a sign of past roof leaks. Access to the roof was gained by access door and ladder 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 and metal copings are in poor condition. Roof storm drainage is addressed through a system of gutters and downspouts, and roof drains, which are properly located, and in good condition. The roof is not equipped with overflow roof drains though they will be required in areas of roof replacement. No problems requiring attention were

encountered with any roof penetrations. There are not any covered walkways attached to this structure.

Rating: 3 Needs Replacement

Recommendations: The roof over the overall facility requires replacement to meet Ohio School Design Manual guidelines due to condition, age of system and projected lifecycle. Provide overflow drains throughout the overall facility. The flashing and / or coping on the overall facility require replacement

due to condition.

Item	Cost	Unit	Whole Building	Original Construction (1988)	Sum	Comments
				59,004 ft <sup>2</sup>		
Asphalt Shingle:	\$3.00	sq.ft. (Qty)		15,904 Required	\$47,712.00	
Membrane (all types):	\$8.70	sq.ft. (Qty)		43,100 Required	\$374,970.00	(unless under 10,000 sq.ft.)
Repair/replace cap flashing and coping:	\$18.40	ln.ft.		1,740 Required	\$32,016.00	
Remove/replace existing roof Drains and Sump	\$1,200.00	each		10 Required	\$12,000.00	
Overflow Roof Drains and Piping:	\$2,500.00	each		10 Required	\$25,000.00	
Sum:			\$491,698.00	\$491,698.00		





Fiberglass Shingled Roofing

**EPDM Roofing and Metal Coping** 

## C. Ventilation / Air Conditioning

Description:

The overall facility is equipped with a water cooled central air conditioning system, which is in poor condition. A chiller produces chilled water and chilled water pumps distribute the chilled water to the terminal units. The equipment is in poor condition. The ventilation system consists of unit ventilators, installed in 1988 and in fair condition, providing fresh air to Classrooms, and air handlers, installed in 1988 and in fair condition, providing fresh air to other miscellaneous spaces such as Gymnasiums, Student Dining, and Media Center. Relief air venting is provided ceiling plenums. The ventilation system does not meet the Ohio Building Code 15 CFM per occupant fresh air requirement. The overall system is not compliant with Ohio Building Code and Ohio School Design Manual requirements. Dust collection systems are not required in this facility. The Art program is equipped with a kiln, and existing kiln ventilation is adequate, and in fair condition. General building exhaust systems for Restrooms are adequately placed, and in fair condition.

Rating: 1 Satisfactory

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. Pricing included in Item A.

Item	Cost	Unit	Whole	Building	Original Construction (1988)	Sum	Comments
					59,004 ft <sup>2</sup>		
Sum:			\$0.00		\$0.00		





Air Cooled Condenser

Unit Ventilator

#### D. Electrical Systems

Description:

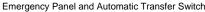
The electrical system provided to the overall facility is a 480/277-volt, 3-phase, 4-wire, 800-amp system, installed in 1988, and is in good condition. Power is provided to the school by a single utility owned, pad-mounted transformer, located in exterior fenced-in area, and in good condition. The panel system, installed in 1988, is in good condition, and can be expanded to add additional capacity. The Classrooms are not equipped with adequate electrical outlets. The typical Classroom contains 12 general purpose outlets, 2 dedicated outlets for each Classroom computer, and 2 dedicated outlets for each Classroom television. Some Classrooms are equipped with as many as 16 general purpose outlets, while others are equipped with as few as 10 general purpose outlets. There are not any spaces that have no electrical outlets. The Corridors are not equipped with adequate electrical outlets for servicing. Adequate GFI protected exterior outlets are not provided around the perimeter of the building. The facility is equipped with a suitable emergency generator. Adequate lightning protection safeguards are not provided. Stage lighting power system, including dimmers, is inadequately provided, in good condition, and does not meet OSDM requirements. The overall electrical system does not meet Ohio School Design Manual requirements in supporting the current needs of the school, and will be inadequate to meet the facility's future needs.

Rating: 2 Needs Repair

Recommendations: Provide additional panels, circuits and outlets, to increase capacity for Classrooms and Corridors. Provide control panel, dimmers, and breakers to support the Stage lighting system. Provide adequate lightning protection safeguards.

Item	Cost	Unit	Whole Building	Original Construction (1988)	Sum	Comments
				59,004 ft <sup>2</sup>		
Panel Replacement:	\$3,500.00	unit		3 Required	\$10,500.00	(power or lighting sub-panel only)
Additional Circuits:	\$800.00	per circuit		45 Required	\$36,000.00	
Additional Receptacles	\$250.00	each		35 Required	\$8,750.00	
Lightning Protection	\$0.30	sq.ft. (of entire building addition)		Required	\$17,701.20	
Sum:		-	\$72,951.20	\$72,951.20		







**Electrical Distribution** 

#### E. Plumbing and Fixtures

Description:

The service entrance is not equipped with a reduced pressure backflow preventer. A water treatment system is not provided. The domestic water supply piping in the overall facility is copper, was installed in 1988, and is in good condition. The waste piping in the overall facility is cast and PVC, was installed in 1988, and is in good condition. The facility is equipped with a gas water heater in good condition, with a separate 175-gallon storage tank in good condition. The school contains 3 Large Group Restrooms for boys, 3 Large Group Restrooms for girls, 3 Restrooms associated with specialty Classrooms, and 5 Restrooms for staff. Boys' Large Group Restrooms contain 0 ADA and 6 non-ADA wall mounted flush valve toilets, 4 ADA and 8 non-ADA wall mounted flush valve urinals, as well as 1 ADA wall mounted lavatories and 1 non-ADA floor mounted, trough- lavatories. Girls' Large Group Restrooms contain 0 ADA and 14 non-ADA wall mounted flush valve toilets, as well as 1 ADA wall mounted lavatories and 1 non-ADA floor mounted, trough-lavatories. Additionally, there is 1 ADA wall mounted lavatory, that does not have the required pipe protection, and 1 non-ADA floor mounted, multi-station lavatories that are shared between boys and girls restrooms. Note: the ADA wall mounted lavatories are sized for adults at 34" and not children, at 31" Staff Restrooms contain 0 ADA and 7 non-ADA wall mounted flush valve toilets, 0 ADA and 1 non-ADA wall mounted urinals, as well as 0 ADA and 4 non-ADA wall mounted and 2 non-ADA countertop lavatories. Condition of fixtures is fair. The facility is equipped with 0 ADA and 1 non-ADA drinking fountains, as well as 2 ADA and 6 non-ADA electric water coolers, in fair condition. The 21 Elementary Classrooms are equipped with 0 ADA and 21 non-ADA sink mounted type drinking fountains, in good condition. Special Education Classroom is equipped with a toilet but not the OSDM required ADA Restroom facility, and fixtures are in fair condition. Kitchen is equipped with the required Restroom, and fixtures are in fair condition. Heath Clinic is equipped with the required Restroom, which is not ADA compliant, and fixtures are in fair condition. Kindergarten / Pre-K Classrooms are equipped with Restroom facilities, and fixtures are in fair condition. Kitchen fixtures consist of 1 hand sink, 1 single-compartment sink, 1 double-compartment sink, and 1 triple-compartment sink, which are in good condition. The Kitchen is equipped with a satisfactory grease interceptor. The Kitchen is provided the required 140 degree hot water supply via a mixing valve, which is in good condition. The school does not meet the OBC requirements for fixtures. Relative to LEED requirements, the school is not equipped with low flow type fixtures. Per OBC and OSDM requirements this facility should be equipped with 39 toilets, 12 urinals, 27 lavatories, 21 Classroom sink mounted drinking fountains, and 13 electric water coolers. Observations revealed that the school is currently equipped with 27 toilets, 13 urinals, 11 lavatories, 20 Classroom sink mounted drinking fountains, and 9 electric water coolers. ADA requirements are not met for fixtures and drinking fountains (see Item O). Custodial Closets are properly located and are adequately provided with required service sinks or floor drain sinks, which are in fair condition. Science Classroom / Lab utility sinks, gas connections, compressed air connections, and safety shower / eyewash are not provided, but are not required due to existing grade configuration. Due to existing grade configuration, no Biology or Chemistry Classroom acid waste systems are required. Adequate exterior wall hydrants are provided.

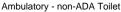
Rating: 3 Needs Replacement

Recommendations:

To facilitate the school's compliance with OBC and OSFC fixture requirements, provide 12 new toilets, 16 new lavatories, 4 new electric water coolers. See Item O for replacement of fixtures related to ADA requirements. Provide reduced pressure backflow preventer. Set ADA sinks at appropriate mounting height for existing grade configuration and include pipe protection (See corresponding photograph).

Item	Cost	Unit	Whole Building	Original Construction (1988)	Sum	Comments
			_	59,004 ft <sup>2</sup>		
Back Flow Preventer:	\$5,000.00	unit		1 Required	\$5,000.00	
Toilet:	\$3,800.00	unit		12 Required	\$45,600.00	(new)
Sink:	\$2,500.00	unit		16 Required	\$40,000.00	(new)
Electric water cooler:	\$3,000.00	unit		4 Required	\$12,000.00	(double ADA)
Other: Lower Restroom Sinks	\$500.00	per unit		3 Required	\$1,500.00	(reset mounting height appropriate to existing grade)
Sum:			\$104.100.00	\$104.100.00		







Hand Washing Stations & ADA Sink

## F. Windows

Description: The overall facility is equipped with aluminum clad wood windows with double glazed type window system, which was installed in 1988, and is in

fair condition. The window system features operable windows in most of the building, and operable windows are equipped with opening limiters in fair condition and not equipped with insect screens. Window system seals are in poor condition, with moderate air and water infiltration being experienced. Window system hardware is in fair condition. The window system features integral blinds, which are in fair condition. Aluminum frame curtain wall systems are found in the original construction, in good condition. This facility does not feature any glass block windows. The exterior doors at the main entrance are equipped with aluminum sidelights and transoms with tempered double glazed insulated glazing in good condition. Exterior door vision panels are tempered double glazed insulated glazing. The school does not contain skylights. The school does not contain 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 throughout the facility due to

condition.

Item	Cost	Unit	Whole Building	Original Construction (1988)	Sum	Comments
				59,004 ft <sup>2</sup>		
Insulated Glass/Panels:	\$60.00	sq.ft. (Qty)		1,500 Required	\$90,000.00	(includes blinds)
Sum:			\$90,000.00	\$90,000.00		





Typical Window

Typical Curtain Wall

## G. Structure: Foundation

Description: The overall facility is equipped with concrete masonry unit foundation walls on concrete footings, which displayed no locations of significant

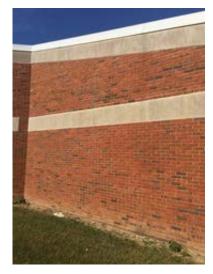
differential settlement, cracking, or leaking, and are in good condition. No significant issues related to foundation cracking or spalling were encountered. The District reports that there has been no past leaking. No grading or site drainage deficiencies were noted around the perimeter

of the structure that are contributing or could contribute to foundation / wall structural deterioration.

Rating: 1 Satisfactory

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

Item	Cost	Unit	Whole	Building	Original Construction (1988	)Sum	Comments
					59,004 ft <sup>2</sup>		
Sum:			\$0.00		\$0.00		



Typical Building Perimeter



Typical Building Perimeter

**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 locations of deterioration, and is in fair condition. The exterior masonry appears to have appropriately spaced and adequately caulked control joints in poor condition. Control joints are provided at lintel locations, at doors and windows, building corners, and wall offsets and are in poor condition. The school does have sufficient expansion joints, and they are in poor condition. Exterior walls in the overall facility are adequately insulated. Brick veneer masonry walls are cavity walls. Weep holes and vents are provided at lintels, below sills, and the base of masonry cavity walls, and are in good condition. Weep holes are not rope type weeps. The exterior masonry has not been cleaned and sealed in recent years, and shows evidence of mortar deterioration below windows, at unit ventilator drains, and around the base of the wall. The exterior masonry also has locations of efflorescence and mold. Architectural exterior accent materials consist of stone trim, which is in fair condition. Caulking around stone trim is in poor condition. Exterior building fenestration in the overall facility represents 7.5% of the exterior surfaces. Interior Corridor and demising walls are concrete masonry units, and 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 drywall on metal stud type construction, and in good condition. The window sills are brick and are in fair condition. The exterior lintels are steel, and are in good condition. There are no chimneys. Canopies over entrances are exterior drywall on metal stud type construction, and are in fair condition. Exterior soffits are of exterior drywall on metal stud type construction, and in fair condition. Some exterior soffits have been faced with aluminum and are in good condition. The school is provided with a uncovered concrete conventiona

Rating: 2 Needs Repair

Recommendations:

Provide masonry cleaning, caulking, and sealing as required through the overall facility. Recaulk all existing control joints. Replace caulk around stone trim, unit ventilator louvers, and storefronts. Repair exterior drywall on exterior canopies and soffits. Concrete repairs at loading dock will be addressed in Item P.

Item	Cost	Unit	Whole Building	Original Construction (1988)	Sum	Comments
				59,004 ft <sup>2</sup>		
Tuckpointing:	\$5.25	sq.ft. (Qty)		2,000 Required	\$10,500.00	(wall surface)
Exterior Masonry Cleaning:	\$1.50	sq.ft. (Qty)		22,500 Required	\$33,750.00	(wall surface)
Exterior Masonry Sealing:	\$1.00	sq.ft. (Qty)		22,500 Required	\$22,500.00	(wall surface)
Exterior Caulking:	\$5.50	ln.ft.		2,800 Required	\$15,400.00	(removing and replacing)
Other: Repair and Paint Exterior Soffits	\$6.00	sq.ft. (Qty)		1,100 Required	\$6,600.00	Repair and repaint exterior drywall soffits and canopies
Sum:			\$88,750.00	\$88,750.00		







Mold on Exterior Brick and Stone

## 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 good condition. There is no

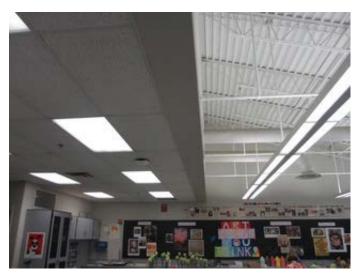
crawl space. The floor construction of the mezzanine over the restrooms is precast concrete planks with concrete topping type construction, and is in good condition. Ceiling to structural deck spaces are sufficient to accommodate HVAC, electrical, and plumbing scopes of work in required renovations. The roof construction of the overall facility is metal decking on steel joist and beam 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 (1988)	Sum	Comments
					59,004 ft <sup>2</sup>		
Sum:			\$0.00		\$0.00		





**Exposed Structure** 

Exposed Structure

**Back to Assessment Summary** 

#### J. General Finishes

Description:

The overall facility features conventionally partitioned, operable partitioned, and demountable metal partitioned Classrooms with rubber and carpet tile type flooring, 2x4 ACT type ceilings, as well as painted CMU and metal partition type wall finishes, and they are in good condition. The overall facility has Corridors with rubber type flooring, 2x4 ACT type ceilings, as well as painted CMU and metal partition type wall finishes, and they are in good condition. The overall facility has Restrooms with epoxy non-slip type flooring, gypsum board type ceilings, as well as painted CMU type wall finishes, and they are in good condition. Toilet partitions are plastic, and are in good condition. Classroom casework in the overall facility is wood type construction with plastic laminate finish, is inadequately provided, and in good condition. The typical Classroom contains 7'-7" lineal feet of casework, and Classroom casework is consistently 7'-7". Classrooms are provided adequate chalkboards, markerboards, tackboards, and smartboards which are in good condition. There are no storage cubbies or lockers in this facility. The Art program is equipped with a kiln in good condition, and existing kiln ventilation is adequate. The facility is equipped with wood non-louvered interior doors that are both flush mounted and recessed with proper ADA hardware and clearances, and in good condition. The Gymnasium space has VCT type flooring, open exposed type ceilings, as well as painted CMU type wall finishes, and they are in good condition. There are no bleachers in this Gymnasium. Gymnasium basketball backboards are electrically operated type, and are in good condition. The Media Center has carpet tile type flooring, 2x4 ACT type ceilings, as well as metal partition type wall finishes, and they are in good condition. Student Dining has rubber type flooring, 2x4 ACT type ceilings, as well as painted CMU type wall finishes, and they are in good condition. Existing Gymnasium, Student Dining, Media Center, and Music spaces are adequately provided with appropriate sound attenuation acoustical surface treatments. The existing Kitchen is full service, is undersized based on current enrollment, and the existing Kitchen equipment, installed in between 1988 and 2007, is in good to fair condition. The required 6" overhang on all three exposed sides of the cooking equipment is provided by the Kitchen Hood. Walk-in cooler and freezer are located within the Kitchen space and are in good condition.

Rating: 2 Needs Repair

Recommendations:

Provide for the addition of casework as required per the OSDM. Provide for the replacement of Stage and Gymnasium flooring due to rusted tiles and outdated materials. Provide for the replacement of all kitchen equipment installed before 1995. Provide for the replacement of flooring in custodial office. Provide for the full replacement of acoustical ceiling tile due to complete lighting system replacement outlined in Item K.

Item	Cost	Unit	Whole Building	Original Construction (1988)	Sum	Comments
				59,004 ft <sup>2</sup>		
Acoustic Ceiling:	\$2.90	sq.ft. (Qty)		59,004 Required	\$171,111.60	(partial finish - drop in/standard 2 x 4 ceiling tile per area)
Vinyl Enhanced Tile (VET):	\$4.10	sq.ft. (Qty)		5,500 Required	\$22,550.00	(tear out and replace per area; to be used in lieu of VCT)
Partial Casework (base and wall):	\$450.00	ln.ft.		400 Required	\$180,000.00	(refer to OSFC, OSDM for requirements)
Hot Serving Unit:	\$8,148.00	per unit		1 Required	\$8,148.00	
Hot Food Cabinet	\$6,150.00	unit		1 Required	\$6,150.00	
Other: Food Processor	\$200.00	per unit		1 Required	\$200.00	Replace outdated food processor.
Sum:			\$388,159.60	\$388,159.60		





Rusted Flooring

Replace Flooring in Custodial Office

#### K. Interior Lighting

Description:

The typical Classrooms in the overall facility are equipped with T-8 lay-in 2x4 fluorescent fixtures with single level switching. Classroom fixtures are in good condition, providing an average illumination of 46 FC, which is less than the 50 FC recommended by the OSDM. The typical Corridors in the overall facility are equipped with T-8 lay-in 2x4 fluorescent fixtures with single level switching. Corridor fixtures are in good condition, providing an average illumination of 24 FC, thus complying with the 20 FC recommended by the OSDM. The Primary Gymnasium spaces are equipped with pendant T-8 2x4 mount fluorescent fixtures, in good condition, providing an average illumination of 66 FC, thus complying with the 50 ES FC recommended by the OSDM. The Media Center is equipped with lay-in 2x4 T-8 fluorescent fixture type lighting in good condition, providing an average illumination of 55 FC, thus complying with the 50 FC recommended by the OSDM. The Student Dining spaces are equipped with lay-in 2x4 T-8 fluorescent fixture type lighting with multi-level switching. Student Dining fixtures are in good condition, providing an average illumination of 60 FC, thus complying with the 50 FC recommended by the OSDM. The Kitchen spaces are equipped with 1x4 surface mount T-8 fluorescent fixture type lighting with single level switching. Kitchen fixtures are in good condition, providing an average illumination of 72 FC, which is less than the 75-80 FC recommended by the OSDM. The Service Areas in the overall facility are equipped with 1x4 surface mount T-8 fluorescent fixture type lighting in good condition. The typical Administrative spaces in the overall facility are equipped with lay-in 2x4 T-8 fluorescent fixture type lighting in good condition, providing adequate illumination based on OSDM requirements. The overall lighting systems of the facility are not compliant with Ohio School Design Manual requirements due to inadequate lighting levels and lack of multi-level switching.

Rating: 3 Needs Replacement

Recommendations: Provide complete replacement of lighting system due to lighting levels and lack of multi-level switching.

Item	Cost	Unit	Whole Building	Original Construction (1988)	Sum	Comments
				59,004 ft <sup>2</sup>		
Complete Building Lighting Replacement	\$5.00	sq.ft. (of entire building addition)		Required	\$295,020.00	Includes demo of existing fixtures
Sum:			\$295,020.00	\$295,020.00		





Dining Area Lighting

Gym Lighting

**Back to Assessment Summary** 

#### L. Security Systems

Description:

The overall facility contains a Security Command motion detector, intrusion, and door contact type security system in good condition. Motion detectors are not adequately provided in main entries, central gathering areas, offices, main Corridors, and spaces where 6 or more computers are located. Exterior doors are equipped with door contacts. An automatic visitor control system is not provided. Compliant color CCTV cameras are not provided at main entry areas, parking lots, central gathering areas, and main Corridors. CCTV is not monitored in Administrative Area. A compliant computer controlled access control system integrating alarms and video signals, with appropriate UPS backup, is not provided. The system is equipped with card readers. The security system is not adequately provided throughout, and the system is not compliant with Ohio School Design Manual guidelines. The exterior site lighting system is equipped with surface mounted high pressure sodium entry lights in good condition. Pedestrian walkways are illuminated with wall mounted fixtures in good condition. Parking and bus pick-up / drop off areas are illuminated by pole mounted high pressure sodium fixtures in good condition. The exterior site lighting system provides inadequate illumination due to insufficient fixture capacity.

Rating: 3 Needs Replacement

Recommendations: Provide new security system and exterior site lighting to meet Ohio School Design Manual guidelines. Add exterior site lighting to provide

adequate illumination.

Item	Cost	Unit	Whole Building	Original Construction (1988)	Sum	Comments
				59,004 ft <sup>2</sup>		
Security System:	\$1.85	5sq.ft. (of entire building addition	)	Required	\$109,157.40	(complete, area of building)
Exterior Site Lighting:	\$1.00	0sq.ft. (of entire building addition	)	Required	\$59,004.00	(complete, area of building)
Sum:		•	\$168,161.40	\$168,161.40		-





Site Lighting Pole

Security System Keypad / Panel

## M. Emergency/Egress Lighting

Description:

The overall facility is equipped with an emergency egress lighting system consisting of non-compliant plastic construction, as well as OSDM compliant red lettered, LED illuminated exit signs, and the system is in good condition. The facility is not equipped with emergency egress floodlighting, but is equipped with recessed fluorescent lighting used as emergency egress lighting, and the system is in good condition. The system is provided with appropriate capacity on emergency generator and on separate circuits. The system is adequately provided throughout,

and does not meet Ohio School Design Manual and Ohio Building Code requirements.

Rating: 2 Needs Repair

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

Item	Cost	Unit	Whole Building	Original Construction (1988)	Sum	Comments
			_	59,004 ft <sup>2</sup>		
Component: New Exit Sign	\$300.00	each		50 Required	\$15,000.00	
Sum:			\$15,000.00	\$15,000.00		





Exit Sign

Exit Sign and Door Security Contacts

## N. Fire Alarm

Description: The overall facility is equipped with a Simplex type fire alarm system, installed in 1988, and in good condition, consisting of manual pull stations,

bells, and horn and strobe indicating devices. The system is automatic and is monitored by a third party. The system is equipped with sufficient audible horns, strobe indicating devices, flow switches, and tamper switches. The system is not equipped with sufficient smoke detectors or heat sensors. The system thus will support future fire suppression systems. The system is adequately provided throughout, and does not have additional zone capabilities. The system is not fully compliant with Ohio Building Code, NFPA, and Ohio School Design Manual requirements.

Rating: 3 Needs Replacement

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

Item	Cost	Unit	Whole Building	Original Construction (1988)	Sum	Comments
				59,004 ft <sup>2</sup>		
Fire Alarm System:	\$1.50	sq.ft. (of entire building addition)		Required	\$88,506.00	(complete new system, including removal of existing)
Sum:		<del>-</del>	\$88,506.00	\$88,506.00		-





Fire Alarm Remote Annunciator

Fire Alarm Control Panel

#### O. Handicapped Access

Description:

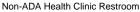
At the site, there is an accessible route provided from the public right-of-way, the accessible parking areas, and from the passenger unloading zone to the main entrance of the school. There is an accessible route connecting all or most areas of the site. The exterior entrances are all ADA accessible. Access from the parking / drop-off area to the building entries is not compromised by steps or steep ramps. Adequate handicap parking is provided. Exterior doors are equipped with ADA hardware. Building entrances should be equipped with 1 ADA power assist doors 1 is provided, which is in good condition. Playground layout and equipping are compliant. On the interior of the building, space allowances and reach ranges are mostly compliant. There is an accessible route through the building which does not include protruding objects. Ground and floor surfaces are compliant. There are no ramps and stairs. Special provisions for floor level changes in this single story structure are not required. Access to the Stage is not facilitated by a Corridor at Stage level, chair lift, or ramp. Interior doors are recessed, are provided adequate clearances, and are provided with ADA-compliant hardware. 5 ADA-compliant toilets are required, and 0 are currently provided. 5 ADA-compliant value are required, and 3 are currently provided. 3 ADA-compliant urinals are required, and 4 are currently provided. 1 ADA-compliant showers are required, and 0 are currently provided. 3 ADA-compliant electric water coolers are required, and 2 are currently provided. Toilet partitions are plastic, and do not provide appropriate ADA clearances. ADA-compliant accessories are not adequately provided and mounted. Mirrors do meet ADA requirements for mounting heights. Due to existing grade configuration, no Science Classroom considerations require evaluation. Health Clinic and Special Education Restrooms are not compliant with ADA requirements due to required clearances. ADA signage is not provided on both the interior and the exterior of the building.

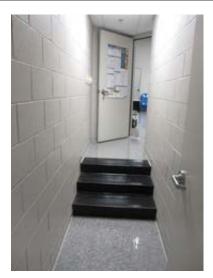
Rating: 3 Needs Replacement

Recommendations: Provide ADA-compliant signage, stage access, electric water coolers, toilets, sinks, toilet partitions, toilet accessories, and remounted mirrors in the overall facility to facilitate the school's meeting of ADA requirements.

item	Cost	Unit	Whole Building	Original Construction (1988) 59,004 ft <sup>2</sup>	Sum	Comments
Signage:		sq.ft. (of entire building addition)		Required	\$11,800.80	(per building area)
Ramps:	\$40.00	sq.ft. (Qty)		1 Required	\$40.00	(per ramp/interior-exterior complete)
Electric Water Coolers:	\$3,000.00	unit		1 Required	\$3,000.00	(new double ADA)
Toilet/Urinals/Sinks:	\$3,800.00	unit		7 Required	\$26,600.00	(new ADA)
Toilet Partitions:	\$1,000.00	stall		5 Required	\$5,000.00	(ADA - grab bars, accessories included)
Remount Restroom Mirrors to Handicapped Height:	\$285.00	per restroom		5 Required	\$1,425.00	
Provide ADA Shower:	\$3,000.00	each		1 Required		(includes fixtures, walls, floor drain, and supply line of an existing locker room)
Provide Toilet Accessories:	\$1,000.00	per restroom		5 Required	\$5,000.00	
Sum:			\$55,865.80	\$55,865.80		







Non-ADA Stage Access

#### P. Site Condition

Description:

The 17.93 acre flat site is located in an urban residential setting with moderate tree and shrub type landscaping. The site is shared with McCord Middle School. There are no outbuildings. There are no apparent problems with erosion or ponding. The site is bordered by lightly traveled city streets. A single entrance onto the site impedes proper separation of bus and other vehicular traffic, and one-way bus traffic is provided. There is a curbside bus loading and unloading zone adjacent to the school, which is not separated from other vehicular traffic. Staff, and visitor parking is facilitated by a multiple asphalt parking lots in good condition, containing 112 parking places, which provides adequate parking for staff members, visitors, and the disabled. The site and parking lot drainage design, consisting of sheet drainage and catch basins, provides adequate evacuation of storm water, and no problems with parking lot ponding were observed. Concrete curbs in good condition are appropriately placed. Concrete sidewalks are properly sloped, are located to provide a logical flow of pedestrian traffic, and are in good condition. Trash pick-up and service drive pavement is heavy duty and is in good condition, and is equipped with a concrete pad area for dumpsters, which is in fair condition. This site does not contain exterior steps, stairwells, ramps, quardrails, or handrails. Chain link fencing is located around mechanical equipment and is in fair condition. There is no fencing around playground or play fields. There is no separation between play areas and vehicular traffic. The playground equipment is primarily constructed of high density plastic and coated steel and is in good condition. Playground equipment is placed to provide compliant fall zones, and on a compliant wood fiber mulch of sufficient dept. An asphalt play area is provided with multiple basketball courts, a painted track, funnel ball, and four square games, and the asphalt is in fair condition. The site is not equipped with sufficient tables or benches. The athletic facilities are shared with McCord Middle School and are comprised of baseball fields, a full size track and soccer field and are in good condition. Site features are suitable for outdoor instruction, though no related equipment has been provided to facilitate doing so. The site is bordered by railroad tracks to the west. Residential homes border the site on the north. There is a large wooded lot to the east, and a main road to the south. The site is under sized based on OSDM standards, and shared with McCord Middle School. Future building additions are feasible in place of the existing parking lot and play areas.

Rating: 2 Needs Repair

Recommendations:

Provide fencing to separate asphalt play area from vehicular traffic. Provide fencing around dumpsters and replace fencing around mechanical equipment. Resurface asphalt play areas. Replace concrete dumpster pad due to condition. Replace broken and cracked sidewalks and concrete loading dock.

ltem	Cost	Unit	Whole	Original	Sum	Comments
			Building	Construction		
				(1988)		
				59,004 ft <sup>2</sup>		
Playground Equipment:	\$1.50	sq.ft. (Qty)		59,004 Required	\$88,506.00	(up to \$100,000, per sq.ft. of school)
Removal of existing Playground Equipment:	\$2,000.00	lump sum		Required	\$2,000.00	
Asphalt Paving / New Wearing Course:	\$19.00	sq. yard		7,200 Required	\$136,800.00	(includes minor crack repair in less than 5% of paved area)
Bus Drop-Off for Elementary	\$110.00	per student		500 Required	\$55,000.00	(Number of students should be rounded up to the
						nearest 100. \$5500 per bus; 40 students per bus; 80% of
						elementary school students riding)
Concrete Sidewalk:	\$4.69	sq.ft. (Qty)		2,000 Required	\$9,380.00	(5 inch exterior slab)
Provide Concrete Dumpster Pad:	\$2,400.00	each		1 Required	\$2,400.00	(for two dumpsters)
Base Sitework Allowance for Unforeseen	\$50,000.00	allowance		Required	\$50,000.00	Include this and one of the next two. (Applies for whole
Circumstances						building, so only <b>one</b> addition should have this item)
Sitework Allowance for Unforeseen	\$1.50	sq.ft. (of entire		Required	\$88,506.00	Include this one or the next. (Each addition should have this
Circumstances for buildings between 0 SF		building addition)				item)
and 100,000 SF						
Other: Chain Link Fencing with Gates	\$16.00	ln.ft.		350 Required	\$5,600.00	Provide Chain Link Fencing
Sum:			\$438,192.00	\$438,192.00		





## Q. Sewage System

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

district or noted during the physical assessment.

Rating: 1 Satisfactory

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

Item	Costl	JnitWh	ole	Building	Original Construction (198	88)	Sum	Comments
					59,004 ft <sup>2</sup>			
Sum:		\$0.0	00		\$0.00			





Grease Interceptor

Kitchen Sink Waste

**Back to Assessment Summary** 

## R. Water Supply

Description: The domestic water supply system is tied in to the city system, features 3" service, and is in good condition. The District was not able to provide

water supply flow test data. The existing domestic water service appears to meet the facility's current needs. The facility is equipped with an automated fire suppression system, for which the existing water supply provides adequate support. The domestic water service is not equipped

with a water booster pump. The system provides adequate pressure for the future needs of the school.

Rating: 1 Satisfactory

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

Item	Cost	Unit	Whole	Building	Original Construction (1988	)Sum	Comments
					59,004 ft <sup>2</sup>		
Sum:			\$0.00		\$0.00		



Water Main

**Back to Assessment Summary** 

## S. Exterior Doors

Description: Typical exterior doors in the overall facility are hollow type construction, installed on hollow metal frames, and in good condition. Typical exterior

doors feature no vision panels, and inappropriate hardware. Entrance doors in the overall facility are aluminum type construction, installed on aluminum frames, and in good condition. Entrance doors feature double glazed tempered glass vision panels, and sidelights, and appropriate

hardware. The facility is equipped with 1 roof access door, which is in fair condition. There are no overhead doors in the facility.

Rating: 2 Needs Repair

Recommendations: Replace exterior door hardware as needed to comply with ADA Guidelines. Replace roof access door.

Item	Cost	Unit	Whole Building	Original Construction (1988)	Sum	Comments
				59,004 ft <sup>2</sup>		
Door Leaf/Frame and Hardware:	\$2,000.00	per leaf		1 Required	\$2,000.00	(includes removal of existing)
Other: Replace Door Hardware	\$1,000.00	per unit		10 Required	\$10,000.00	Replace Door Hardware to comply with ADA Guidelines.
Sum:			\$12,000.00	\$12,000.00		·





Typical Exterior Door with Inappropriate Hardware

Typical Entrance Door

## T. Hazardous Material

Description: The Three-Year Reinspection Report provided by The School District contained no information for this school based on no asbestos-containing

materials reported in the previous inspection. The district did not provide documentation of any abatement projects since that time. There are no underground storage tanks reported on the site. Due to the construction date, there is no potential for lead based paint. Fluorescent lighting will

require special disposal.

Rating: 2 Needs Repair

Recommendations: Provide for disposal of fluorescent lighting.

Item	Cost	Unit	Whole Building	Original Construction (1988)	Sum	Comments
				59,004 ft <sup>2</sup>		
Environmental Hazards Form				EEHA Form	_	
Fluorescent Lamps & Ballasts Recycling/Incineration	\$0.10	sq.ft. (Qty)		59,004 Required	\$5,900.40	
Sum:			\$5,900.40	\$5,900.40		

## U. Life Safety

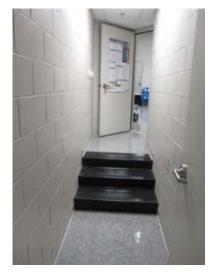
Description:

The overall facility is equipped with a compliant automated fire suppression system in good condition. Exit Corridors are situated such that dead-end Corridors are not present. Stair towers and guardrails are not present in this single story structure. The facility does not have any exterior stairways from intermediate floors. There are three steps up to the Cafetorium stage that to not have handrails. Fire extinguishers are provided in sufficient quantity. Existing fire extinguishers are adequately spaced. Rooms with a capacity greater than 50 occupants are equipped with adequate egress. The Kitchen hood is in good condition, and is equipped with the required UL 300 compliant wet chemical fire suppression system. The cooking equipment is interlocked to shut down in the event of discharge of the fire suppression system. The facility is equipped with an emergency generator. The emergency generator is a diesel type unit, and is located outside the building. The emergency generator is in poor condition, and does not provide adequate capacity for the future needs of the school. The existing water supply is provided by a tie-in to the city system, and is sufficient to meet the future fire suppression needs of the school.

Rating: 2 Needs Repair

Recommendations: Provide for new handrails at Cafetorium steps. Provide new emergency generator.

Item	Cost	Unit	Whole Building	Original Construction (1988)	Sum	Comments
				59,004 ft <sup>2</sup>		
Generator:	\$50,000.00	unit		1 Required	\$50,000.00	(75 KW w/fence and pad/day tank only, life safety only)
Handrails:	\$5,000.00	level		1 Required	\$5,000.00	
Sum:			\$55,000.00	\$55,000.00		







Kitchen Hood

## V. Loose Furnishings

Description: The typical Classroom furniture is of mostly consistent design and in generally good 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 8 due

to observed conditions.

Rating: 2 Needs Repair

Recommendations: Existing conditions require minor replacement at the present time.

Item	Cost Unit	Whole Building	Original Construction (1988)	Sum	Comments
			59,004 ft <sup>2</sup>		
CEFPI Rating 8	\$1.00sq.ft. (of entire building addition)		Required	\$59,004.00	
Sum:	·	\$59,004.00	\$59,004.00		





Consistent Furniture Design

Matching Small Group Tables

## W. Technology

Description: The typical Classroom is equipped with the required four technology data ports for student use, one data port for teacher use, one voice port with

a digitally based phone system, one 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 facility is equipped with a centralized clock system. Specialized electrical / sound system requirements of Gymnasium, Stage, Student Dining, and Music spaces are inadequately provided, and in good condition. OSDM-compliant computer network

infrastructure is provided. The facility does contain a media distribution center, and provides Computer Labs for use by students.

Rating: 3 Needs Replacement

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

pace with technological development.

Item	Cost	Unit	Whole Building	Original Construction (1988)	Sum	Comments
			_	59,004 ft <sup>2</sup>		
ES portion of building with total SF 50,000 to 69,360	\$11.51	sq.ft. (Qty)		59,004 Required	\$679,136.04	
Sum:			\$679,136.04	\$679,136.04		





Media Center Computers

Smartboard and Projector

# X. Construction Contingency / Non-Construction Cost

Renovat	\$5,120,660.92			
7.00%	Construction Contingency	\$358,446.26		
Subtotal	Subtotal			
16.29% Non-Construction Costs		\$892,546.56		
Total Pro	oject	\$6,371,653.74		

Construction Contingency	\$358,446.26
Non-Construction Costs	\$892,546.56
Total for X.	\$1,250,992.82

Non-Construction Costs Breakdown		
Land Survey	0.03%	\$1,643.73
Soil Borings / Phase I Envir. Report	0.10%	\$5,479.11
Agency Approval Fees (Bldg. Code)	0.25%	\$13,697.77
Construction Testing	0.40%	\$21,916.43
Printing - Bid Documents	0.15%	\$8,218.66
Advertising for Bids	0.02%	\$1,095.82
Builder's Risk Insurance	0.12%	\$6,574.93
Design Professional's Compensation	7.50%	\$410,933.04
CM Compensation	6.00%	\$328,746.43
Commissioning	0.60%	\$32,874.64
Non-Construction Contingency (includes partnering and mediation services)	1.12%	\$61,366.00
Total Non-Construction Costs	16.29%	\$892,546.56

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Name of Appraiser	Holly Grambort			Date of Appraisal	20	15-09-23
<b>Building Name</b>	Granby Elementary School					
Street Address	1490 Hard Rd					
City/Town, State, Zip Code	Columbus, OH 4	3235				
Telephone Number(s)	614-450-4500					
School District	Worthington City					
Setting:	Suburban					
Site-Acreage	17.9	3	Building Squa	are Footage	Ę	59,004
Grades Housed	K-6		Student Capa	acity	6	612
Number of Teaching Stations	18		Number of Flo	oors	,	1
Student Enrollment	441					
Dates of Construction	198	В				
Energy Sources:	☐ Fuel Oil		Gas	<b>Electric</b>		l <sub>Solar</sub>
Air Conditioning:	☐ Roof Top		Windows Units	Central		Room Units
Heating:	Central		Roof Top	☐ Individual Unit		Forced Air
	Hot Water		Steam			
Type of Construction	Exterior Surfa	cing	l	Floor Construction	n	
Load bearing masonry	Brick			☐ Wood Joists		
☐ Steel frame	☐ Stucco			☐ Steel Joists		
☐ Concrete frame	☐ Metal			Slab on grade		
□ Wood	☐ Wood			☐ Structural slab		
☐ Steel Joists	☐ Stone					

# 1.0 The School Site

**School Facility Appraisal** 

		Points Allocated	Points
1.1	Site is large enough to meet educational needs as defined by state and local requirements	25	25
	The site is 17.93 acres compared to 14.5 acres required by the OSDM.		
1.2	Site is easily accessible and conveniently located for the present and future population	20	16
	The School is centrally located within the School District, and is easily accessible.		
1.3	Location is removed from undesirable business, industry, traffic, and natural hazards	10	8
	The site is adjacent to residential uses, which are suitable for educational instruction.		
1.4	Site is well landscaped and developed to meet educational needs	10	6
	The site has limited landscaping, which does not enhance the property or emphasize the building entrance.		
1.5	ES Well equipped <b>playgrounds are separated</b> from streets and parking areas	10	8
	MS Well equipped athletic and intermural areas are separated from streets and parking		
	HS Well equipped athletic areas are adequate with sufficient solid-surface parking		
	Playground areas consist of metal type play equipment, which is in good condition, and is located on wood fiber mulch wh Some play equipment is ADA accessible, and includes an accessible route to equipment. Fencing is provided to separate		
1.6	Topography is varied enough to provide desirable appearance and without steep inclines	5	4
	The site is gently sloped to provide positive drainage across the site. A flat area is provided to accommodate buildings, pe parking areas, outdoor play areas, and physical education spaces, and is desirable.	rimeter walks, vehicu	lar circulation,
1.7	Site has stable, well drained soil free of erosion	5	4
	Soils appear to be stable and well drained, and no erosion was observed.		
1.8	Site is suitable for <b>special instructional needs</b> , e.g., outdoor learning	5	4
	The site has been developed to accommodate outdoor learning, including benches and picnic tables to facilitate instruction	٦.	
1.9	Pedestrian services include adequate sidewalk with designated crosswalks, curb cuts, and correct slopes	5	4
	Sidewalks are adequately provided to accommodate safe pedestrian circulation including designated crosswalks, curb cut	s, and correct slopes	
1.10	ES/MS Sufficient on-site, solid surface parking for faculty and staff is provided	5	4
	HS Sufficient on-site, solid surface parking is provided for faculty, students, staff and community		
	Adequate parking is provided for faculty, staff, and visitor parking, and is located on asphalt pavement in good condition.		
	TOTAL - The School Site	100	83

# 2.0 Structural and Mechanical Features

**School Facility Appraisal** 

Structu	ıral	Points Allocated	Points
2.1	Structure meets all <b>barrier-free</b> requirements both externally and internally	15	10
	The building meets all ADA requirements except for Restrooms, Stage access and signage.		
2.2	Roofs appear sound, have positive drainage, and are weather tight	15	10
	The roofs over the entire building are in good condition but require replacement due to age of systems.		
2.3	Foundations are strong and stable with no observable cracks	10	9
	Foundations are in good condition with no observable cracks.		
2.4	Exterior and interior walls have sufficient expansion joints and are free of deterioration	10	6
	Exterior and interior walls are in fair condition, have sufficient control and expansion joints which are starting to show signs of deterioral	tion.	
2.5	Entrances and exits are located so as to permit efficient student traffic flow	10	9
	Exits are properly located to allow safe egress from the building.		
2.6	Building "envelope" generally provides for energy conservation (see criteria)	10	8
	Building envelope meet minimum energy conservation requirements.		
2.7	Structure is free of friable asbestos and toxic materials	10	10
	The building was constructed in 1988 and is reported to be free of asbestos.		
2.8	Interior walls permit sufficient <b>flexibility</b> for a variety of class sizes	10	10
	Flexible partition walls have been provided between Classrooms and allow for a variety of class sizes.		
	<del></del>		
Mechai	nical/Electrical	Points Allocated	Points
2.9	Adequate light sources are well maintained, and properly placed and are not subject to overheating	15	9
	Light sources are well maintained and not subject to overheating.		
2.10	Internal water supply is adequate with sufficient pressure to meet health and safety requirements	15	14
	The water pressure was measured at 60 PSI.		
2.11	Each teaching/learning area has adequate convenient wall outlets, phone and computer cabling for technology applications	15	9
	Teaching areas are not equipped with adequate electrical outlets. Adequate computer cabling is provided.		
2.12	Electrical controls are safely protected with disconnect switches easily accessible	10	8

Electrical controls are protected and easily accessible.

	TOTAL - Structural and Mechanical Features	200	145
	Hose bibbs are provided on all sides of the building.		
2.18	Exterior water supply is sufficient and available for normal usage	5	4
	Dependable two way communication is provided via the intercommunication system.		
2.17	Intercommunication system consists of a central unit that allows dependable two-way communication between the office and instructional areas	10	8
	Fire alarm system is not equipped with adequate smoke detectors.		
2.16	Fire alarms, smoke detectors, and sprinkler systems are properly maintained and meet requirements	10	5
	The roof drains are adequate in number and placement.		
2.15	Drainage systems are properly maintained and meet requirements	10	8
	The number and size of Restrooms do not meet requirements.		
2.14	Number and size of restrooms meet requirements	10	4
	Drinking fountains are not adequate in number and placement, and do not meet ADA requirements. Drinking fountains are properly ma	intained.	
2.13	<b>Drinking fountains</b> are adequate in number and placement, and are properly maintained including provisions for the disabled	10	4

# 3.0 Plant Maintainability

**School Facility Appraisal** 

		Points Allocated	Points
3.1	Windows, doors, and walls are of material and finish requiring minimum maintenance	15	10
	Exterior materials for walls require minimum maintenance. Materials and finishes for doors and windows require some main	ntenance.	
3.2	Floor surfaces throughout the building require minimum care	15	12
	Flooring throughout the facility consists of sheet rubber, VCT, carpet tile, and non-slip epoxy and are well maintained through	ghout the facility.	
3.3	Ceilings and walls throughout the building, including service areas, are easily cleaned and resistant to stain	10	6
	Acoustical tile ceilings are not easily cleaned or resistant to stain. Painted block is easily cleaned and resistant to stain.		
3.4	Built-in equipment is designed and constructed for ease of maintenance	10	6
	Casework is wood type construction with plastic laminate tops and is in good condition.		
3.5	Finishes and hardware, with compatible keying system, are of durable quality	10	8
	Door hardware is consistent throughout the facility, and meets ADA requirements.		
3.6	Restroom fixtures are wall mounted and of quality finish	10	8
	Fixtures are wall mounted and are of good quality.		
3.7	Adequate custodial storage space with water and drain is accessible throughout the building	10	8
	Custodial storage space is adequately located throughout the facility, including provisions for water and drains.		
3.8	Adequate electrical outlets and power, to permit routine cleaning, are available in every area	10	5
	Adequate electrical outlets are not provided throughout the building.		
3.9	Outdoor light fixtures, electrical outlets, equipment, and other fixtures are accessible for repair and replacement	10	5
	Outdoor light fixtures are easily accessible. There is not an adequate amount of exterior receptacles.		
	TOTAL - Plant Maintainability	100	68

# 4.0 Building Safety and Security

**School Facility Appraisal** 

Site Safety		Points Allocated	Points	
4.1		Student loading areas are segregated from other vehicular traffic and pedestrian walkways	15	12
	Student l	oading is separated from vehicular traffic and pedestrian walkways.		
4.2		Walkways, both on and offsite, are available for safety of pedestrians	10	8
	Walkway	s are adequately provided both on and off-site for pedestrian safety.		
4.3		Access streets have sufficient signals and signs to permit safe entrance to and exit from school area	5	4
	School si	igns and signals are located as required on adjacent access streets.		
4.4		Vehicular entrances and exits permit safe traffic flow	5	3
	Buses ar	nd other vehicular traffic use the same entrance and exit points to the site, which do not provide safe vehicular traffic flo	)W.	
4.5	ES	Playground equipment is free from hazard	5	4
	MS	Location and types of intramural equipment are free from hazard		
	HS	Athletic field equipment is properly located and is free from hazard		
		nd equipment consists of plastic coated steel and high density plastic equipment in good condition, appears to be free If soft surface material to a sufficient depth.	from hazard, and is	located on an

Buildir	Building Safety		Points
4.6	The heating unit(s) is located away from student occupied areas	20	7
	The building has unit ventilators in the classrooms.		
4.7	Multi-story buildings have at least two stairways for student egress	15	0
	The overall facility is one story without stairways.		
4.8	Exterior doors open outward and are equipped with panic hardware	10	8
	Exterior doors open outward, are equipped with panic hardware and meet current code requirements.		
4.9	Emergency lighting is provided throughout the entire building with exit signs on separate electrical circuits	10	8
	Emergency lighting is provided throughout.		
4.10	Classroom doors are recessed and open outward	10	8
	Classroom doors are adequately recessed with proper ADA clearances, and open outward.		
4.11	Building security systems are provided to assure uninterrupted operation of the educational program	10	5

Building security system is not equipped with cameras in areas with 6 or more computers, corridors or gathering places.

4.12	Flooring (including ramps and stairways) is maintained in a non-slip condition	5	4
	Terrazzo and VCT flooring have been well maintained throughout the facility.		
4.13	Stair risers (interior and exterior) do not exceed 6 1/2 inches and range in number from 3 - 16	5	0
	The overall facility is one story without stairways.		
4.14	Glass is properly located and protected with wire or safety material to prevent accidental student injury	5	4
	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 / water coolers have been recessed in the Corridor wall.		
4.16	Traffic areas terminate at an exit or a stairway leading to an egress	5	4
	There are no dead-end Corridors in the building.		
		•	
Emerge	ncy Safety	Points Allocated	Points
4.17	Adequate fire safety equipment is properly located	15	14
	Fire extinguishers are adequately provided.		
4.18	There are at least two independent exits from any point in the building	15	12
	Multiple exits are provided from Corridors throughout the facility.		

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The structure is a masonry load bearing system with steel joist and concrete deck. Interior walls are masonry, drywall and operable partition walls.

Automatic and manual emergency alarm system with a distinctive sound and flashing light is provided

Fire-resistant materials are used throughout the structure

Automatic fire alarm system is provided.

**TOTAL - Building Safety and Security** 

4.19

4.20

15

15

200

10

10

129

# 5.0 Educational Adequacy

**School Facility Appraisal** 

Acader	nic Learning	Space	Points Allocated	Points
5.1		Size of academic learning areas meets desirable standards	25	20
	Classrooms	are slightly undersized per OSDM requirements. The average Classroom is 877 SF compared to 900 SF required b	y the OSDM.	
5.2		Classroom space permits arrangements for small group activity	15	9
	Slightly und	ersized Classrooms do not allow sufficient space for effective small group activities.		
5.3		Location of academic learning areas is near related educational activities and away from disruptive noise	10	8
	The Gymna	sium and Music program are properly isolated from the academic learning areas to reduce distractions.		
5.4		Personal space in the classroom away from group instruction allows privacy time for individual students	10	8
	Each classr	nom cluster includes a small tutoring room for individual or small group attention and privacy time.		
5.5		Storage for student materials is adequate	10	5
	Coat hooks	and shelving, located in the Classroom, are inadequately provided for student storage.		
5.6		Storage for teacher materials is adequate	10	8
	Teachers ha	we casework and closet storage in their classrooms.		
Specia	I Learning Sp	ace	Points Allocated	Points
5.7		Size of special learning area(s) meets standards	15	9
	The Special	Education Classroom is 877 SF compared to 900 SF recommended in the OSDM.		
5.8		Design of specialized learning area(s) is compatible with instructional need	10	8
	Special Edu	cation spaces are properly designed to meet instructional needs.		
5.9		Library/Resource/Media Center provides appropriate and attractive space	10	8
	The Media (	Center is 2,639 SF compared to 1,500 SF recommended by the OSDM.		
5.10		Gymnasium (or covered P.E. area) adequately serves physical education instruction	5	4
	The Gymna	sium is 4,143 SF compared to 3,500 SF recommended in the OSDM.	ŭ	•
5.11	ES	Pre-kindergarten and kindergarten space is appropriate for age of students and nature of instruction	10	8
5.11	ES MS/HS	Pre-kindergarten and kindergarten space is appropriate for age of students and nature of instruction  Science program is provided sufficient space and equipment	10	8

	The Music Room is 1,195 SF compared to 1,800-3,000 recommended in the OSDM. The Music Room is designed appropriate and ceilings.	ely, including acoustic <sub>l</sub>	panels on walls
5.13	Space for art is appropriate for special instruction, supplies, and equipment	5	4
	The Art Room is 1,313 SF compared to 1,200 SF recommended in the OSDM.		
School	Facility Appraisal	Points Allocated	Points
5.14	Space for technology education permits use of state-of-the-art equipment	5	4
	The facility is provided with Computer Labs for student use.		
5.15	Space for small groups and remedial instruction is provided adjacent to classrooms	5	4
	Work Rooms are provided adjacent to the Classrooms for small groups and remedial instruction.		
5.16	Storage for student and teacher material is adequate	5	3
	Storage for students has not been adequately provided throughout the facility.		
Suppor	t Space	Points Allocated	Points
5.17	Teacher's lounge and work areas reflect teachers as professionals	10	7
	The Teacher's Lounge is 423 SF compared to 450-900 SF, for 8-24 staff, recommended in the OSDM.		
5.18	Cafeteria/Kitchen is attractive with sufficient space for seating/dining, delivery, storage, and food preparation	10	5
	The Student Dining space is 1,927 SF compared to 3,000 SF recommended in the OSDM. The Kitchen space is 1,219 SF corthe OSDM.	npared to 2,124 SF red	commended in
5.19	<b>Administrative offices</b> provided are consistent in appearance and function with the maturity of the students served	5	4
	Administrative Offices are adequately provided for Elementary School students.		
5.20	Counselor's office insures privacy and sufficient storage	5	3
	The Counselor's Office is 116 SF compared to 120 SF, plus 100 SF for Storage and 200 SF for Conference, recommended in the Counselor insures privacy.	the OSDM. The space	e provided for
5.21	Clinic is near administrative offices and is equipped to meet requirements	5	3
	The Clinic is 278 SF compared to 370 SF recommended in the OSDM. The Clinic is located within the Administrative Offices a equipment.	and is provided with red	quired
5.22	Suitable reception space is available for students, teachers, and visitors	5	4
	Suitable reception space is available for students, teachers and visitors.		
5.23	Administrative personnel are provided sufficient work space and privacy	5	4
	Administrative personnel are provided sufficient work space and privacy.		
	TOTAL - Educational Adequacy	200	143

5.12

Music Program is provided adequate sound treated space

5

3

## 6.0 Environment for Education

**School Facility Appraisal** 

Exterio	r Environment	Points Allocated	Points
6.1	Overall design is aesthetically pleasing to age of students	15	14
	Design is aesthetically pleasing for age group of students.		
6.2	Site and building are well landscaped	10	6
	The site has limited landscaping, which does not enhance the property or emphasize the building entrance.		
6.3	Exterior noise and poor environment do not disrupt learning	10	8
	Learning is not disturbed by exterior noise.		
6.4	Entrances and walkways are sheltered from sun and inclement weather	10	2
	The main entrance to the School is not sheltered. Exits are not sheltered from sun and inclement weather. On-site walkways	to accessory buildir	ngs are not covered.
6.5	Building materials provide attractive color and texture	5	4
	Exterior building materials consist of brick, stone which do provide an attractive color and texture. Interior building materials drywall which does provide an attractive color and texture.	consist of glazed blo	ck / painted block /

Interior	Interior Environment		Points
6.6	Color schemes, building materials, and decor provide an impetus to learning  Color scheme is aesthetically pleasing and suitable for the age of students.	20	19
6.7	Year around comfortable temperature and humidity are provided throughout the building  The building has a central air conditioning system.	15	13
6.8	Ventilating system provides adequate quiet circulation of clean air and meets 15cfm VBC requirement  It does not provide the minimum 15 CFM ventilation as required by the OBCMC.	15	8
6.9	Lighting system provides proper intensity, diffusion, and distribution of illumination  Lighting system does not provided adequate lighting throughout the building.	15	10
6.10	Drinking fountains and restroom facilities are conveniently located  Drinking fountains and Restroom facilities are conveniently located.	15	12
6.11	Communication among students is enhanced by commons area(s) for socialization  Common areas facilitate socialization.	10	8
6.12	Traffic flow is aided by appropriate foyers and corridors	10	8

Corridors and foyers facilitate traffic flow in the school.

6.13	Areas for students to interact are suitable to the age group	10	8
	Interaction areas are suitable for elementary school children.		
6.14	Large group areas are designed for effective management of students  Large group areas allow for an adult supervisor to oversee groups of small children.	10	8
6.15	Acoustical treatment of ceilings, walls, and floors provides effective sound control  Classrooms are carpeted and use acoustic ceiling tile. Acoustic ceiling tile is used wherever possible.	10	7
6.16	Window design contributes to a pleasant environment  The windows are not designed well, and do not contribute to a pleasant environment.	10	4
6.17	Furniture and equipment provide a pleasing atmosphere  Furniture is age appropriate and in good condition.	10	8
	TOTAL - Environment for Education	200	147

## LEED Observation Notes

School District: Worthington City

County: Franklin
School District IRN: 45138

Building: Granby Elementary School

Building IRN: 9807

#### **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)

Granby Elementary School is located in a relatively suburban setting central to the school district it serves. It provides transportation for K-6th grade students living two miles from the school. LEED for Existing Buildings Operations and Maintenance for Schools may be considered. By implementing certain maintenance strategies, the school could qualify for the prerequisite and other credits in this category. Additional trees and landscaping and a white roof would likely be required to achieve the Heat Island Reduction credits. The 17.93 acre site exceeds OSDM standards so there is room for added vegetation to protect and restore habitat. The light fixtures on site point downward so the Light Pollution Reduction credit should be attainable.

#### Water Efficiency

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

(source: LEED Reference Guide, 2001:65)

The plumbing fixtures in most of the building would need to be replaced to meet the minimum requirements to achieve the water efficiency prerequisites. Adding meters to monitor indoor and outdoor water consumption will help the school achieve more credits.

#### **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)

Depending on the age of the heating and cooling equipment, units may need to be replaced to achieve these credits. Metering and commissioning may need to be incorporated if it has not already. Changes in operations may also aid in obtaining these credits.

#### Material & Resources

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

(source: LEED Reference Guide, 2001:167)

LEED for Existing Buildings Operations and Maintenance for Schools prerequisites require the school to adapt an ongoing purchasing and waste policy, a facility maintenance, and renovation policy that the school can adapt if they havent already. The credits in this category encourage future purchases of goods made with recycled content, low emissions, energy efficient, locally sourced, etc. If the school already participates in a recycling program, the waste policy may be just a matter of tracking it.

#### **Indoor Environmental Quality**

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

(source: LEED Reference Guide, 2001:215)

The school features small operable windows which may not aid in obtaining the first of three prerequisites for Indoor Environmental Quality. The second prerequisite may be obtained by banning tobacco smoke on site by posting signs if they have not yet already. The third prerequisite would be to adapt a green cleaning policy if they have not yet already. Other credits in the category may be obtained by adding a lighting control system, adapting an indoor air quality management program, adapting green cleaning strategies, adapting a pest management plan, and conducting an occupant comfort survey.

#### **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)

There are many ways to earn credits for innovation and design. Schools can likely earn credit by incorporating sustainability into the curriculum.

#### Justification for Allocation of Points

Building Name and Level:	Granby Elementary School
	K-6

### Building features that clearly exceed criteria:

- 1. The site has been developed to accommodate outdoor learning, including benches and picnic tables to facilitate instruction.
- 2. Flexible partition walls have been provided between Classrooms and allow for a variety of class sizes.
- 3. The 17.93 acre site does exceeds the required OSDM standard.

4.

5.

6.

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

- 1. The building meets all ADA requirements except for Restrooms, Stage access and signage.
- 2. Drinking fountains are not adequate in number and placement, and do not meet ADA requirements. Drinking fountains are properly maintained.
- 3. The site has limited landscaping, which does not enhance the property or emphasize the building entrance.

4.

5.

6.

# Environmental Hazards Assessment Cost Estimates

Owner:	Worthington City
Facility:	Granby Elementary School
Date of Initial Assessment:	Sep 23, 2015
Date of Assessment Update:	Dec 23, 2015
Cost Set:	2015

District IRN:	45138
Building IRN:	98079
Firm:	Van Auken Akins Architects

## Scope remains unchanged after cost updates.

Duilding Addition	Addition Area (of)	Total of Environmental Hazards Assessment Cost Estimates			
Building Addition	Addition Area (SI)	Renovation	Demolition		
1988 Original Construction	59,004	\$5,900.40	\$5,900.40		
Total	59,004	\$5,900.40	\$5,900.40		
Total with Regional Cost Factor (100.00%)	_	\$5,900.40	\$5,900.40		
Regional Total with Soft Costs & Contingency	_	\$7,341.89	\$7,341.89		

### Environmental Hazards(Enhanced) - Worthington City (45138) - Granby Elementary School (98079) - Original Construction

Owner: Worthington City Bldg. IRN: 98079

Facility: Granby Elementary School BuildingAdd: Original Construction

Date On-Site: Consultant Name:

A. Asbestos Containing Material (ACM)  AFM=Asbestos Free Material								
	Found		Status	Quanti	ty	Unit Cost		Estimated Cost
<ol> <li>Boiler/Furnace Insulation Removal</li> </ol>			Not Present	0			\$10.00	\$0.00
Breeching Insulation Removal			Not Present	0			\$10.00	\$0.00
Tank Insulation Removal			Not Present	0			\$8.00	\$0.00
Duct Insulation Removal			Not Present	0			\$8.00	\$0.00
<ol><li>Pipe Insulation Removal</li></ol>			Not Present	0			\$10.00	\$0.00
Pipe Fitting Insulation Removal			Not Present	0			\$20.00	\$0.00
<ol><li>Pipe Insulation Removal (Crawlspace</li></ol>			Not Present	0			\$12.00	\$0.00
<ol><li>Pipe Fitting Insulation Removal (Crav</li></ol>	wlspace/Tunnel)		Not Present	0			\$30.00	\$0.00
<ol><li>Pipe Insulation Removal (Hidden in V</li></ol>	Walls/Ceilings)		Not Present	0			\$15.00	\$0.00
10. Dismantling of Boiler/Furnace/Inciner	rator		Not Present	0		\$2	2,000.00	\$0.00
<ol><li>Flexible Duct Connection Removal</li></ol>			Not Present	0			\$100.00	\$0.00
12. Acoustical Plaster Removal			Not Present	0			\$7.00	\$0.00
13. Fireproofing Removal			Not Present	0			\$25.00	\$0.00
14. Hard Plaster Removal			Not Present	0			\$7.00	\$0.00
15. Gypsum Board Removal			Not Present	0			\$6.00	\$0.00
16. Acoustical Panel/Tile Ceiling Remova	al		Not Present	0			\$3.00	\$0.00
17. Laboratory Table/Counter Top Remo	oval		Not Present	0			\$100.00	\$0.00
18. Cement Board Removal			Not Present	0			\$5.00	\$0.00
<ol><li>Electric Cord Insulation Removal</li></ol>			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 R	emoval		Not Present	0			\$4.00	\$0.00
22. Fire Door Removal			Not Present	0			\$100.00	\$0.00
23. Door and Window Panel Removal			Not Present	0			\$100.00	\$0.00
24. Decontamination of Crawlspace/Cha	se/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			Not Present	0			\$2.00	\$0.00
27. Window Component (Compound, Ta	pe, or Caulk) - Reno & Demo		Not Present	0			\$300.00	\$0.00
28. Window Component (Compound, Ta	pe, or Caulk) - Reno Only		Not Present	0			\$300.00	\$0.00
<ol><li>Resilient Flooring Removal, Including</li></ol>	g Mastic		Not Present	0			\$3.00	\$0.00
30. Carpet Mastic Removal			Not Present	0			\$2.00	\$0.00
31. Carpet Removal (over RFC)			Not Present	0			\$1.00	\$0.00
32. Acoustical Tile Mastic Removal			Not Present	0			\$3.00	\$0.00
33. Sink Undercoating Removal			Not Present	0			\$100.00	\$0.00
34. Roofing Removal			Not Present	0			\$2.00	\$0.00
35. (Sum of Lines 1-34)			Total Asb. Haz	ard Abatement Co	st for Renov	ation Work		\$0.00
36. (Sum of Lines 1-34)			Total Asb. Haz	ard Abatement Co	st for Demo	lition Work		\$0.00
B. Removal Of Underground Storag	B. Removal Of Underground Storage Tanks							
Tank No.	Location	Age		Product Stored		Size	Es	t.Rem.Cost
1. (Sum of Lines 1-0)			Total Cost I	For Removal Of Ur	nderground S	Storage Tanks		\$0.00

1: (Guill of Lines 1-0)	Total Cost For Removal Of Officer ground Storage Failing \$0.00
C. Lead-Based Paint (LBP) - Renovation Only	☐ Addition Constructed after 1980
Estimated Cost For Abatement Contractor to Perform Lead Mock-Ups	\$0.00
Special Engineering Fees for LBP Mock-Ups	\$0.00
3. (Sum of Lines 1-2)	Total Cost for Lead-Based Paint Mock-Ups \$0.00

D. Fluorescent Lamps & Ballasts Recycling/Incineration					
	Area Of Building Addition	Square Feet w/Fluorescent Lamps & Ballasts	Unit Cost	Total Cost	
1.	59004	59004	\$0.10	\$5,900.40	

E	E. Other Environmental Hazards/Remarks				
		Cost Estimate			
1	. (Sum of Lines 1-0)	Total Cost for Other Environmental Hazards - Renovation	\$0.00		
2	. (Sum of Lines 1-0)	Total Cost for Other Environmental Hazards - Demolition	\$0.00		

F.	F. Environmental Hazards Assessment Cost Estimate Summaries				
1.	A35, B1, C3, D1, and E1	Total Cost for Env. Hazards Work - Renovation	\$5,900.40		
2.	A36, B1, D1, and E2	Total Cost for Env. Hazards Work - Demolition	\$5,900.40		

 $<sup>{}^{\</sup>star} \text{ INSPECTION ASSUMPTIONS for Reported/Assumed Asbestos-Free Materials (Rep/Asm AFM):} \\$ 

- 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.