

FACILITY CONDITION ASSESSMENT

Prepared for

Ann Arbor Public Schools
2555 South State Street
Ann Arbor, Michigan 48104
Jim Vibbart



PREPARED BY:

EMG

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EMG PROJECT #:

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DATE OF REPORT:

June 29, 2018

ONSITE DATE:

February 8, 2018

FACILITY CONDITION ASSESSMENT

OF

HAISLEY ELEMENTARY
825 DUNCAN SREET
ANN ARBOR, MICHIGAN 48103



engineering | environmental | capital planning | project management

Immediate Repairs Report
Haisley Elementary
6/29/2018



Location Name	EMG Renamed Item Number	ID	Cost Description	Quantity	Unit	Unit Cost *	Subtotal	Deficiency Repair Estimate *
Haisley Elementary	1.2	852834	Engineer, Environmental, Asbestos (ACM) & Lead Base Paint (LBP), Evaluate/Report	1	EA	\$5,750.00	\$5,750	\$5,750
Haisley Elementary	D30	885561	Air Conditioning, Central, Install	62215	SF	\$11.50	\$715,473	\$715,473
Haisley Elementary	B20	853212	Exterior/Interior Wall, Joint Caulking 0" to 1/2", 1-2 Stories, Replace	1500	LF	\$3.24	\$4,865	\$4,865
Haisley Elementary	B20	876899	Exterior Wall, Brick or Brick Veneer, 1-2 Stories, Repair	200	SF	\$55.84	\$11,168	\$11,168
Haisley Elementary	B20	855954	Roof, Single-Ply EPDM Membrane, Replace	62215	SF	\$12.10	\$752,677	\$752,677
Haisley Elementary	C10	854445	Interior Door, Wood Solid-Core w/ Safety Glass, Replace	1	EA	\$2,217.23	\$2,217	\$2,217
Haisley Elementary	C10	853471	Fiberglass Panel Ceiling, Rigid, Replace	4515	SF	\$16.17	\$73,008	\$73,008
Haisley Elementary	D40	852822	Fire Extinguisher, Replace	4	EA	\$410.02	\$1,640	\$1,640
Haisley Elementary		958705	Davis Bacon Prevailing Wages, Surcharge for Prevailing Wages, 10% surcharge for prevailing wages	42137.25	LS	\$1.15	\$48,458	\$48,458
Haisley Elementary	G20	876908	Location Sign, Pole-Mounted Sign, Replace	1	EA	\$500.00	\$500	\$500
Immediate Repairs Total								\$1,615,755

* Location Factor included in totals.

Replacement Reserves Report

Haisley Elementary



6/29/2018

Location Name	EMG Renamed Item Number	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost	w/ Markup *	Subtotal	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037RRR_RowGrandTotalLabel
Haisley Elementary	1.2	852834	Engineer, Environmental, Asbestos (ACM) & Lead Base Paint (LBP), Evaluate/Report	0	0	0	1	EA	\$5,000.00	\$5,750.00	\$5,750	\$5,750																			\$5,750
Haisley Elementary	D30	885561	Air Conditioning, Central, Install	50	50	0	62215	SF	\$10.00	\$11.50	\$715,473	\$715,473																			\$715,473
Haisley Elementary	B20	853212	Exterior/Interior Wall, Joint Caulking 0" to 1/2", 1-2 Stories, Replace	10	10	0	1500	LF	\$2.82	\$3.24	\$4,865	\$4,865									\$4,865										\$9,729
Haisley Elementary	B20	876899	Exterior Wall, Brick or Brick Veneer, 1-2 Stories, Repair	0	64	0	200	SF	\$48.56	\$55.84	\$11,168	\$11,168																			\$11,168
Haisley Elementary	B20	855646	Exterior Wall, Brick or Brick Veneer, 1-2 Stories, Repoint	25	24	1	500	SF	\$41.28	\$47.47	\$23,737		\$23,737																		\$23,737
Haisley Elementary	B20	876917	Exterior Wall, Painted Surface, 1-2 Stories, Prep & Paint	10	6	4	1	SF	\$2.87	\$3.59	\$4					\$4									\$4						\$7
Haisley Elementary	B20	876913	Exterior Wall, Aluminum Siding, 1-2 Stories, Replace	40	31	9	2625	SF	\$8.67	\$9.98	\$26,187										\$26,187										\$26,187
Haisley Elementary	B20	852826	Exterior Door, Steel w/ Safety Glass, Replace	25	6	19	21	EA	\$1,352.72	\$1,555.63	\$32,668																		\$32,668		\$32,668
Haisley Elementary	B20	855954	Roof, Single-Ply EPDM Membrane, Replace	20	20	0	62215	SF	\$10.52	\$12.10	\$752,677	\$752,677																			\$752,677
Haisley Elementary	C10	854445	Interior Door, Wood Solid-Core w/ Safety Glass, Replace	20	20	0	1	EA	\$1,928.03	\$2,217.23	\$2,217	\$2,217																			\$2,217
Haisley Elementary	C10	853466	Interior Door, Bi-Fold, Replace	15	9	6	3	EA	\$762.99	\$877.44	\$2,632						\$2,632														\$2,632
Haisley Elementary	C10	855709	Interior Door, Wood Solid-Core w/ Safety Glass, Replace	20	11	9	80	EA	\$1,928.03	\$2,217.23	\$177,379									\$177,379											\$177,379
Haisley Elementary	C10	855713	Interior Door, Wood Solid-Core, Replace	20	9	11	25	EA	\$1,423.11	\$1,636.58	\$40,915											\$40,915									\$40,915
Haisley Elementary	D70	946240	Exterior Door Hardware, Electronic Door Locks ANSI F39 Lockset, Replace	30	29	1	21	EA	\$1,345.00	\$1,546.75	\$32,482		\$32,482																		\$32,482
Haisley Elementary	C10	854434	Toilet Partitions, Metal Overhead-Braced, Replace	20	11	9	6	EA	\$850.00	\$977.50	\$5,865										\$5,865										\$5,865
Haisley Elementary	C10	853463	Interior Wall Finish, Concrete/Masonry, Prep & Paint	8	4	4	115100	SF	\$1.45	\$1.67	\$192,062				\$192,062									\$192,062							\$192,062
Haisley Elementary	C10	853476	Interior Floor Finish, Maple Sports Floor, Refinish	10	9	1	4515	SF	\$4.53	\$5.21	\$23,541		\$23,541									\$23,541									\$23,541
Haisley Elementary	C10	852823	Interior Floor Finish, Vinyl Tile (VCT), Replace	15	7	8	41700	SF	\$4.80	\$5.52	\$230,213								\$230,213												\$230,213
Haisley Elementary	C10	853440	Interior Floor Finish, Ceramic Tile, Replace	50	36	14	5000	SF	\$15.76	\$18.12	\$90,591																	\$90,591		\$90,591	
Haisley Elementary	C10	852837	Interior Floor Finish, Quarry Tile, Replace	50	36	14	1000	SF	\$15.19	\$17.47	\$17,466																\$17,466			\$17,466	
Haisley Elementary	C10	855718	Interior Ceiling Finish, Exposed/Generic, Prep & Paint	10	3	7	6500	SF	\$2.27	\$2.61	\$16,968								\$16,968									\$16,968			\$16,968
Haisley Elementary	C10	853471	Fiberglass Panel Ceiling, Rigid, Replace	20	20	0	4515	SF	\$14.06	\$16.17	\$73,008	\$73,008																			\$73,008
Haisley Elementary	C10	852824	Interior Ceiling Finish, Suspended Acoustical Tile (ACT), Replace	20	14	6	51200	SF	\$3.11	\$3.58	\$183,176						\$183,176														\$183,176
Haisley Elementary	D20	853437	Toilet, Tankless (Water Closet), Replace	20	11	9	37	EA	\$842.97	\$969.41	\$35,868										\$35,868										\$35,868
Haisley Elementary	D20	854433	Urinal, Vitreous China, Replace	20	11	9	2	EA	\$1,193.44	\$1,372.46	\$2,745										\$2,745										\$2,745
Haisley Elementary	D20	853449	Sink, Stainless Steel, Replace	20	11	9	28	EA	\$1,054.05	\$1,212.16	\$33,940										\$33,940										\$33,940
Haisley Elementary	D20	853438	Sink, Vitreous China, Replace	20	11	9	38	EA	\$861.51	\$990.74	\$37,648										\$37,648										\$37,648
Haisley Elementary	D20	852839	Drinking Fountain, Refrigerated, Replace	10	5	5	4	EA	\$1,257.51	\$1,446.13	\$5,785						\$5,785									\$5,785					\$5,785
Haisley Elementary	D20	853345	Emergency Eye Wash, Replace	15	11	4	1	EA	\$1,417.04	\$1,629.60	\$1,630					\$1,630													\$1,630		\$1,630
Haisley Elementary	D20	854440	Water Heater, Electric, Residential, 5 to 15 GAL, Replace	15	12	3	1	EA	\$1,014.17	\$1,166.30	\$1,166			\$1,166														\$1,166		\$1,166	
Haisley Elementary	D30	853380	Domestic Circulator or Booster Pump, 0.75 HP, Replace	20	11	9	1	EA	\$4,017.16	\$4,619.73	\$4,620										\$4,620										\$4,620
Haisley Elementary	D30	853379	Domestic Circulator or Booster Pump, 0.75 HP, Replace	20	11	9	1	EA	\$4,017.16	\$4,619.73	\$4,620										\$4,620										\$4,620
Haisley Elementary	D30	853377	Domestic Circulator or Booster Pump, 0.75 HP, Replace	20	11	9	1	EA	\$4,017.16	\$4,619.73	\$4,620										\$4,620										\$4,620
Haisley Elementary	D30	853434	Domestic Circulator or Booster Pump, 5 to 7.5 HP, Replace	20	11	9	1	EA	\$11,641.34	\$13,387.55	\$13,388										\$13,388										\$13,388
Haisley Elementary	D30	853435	Domestic Circulator or Booster Pump, 5 to 7.5 HP, Replace	20	11	9	1	EA	\$11,641.34	\$13,387.55	\$13,388										\$13,388										\$13,388
Haisley Elementary	D20	853373	Water Heater, Gas, Commercial, 60 to 120 GAL, Replace	15	2	13	1	EA	\$10,698.82	\$12,303.64	\$12,304													\$12,304							\$12,304
Haisley Elementary	D30	853349	Compressed Air Dryer, Replace	15	10	5	1	EA	\$5,077.01	\$5,838.57	\$5,839					\$5,839															\$5,839
Haisley Elementary	D30	853350	Air Compressor, 1 HP, Replace	20	8	12	1	EA	\$6,611.73	\$7,603.48	\$7,603													\$7,603							\$7,603
Haisley Elementary		960777	Solar Instillation Project, Roof Mounted Solar Instillation, Install	20	15	5	228000	SF	\$1.00	\$1.15	\$262,200						\$262,200														\$262,200
Haisley Elementary	D30	853363	Boiler #3, Dual Fuel, 1,000 to 2,000 MBH, Replace	30	13	17	1	EA	\$55,162.05	\$63,436.35	\$63,436																	\$63,436		\$63,436	
Haisley Elementary	D30	853360	Boiler #2, Dual Fuel, 1,000 to 2,000 MBH, Replace	30	13	17	1	EA	\$55,162.05	\$63,436.35	\$63,436																\$63,436		\$63,436		
Haisley Elementary	D30	853358	Boiler #1, Dual Fuel, 1,000 to 2,000 MBH, Replace	30	13	17	1	EA	\$55,162.05	\$63,436.35	\$63,436																\$63,436		\$63,436		
Haisley Elementary	D30	853347	Expansion Tank, 31 to 60 GAL, Replace	25	13	12	1	EA	\$2,483.48	\$2,856.01	\$2,856													\$2,856							\$2,856
Haisley Elementary	D30	854442	Air Handler, Exterior, 6,001 to 8,000 CFM, Replace	15	11	4	1	EA	\$37,802.95	\$43,473.39	\$43,473					\$43,473												\$43,473		\$43,473	
Haisley Elementary	D30	854443	Air Handler, Exterior, 6,001 to 8,000 CFM, Replace	15	11	4	1	EA	\$37,802.95	\$43,473.39	\$43,473					\$43,473												\$43,473		\$43,473	
Haisley Elementary	D30	854430	Fan Coil Unit, Hydronic, 801 to 1,200 CFM, Replace	15	9	6	1	EA	\$3,235.37	\$3,720.68	\$3,721																				\$3,721
Haisley Elementary	D30	854431	Fan Coil Unit, Hydronic, 801 to 1,200 CFM, Replace	15	9	6	1	EA	\$3,235.37	\$3,720.68	\$3,721																				\$3,721
Haisley Elementary	D30	853630	Fan Coil Unit, Hydronic, 801 to 1,200 CFM, Replace	15	9	6	1	EA	\$3,235.37	\$3,720.68	\$3,721																				\$3,721
Haisley Elementary	D30	853649	Fan Coil Unit, Hydronic, 801 to 1,200 CFM, Replace	15	9	6	1	EA	\$3,235.37	\$3,720																					

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1. Executive Summary

1.1. Property Information and General Physical Condition

The property information is summarized in the table below. More detailed descriptions may be found in the various sections of the report and in the Appendices.

Property Information		
Address:	825 Duncan Sreet, Ann Arbor, Washtenaw, Michigan 48103	
Year Constructed/Renovated:	1954, No date for Multi-purpose Room Addition	
Current Occupants:	Ann Arbor Public Schools	
Percent Utilization:	100 percent utilization by school	
Management Point of Contact:	Ann Arbor Public Schools /Physical Properties, Jim Vibbart, Title 734-320-3613 phone	
Property Type:	Classrooms	
Site Area:	10.4 acres	
Building Area:	62,215 SF	
Number of Buildings:	1	
Number of Stories:	1	
Parking Type and Number of Spaces:	75 spaces in open lots	
Building Construction:	Masonry bearing walls concrete roof framing, steel framing in multipurpose addition.	
Roof Construction:	Flat roofs with EPDM membrane.	
Exterior Finishes:	Brick Veneer	
Heating, Ventilation & Air Conditioning:	Central system with boilers, air handlers, fan coils, hydronic baseboard radiators and multiple zone heat pump terminal units.	
Fire and Life/Safety:	Hydrants, smoke detectors, alarms, strobes, extinguishers, pull stations, alarm panel, and exit signs.	
ADA :	This building does not have any major ADA issues	
<p>The building is 62,215 square feet is occupied by the Ann Arbor Public Schools. The Ann Arbor Public Scho Most of the interior spaces were observed in order to gain a clear understanding of the property's overall condition. Other areas accessed included the site within the property boundaries, exterior of the property and the roof. Areas of note that were either inaccessible or not observed for other reasons are listed in the table below.</p>		
Key Spaces Not Observed		
Room Number	Area	Access Issues
Roof	Over Teachers Lounge and Multiple purpose Room	Roof over teacher lounge did not have handle with snow unsafe access over Multi-purpose room
Assessment Information		
Dates of Visit:	February 9, 2018	
On-Site Point of Contact (POC):	Jim Vibbart	
Assessment and Report Prepared by:	Randall Patzke	

Property Information	
Reviewed by:	Al Diefert Technical Report Reviewer For Andrew Hupp Program Manager ahupp@emgcorp.com 800.733.0660 x6632

1.2. Key Findings

Site : The fence at the parking lot has stretched fabric and areas with the fabric pulled from the top bar. The other perimeter fence has bushes growing in the fabric. These fabrics should be replaced.

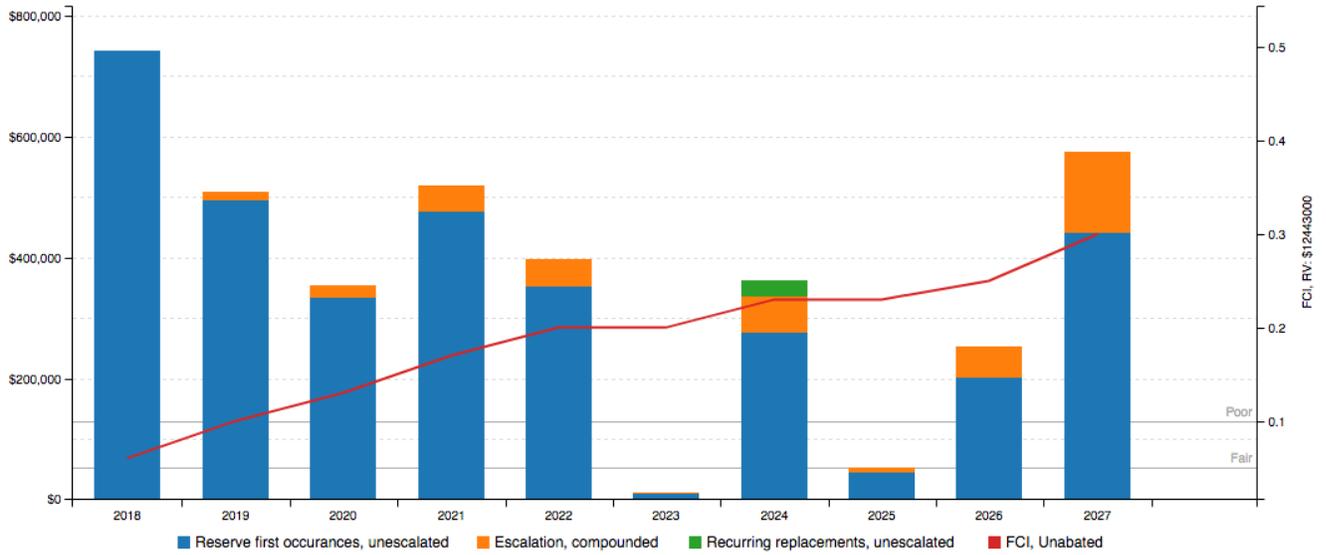
Architectural : The roof on the facility shows signs of multiple leaks. The ceiling tiles and wall tiles in some areas may contain asbestos. An engineering study is recommended to assist in preparing an O&M plan. The walls have small areas with paint peeling at joints. The concrete block walls should be painted. The VCT floor tiles around the facility are starting to crack at areas where the floor has settled over time..

MEPF : Some of the remaining air handlers are likely original to the facility. These units should be upgraded. The facility does not have a fire sprinkler system. One should be added in the future. The building controls system is a hybrid of a digital and pneumatic system that should be upgraded to a network version of a full digital system. There are cables that feed from a utility pole to the building and are running on the roof. They are not properly braced.

1.3. Facility Condition Index (FCI)

FCI Analysis: Haisley Elementary

Replacement Value: \$ 12,443,000; Inflation rate: 3.0%



One of the major goals of the FCA is to calculate the FCI, which gives an indication of a building’s overall condition. Two FCI ratios are calculated and presented, the Current Year and Ten-Year. The Current Year FCI is the ratio of Immediate Repair Costs to the building’s Current Replacement Value. Similarly, the Ten-Year FCI is the ratio of anticipated Capital Reserve Needs over the next ten years to the Current Replacement Value.

Fci Condition Rating	Definition	Percentage Value
Good	In new or well-maintained condition, with no visual evidence of wear, soiling or other deficiencies.	0 to .05
Fair	Subjected to wear and soiling but is still in a serviceable and functioning condition.	> than .05 to .10
Poor	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.	> than .10 to .60
Very Poor	Has reached the end of its useful or serviceable life. Renewal is now necessary.	> than .60

The graphs above and tables below represent summary-level findings for the FCA. The deficiencies identified in this assessment can be combined with potential new construction requirements to develop an overall strategy that can serve as the basis for a portfolio-wide capital improvement funding strategy. Key findings from the assessment include:

KEY FINDING	METRIC
Current Year Facility Condition Index (FCI) FCI = (IR)/(CRV):	5.95%
Current Year FCI Rating:	2018
10-Year Facility Condition Index (FCI) FCI = (RR)/(CRV):	30.32%
10-Year FCI Rating	0.3
Current Replacement Value (CRV):	\$12,443,000
Year 0 (Current Year) - Immediate Repairs (IR):	\$740,782
Years 1-10 - Replacement Reserves (RR):	\$3,031,678
Total Capital Needs:	\$3,772,460

Further detail on the specific costs that make up the Immediate Repair Costs can be found in the cost tables at the beginning of this report.

2. Building Structure

A10 Foundations

Building Foundation		
Item	Description	Condition
Foundation	Concrete spread footings	Fair
Basement and Crawl Space	None	--

Anticipated Lifecycle Replacements

- No components of significance

Actions/Comments:

- Isolated areas of the foundation systems are exposed, which allows for limited observation. The foundation systems are concealed. There are no significant signs of settlement, deflection, or movement.

B10 Superstructure

B1010 Floor Construction & B1020 Roof Construction		
Item	Description	Condition
Framing / Load-Bearing Walls	Masonry walls	Fair
Ground Floor	Concrete slab	Good
Upper Floor Framing	Concrete beams	Fair
Upper Floor Decking	Concrete, cast-in-place	Fair
Balcony Framing	--	--
Balcony Decking	--	--
Balcony Deck Toppings	--	--
Balcony Guardrails	--	--
Roof Framing	Concrete beams	Fair
Roof Decking	Concrete, cast-in-place	Fair

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Caulk minor cracking	<input checked="" type="checkbox"/>	Monitor cracking for growth	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- The superstructure is exposed in some locations, which allows for limited observation. Walls and floors appear to be plumb, level, and stable. There are no significant signs of deflection or movement.

B1080 Stairs					
Type	Description	Riser	Handrail	Balusters	Condition
Building Exterior Stairs	None	--	--	--	--
Building Interior Stairs	Wood-framed	Closed	None	None	Good

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- No significant actions are identified at the present time. On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.

3. Building Envelope

B20 Exterior Vertical Enclosures

B2010 Exterior Walls		
Type	Location	Condition
Primary Finish	Brick veneer	Fair
Secondary Finish	EIFS	Good
Accented with	Metal siding	Good
Soffits	Concealed	Good
Building sealants	Between dissimilar materials, at joints, around windows and doors	Poor

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Graffiti	<input type="checkbox"/>	Efflorescence	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Exterior paint
- Metal siding
- Brick veneer
- Caulking
- Masonry re-pointing

Actions/Comments:

- On-going periodic maintenance, including patching repairs, graffiti removal, and re-caulking, is highly recommended. Future lifecycle replacements of the components listed above will be required.
- The brick veneer has isolated areas of cracking, loose units, deteriorated mortar joints. These areas are near the front entry and to the doors to the left. The damaged veneer must be repaired.
- There are isolated areas of brittle, damaged, deteriorated and missing sealant. The areas can be seen above the entry doors and at the vertical construction joints in the brick walls. The damaged sealant must be replaced.

B2020 Exterior Windows				
Window Framing	Glazing	Location	Window Screen	Condition
Aluminum framed, fixed	Double glaze	Throughout	<input type="checkbox"/>	Good
Aluminum framed, operable	Double glaze	Throughout	<input checked="" type="checkbox"/>	Good

B2050 Exterior Doors		
Main Entrance Doors	Door Type	Condition
	Fully glazed, metal framed	Fair
Secondary Entrance Doors	Fully glazed, metal framed	Fair
Service Doors	Metal, insulated	Fair
Overhead Doors	None	--

Anticipated Lifecycle Replacements:

- Exterior doors

Actions/Comments:

- No significant actions are identified at the present time. On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.
- The windows have been replaced. The functionality of the windows should be tested and repaired. This should be completed as part of confirming the facility is ready for an active shooter activity.

B30 Roof

B3010 Primary Roof			
Location	Whole Facility	Finish	Single-ply membrane
Type / Geometry	Flat	Roof Age	20 Years
Flashing	Built-up base and Edge flashing	Warranties	Unknown
Parapet Copings	Exposed copings	Roof Drains	Internal drains
Fascia	Metal Panel	Insulation	Rigid Board
Soffits	Concealed Soffits	Skylights	No
Attics	Yes	Ventilation Source-1	None
Roof Condition	Poor	Ventilation Source-2	None

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Drainage components broken/missing	<input type="checkbox"/>	Vegetation/fungal growth	<input type="checkbox"/>
Blocked Drains	<input type="checkbox"/>	Debris	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

Degradation Issues			
Observation	Exists At Site	Observation	Exists At Site
Evidence of roof leaks	<input checked="" type="checkbox"/>	Significant ponding	<input type="checkbox"/>
Excessive patching or repairs	<input type="checkbox"/>	Blistering or ridging	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- EPDM roof membrane
- Roof flashings (included as part of overall membrane replacement)
- Parapet wall copings (included as part of overall membrane replacement)

Actions/Comments:

- The roof finishes appear to be more than 20years old. Information regarding roof warranties was not available. The roofs are maintained by an outside contractor.
- The roof was covered with snow at the time of the assessment.
- The ceiling does have signs of active roof leaks. The worst being over the electrical panel in the computer lab.
- The attics are not accessible and it could not be determined if there is moisture, water intrusion, or excessive daylight in the attics.

4. Interiors

C10 Interior Construction

C1030 Interior Doors		
Item	Type	Condition
Interior Doors	Solid core wood	Fair
Door Framing	Metal	Fair
Fire Doors	Yes	Fair
Closet Doors	Solid core wood	Fair

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Improperly adjusted door closures	<input checked="" type="checkbox"/>	Damaged/loose door hardware	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

The following table generally describes the locations and typical conditions of the interior finishes within the facility:

Interior Finishes - HAISLEY ELEMENTARY SCHOOL

Location	Finish		Quantity (SF)	Condition	Action	RUL	Est. Cost
Bathroom	Floor	Ceramic Tile	5000	Fair	Replace	14	78,775
entries	Floor	Quarry Tile	1000	Fair	Replace	14	15,188
Gymnasium	Ceiling	Fiberglass Panel Ceiling, Rigid	4515	Fair	Replace	0	63,485
Gymnasium	Floor	Maple Sports Floor	4515	Fair	Sand & Refinish	1	20,471
Mechanical room/Stage	Ceiling	Exposed/Generic	6500	Fair	Prep & Paint	7	14,755
Throughout	Ceiling	Suspended Acoustical Tile (ACT)	51200	Fair	Replace	6	159,283
Throughout	Wall	Concrete/Masonry	74700	Fair	Prep & Paint	4	108,390
Throughout	Floor	Vinyl Tile (VCT)	41700	Fair	Replace	8	200,185

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Loose carpeting/flooring	<input checked="" type="checkbox"/>	Minor areas of stained ceiling tiles	<input checked="" type="checkbox"/>
Minor paint touch-up	<input checked="" type="checkbox"/>	Areas of damaged/missing baseboard	<input checked="" type="checkbox"/>
Refinish wood at Drinking Fountain	<input checked="" type="checkbox"/>	Other	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Carpet
- Vinyl tile
- Quarry Tile
- Refinish Hardwood Floors & steps
- Ceramic tile
- Interior paint
- Suspended acoustic ceiling tile
- Hard tile ceilings
- Interior doors
- Casework
- Toilet Partitions

Actions/Comments:

- The interior areas appear to have been refinish about 10 years ago.
- On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.
- Some of the ceiling tiles and wall tiles may contain asbestos material . An engineering study to evaluate the facility for asbestos is recommended. Areas to be checked should include above the ceiling in the 300 aisle, the mechanical mezzanine, the classrooms with the sound tiles on the wall, and the gym ceiling. There is a section of pipe insulation with a caution sign about asbestos.

5. Services (MEPF)

See the Mechanical Equipment List in the Appendices for the quantity, manufacturer's name, model number, capacity and year of manufacturer of the major mechanical equipment, if available.

D10 Conveying Systems

Not applicable. There are no elevators or conveying systems.

D20 Plumbing

D2010 Domestic Water Distribution		
Type	Description	Condition
Water Supply Piping	Copper	Fair
Water Meter Location	Boiler Room	

Domestic Water Heaters or Boilers	
Components	Water Heaters
Fuel	Natural gas
Boiler or Water Heater Condition	Good
Supplementary Storage Tanks?	No
Adequacy of Hot Water	Adequate
Adequacy of Water Pressure	Adequate

D2020 Sanitary Drainage		
Type	Description	Condition
Waste/Sewer Piping	Cast iron	Fair
Vent Piping	Cast iron	Fair

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Hot water temperature too hot or cold	<input type="checkbox"/>	Minor or isolated leaks	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

Plumbing Systems - HAISLEY ELEMENTARY SCHOOL

Location_Description	Component	Component Description	Quantity	Unit	Condition	Action	RUL	Est. Cost
Bathroom	Toilet	Tankless (Water Closet)	37	EA	Good	Replace	9	31,190
Bathroom	Sink	Vitreous China	38	EA	Fair	Replace	9	32,737
Bathroom	Urinal	Vitreous China	2	EA	Good	Replace	9	2,387
Boiler room	Compressed Air Dryer	Compressed Air Dryer	1	EA	Fair	Replace	5	5,077
Boiler room	Air Compressor	2 HP	1	EA	Fair	Replace	12	6,612
boiler room	Water Heater	Gas, Commercial, 60 to 120 GAL	1	EA	Excellent	Replace	13	10,699
Boiler room	Domestic Circulator or Booster Pump	0.75 HP	1	EA	Fair	Replace	9	4,017
Boiler room	Domestic Circulator or Booster Pump	0.75 HP	1	EA	Fair	Replace	9	4,017
Boiler room	Domestic Circulator or Booster Pump	0.75 HP	1	EA	Fair	Replace	9	4,017
Boiler room	Domestic Circulator or Booster Pump	5 to 7.5 HP	1	EA	Fair	Replace	9	11,641
Boiler room	Domestic Circulator or Booster Pump	5 to 7.5 HP	1	EA	Fair	Replace	9	11,641
Classrooms	Sink	Stainless Steel	28	EA	Fair	Replace	9	29,513
Equipment mezzanine	Water Heater	Electric, Residential, 5 to 15 GAL	1	EA	Fair	Replace	3	1,014
Hallways	Drinking Fountain	Refrigerated	4	EA	Fair	Replace	5	5,030
Janitors Room	Emergency Eye Wash	Emergency Eye Wash	1	EA	Fair	Replace	4	1,417

Anticipated Lifecycle Replacements:

- Water heaters
- Toilets
- Urinals
- Drinking Fountains
- Sinks
- Eyewash Station

Actions/Comments:

- The plumbing systems appear to be well maintained and functioning adequately. The water pressure appears to be sufficient. No significant repair actions or short term replacement costs are required. Routine and periodic maintenance is recommended. Future lifecycle replacements of the components or systems listed above will be required.

D30 Building Heating, Ventilating, and Air Conditioning (HVAC)

Building Central Heating System	
Primary Heating System Type	Steam boilers
Heating Fuel	Natural gas
Location of Major Equipment	Mechanical rooms
Space Served by System	Entire building

Building Central Cooling System	
Primary Cooling System Type	Rooftop unit and Heatpump
Refrigerant	Unknown
Cooling Towers	None
Location of Major Equipment	Rooftop
Space Served by System	Front Office, media and multi-purpose room

Distribution System	
HVAC Water Distribution System	Two-pipe
Air Distribution System	Constant volume
Location of Air Handlers	Mechanical rooms
Terminal Units	Fan coil units (hydronic)
Quantity and Capacity of Terminal Units	approximately 27 fan coil units ranging from 750 to 2,000 CFM
Location of Terminal Units	Adjacent to windows

Packaged, Split & Individual Units	
Primary Components	Package units
Cooling (if separate from above)	performed via components above
Heating Fuel	Natural gas
Location of Equipment	Rooftop
Space Served by System	Front Office

Supplemental/Secondary Components	
Supplemental Component #1	Package units
Location / Space Served	Computer Lab
Condition	Fair
Supplemental Component #2	Package units
Location / Space Served	Multi-purpose Room
Condition	Not accessed

Controls and Ventilation	
HVAC Control System	BAS, hybrid pneumatic/electronic system
HVAC Control System Condition	Poor
Building Ventilation	Roof top exhaust fans
Ventilation System Condition	Fair

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Ductwork/grills need cleaned	<input type="checkbox"/>	Minor control adjustments needed	<input checked="" type="checkbox"/>
Leaking condensate lines	<input type="checkbox"/>	Poor mechanical area access	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

Degradation Issues			
Observation	Exists At Site	Observation	Exists At Site
Heating, Cooling or Ventilation is not adequate	<input type="checkbox"/>	Major system inefficiencies	<input type="checkbox"/>
HVAC controls pneumatic or antiquated	<input checked="" type="checkbox"/>	Obsolete refrigerants R11, R12, R22, R123, R502	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

Mechanical Systems - HAISLEY ELEMENTARY SCHOOL

Location_Description	Component_Description	Master_Cost	Quantity	Unit	Condition	Action	RUL	Est. Cost
100	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	6	3,235
101	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	6	3,235
102	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	6	3,235
103	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	6	3,235
104	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	6	3,235
105	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	6	3,235
106	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	6	3,235
108	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	6	3,235
109	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	6	3,235
110	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	6	3,235
112	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	6	3,235
200	Air Conditioner	Window/Thru-Wall, 1 Ton	1	EA	Fair	Replace	4	1,998
200	Air Conditioner	Window/Thru-Wall, 1 Ton	1	EA	Fair	Replace	4	1,998
200	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	6	3,235
202	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	6	3,235
204	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	6	3,235
206	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	6	3,235
300	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	6	3,235
302	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	6	3,235
304	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	6	3,235
305	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	6	3,235
306	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	6	3,235
307	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	6	3,235
400	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	6	3,235
400 Hallway	Fan Coil Unit	Hydronic, 401 to 800 CFM	1	EA	Fair	Replace	6	2,199
402	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	6	3,235
404	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	6	3,235
406	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	6	3,235
Bathroom	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	2	EA	Fair	Replace	7	4,397
Boiler room	Expansion Tank	31 to 60 GAL	1	EA	Fair	Replace	12	2,483
Boiler Room	Boiler #1	Dual Fuel, 1,000 to 2,000 MBH	1	EA	Good	Replace	17	55,162
Boiler Room	Boiler #2	Dual Fuel, 1,000 to 2,000 MBH	1	EA	Good	Replace	17	55,162
Boiler Room	Boiler #3	Dual Fuel, 1,000 to 2,000 MBH	1	EA	Good	Replace	17	55,162
Boiler room	Unit Heater	Hydronic, 13 to 36 MBH	1	EA	Fair	Replace	7	1,517
equipment mezzanine	Air Handler	Exterior, 6,001 to 8,000 CFM	1	EA	Fair	Replace	4	37,803
equipment mezzanine	Air Handler	Exterior, 6,001 to 8,000 CFM	1	EA	Fair	Replace	4	37,803
Main roof	Packaged Unit (RTU)	4 Ton	1	EA	Fair	Replace	4	10,581
Main roof	Packaged Unit (RTU)	5 Ton	1	EA	Fair	Replace	4	11,239
Main roof	Exhaust Fan	Centrifugal, 251 to 800 CFM	1	EA	Fair	Replace	6	2,022
Main roof	Exhaust Fan	Centrifugal, 251 to 800 CFM	1	EA	Fair	Replace	6	2,022
Main roof	Exhaust Fan	Centrifugal, 251 to 800 CFM	1	EA	Fair	Replace	6	2,022
Main roof	Exhaust Fan	Centrifugal, 251 to 800 CFM	1	EA	Fair	Replace	11	2,022
Main roof- Computer Lab	Packaged Unit (RTU)	3 Ton	1	EA	Fair	Replace	6	9,872
Teachers Lounge	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	2	EA	Fair	Replace	6	6,471
Throughout	Building Automation System	HVAC Controls	62215	SF	Poor	Upgrade	2	333,628

Anticipated Lifecycle Replacements:

- Boilers
- Air handling units
- Distribution pumps and motors
- Fan coil units
- Package units
- Split system heat pumps
- Baseboard radiators
- Through-wall air conditioners
- Rooftop exhaust fans

Actions/Comments:

- The HVAC systems are maintained by an outside contractor. Records of the installation, maintenance, upgrades, and replacement of the HVAC equipment at the property have not been maintained since the property was first occupied.
- Approximately five percent of the HVAC equipment is original. The HVAC equipment varies in age, a major replacement was completed in 2006. The HVAC equipment appears to be functioning adequately overall.
- The facility HVAC is controlled using an outdated pneumatic system supplied by an air compressor. For modernization, reliability, and increased control, full conversion to a web-based direct digital control (DDC) platform is highly recommended.

D40 Fire Protection

Item	Description					
Type	None					
Sprinkler System	None	<input type="checkbox"/>	Standpipes	<input type="checkbox"/>	Backflow Preventer	<input type="checkbox"/>
	Hose Cabinets	<input type="checkbox"/>	Fire Pumps	<input type="checkbox"/>	Siamese Connections	<input type="checkbox"/>
Sprinkler System Condition	--					
Fire Extinguishers	Last Service Date			Servicing Current?		
	August 2017			Yes		
Hydrant Location	Adjacent to 909 Duncan St.					
Siamese Location	None					
Special Systems	Kitchen Suppression System		<input type="checkbox"/>	Computer Room Suppression System		<input type="checkbox"/>

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Extinguisher tag expired	<input checked="" type="checkbox"/>	Riser tag expired (5 year)	<input type="checkbox"/>
Damaged Fire Extinguisher cabinets	<input checked="" type="checkbox"/>	Other	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- No significant actions are identified at the present time. On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.
- The building is not protected by fire suppression. Due to its construction date, the facility is most likely “grandfathered” by code and the installation of fire sprinklers not required until major renovations are performed. Regardless of when or if installation of facility-wide fire suppression is required by the governing municipality, EMG recommends a retrofit be performed.
- The fire extinguishers cabinets hvemissing covers that should be replaced.
- Fire extinguishers appear to be missing at a few locations. New fire extinguishers must be installed at all required locations immediately.

D50 Electrical

Distribution & Lighting			
Electrical Lines	Underground	Transformer	Pad-mounted
Main Service Size	800 Amps	Volts	120/208 Volt, three-phase
Meter & Panel Location	Boiler Room	Branch Wiring	Copper
Conduit	Metallic	Step-Down Transformers?	No
Security / Surveillance System?	Yes	Building Intercom System?	Yes
Lighting Fixtures	T-8, T-12, CFL, T-5 in gym		
Main Distribution Condition	Fair		
Secondary Panel and Transformer Condition	Fair		
Lighting Condition	Fair		

Building Emergency Systems			
Size	None	Fuel	--
Generator / UPS Serves	--	Tank Location	--
Testing Frequency	--	Tank Type	--
Generator / UPS Condition	--		

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Improperly stored material	<input type="checkbox"/>	Unsecured high voltage area	<input type="checkbox"/>
Loose cables or improper use of conduit	<input type="checkbox"/>	Poor electrical room ventilation	<input type="checkbox"/>
Water leaks at Panels	<input checked="" type="checkbox"/>	Other	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Circuit breaker panels
- Main switchgear
- Interior light fixtures

Actions/Comments:

- The onsite electrical systems up to the meter are owned and maintained by the respective utility company.
- The electrical service and capacity appear to be adequate for the property's demands.
- No significant actions are identified at the present time. On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.

D60 Communications

D6060 Public Address Systems						
Item	Description					
Communication Equipment	Public Address System	<input checked="" type="checkbox"/>	Nurse Call System	<input type="checkbox"/>	Clock	<input checked="" type="checkbox"/>

D70 Electronic Safety and Security

D7010 Access Control and Intrusion Detection / D7050 Detection and Alarm						
Item	Description					
Access Control and Intrusion Detection	Exterior Camera	<input checked="" type="checkbox"/>	Interior Camera	<input checked="" type="checkbox"/>	Front Door Camera Only	<input type="checkbox"/>
	Cameras monitored	<input type="checkbox"/>	Security Personnel On-Site	<input type="checkbox"/>	Intercom/Door Buzzer	<input checked="" type="checkbox"/>
Fire Alarm System	Central Alarm Panel	<input checked="" type="checkbox"/>	Battery-Operated Smoke Detectors	<input type="checkbox"/>	Alarm Horns	<input checked="" type="checkbox"/>
	Annunciator Panels	<input checked="" type="checkbox"/>	Hard-Wired Smoke Detectors	<input checked="" type="checkbox"/>	Strobe Light Alarms	<input checked="" type="checkbox"/>
	Pull Stations	<input checked="" type="checkbox"/>	Emergency Battery-Pack Lighting	<input checked="" type="checkbox"/>	Illuminated EXIT Signs	<input checked="" type="checkbox"/>
Fire Alarm System Condition	Good					
Central Alarm Panel System	Location of Alarm Panel		Installation Date of Alarm Panel			
	Office Area		2016			

Anticipated Lifecycle Replacements:

- Central alarm panel
- Alarm devices and system

Actions/Comments:

- No significant actions are identified at the present time. On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.

6. Equipment & Furnishings

E10 Equipment

The cafeteria area has limited commercial kitchen appliances, fixtures, and equipment, since they only maintain temperature and serve meals. The equipment is owned and maintained in-house.

The cafeteria kitchen includes the following major appliances, fixtures, and equipment:

E1030 Commercial Kitchen Equipment		
Appliance	Comment	Condition
Refrigerators	Up-right	Fair
Freezers	<input type="checkbox"/>	--
Ranges	<input type="checkbox"/>	--
Ovens	Electric	Fair
Griddles / Grills	<input type="checkbox"/>	--
Fryers	<input type="checkbox"/>	--
Hood	<input type="checkbox"/>	--
Dishwasher	<input type="checkbox"/>	--
Microwave	<input checked="" type="checkbox"/>	Fair
Ice Machines	<input type="checkbox"/>	--
Steam Tables	<input checked="" type="checkbox"/>	Fair
Work Tables	<input checked="" type="checkbox"/>	Good
Shelving	<input checked="" type="checkbox"/>	Good

E1030 Commercial Laundry		
Equipment	Comment	Condition
Commercial Washing Machines	<input type="checkbox"/>	--
Commercial Dryers	<input type="checkbox"/>	--
Residential Washers	<input type="checkbox"/>	--
Residential Dryers	<input type="checkbox"/>	--

Anticipated Lifecycle Replacements:

- Milk Cooler
- Convection warming oven
- Double Door Refrigerator
- Steam Table

Actions/Comments:

- No significant actions are identified at the present time. On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.

7. Sitework

G20 Site Improvements

G2020 Parking Lots & G2030 Pedestrian Walkways		
Item	Material	Condition
Entrance Driveway Apron	Asphalt	Fair
Parking Lot	Asphalt	Fair
Drive Aisles	Asphalt	Fair
Service Aisles	Asphalt	Fair
Sidewalks	Concrete	Poor
Curbs	Concrete	Fair
Pedestrian Ramps	Cast-in-place concrete	Fair
Ground Floor Patio or Terrace	Concrete	Fair

Parking Count				
Open Lot	Carport	Private Garage	Subterranean Garage	Freestanding Parking Structure
75	-	-	-	-
Total Number of ADA Compliant Spaces			6	
Number of ADA Compliant Spaces for Vans			2	
Total Parking Spaces			83	

Site Stairs			
Location	Material	Handrails	Condition
None	--	--	--

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Pavement oil stains	<input checked="" type="checkbox"/>	Vegetation growth in joints	<input type="checkbox"/>
Stair/ramp rails loose	<input type="checkbox"/>	Stair/ramp rail needs scraped and painted	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

Degradation Issues			
Observation	Exists At Site	Observation	Exists At Site
Potholes/depressions	<input type="checkbox"/>	Alligator cracking	<input type="checkbox"/>
Concrete spalling	<input type="checkbox"/>	Trip hazards (settlement/heaving)	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Asphalt seal coating

Actions/Comments:

- On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.
- Pavemnt repairs have recently been made to the parking lot. The lot will need to be sealcoated and restriped to extend life.
- The concrete sidewalks have isolated areas of vertically-displaced concrete due settlement. These areas occur in the areas not recently replaced. The damaged areas of concrete sidewalks require replacement.

G2060 Site Development	
Property Signage	
Property Signage	Pylon
Street Address Displayed?	No

Site Fencing		
Type	Location	Condition
Chain link with metal posts	Site perimeter	Fair
Chain link with metal posts	Parking lot	Poor

Refuse Disposal				
Refuse Disposal	Common area dumpsters			
Dumpster Locations	Mounting	Enclosure	Contracted?	Condition
Near Boiler Room	Concrete pad	None	Yes	Fair

Other Site Amenities			
	Description	Location	Condition
Playground Equipment	Plastic and metal	Around Site	Fair
Tennis Courts	None	--	--

Other Site Amenities			
	Description	Location	Condition
Basketball Court	Asphalt	Behind school	Fair
Swimming Pool	None	--	--

Anticipated Lifecycle Replacements:

- Signage
- Site fencing
- Playground equipment
- Benches
- Playground surfaces

Actions/Comments:

- On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.
- The metal fence surrounding the site has portions of the fence that are deteriorated, rusted, and weathered. The affected portions of fence must be replaced to provide property security and control of the site.
- The fence at the parking lot has areas with stretch fabric that should be replaced. There are also sections that the fence is not secured to the top bar. The affected portions of fence must be replaced to provide property security and control of the site.

G2080 Landscaping		
Drainage System and Erosion Control		
System	Exists At Site	Condition
Surface Flow	<input checked="" type="checkbox"/>	Fair
Inlets	<input checked="" type="checkbox"/>	Fair
Swales	<input type="checkbox"/>	--
Detention pond	<input type="checkbox"/>	--
Lagoons	<input type="checkbox"/>	--
Ponds	<input type="checkbox"/>	--
Underground Piping	<input checked="" type="checkbox"/>	Fair
Pits	<input type="checkbox"/>	--
Municipal System	<input checked="" type="checkbox"/>	Good
Dry Well	<input type="checkbox"/>	--

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- There is no evidence of storm water runoff from adjacent properties. The storm water system appears to provide adequate runoff capacity. There is no evidence of major ponding or erosion.

Item	Description						
Site Topography	Slopes gently down from the north side of the property to the south property line.						
Landscaping	Trees	Grass	Flower Beds	Planters	Drought Tolerant Plants	Decorative Stone	None
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
Landscaping Condition	Fair						
Irrigation	Automatic Underground		Drip		Hand Watering		None
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input checked="" type="checkbox"/>
Irrigation Condition	--						

Retaining Walls		
Type	Location	Condition
None	Insert Location here	--

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- The topography and adjacent uses do not appear to present conditions detrimental to the property. There are no significant areas of erosion.

G30 Liquid & Gas Site Utilities

G3060 Site Fuel Distribution	
Item	Description
Natural Gas	Gas service is supplied from the gas main on the adjacent public street. The gas meter and regulator are located along the exterior walls of the building. The gas distribution piping within the building is malleable steel (black iron).

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- The pressure and quantity of gas appear to be adequate.
- The gas meter and regulator appear to be functioning adequately and will require routine maintenance.
- Only limited observation of the gas distribution piping can be made due to hidden conditions.

G40 Electrical Site Improvements

G4050 Site Lighting					
Site Lighting	None	Pole Mounted	Bollard Lights	Ground Mounted	Parking Lot Pole Type
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Good				
Building Lighting	None		Wall Mounted	Recessed Soffit	
	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Fair				

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Isolated bulb/lamp replacement	<input type="checkbox"/>	Discolored/dirty lens cover	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Exterior lighting

Actions/Comments:

- No significant actions are identified at the present time. On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.

8. Ancillary Structures

Not applicable. There are no major accessory structures.

9. Opinions of Probable Costs

Cost estimates are attached at the front of this report (following the cover page).

These estimates are based on Invoice or Bid Document/s provided either by the Owner/facility and construction costs developed by construction resources such as *R.S. Means* and *Marshall & Swift*, EMG's experience with past costs for similar properties, city cost indexes, and assumptions regarding future economic conditions.

Opinions of probable costs should only be construed as preliminary, order of magnitude budgets. Actual costs most probably will vary from the consultant's opinions of probable costs depending on such matters as type and design of suggested remedy, quality of materials and installation, manufacturer and type of equipment or system selected, field conditions, whether a physical deficiency is repaired or replaced in whole, phasing of the work (if applicable), quality of contractor, quality of project management exercised, market conditions, and whether competitive pricing is solicited, etc. ASTM E2018-08 recognizes that certain opinions of probable costs cannot be developed within the scope of this guide without further study. Opinions of probable cost for further study should be included in the FCA.

9.1 Methodology

Based upon site observations, research, and judgment, along with referencing Expected Useful Life (EUL) tables from various industry sources, EMG opines as to when a system or component will most probably necessitate replacement. Accurate historical replacement records, if provided, are typically the best source of information. Exposure to the elements, initial quality and installation, extent of use, the quality and amount of preventive maintenance exercised, etc., are all factors that impact the effective age of a system or component. As a result, a system or component may have an effective age that is greater or less than its actual chronological age. The Remaining Useful Life (RUL) of a component or system equals the EUL less its effective age. Projections of Remaining Useful Life (RUL) are based on continued use of the Property similar to the reported past use. Significant changes in occupants and/or usage may affect the service life of some systems or components.

Where quantities could not be derived from an actual take-off, lump sum costs or allowances are used. Estimated costs are based on professional judgment and the probable or actual extent of the observed defect, inclusive of the cost to design, procure, construct and manage the corrections.

9.2 Immediate Repairs

Immediate repairs are opinions of probable costs that require immediate action as a result of: (1) material existing or potential unsafe conditions, (2) material building or fire code violations, or (3) conditions that, if not addressed, have the potential to result in, or contribute to, critical element or system failure within one year or will most probably result in a significant escalation of its remedial cost.

9.3 Replacement Reserves

Replacement Reserves are for recurring probable expenditures, which are not classified as operation or maintenance expenses. The replacement reserves should be budgeted for in advance on an annual basis. Replacement Reserves are reasonably predictable both in terms of frequency and cost. However, Replacement Reserves may also include components or systems that have an indeterminable life but, nonetheless, have a potential for failure within an estimated time period.

Replacement Reserves exclude systems or components that are estimated to expire after the reserve term and are not considered material to the structural and mechanical integrity of the subject property. Furthermore, systems and components that are not deemed to have a material effect on the use of the Property are also excluded. Costs that are caused by acts of God, accidents, or other occurrences that are typically covered by insurance, rather than reserved for, are also excluded.

Replacement costs are solicited from ownership/property management, EMG's discussions with service companies, manufacturers' representatives, and previous experience in preparing such schedules for other similar facilities. Costs for work performed by the ownership's or property management's maintenance staff are also considered.

EMG's reserve methodology involves identification and quantification of those systems or components requiring capital reserve funds within the assessment period. The assessment period is defined as the effective age plus the reserve term. Additional information concerning system's or component's respective replacement costs (in today's dollars), typical expected useful lives, and remaining useful lives were estimated so that a funding schedule could be prepared. The Replacement Reserves Schedule presupposes that all required remedial work has been performed or that monies for remediation have been budgeted for items defined in the Immediate Repair Cost Estimate

10. Purpose and Scope

10.1. Purpose

EMG was retained by the client to render an opinion as to the Property's current general physical condition on the day of the site visit.

Based on the observations, interviews and document review outlined below, this report identifies significant deferred maintenance issues, existing deficiencies, and material code violations of record at municipal offices, which affect the Property's use. Opinions are rendered as to its structural integrity, building system condition and the Property's overall condition. The report also notes building systems or components that have realized or exceeded their typical expected useful lives.

CONDITIONS:

The physical condition of building systems and related components are typically defined as being in one of five conditions: Excellent, Good, Fair, Poor, Failed or a combination thereof. For the purposes of this report, the following definitions are used:

Excellent	=	New or very close to new; component or system typically has been installed within the past year, sound and performing its function. Eventual repair or replacement will be required when the component or system either reaches the end of its useful life or fails in service.
Good	=	Satisfactory as-is. Component or system is sound and performing its function, typically within the first third of its lifecycle. However, it may show minor signs of normal wear and tear. Repair or replacement will be required when the component or system either reaches the end of its useful life or fails in service.
Fair	=	Showing signs of wear and use but still satisfactory as-is, typically near the median of its estimated useful life. Component or system is performing adequately at this time but may exhibit some signs of wear, deferred maintenance, or evidence of previous repairs. Repair or replacement will be required due to the component or system's condition and/or its estimated remaining useful life.
Poor	=	Component or system is significantly aged, flawed, functioning intermittently or unreliably; displays obvious signs of deferred maintenance; shows evidence of previous repair or workmanship not in compliance with commonly accepted standards; has become obsolete; or exhibits an inherent deficiency. The present condition could contribute to or cause the deterioration of contiguous elements or systems. Either full component replacement is needed or repairs are required to restore to good condition, prevent premature failure, and/or prolong useful life.
Failed	=	Component or system has ceased functioning or performing as intended. Replacement, repair, or other significant corrective action is recommended or required.
Not Applicable	=	Assigning a condition does not apply or make logical sense, most commonly due to the item in question not being present.

FORMAT OF THE BODY OF THE REPORT:

Throughout sections 5 through 9 of this report, each report section will typically contain three subsections organized in the following sequence:

- A descriptive table (and/or narrative), which identifies the components assessed, their condition, and other key data points.
- A simple bulleted list of Anticipated Lifecycle Replacements, which lists components and assets typically in Excellent, Good, or Fair condition at the time of the assessment but that will require replacement or some other attention once aged past their estimated useful life. These listed components are typically included in the associated inventory database with costs identified and budgeted beyond the first several years.
- A bulleted cluster of Actions/Comments, which include more detailed narratives describing deficiencies, recommended repairs, and short term replacements. The assets and components associated with these bullets are/were typically problematic and in Poor or Failed condition at the time of the assessment, with corresponding costs included within the first few years.

PLAN TYPES:

Each line item in the cost database is assigned a Plan Type, which is the primary reason or rationale for the recommended replacement, repair, or other corrective action. This is the “why” part of the equation. A cost or line item may commonly have more than one applicable Plan Type; however, only one Plan Type will be assigned based on the “best” fit, typically the one with the greatest significance. The following Plan Types are listed in general weighted order of importance:

Safety	=	An observed or reported unsafe condition that if left unaddressed could result in an injury; a system or component that presents a potential liability risk.
Performance/Integrity	=	Component or system has failed, is almost failing, performs unreliably, does not perform as intended, and/or poses a risk to overall system stability.
Accessibility	=	Does not meet ADA, UFAS, and/or other handicap accessibility requirements.
Environmental	=	Improvements to air or water quality, including removal of hazardous materials from the building or site.
Modernization/Adaptation	=	Conditions, systems, or spaces that need to be upgraded in appearance or function to meet current standards, facility usage, or client/occupant needs.
Lifecycle/Renewal	=	Any component or system in which future repair or replacement is anticipated beyond the next several years and/or is of minimal substantial early-term consequence.

10.2. Scope

The standard scope of the Facility Condition Assessment includes the following:

- Visit the Property to evaluate the general condition of the building and site improvements, review available construction documents in order to familiarize ourselves with, and be able to comment on, the in-place construction systems, life safety, mechanical, electrical, and plumbing systems, and the general built environment.
- Identify those components that are exhibiting deferred maintenance issues and provide cost estimates for Immediate Costs and Replacement Reserves based on observed conditions, maintenance history and industry standard useful life estimates. This will include the review of documented capital improvements completed within the last five-year period and work currently contracted for, if applicable.
- Provide a full description of the Property with descriptions of in-place systems and commentary on observed conditions.
- Provide a general statement of the subject Property’s compliance to Title III of the Americans with Disabilities Act. This will not constitute a full ADA survey, but will help identify exposure to issues and the need for further review.
- Perform a limited assessment of accessible areas of the building(s) for the presence of fungal growth, conditions conducive to fungal growth, and/or evidence of moisture. EMG will also interview Project personnel regarding the presence of any known or suspected fungal growth, elevated relative humidity, water intrusion, or mildew-like odors. Potentially affected areas will be photographed. Sampling will not be considered in routine assessments.
- List the current utility service providers.
- Review maintenance records and procedures with the in-place maintenance personnel.
- Observe a representative sample of the interior spaces/units, including vacant spaces/units, in order to gain a clear understanding of the property’s overall condition. Other areas to be observed include the exterior of the property, the roofs, interior common areas, and the significant mechanical, electrical and elevator equipment rooms.
- Provide recommendations for additional studies, if required, with related budgetary information.
- Provide an Executive Summary at the beginning of this report.
- Prepare a mechanical inventory list.

11. Accessibility and Property Research

11.1. ADA Accessibility

Generally, Title III of the Americans with Disabilities Act (ADA) prohibits discrimination by entities to access and use of “areas of public accommodations” and “commercial facilities” on the basis of disability. Regardless of its age, these areas and facilities must be maintained and operated to comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG).

Buildings completed and occupied after January 26, 1992 are required to comply fully with the ADAAG. Existing facilities constructed prior to this date are held to the lesser standard of compliance to the extent allowed by structural feasibility and the financial resources available. As an alternative, a reasonable accommodation pertaining to the deficiency must be made.

During the FCA, a limited visual observation for ADA accessibility compliance was conducted. The scope of the visual observation was limited to those areas set forth in *EMG's Abbreviated Accessibility Checklist* provided in Appendix D of this report. It is understood by the Client that the limited observations described herein does not comprise a full ADA Compliance Survey, and that such a survey is beyond the scope of EMG's undertaking. Only a representative sample of areas was observed and, other than as shown on the Abbreviated Accessibility Checklist, actual measurements were not taken to verify compliance.

The facility generally appears to be accessible as stated within the defined priorities of Title III of the Americans with Disabilities Act.

A full ADA Compliance Survey may reveal aspects of the property that are not in compliance.

Corrections of these conditions should be addressed from a liability standpoint, but are not necessarily code violations. The Americans with Disabilities Act Accessibility Guidelines concern civil rights issues as they pertain to the disabled and are not a construction code, although many local jurisdictions have adopted the Guidelines as such.

11.2. Flood Zone and Seismic Zone

According to the Flood Insurance Rate Map, published by the Federal Emergency Management Agency (FEMA) and dated April 3, 2012, the property is located in Zone X, defined as an area outside the 500-year flood plain with less than 0.2% annual probability of flooding. Annual Probability of Flooding of Less than one percent.

According to the 1997 Uniform Building Code Seismic Zone Map of the United States, the property is located in Seismic Zone 1, defined as an area of low probability of damaging ground motion.

12. Certification

Ann Arbor Public Schools retained EMG to perform this Facility Condition Assessment in connection with its continued operation of Community High School, 825 Duncan Sreet, Ann Arbor, Michigan, the "Property". It is our understanding that the primary interest of Ann Arbor Public Schools is to locate and evaluate materials and building system defects that might significantly affect the value of the property and to determine if the present Property has conditions that will have a significant impact on its continued operations.

The conclusions and recommendations presented in this report are based on the brief review of the plans and records made available to our Project Manager during the site visit, interviews of available property management personnel and maintenance contractors familiar with the Property, appropriate inquiry of municipal authorities, our Project Manager's walk-through observations during the site visit, and our experience with similar properties.

No testing, exploratory probing, dismantling or operating of equipment or in depth studies were performed unless specifically required under Section 2 of this report. This assessment did not include engineering calculations to determine the adequacy of the Property's original design or existing systems. Although walk-through observations were performed, not all areas were observed (See Section 4.2 for areas observed). There may be defects in the Property, which were in areas not observed or readily accessible, may not have been visible, or were not disclosed by management personnel when questioned. The report describes property conditions at the time that the observations and research were conducted.

This report has been prepared on behalf of and exclusively for the use of the client for the purpose stated within Section **Error! Reference source not found.** of this report. The report, or any excerpt thereof, shall not be used by any party other than the client or for any other purpose than that specifically stated in our agreement or within Section **Error! Reference source not found.** of this report without the express written consent of EMG.

Any reuse or distribution of this report without such consent shall be at Ann Arbor Public Schools and the recipient's sole risk, without liability to EMG.

Prepared by: Randall Patzke,
Project Manager

Reviewed by:



Al Diefert
Technical Report Reviewer
For
Andrew Hupp
Program Manager

13. Appendices

- Appendix A: Photographic Record
- Appendix B: Site and Floor Plans
- Appendix C: Supporting Documentation
- Appendix D: Pre-Survey Questionnaire

Appendix A: Photographic Record



#1:	FRONT ELEVATION
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#2:	RIGHT ELEVATION
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#3:	REAR ELEVATION
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#4:	LEFT ELEVATION
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#5:	FENCES & GATES, VINYL, 4' HIGH
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#6:	ALUMINUM WINDOWS IN LOBBY
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#7: EXTERIOR WALL WITH GLASS BLOCK



#8: EXTERIOR DOOR QUARRY TILE FLOOR



#9: EXTERIOR WALL, JOINT CAULKING



#10: RE-POINTING AND BRICK REPLACEMENT



#11: RE-POINTING AND BRICK REPLACEMENT



#12: JOINT CAULKING EXTERIOR WALL



#13: ADA DOOR OPENER (BROKEN)



#14: FLOOR TO BE REFINISHED



#15: FOLDING DOOR BETWEEN CLASSROOMS



#16: INTERIOR DOOR INTO CLASSROOM AND TOILET ROOM



#17: DAMAGED INTERIOR DOOR



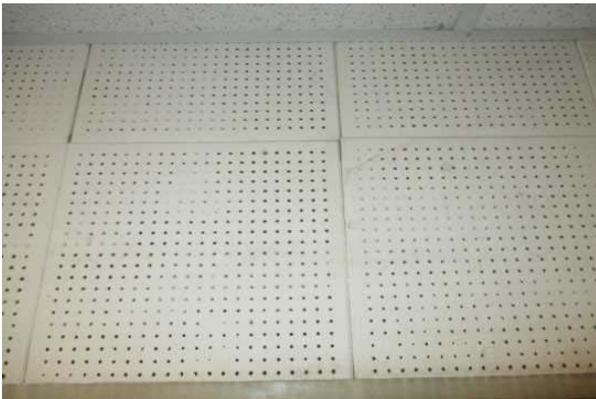
#18: DAMAGED VCT TILE



#19: SUSPENDED ACOUSTICAL TILE (ACT) WITH SIGNS OF ROOF LEAK



#20: MOTOR OPERATED FIRE SHUTTER



#21: POTENTIAL ASBESTOS MATERIAL (ACM)



#22: EXIT SIGNAGE



#23: SOUND DAMPENING CEILING TILES POTENTIAL ASBESTOS MATERIAL (ACM)



#24: KITCHEN CABINETS IN TEACHERS LOUNGE



#25:	POTENTIAL ASBESTOS MATERIAL (ACM)
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#26:	TOILET PARTITIONS
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#27:	KITCHEN CABINET DAMAGED
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#28:	DAMAGED VCT TILE
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#29:	CERAMIC TILE AND URINALS
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#30:	QUARRY TILE
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#31:	DAMAGED INTERIOR DOOR
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#32:	SINK AND TOILET
------	-----------------



#33:	ELECTRIC WATER HEATER
------	-----------------------



#34:	DRINKING FOUNTAIN
------	-------------------



#35:	DRINKING FOUNTAIN
------	-------------------



#36:	TOILET
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#37: STAINLESS STEEL SINK AND CASEWORK



#38: STAINLESS STEEL SINK AND CASEWORK



#39: SINKS WITHOUT ADA PIPE WRAPING



#40: PACKAGED UNIT (RTU)



#41: HYDRONIC FAN COIL UNIT



#42: BOILER



#43: HOT WATER PUMP



#44: AIR HANDLERS ON MEZZANINE



#45: EXHAUST FAN



#46: HYDRONIC CABINET HEATER



#47: BUILDING AUTOMATION SYSTEM (HVAC CONTROLS) AND ELECTRICAL PANEL



#48: HYDRONIC CABINET HEATER



#49: HYDRONIC UNIT HEATER



#50: PACKAGED UNIT (RTU)



#51: AIR COMPRESSOR, BUILDING CONTROLS



#52: BOOSTER PUMPS



#53: FIRE EXTINGUISHER CABINET, MISSING COVER AND FIRE EXTINGUISHER



#54: FLUORESCENT LIGHTING FIXTURE, VCT AND ENTRY DOORS WITH ADA OPENER



#55:	EXTERIOR LED LIGHTING FIXTURE
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#56:	ELECTRICAL DISTRIBUTION PANEL
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#57:	DUMPSTERS
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#58:	LIGHTING FIXTURE
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#59:	LIGHTING FIXTURE
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#60:	BUILDING MAIN SWITCHGEAR
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#61:	FIRE ALARM SUB-PANEL
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#62:	REFRIGERATOR
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#63:	SIDEWALK HEAVED
------	-----------------



#64:	ASPHALT PAVEMENT
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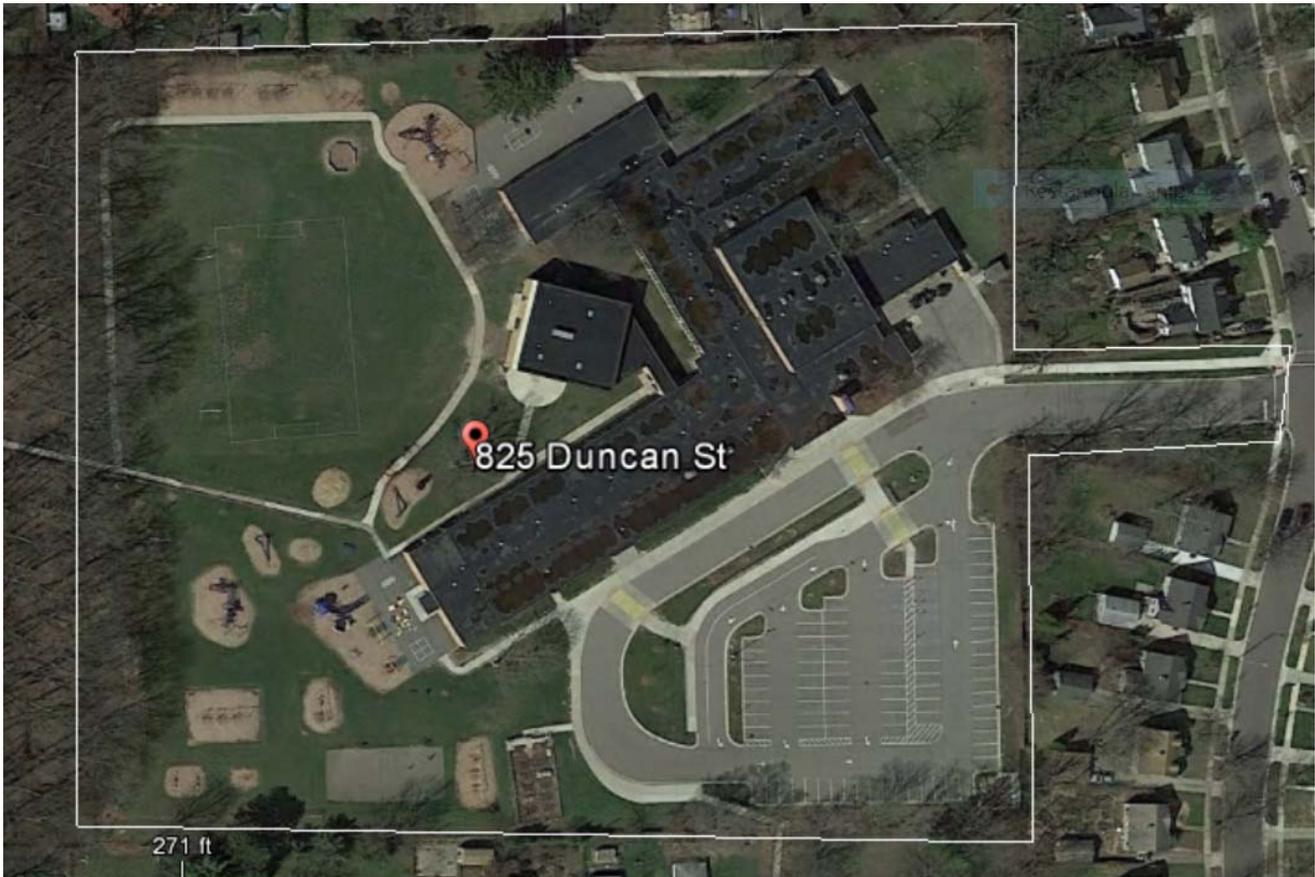
#65:	PLAY GROUND BENCH
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#66:	ASPHALT PAVEMENT
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Appendix B: Site and Floor Plans

Site Plan



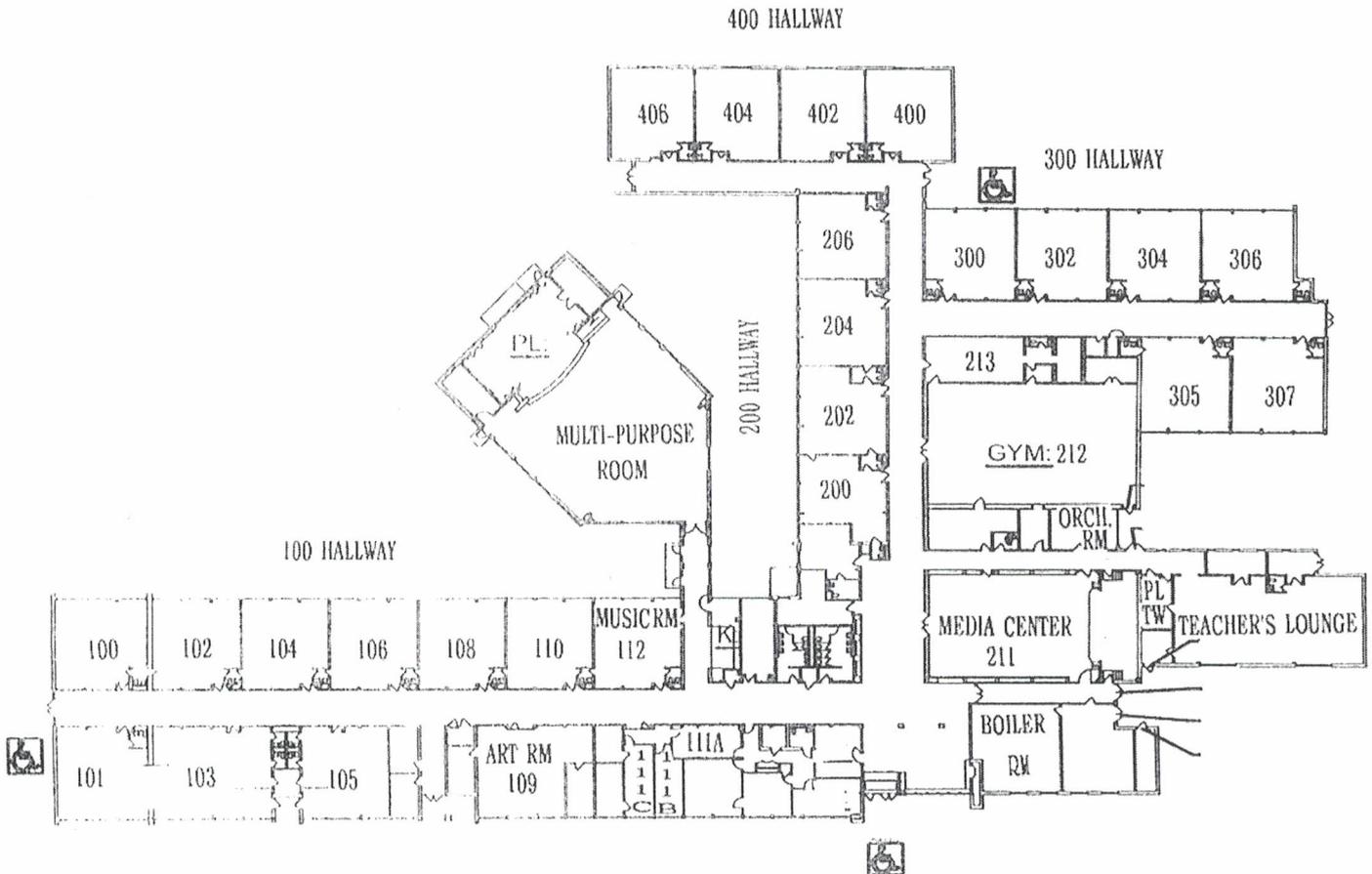
Project Name:
Haisley Elementary

Project Number:
129010.18R000-013.354

Source:
Google Earth Pro

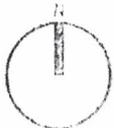
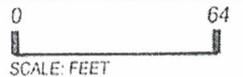
On-Site Date:
February 8, 2018

LAST NAME	ROOM #	LAST NAME	ROOM #	LAST NAME	ROOM #
Addison	200	Gould	202	Nelson	402
Anderson	204	Hahn	304	Office Staff	Office
Barnes	111B	Harris	305	Rentz	Media CT
Beery	MPR	Hughes	114A	Rodriguez	406
Caballeros	204	Knorr	400	Skonecki	406
Campbell	PLTW	Koutoulas	110	Smith	ORCH
Carnegie	404	Levine	105	Strohl	101
Cech	206	Loveland	111A	Vinter	109
Christiansen	104	Marquardt	103	Waldron	112
Clement	105A	McCaman	113	Weber	111C
Cucu	111A	McGee	306	Weems	108
Everett	100	Moray	106	Weindorf	307
Garcia	GYM	Murrell	102	Wight	302
				Wooley	105B



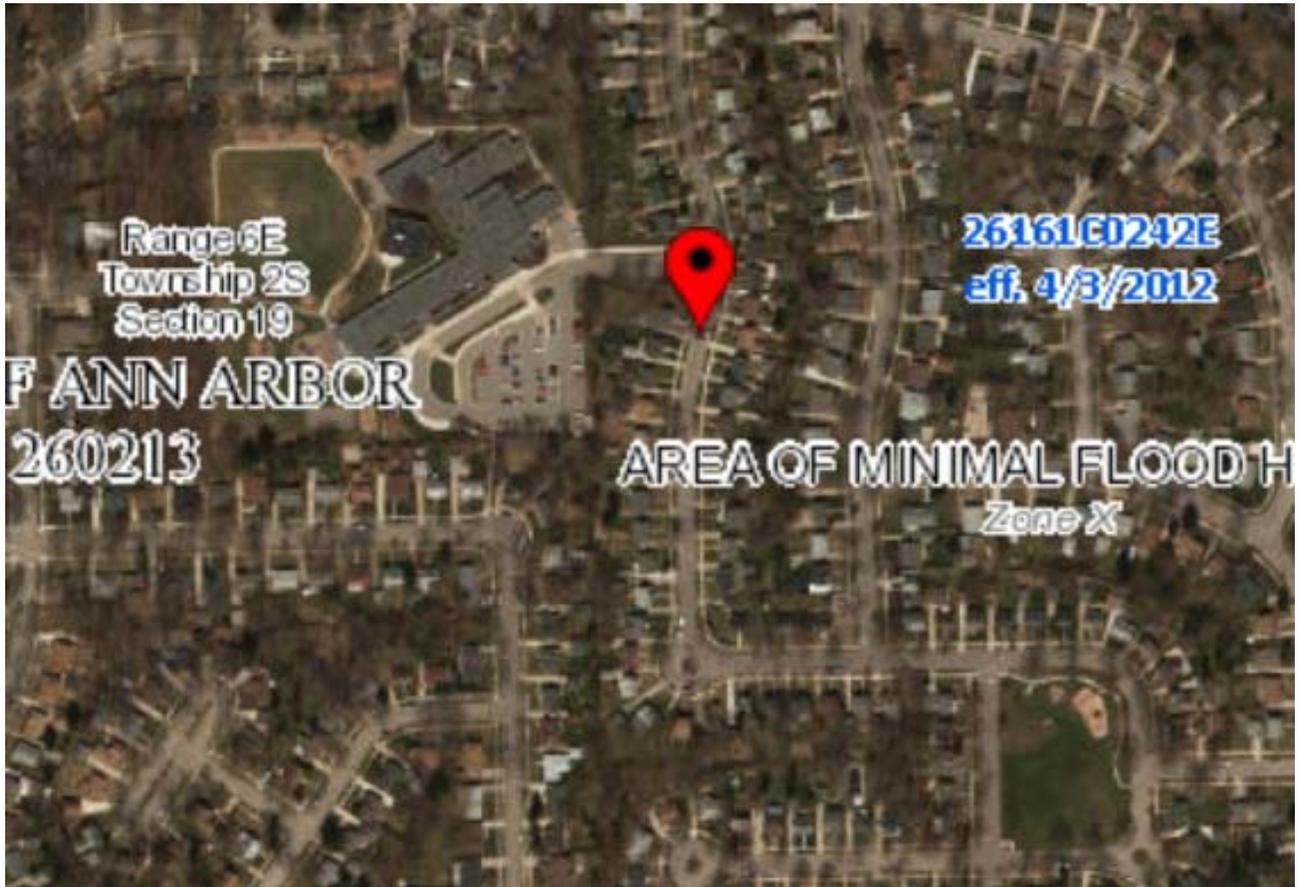
FIRST FLOOR PLAN

Haisley Elementary School
Ann Arbor Public Schools



Appendix C: Supporting Documentation

Flood Map



	Project Name: Haisley Elementary	Project Number: 129010.18R000-013.354
	Source: FEMA Map Number: 26161C0242E Dated: April 3, 2012	On-Site Date: February 8, 2018

Appendix D: Pre-Survey Questionnaire

**THE PRE-SURVEY QUESTIONNAIRE WAS NOT
RETURNED TO EMG**

On the day of the site visit, provide EMG's Field Observer access to all of the available documents listed below. Provide copies if possible.

<p>INFORMATION REQUIRED</p> <ol style="list-style-type: none"> 1. All available construction documents (blueprints) for the original construction of the building or for any tenant improvement work or other recent construction work. 2. A site plan, preferably 8 1/2" X 11", which depicts the arrangement of buildings, roads, parking stalls, and other site features. 3. For commercial properties, provide a tenant list which identifies the names of each tenant, vacant tenant units, the floor area of each tenant space, and the gross and net leasable area of the building(s). 4. For apartment properties, provide a summary of the apartment unit types and apartment unit type quantities, including the floor area of each apartment unit as measured in square feet. 5. For hotel or nursing home properties, provide a summary of the room types and room type quantities. 6. Copies of Certificates of Occupancy, building permits, fire or health department inspection reports, elevator inspection certificates, roof or HVAC warranties, or any other similar, relevant documents. 7. The names of the local utility companies which serve the property, including the water, sewer, electric, gas, and phone companies. 	<ol style="list-style-type: none"> 8. The company name, phone number, and contact person of all outside vendors who serve the property, such as mechanical contractors, roof contractors, fire sprinkler or fire extinguisher testing contractors, and elevator contractors. 9. A summary of recent (over the last 5 years) capital improvement work which describes the scope of the work and the estimated cost of the improvements. Executed contracts or proposals for improvements. Historical costs for repairs, improvements, and replacements. 10. Records of system & material ages (roof, MEP, paving, finishes, furnishings). 11. Any brochures or marketing information. 12. Appraisal, either current or previously prepared. 13. Current occupancy percentage and typical turnover rate records (for commercial and apartment properties). 14. Previous reports pertaining to the physical condition of property. 15. ADA survey and status of improvements implemented. 16. Current / pending litigation related to property condition.
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Your timely compliance with this request is greatly appreciated.