

FACILITY CONDITION ASSESSMENT

Prepared for

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



PREPARED BY:

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DATE OF REPORT:

June 29, 2018

ONSITE DATE:

March 1, 2018

FACILITY CONDITION ASSESSMENT

OF

KING ELEMENTARY
3800 WALDENWOOD DRIVE
ANN ARBOR, MICHIGAN 48105

Immediate Repairs Report
King Elementary
6/29/2018



Location Name	EMG Renamed Item Number	ID	Cost Description	Quantity	Unit	Unit Cost *	Subtotal	Deficiency Repair Estimate *
King Elementary	D30	937424	Air Conditioning, Central, Install	52200	SF	\$11.50	\$600,300	\$600,300
King Elementary	D70	871523	Fire Alarm Control Panel, Addressable, Replace	1	EA	\$23,342.23	\$23,342	\$23,342
King Elementary		958696	Davis Bacon Prevailing Wages, Surcharge for Prevailing Wages, 10% surcharge for prevailing wages	53653.39	LS	\$1.15	\$61,701	\$61,701
Immediate Repairs Total								\$685,344

* Location Factor included in totals.

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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:	3800 Waldenwood Drive Ann Arbor, Michigan 48105	
Year Constructed/Renovated:	1969	
Current Occupants:	King Elementary	
Percent Utilization:	100%	
Management Point of Contact:	Ann Arbor Public Schools/Facilities, Jim Vibbart, Maintenance Supervisor	
Property Type:	Elementary School	
Site Area:	9.96 acres	
Building Area:	52,220 SF	
Number of Buildings:	Two	
Number of Stories:	One	
Parking Type and Number of Spaces:	62 spaces in open lots	
Building Construction:	Masonry bearing walls and concrete-topped metal decks.	
Roof Construction:	Flat roofs with single-ply membrane.	
Exterior Finishes:	Brick Veneer	
Heating, Ventilation & Air Conditioning:	Central system with boilers, air handlers, and rooftop units feeding hydronic terminal units. Supplemental components: ductless split-systems, suspended unit heaters.	
Fire and Life/Safety:	Partial fire sprinklers, hydrants, smoke detectors, alarms, strobes, extinguishers, pull stations, alarm panel, and exit signs.	
ADA :	This building does not have any major ADA issues.	
All 52,220 square feet of the building are occupied by a single occupant, King Elementary School. The spaces are a combination of offices, classrooms, extracurricular spaces, and supporting restrooms, mechanical and other utility spaces.		
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. All areas of the property were available for observation during the site visit.		
Key Spaces Not Observed		
Room Number	Area	Access Issues
NA	Exterior Storage Shed	Locked room and no key
A "down unit" or area is a term used to describe a unit or space that cannot be occupied due to poor conditions such as fire damage, water damage, missing equipment, damaged floor, wall or ceiling surfaces, or other significant deficiencies. There are no down units or areas.		

Assessment Information	
Dates of Visit:	March 1, 2018
On-Site Point of Contact (POC):	Joe Powell
Assessment and Report Prepared by:	Sean Luxem
Reviewed by:	Al Diefert Technical Report Reviewer For Andrew Hupp Program Manager ahupp@emgcorp.com 800.733.0660 x6632

1.2. Key Findings

Site : Areas of asphalt and concrete are showing deterioration.

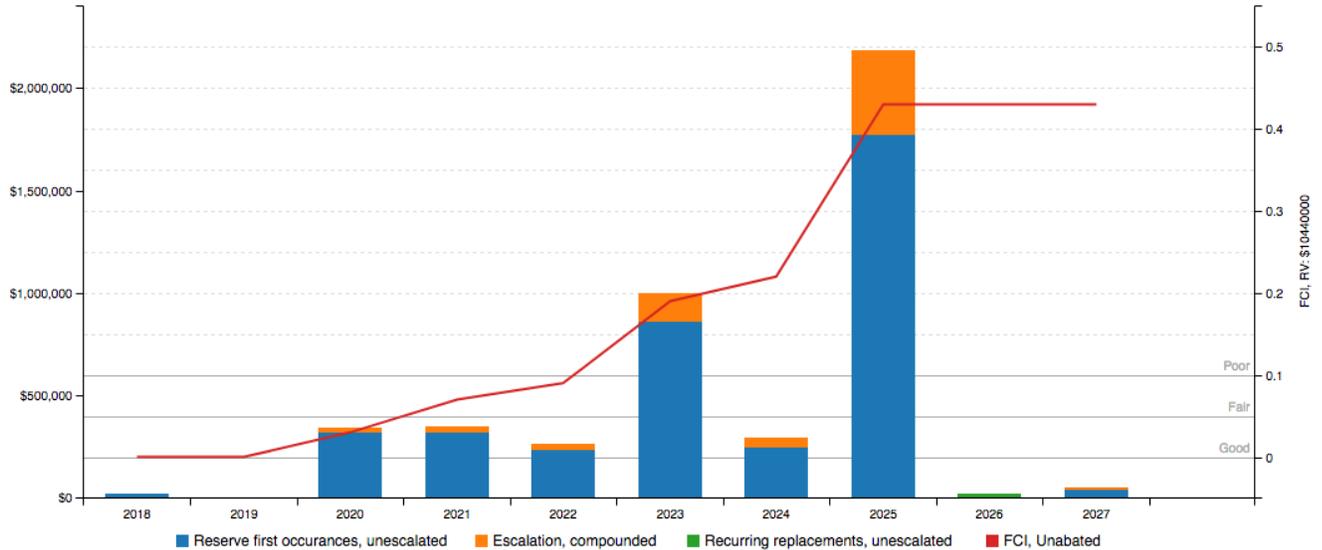
Architectural : None.

MEPF : Majority of the systems are antiquated, and would benefit from replacement.

1.3. Facility Condition Index (FCI)

FCI Analysis: King Elementary

Replacement Value: \$ 10,440,000; 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 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):	0.19%
Current Year FCI Rating:	2018
10-Year Facility Condition Index (FCI) FCI = (RR)/(CRV):	43.31%
10-Year FCI Rating	0.43
Current Replacement Value (CRV):	\$10,440,000
Year 0 (Current Year) - Immediate Repairs (IR):	\$20,298
Years 1-10 - Replacement Reserves (RR):	\$4,501,304
Total Capital Needs:	\$4,521,602

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	Slab on grade with integral footings	Good
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. 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	Good
Ground Floor	Concrete slab	Good
Roof Framing	Steel beams or girders	Good
Roof Decking	Metal decking with concrete topping	Good

Maintenance Issues					
Observation	Location	Exists At Site	Observation	Location	Exists At Site
None	NA	<input type="checkbox"/>	None	NA	<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	Concrete stairs	Closed	Metal	Metal	Fair
Building Interior Stairs	None				

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.

3. Building Envelope

B20 Exterior Vertical Enclosures

B2010 Exterior Walls		
Type	Location	Condition
Primary Finish	Brick veneer	Good
Secondary Finish	Painted concrete	Fair
Accented with	NA	--
Soffits	Concealed	Fair
Building sealants	Between dissimilar materials, at joints, around windows and doors	Fair

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

Anticipated Lifecycle Replacements:

- Exterior paint
- Masonry repointing

Actions/Comments:

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

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

B2050 Exterior Doors		
Main Entrance Doors	Door Type	Condition
	Vinyl coated, insulated	Good

B2050 Exterior Doors		
Secondary Entrance Doors	Vinyl coated, insulated	Good
Service Doors	Metal, insulated	Fair
Overhead Doors	None	--

Anticipated Lifecycle Replacements:

- Windows
- 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

B3010 Primary Roof			
Location	Main Building	Finish	Single-ply membrane
Type / Geometry	Flat	Roof Age	10+ Years
Flashing	Sheet metal	Warranties	Unkown
Parapet Copings	None	Roof Drains	Internal drains
Fascia	Metal Panel	Insulation	Rigid Board
Soffits	Concealed Soffits	Skylights	No
Attics	Concrete-topped steel decks	Ventilation Source-1	None
Roof Condition	Fair	Ventilation Source-2	--

B3010 Secondary Roof			
Location	Walkway	Finish	Metal
Type / Geometry	Flat	Roof Age	1 Year
Flashing	Sheet metal	Warranties	Unknown
Parapet Copings	None	Roof Drains	Edge drainage to ground
Fascia	Metal Panel	Insulation	None
Soffits	Concealed Soffits	Skylights	No
Attics	Steel beams	Ventilation Source-1	None
Roof Condition	Good	Ventilation Source-2	--

Maintenance Issues					
Observation	Location	Exists At Site	Observation	Location	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 type="checkbox"/>	Significant ponding	<input checked="" 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

Actions/Comments:

- The roof finishes were installed over ten years ago. Information regarding roof warranties or bonds was not available. The roofs are maintained by an outside contractor.
- There is no evidence of roof deck or insulation deterioration. The roof substrate and insulation should be inspected during any future roof repair or replacement work.
- Current roof leaks should be repaired as a part of routine maintenance.
- Roof drainage appears to be adequate. Clearing and minor repair of drain system components should be performed regularly as part of the property management's routine maintenance and operations program
- 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	Metal	Fair
Door Framing	Metal	Fair
Fire Doors	No	--
Closet Doors	Solid core wood	Fair

Maintenance Issues					
Observation	Location	Exists At Site	Observation	Location	Exists At Site
Improperly adjusted door closures		<input type="checkbox"/>	Damaged/loose door hardware		<input 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 - KING ELEMENTARY

Location	Finish	Quantity (SF)	Condition	Action	RUL	Est. Cost
Interior	Floor	Carpet Tile Commercial-Grade	18000 Fair	Replace	2	125,332
Restrooms	Floor	Terrazzo	1500 Good	Replace	47	18,084
Restrooms	Floor	Ceramic Tile	3000 Fair	Replace	12	47,265
Throughout	Wall	Concrete/Masonry	30000 Fair	Prep & Paint	3	43,530
Throughout	Floor	Vinyl Tile (VCT)	30000 Fair	Replace	4	144,018
Throughout	Ceiling	Acoustical Tile (ACT) Dropped Fiberglass	38000 Fair	Replace	5	191,816

Maintenance Issues					
Observation	Location	Exists At Site	Observation	Location	Exists At Site
Loose carpeting/flooring		<input type="checkbox"/>	Minor areas of stained ceiling tiles		<input type="checkbox"/>

Maintenance Issues					
Observation	Location	Exists At Site	Observation	Location	Exists At Site
Minor paint touch-up		<input type="checkbox"/>	Areas of damaged/missing baseboard		<input type="checkbox"/>
Other		<input type="checkbox"/>	Other		<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Carpet
- Cermaic tile
- Vinyl tile
- Interior paint
- Suspended acoustic ceiling tile
- Interior doors
- Lockers

Actions/Comments:

- It appears that the interior finishes have not been renovated within the last 10 years.
- 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.



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	Good
Water Meter Location	Mechanical Room	

Domestic Water Heaters or Boilers	
Components	Water heater
Fuel	Natural gas
Boiler or Water Heater Condition	Good
Supplementary Storage Tanks?	Yes
Adequacy of Hot Water	Adequate
Adequacy of Water Pressure	Adequate

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

Maintenance Issues					
Observation	Location	Exists At Site	Observation	Location	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 - KING ELEMENTARY

Location	Component	Component Description	Quantity	Unit	Condition	Action	RUL	Est. Cost
Boiler room	Water Heater	Gas, Commercial, 60 to 120 GAL	1	EA	Good	Replace	12	10,699
Boiler room	Water Heater	Electric, Residential, 16 to 29 GAL	1	EA	Good	Replace	14	1,250
Throughout	Toilet	Tankless (Water Closet)	30	EA	Fair	Replace	9	25,289
Throughout	Urinal	Vitreous China	2	EA	Good	Replace	12	2,387
Throughout	Sink	Vitreous China	15	EA	Fair	Replace	9	12,923
Throughout	Sink	Stainless Steel	30	EA	Fair	Replace	7	31,622
Throughout	Drinking Fountain	Refrigerated	10	EA	Fair	Replace	4	12,575

Anticipated Lifecycle Replacements:

- Water heaters
- Toilets
- Urinals
- Sinks
- Drinking fountains

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	Hot water 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 units
Refrigerant	R-22
Cooling Towers	None
Location of Major Equipment	Rooftop
Space Served by System	Entire building

Distribution System	
HVAC Water Distribution System	Two-pipe



Distribution System	
Air Distribution System	Constant
Location of Air Handlers	Rooftop
Terminal Units	Hydronic wall units
Quantity and Capacity of Terminal Units	Approximately 600 LF of hydronic wall units
Location of Terminal Units	Within interior spaces

Packaged, Split & Individual Units	
Primary Components	Rooftop units
Cooling (if separate from above)	performed via components above
Heating Fuel	None
Location of Equipment	Rooftop
Space Served by System	Throughout

Supplemental/Secondary Components	
Supplemental Component #1	Suspended unit heaters
Location / Space Served by units	BOH Areas
Unit Condition	Fair
Supplemental Component #2	Ductless split system
Location / Space Served by unit	Offices
Unit Condition	Fair
Supplemental Component #3	Wall heaters
Location / Space Served by units	Exterior Building
Unit Condition	Good

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

Maintenance Issues					
Observation	Location	Exists At Site	Observation	Location	Exists At Site
Ductwork/grills need cleaned		<input type="checkbox"/>	Minor control adjustments needed		<input type="checkbox"/>
Leaking condensate lines		<input type="checkbox"/>	Poor mechanical area access		<input 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 type="checkbox"/>	Obsolete refrigerants : R11, R12, R22, R123, R502	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

Mechanical Systems - KING ELEMENTARY

Location	Component	Component Description	Quantity	Unit	Condition	Action	RUL	Est. Cost
Boiler Room	Boiler	Gas, 4,201 to 10,000 MBH	1	EA	Fair	Replace	14	332,867
Boiler Room	Boiler	Gas, 4,201 to 10,000 MBH	1	EA	Fair	Replace	14	332,867
Boiler room	Unit Heater	Hydronic, 13 to 36 MBH	2	EA	Fair	Replace	7	3,034
Exterior Building	Heat Pump	Packaged (RTU), 3.5 to 5 Ton	1	EA	Good	Replace	14	8,928
Exterior Building	Heat Pump	Packaged (RTU), 3.5 to 5 Ton	1	EA	Good	Replace	14	8,928
Exterior Building	Heat Pump	Packaged (RTU), 3.5 to 5 Ton	1	EA	Good	Replace	14	8,928
Exterior Building	Heat Pump	Packaged (RTU), 3.5 to 5 Ton	1	EA	Good	Replace	14	8,928
Exterior Building	Heat Pump	Packaged (RTU), 3.5 to 5 Ton	1	EA	Good	Replace	14	8,928
Mechanical room	Distribution Pump	Heating Water, 5 HP	2	EA	Fair	Replace	7	11,038
Roof	Ductless Split System	Single Zone, 1.5 to 2 Ton	1	EA	Fair	Replace	7	4,473
Roof	Exhaust Fan	Centrifugal, 251 to 800 CFM	25	EA	Fair	Replace	5	50,547
Roof	Heat Pump	Packaged (RTU), 16 to 20 Ton	1	EA	Fair	Replace	6	39,982
Roof	Heat Pump	Packaged (RTU), 21 to 25 Ton	1	EA	Fair	Replace	6	42,490
Roof	Heat Pump	Packaged (RTU), 1.5 to 2 Ton	1	EA	Fair	Replace	2	5,031
Roof	Heat Pump	Packaged (RTU), 1.5 to 2 Ton	1	EA	Fair	Replace	4	5,031
Roof	Heat Pump	Packaged (RTU), 16 to 20 Ton	1	EA	Fair	Replace	6	39,982
Roof	Heat Pump	Packaged (RTU), 16 to 20 Ton	1	EA	Fair	Replace	6	39,982
Roof	Heat Pump	Packaged (RTU), 21 to 25 Ton	1	EA	Fair	Replace	6	42,490
Roof	Heat Pump	Packaged (RTU), 21 to 25 Ton	1	EA	Fair	Replace	6	42,490
Throughout	Radiator	Hydronic Baseboard	550	LF	Fair	Replace	12	73,024

Anticipated Lifecycle Replacements:

- Boilers
- Rooftop units
- Distribution pumps and motors
- Ductless split system

- Suspended hydronic unit heaters
- Hydronic baseboard heaters
- Rooftop exhaust fans
- Wall heaters

Actions/Comments:

- The HVAC systems are maintained by an outside contractor.
- The HVAC equipment varies in age. HVAC equipment is replaced on an "as needed" basis.
- The HVAC equipment appears to be functioning adequately overall. However, due to the inevitable failure of parts and components over time, some of the equipment will require replacement

D40 Fire Protection

Item	Description					
Type	Partial wet pipe system, with supplementary components					
Sprinkler System	None	<input type="checkbox"/>	Standpipes	<input checked="" type="checkbox"/>	Backflow Preventer	<input checked="" type="checkbox"/>
	Hose Cabinets	<input type="checkbox"/>	Fire Pumps	<input type="checkbox"/>	Siamese Connections	<input type="checkbox"/>
Sprinkler System Condition	Good					
Fire Extinguishers	Last Service Date			Servicing Current?		
	August 2017			Yes		
Hydrant Location	Exterior					
Siamese Location	None					
Special Systems	Kitchen Suppression System		<input type="checkbox"/>	Computer Room Suppression System		<input type="checkbox"/>

Maintenance Issues					
Observation	Location	Exists At Site	Observation	Location	Exists At Site
Extinguisher tag expired		<input type="checkbox"/>	Riser tag expired (5 year)		<input type="checkbox"/>
Other		<input 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.

D50 Electrical

Distribution & Lighting			
Electrical Lines	Underground	Transformer	Pad-mounted
Main Service Size	1.600 Amps	Volts	120/208 Volt, three-phase
Meter & Panel Location	Electrical room	Branch Wiring	Copper
Conduit	Metallic	Step-Down Transformers?	No
Security / Surveillance System?	Yes	Building Intercom System?	Yes
Lighting Fixtures	T-8, CFL, LED		
Main Distribution Condition	Fair		
Secondary Panel and Transformer Condition	Fair		
Lighting Condition	Good		

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

Maintenance Issues					
Observation	Location	Exists At Site	Observation	Location	Exists At Site
Improperly stored material		<input type="checkbox"/>	Unsecured high voltage area		<input type="checkbox"/>
Other		<input type="checkbox"/>	Other		<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Main distribution panel

Actions/Comments:

- The onsite electrical systems up to the meters are owned and maintained by the respective utility company.
- The electrical service and capacity appear to be adequate for the property's demands.

- The panels and switchboards are mostly 1990-2000 components. The electrical service appears to be adequate for the facility's needs. However, due to the age of the panels and switchboards and increasing difficulty of obtaining replacement parts over time, lifecycle replacements are recommended per above.

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 checked="" 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 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 type="checkbox"/>	Illuminated EXIT Signs	<input checked="" type="checkbox"/>
Fire Alarm System Condition	Fair					
Central Alarm Panel System	Location of Alarm Panel			Installation Date of Alarm Panel		
	Main Office			2000		

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.

6. Equipment & Furnishings

E10 Equipment

The cafeteria area has a variety of commercial kitchen appliances, fixtures, and equipment. 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	Reach-in	Fair
Freezers	<input type="checkbox"/>	--
Ranges	<input type="checkbox"/>	--
Ovens	Gas	Fair
Griddles / Grills	<input type="checkbox"/>	--
Fryers	<input type="checkbox"/>	--
Hood	<input type="checkbox"/>	--
Dishwasher	<input type="checkbox"/>	--
Microwave	<input checked="" type="checkbox"/>	Good
Ice Machines	<input type="checkbox"/>	--
Steam Tables	<input type="checkbox"/>	--

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:

- Oven
- Reach-in cooler

Actions/Comments:

- No significant actions are identified at the present time. On-going periodic maintenance is highly recommended.

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	None	--
Sidewalks	Concrete	Fair
Curbs	Concrete	Fair
Pedestrian Ramps	Metal	Good
Ground Floor Patio or Terrace	Concrete	Fair

Parking Count				
Open Lot	Carport	Private Garage	Subterranean Garage	Freestanding Parking Structure
62	--	--	--	--
Total Number of ADA Compliant Spaces			2	
Number of ADA Compliant Spaces for Vans			1	
Total Parking Spaces			62	

Site Stairs			
Location	Material	Handrails	Condition
Parking area	Concrete stairs	Metal	Fair
Exterior building	Steel-framed with textured metal treads	Metal	Good

Maintenance Issues					
Observation	Location	Exists At Site	Observation	Location	Exists At Site
Pavement oil stains		<input 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 checked="" type="checkbox"/>
Concrete spalling	<input type="checkbox"/>	Trip hazards (settlement/heaving)	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Asphalt seal coating
- Asphalt pavement
- Sidewalks
- Site stairs and handrails

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.

G2060 Site Development	
Property Signage	
Property Signage	Monument
Street Address Displayed?	Yes

Site Fencing		
Type	Location	Condition
None	--	--



Refuse Disposal				
Refuse Disposal	Common area dumpsters			
Dumpster Locations	Mounting	Enclosure	Contracted?	Condition
Rear exterior	Concrete pad	None	Yes	Good

Other Site Amenities			
	Description	Location	Condition
Playground Equipment	Plastic and metal	Rear exterior	Good
Tennis Courts	None	--	--
Basketball Court	Asphalt	Rear exterior	Fair
Swimming Pool	None	--	--

Anticipated Lifecycle Replacements:

- Signage
- Court surfaces
- Play structures
- Playground surfaces
- Flagpole

Actions/Comments:

- No significant actions are identified at the present time. On-going periodic maintenance is highly recommended.

G2080 Landscaping		
Drainage System and Erosion Control		
System	Exists At Site	Condition
Surface Flow	<input checked="" type="checkbox"/>	Good
Inlets	<input checked="" type="checkbox"/>	Good
Swales	<input type="checkbox"/>	--
Detention pond	<input type="checkbox"/>	--
Lagoons	<input type="checkbox"/>	--
Ponds	<input type="checkbox"/>	--
Underground Piping	<input checked="" type="checkbox"/>	Good
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 south side of the property to the north property line.						
Landscaping	Trees	Grass	Flower Beds	Planters	Drought Tolerant Plants	Decorative Stone	None
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Landscaping Condition	Good						
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	--	--

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 meters and regulators are located in the mechanical room. 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 meters and regulators 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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Good				
Building Lighting	None		Wall Mounted	Recessed Soffit	
	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Good				

Maintenance Issues					
Observation	Location	Exists At Site	Observation	Location	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.



8. Ancillary Structures

Other Ancillary Structures			
Type	Exterior Building	Location	Rear Exterior
Item	Material	Item	Material
Exterior Siding	Vinyl	Roof Finishes	Single-ply
Interior Finishes	Floor : Vinyl tile Ceiling : Ceiling tile Walls : Drywall	MEPF	See Tables in Section 5
Overall Building Condition			Good
Type	Maintenance/Storage Shed	Location	Parking Lot
Item	Material	Item	Material
Exterior Siding	Concrete	Roof Finishes	Concrete
Interior Finishes	Floor : Unknown, no access Ceiling : Unknown, no access Walls : Unknown, no access	MEPF	See Tables in Section 5
Overall Building Condition			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.

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 Table* below. 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 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.

Accessibility Issues			
Component	Major Issue (ADA Study Recommended)	Moderate Issue (ADA Study Recommended)	Minor Issue
Parking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exterior Accessible Route	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interior Accessible Route	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Restrooms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Elevators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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.

12. Certification

Ann Arbor Public Schools retained EMG to perform this Facility Condition Assessment in connection with its continued operation of King Elementary, 3800 Waldenwood Drive, 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: Sean Luxem,
Project Manager

Reviewed by:



Al Diefert
Technical Report Reviewer
For
Andrew Hupp
Program Manager

13. Appendices

- Appendix A: Photographic Record
- Appendix B: Site Plan
- Appendix C: Supporting Documentation
- Appendix D: Pre-Survey Questionnaire

Appendix A: Photographic Record



PHOTO #1: FRONT ELEVATION



PHOTO #2: SIDE ELEVATION



PHOTO #3: SIDE ELEVATION



PHOTO #4: REAR ELEVATION



PHOTO #5: EXTERIOR BUILDING



PHOTO #6: PROPERTY SIGNAGE



PHOTO #7: CONCRETE SIDEWALKS AND ASPHALT PAVEMENT



PHOTO #8: ADA PARKING AREA



PHOTO #9: PLAYGROUND



PHOTO #10: BASKETBALL COURT



PHOTO #11: EXTERIOR TABLES AND BENCHES

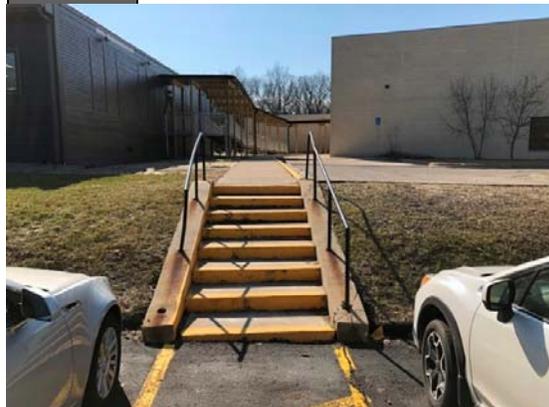


PHOTO #12: CONCRETE STAIRS



PHOTO #13: SINGLE-PLY ROOFING



PHOTO #14: EXHAUST FAN



PHOTO #15: ROOFTOP UNIT



PHOTO #16: DUCTLESS SPLIT SYSTEM



PHOTO #17: HVAC BOILER



PHOTO #18: CIRCULATION PUMPS



PHOTO #19: SUSPENDED UNIT HEATER



PHOTO #20: HEAT PUMP



PHOTO #21: DOMESTIC WATER HEATER

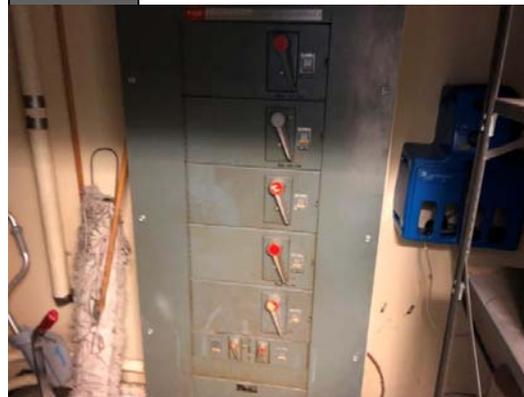


PHOTO #22: MAIN DISTRIBUTION PANEL



PHOTO #23: FIRE PANEL



PHOTO #24: KITCHEN EQUIPMENT



PHOTO #25: LOBBY



PHOTO #26: MAIN OFFICE



PHOTO #27: CONFERENCE ROOM



PHOTO #28: CLASSROOM



PHOTO #29: MEDIA CENTER



PHOTO #30: MULTI-PURPOSE ROOM



PHOTO #31: HALLWAY AND LOCKERS



PHOTO #32: TEACHERS LOUNGE



PHOTO #33: GYMNASIUM



PHOTO #34: EXTERIOR BUILDING RESTROOM



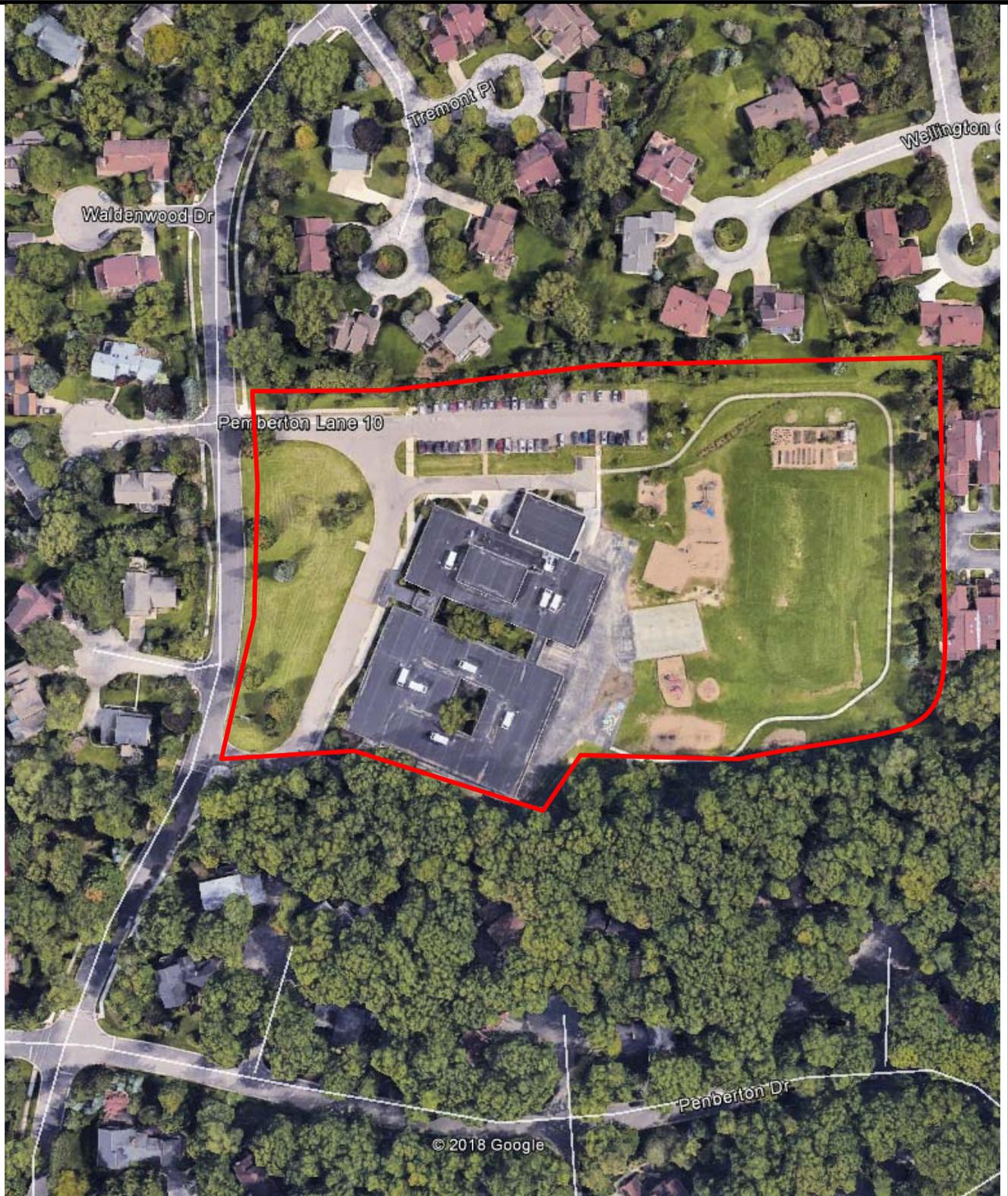
PHOTO #35: CLASSROOM TOILET



PHOTO #36: RESTROOM SINKS

Appendix B: Site Plan

Site Plan



Project Name:
King Elementary

Source:
Google Earth

Project Number:
129010.18R000-014.354

On-Site Date:
March 1, 2018

Appendix C: Supporting Documentation

Flood Map

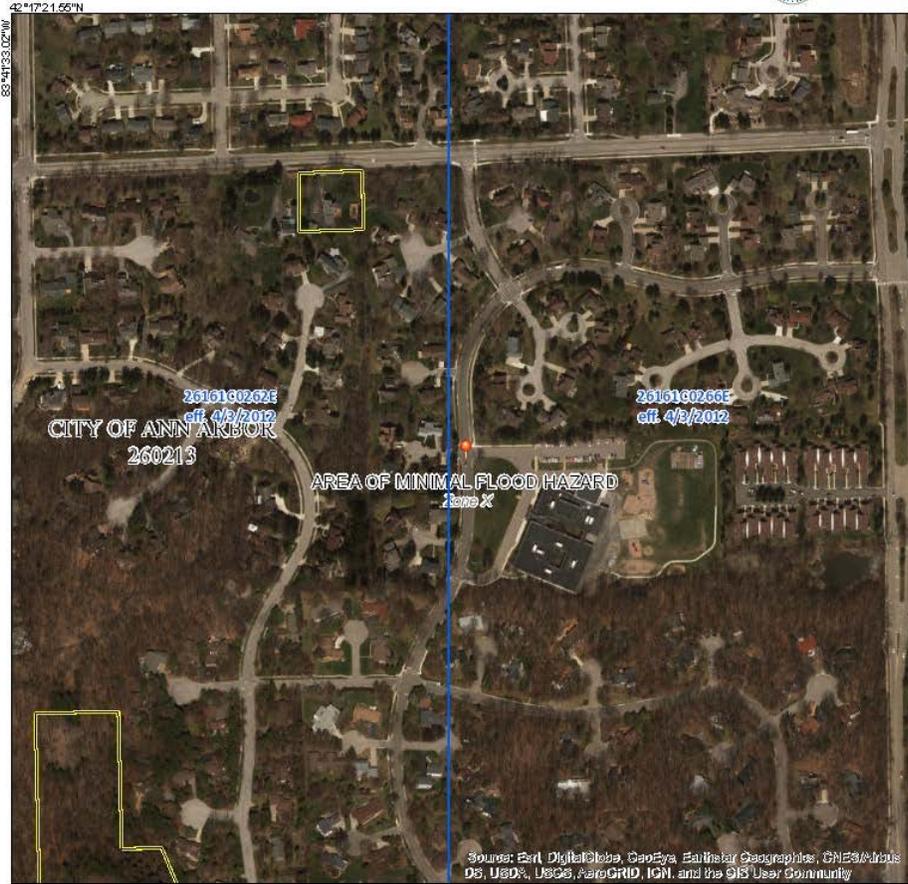
National Flood Hazard Layer FIRMette



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND IND BY MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, AG, D</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile. <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone S</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
OTHER AREAS		Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
		Area of Undetermined Flood Hazard <i>Zone D</i>
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transsect
		Base Flood Elevation Line (BFE)
		Limit of Study
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The base map shown complies with FEMA's base map accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/29/2018 at 5:00:20 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: base map imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas can not be used for regulatory purposes.



Project Name:
King Elementary

Source:
FEMA

Project Number:
129010.18R000-014.354

On-Site Date:
March 1, 2018

ID	Component_Description	Master_Cost	Location	Uniformat_Code	Location_Description	Condition	Category	Report_Section	EUL	EAGE	RUL	Make	Model	Serial	Barcode	Critical	Inventory	Quantity	Unit	Unit_Cost
871489	Commercial Kitchen	Commercial Kitcl	King Element	E1093	Kitchen	Fair	Lifecycle/Ren	E10	10	6	4	Wittco	No tag/plate	No tag/plate		FALSE	TRUE	2	EA	8643
871490	Boiler	Boiler, Gas, 4,20	King Element	D3021	Boiler Room	Fair	Lifecycle/Ren	D30	25	11	14	Cleaver-Brool	FLX-700-300-	10018		FALSE	TRUE	1	EA	332867.495
871493	Interior Floor Finish	Interior Floor Fin	King Element	C3024	Restrooms	Good	Lifecycle/Ren	C10	50	3	47					FALSE	TRUE	1500	SF	12.0557
871495	Exterior Stairs & Ramps	Exterior Stairs &	King Element	G2035	Exterior	Fair	Lifecycle/Ren	G20	25	22	3					FALSE	TRUE	600	LF	50
871496	Building/Main Switchgear	Building/Main Sv	King Element	D5012	Electrical room	Fair	Lifecycle/Ren	D50	30	27	3	Federal Pacifi				FALSE	TRUE	1	EA	228881.462
871498	Lockers	Lockers, Steel Ba	King Element	C1033	Throughout	Fair	Lifecycle/Ren	C10	20	13	7					FALSE	TRUE	400	LF	482.5
871504	Window	Window, Alumin	King Element	B2021	Throughout	Fair	Lifecycle/Ren	B20	30	25	5					FALSE	TRUE	120	EA	584.2067
871506	Fire Alarm System	Fire Alarm Syster	King Element	D5037	Main Office	Fair	Lifecycle/Ren	D70	20	18	2					FALSE	TRUE	52200	SF	3.1317
871507	Sink	Sink, Vitreous Ch	King Element	D2014	Throughout	Fair	Lifecycle/Ren	D20	20	11	9					FALSE	TRUE	15	EA	861.5092
871509	Urinal	Urinal, Vitreous (King Element	D2012	Throughout	Good	Lifecycle/Ren	D20	20	8	12					FALSE	TRUE	2	EA	1193.4408
871512	Exterior Door	Exterior Door, St	King Element	B2032	Throughout	Good	Lifecycle/Ren	B20	25	8	17					FALSE	TRUE	30	EA	1352.7188
871513	Radiator	Radiator, Hydror	King Element	D3051	Throughout	Fair	Lifecycle/Ren	D20	50	38	12					FALSE	TRUE	550	LF	132.77
871514	Play Surfaces & Sports Court	Play Surfaces & S	King Element	G2047	Basketball court	Poor	Performance	G20	25	23	2					FALSE	TRUE	4600	SF	5.9
871515	Site Furnishings	Site Furnishings,	King Element	G2045	Playground	Fair	Lifecycle/Ren	G20	20	13	7					FALSE	TRUE	3	EA	1391.5
871516	Interior Floor Finish	Interior Floor Fin	King Element	C3024	Restrooms	Fair	Lifecycle/Ren	C10	50	38	12					FALSE	TRUE	3000	SF	15.755
871523	Fire Alarm Control Panel	Fire Alarm Contr	King Element	D5037	Office	Poor	Lifecycle/Ren	D70	15	38	0	Johnson Cont	No tag/plate	No tag/plate		FALSE	TRUE	1	EA	20297.5916
871524	Drinking Fountain	Drinking Fountai	King Element	D2018	Throughout	Fair	Lifecycle/Ren	D20	10	6	4					FALSE	TRUE	10	EA	1257.5077
871525	Pole Light	Pole Light, Exteri	King Element	G4021	Front Parking	Good	Lifecycle/Ren	G20	20	3	17					FALSE	TRUE	15	EA	3303
871529	Flagpole	Flagpole, Metal,	King Element	G2048	Exterior	Fair	Lifecycle/Ren	G20	20	11	9					FALSE	TRUE	1	EA	2530
871530	Exterior Door	Exterior Door, St	King Element	B2032	Throughout	Good	Lifecycle/Ren	B20	25	8	17					FALSE	TRUE	15	EA	950.1188
871532	Parking Lots	Parking Lots, Asp	King Element	G2022	Pavement	Fair	Lifecycle/Ren	G20	25	18	7					FALSE	TRUE	61000	SF	3.2804
871533	Signage	Signage, Propert	King Element	G2044	Exterior	Fair	Lifecycle/Ren	G20	20	10	10					FALSE	TRUE	1	EA	8602
871534	Exterior Wall	Exterior Wall, Pa	King Element	B2011	Exterior wall	Fair	Lifecycle/Ren	B20	10	6	4					FALSE	TRUE	20000	SF	2.8707
871535	Distribution Pump	Distribution Pum	King Element	D3044	Mechanical room	Fair	Lifecycle/Ren	D30	20	13	7	Marathon	Illegible	Illegible		FALSE	TRUE	2	EA	5518.8848
871537	Exterior Stairs & Ramps	Exterior Stairs &	King Element	G2035	Exterior	Fair	Lifecycle/Ren	G20	25	18	7					FALSE	TRUE	500	LF	38.4307
871538	LED Lighting Fixture	LED Lighting Fixt	King Element	D5022	Exterior wall	Fair	Lifecycle/Ren	G20	20	8	12					FALSE	TRUE	25	EA	180.1863
871539	Interior Wall Finish	Interior Wall Fini	King Element	C3012	Throughout	Fair	Lifecycle/Ren	C10	8	5	3					FALSE	TRUE	30000	SF	1.451
871541	Interior Ceiling Finish	Interior Ceiling F	King Element	C3032	Throughout	Fair	Lifecycle/Ren	C10	20	15	5					FALSE	TRUE	38000	SF	5.0478
871546	Interior Floor Finish	Interior Floor Fin	King Element	C3025	Interior	Fair	Lifecycle/Ren	C10	10	8	2					FALSE	TRUE	18000	SF	6.9629
871548	Exterior Wall	Exterior Wall, Bri	King Element	B2011	Exterior wall	Fair	Lifecycle/Ren	B20	25	18	7					FALSE	TRUE	12000	SF	41.2826
871549	Commercial Kitchen	Commercial Kitcl	King Element	E1093	Kitchen	Fair	Lifecycle/Ren	E10	15	8	7	Continental	2R	14774473		FALSE	TRUE	1	EA	4256
871551	Interior Door	Interior Door, St	King Element	C1021	Throughout	Fair	Lifecycle/Ren	C10	25	13	12					FALSE	TRUE	70	EA	950.1188
871552	Pedestrian Pavement	Pedestrian Paver	King Element	G2031	Exterior	Fair	Lifecycle/Ren	G20	30	18	12					FALSE	TRUE	10000	SF	9
871557	Toilet	Toilet, Tankless (King Element	D2011	Throughout	Fair	Lifecycle/Ren	D20	20	11	9					FALSE	TRUE	30	EA	842.965
871558	Exhaust Fan	Exhaust Fan, Cer	King Element	D3042	Roof	Fair	Lifecycle/Ren	D30	15	10	5					FALSE	TRUE	25	EA	2021.8684
871559	Parking Lots	Parking Lots, Asp	King Element	G2022	Parking lots	Fair	Lifecycle/Ren	G20	5	2	3					FALSE	TRUE	43000	SF	0.3795
871560	Boiler	Boiler, Gas, 4,20	King Element	D3021	Boiler Room	Fair	Lifecycle/Ren	D30	25	11	14	Cleaver-Brool	FLX-700-300-	10019		FALSE	TRUE	1	EA	332867.495
871561	Interior Floor Finish	Interior Floor Fin	King Element	C3024	Throughout	Fair	Lifecycle/Ren	C10	15	11	4					FALSE	TRUE	30000	SF	4.8006
871565	Site Furnishings	Site Furnishings,	King Element	G2045	Playground	Fair	Lifecycle/Ren	G20	20	13	7					FALSE	TRUE	5	EA	487.025
871570	Ductless Split System	Ductless Split Sys	King Element	D3032	Roof	Fair	Lifecycle/Ren	D30	15	8	7	Daikin	Illegible	Illegible		FALSE	TRUE	1	EA	4473.1144
871571	Sink	Sink, Stainless St	King Element	D2014	Throughout	Fair	Lifecycle/Ren	D20	20	13	7					FALSE	TRUE	30	EA	1054.0501
871573	Lighting System	Lighting System,	King Element	D5029	Throughout	Fair	Lifecycle/Ren	D50	25	18	7					FALSE	TRUE	52200	SF	15.3634
871576	Unit Heater	Unit Heater, Hyd	King Element	D3051	Boiler room	Fair	Lifecycle/Ren	D30	20	13	7	No tag/plate	Inaccessible	Inaccessible		FALSE	TRUE	2	EA	1516.8039
871577	Heat Pump	Heat Pump, Pack	King Element	D3052	Exterior Building	Good	Lifecycle/Ren	D30	15	1	14	Bard	W42A2-A15V	318F1734394		FALSE	TRUE	1	EA	8928.2222
871580	Roof	Roof, Single-Ply t	King Element	B3011	Roof	Fair	Lifecycle/Ren	B20	20	15	5					FALSE	TRUE	52000	SF	10.52
871583	Roof	Roof, Metal, Rep	King Element	B3011	Walkway Roof	Fair	Lifecycle/Ren	B20	40	1	39					FALSE	TRUE	1250	SF	12.449
871584	Water Heater	Water Heater, G,	King Element	D2023	Boiler room	Good	Lifecycle/Ren	D20	15	3	12	Lochinvar	CGN075075 3	9281040011		FALSE	TRUE	1	EA	10698.8196
871591	Water Heater	Water Heater, El	King Element	D2023	Boiler room	Good	Lifecycle/Ren	D20	15	1	14	State	ES620SOMSK	1624J000440		FALSE	TRUE	1	EA	1249.92
871599	Fire Alarm Control Panel	Fire Alarm Contr	King Element	D5037	Exterior Building	Good	Lifecycle/Ren	D70	15	1	14	Honeywell	MS-10UD	No tag/plate		FALSE	TRUE	1	EA	20297.5916
871653	Heat Pump	Heat Pump, Pack	King Element	D3052	Exterior Building	Good	Lifecycle/Ren	D30	15	1	14	Bard	W42A2-A15V	318F1734394		FALSE	TRUE	1	EA	8928.2222
871654	Heat Pump	Heat Pump, Pack	King Element	D3052	Exterior Building	Good	Lifecycle/Ren	D30	15	1	14	Bard	W42A2-A20V	318F1734394		FALSE	TRUE	1	EA	8928.2222
871655	Heat Pump	Heat Pump, Pack	King Element	D3052	Exterior Building	Good	Lifecycle/Ren	D30	15	1	14	Bard	W42A2-A15V	318F1734394		FALSE	TRUE	1	EA	8928.2222
871656	Heat Pump	Heat Pump, Pack	King Element	D3052	Exterior Building	Good	Lifecycle/Ren	D30	15	1	14	Bard	W42A2-A15V	318F1734394		FALSE	TRUE	1	EA	8928.2222
871666	Heat Pump	Heat Pump, Pack	King Element	D3052	Roof	Fair	Lifecycle/Ren	D30	15	9	6	Seasons- 4	6MHE21-017: 4695-069626			FALSE	TRUE	1	EA	39982.391
871667	Heat Pump	Heat Pump, Pack	King Element	D3052	Roof	Fair	Lifecycle/Ren	D30	15	9	6	Seasons- 4	6MHE21-024: 4695-069628			FALSE	TRUE	1	EA	42489.8016
871684	Heat Pump	Heat Pump, Pack	King Element	D3052	Roof	Fair	Lifecycle/Ren	D30	15	13	2	Trane	YCH240B3LBF	M49102306D		FALSE	TRUE	1	EA	5030.6799
871686	Heat Pump	Heat Pump, Pack	King Element	D3052	Roof	Fair	Lifecycle/Ren	D30	15	11	4	AbsolutAire	No tag/plate	No tag/plate		FALSE	TRUE	1	EA	5030.6799
871687	Heat Pump	Heat Pump, Pack	King Element	D3052	Roof	Fair	Lifecycle/Ren	D30	15	9	6	Seasons- 4	6MHE21-019: 4695-069626			FALSE	TRUE	1	EA	39982.391
871688	Heat Pump	Heat Pump, Pack	King Element	D3052	Roof	Fair	Lifecycle/Ren	D30	15	9	6	Seasons- 4	6MHE21-017: 4695-069627			FALSE	TRUE	1	EA	39982.391
871689	Heat Pump	Heat Pump, Pack	King Element	D3052	Roof	Fair	Lifecycle/Ren	D30	15	9	6	Seasons- 4	6MHE21-023: 4695-069627			FALSE	TRUE	1	EA	42489.8016
871691	Heat Pump	Heat Pump, Pack	King Element	D3052	Roof	Fair	Lifecycle/Ren	D30	15	9	6	Seasons- 4	6MHE21-023: 4695-069626			FALSE	TRUE	1	EA	42489.8016
871696	Commercial Kitchen	Commercial Kitcl	King Element	E1093	Kitchen	Fair	Lifecycle/Ren	E10	15	8	7	True	TMC-58-S-SS	8610166		FALSE	TRUE	1	EA	2515
871710	Play Surfaces & Sports Court	Play Surfaces & S	King Element	G2047	Playground	Fair	Lifecycle/Ren	G20	20	10	10					FALSE	TRUE	14000	SF	0.8068
874658	Play Structure	Play Structure, Si	King Element	G2047	Playground	Good	Lifecycle/Ren	G20	20	8	12					FALSE	TRUE	4	EA	18975

ID	Subtotal	First_Replacement	Year_Observed	Photos	Master_Cost_Updated	Cost_Library_Version	Master_Cost_Id	Review_Flag	dateCreated	dateModified	dateObserved	userCreated	userModified	userObserved	
871489	17286	2022	2018	1	TRUE		2	25501	FALSE	3/9/2018	3/9/2018	3/7/2018	sluxem	sluxem	
871490	332867.495	2032	2018	1	TRUE		2	20873	FALSE	3/9/2018	3/9/2018	3/7/2018	sluxem	sluxem	
871493	18083.55	2065	2018	1	TRUE		2	20064	FALSE	3/9/2018	3/9/2018	2/19/2018	sluxem	sluxem	
871495	30000	2021	2018	1	TRUE		2	23255	FALSE	3/9/2018	3/9/2018	2/19/2018	sluxem	sluxem	
871496	228881.462	2021	2018	1	TRUE		2	22580	FALSE	3/9/2018	3/9/2018	3/7/2018	sluxem	sluxem	
871498	193000	2025	2018	1	TRUE		2	24068	FALSE	3/9/2018	3/9/2018	2/19/2018	sluxem	sluxem	
871504	70104.804	2023	2018	1	TRUE		2	19443	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871506	163474.74	2020	2018	0	TRUE		2	22930	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871507	12922.638	2027	2018	1	TRUE		2	20264	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871509	2386.8816	2030	2018	1	TRUE		2	20229	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871512	40581.564	2035	2018	1	TRUE		2	19564	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871513	73023.5	2030	2018	1	TRUE		2	22106	FALSE	3/9/2018	3/9/2018	2/19/2018	sluxem	sluxem	
871514	27140	2020	2018	1	TRUE		2	23287	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871515	4174.5	2025	2018	1	TRUE		2	23281	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871516	47265	2030	2018	1	TRUE		2	20037	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871523	20297.5916	2018	2018	1	TRUE		2	22922	FALSE	3/9/2018	3/9/2018	2/19/2018	sluxem	sluxem	
871524	12575.077	2022	2018	1	TRUE		2	20278	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871525	49545	2035	2018	1	TRUE		2	24458	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871529	2530	2027	2018	1	TRUE		2	23298	FALSE	3/9/2018	3/9/2018	2/19/2018	sluxem	sluxem	
871530	14251.782	2035	2018	1	TRUE		2	19581	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871532	200104.4	2025	2018	1	TRUE		2	23229	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871533	8602	2028	2018	1	TRUE		2	23223	FALSE	3/9/2018	3/9/2018	2/19/2018	sluxem	sluxem	
871534	57414	2022	2018	1	TRUE		2	19221	FALSE	3/9/2018	3/9/2018	2/19/2018	sluxem	sluxem	
871535	11037.7696	2025	2018	1	TRUE		2	21818	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871537	19215.35	2025	2018	1	TRUE		2	23254	FALSE	3/9/2018	3/9/2018	2/19/2018	sluxem	sluxem	
871538	4504.6575	2030	2018	1	TRUE		2	22871	FALSE	3/9/2018	3/9/2018	2/19/2018	sluxem	sluxem	
871539	43530	2021	2018	1	TRUE		2	19956	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871541	191816.4	2023	2018	1	TRUE		2	20155	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871546	125332.2	2020	2018	1	TRUE		2	20078	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871548	495391.2	2025	2018	1	TRUE		2	19100	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871549	4256	2025	2018	1	TRUE		2	25519	FALSE	3/9/2018	3/9/2018	3/7/2018	sluxem	sluxem	
871551	66508.316	2030	2018	1	TRUE		2	19809	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871552	90000	2030	2018	1	TRUE		2	23252	FALSE	3/9/2018	3/9/2018	2/19/2018	sluxem	sluxem	
871557	25288.95	2027	2018	1	TRUE		2	20227	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871558	50546.71	2023	2018	1	TRUE		2	21723	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871559	16318.5	2021	2018	1	TRUE		2	23230	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871560	332867.495	2032	2018	1	TRUE		2	20873	FALSE	3/9/2018	3/9/2018	3/6/2018	sluxem	sluxem	
871561	144018	2022	2018	1	TRUE		2	20068	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871565	2435.125	2025	2018	1	TRUE		2	23279	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871570	4473.1144	2025	2018	1	TRUE		2	21418	FALSE	3/9/2018	3/9/2018	2/19/2018	sluxem	sluxem	
871571	31621.503	2025	2018	1	TRUE		2	20262	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871573	801969.48	2025	2018	0	TRUE		2	22902	FALSE	3/9/2018	3/9/2018	1/21/2018	sluxem	sluxem	
871576	3033.6078	2025	2018	1	TRUE		2	22171	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871577	8928.2222	2032	2018	1	TRUE		2	22288	FALSE	3/9/2018	3/9/2018	2/19/2018	sluxem	sluxem	
871580	547040	2023	2018	1	TRUE		2	19741	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871583	15561.25	2057	2018	1	TRUE		2	19722	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871584	10698.8196	2030	2018	1	TRUE		2	20586	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871591	1249.92	2032	2018	1	TRUE		2	20580	FALSE	3/9/2018	3/9/2018	3/5/2018	sluxem	sluxem	
871599	20297.5916	2032	2018	1	TRUE		2	22922	FALSE	3/9/2018	3/9/2018	2/19/2018	sluxem	sluxem	
871653	8928.2222	2032	2018	1	TRUE		2	22288	FALSE	3/9/2018	3/9/2018	2/19/2018	sluxem	sluxem	
871654	8928.2222	2032	2018	1	TRUE		2	22288	FALSE	3/9/2018	3/9/2018	2/19/2018	sluxem	sluxem	
871655	8928.2222	2032	2018	1	TRUE		2	22288	FALSE	3/9/2018	3/9/2018	2/19/2018	sluxem	sluxem	
871656	8928.2222	2032	2018	1	TRUE		2	22288	FALSE	3/9/2018	3/9/2018	2/19/2018	sluxem	sluxem	
871666	39982.391	2024	2018	1	TRUE		2	22291	FALSE	3/9/2018	1/1/1970	2/19/2018	sluxem		
871667	42489.8016	2024	2018	1	TRUE		2	22292	FALSE	3/9/2018	3/9/2018	2/19/2018	sluxem	sluxem	
871684	5030.6799	2020	2018	1	TRUE		2	22286	FALSE	3/9/2018	3/9/2018	2/19/2018	sluxem	sluxem	
871686	5030.6799	2022	2018	1	TRUE		2	22286	FALSE	3/9/2018	3/9/2018	2/19/2018	sluxem	sluxem	
871687	39982.391	2024	2018	1	TRUE		2	22291	FALSE	3/9/2018	3/9/2018	2/19/2018	sluxem	sluxem	
871688	39982.391	2024	2018	1	TRUE		2	22291	FALSE	3/9/2018	3/9/2018	2/19/2018	sluxem	sluxem	
871689	42489.8016	2024	2018	1	TRUE		2	22292	FALSE	3/9/2018	3/9/2018	2/19/2018	sluxem	sluxem	
871691	42489.8016	2024	2018	0	TRUE		2	22292	FALSE	3/9/2018	3/9/2018	2/19/2018	sluxem	sluxem	
871696	2515	2025	2018	1	TRUE		2	25518	FALSE	3/9/2018	3/9/2018	3/7/2018	sluxem	sluxem	
871710	11295.2	2028	2018	1	TRUE		2	23296	FALSE	3/9/2018	1/1/1970	2/19/2018	sluxem		
874658	75900	2030	2018	1	TRUE		2	23291	FALSE	3/14/2018	3/14/2018	2/19/2018	sluxem	sluxem	

Interior Finishes - KING ELEMENTARY

Location	Finish		Quantity (SF)	Condition	Action	RUL	Est. Cost
Interior	Floor	Carpet Tile Commercial-Grade	18000	Fair	Replace	2	125,332
Restrooms	Floor	Terrazzo	1500	Good	Replace	47	18,084
Restrooms	Floor	Ceramic Tile	3000	Fair	Replace	12	47,265
Throughout	Wall	Concrete/Masonry	30000	Fair	Prep & Paint	3	43,530
Throughout	Floor	Vinyl Tile (VCT)	30000	Fair	Replace	4	144,018
Throughout	Ceiling	Acoustical Tile (ACT) Dropped Fiberglass	38000	Fair	Replace	5	191,816

Mechanical Systems - KING ELEMENTARY

Location	Component	Component Description	Quantity Unit	Condition	Action	RUL	Est. Cost
Boiler Room	Boiler	Gas, 4,201 to 10,000 MBH	1 EA	Fair	Replace	14	332,867
Boiler Room	Boiler	Gas, 4,201 to 10,000 MBH	1 EA	Fair	Replace	14	332,867
Boiler room	Unit Heater	Hydronic, 13 to 36 MBH	2 EA	Fair	Replace	7	3,034
Exterior Building	Heat Pump	Packaged (RTU), 3.5 to 5 Ton	1 EA	Good	Replace	14	8,928
Exterior Building	Heat Pump	Packaged (RTU), 3.5 to 5 Ton	1 EA	Good	Replace	14	8,928
Exterior Building	Heat Pump	Packaged (RTU), 3.5 to 5 Ton	1 EA	Good	Replace	14	8,928
Exterior Building	Heat Pump	Packaged (RTU), 3.5 to 5 Ton	1 EA	Good	Replace	14	8,928
Exterior Building	Heat Pump	Packaged (RTU), 3.5 to 5 Ton	1 EA	Good	Replace	14	8,928
Mechanical room	Distribution Pump	Heating Water, 5 HP	2 EA	Fair	Replace	7	11,038
Roof	Ductless Split System	Single Zone, 1.5 to 2 Ton	1 EA	Fair	Replace	7	4,473
Roof	Exhaust Fan	Centrifugal, 251 to 800 CFM	25 EA	Fair	Replace	5	50,547
Roof	Heat Pump	Packaged (RTU), 16 to 20 Ton	1 EA	Fair	Replace	6	39,982
Roof	Heat Pump	Packaged (RTU), 21 to 25 Ton	1 EA	Fair	Replace	6	42,490
Roof	Heat Pump	Packaged (RTU), 1.5 to 2 Ton	1 EA	Fair	Replace	2	5,031
Roof	Heat Pump	Packaged (RTU), 1.5 to 2 Ton	1 EA	Fair	Replace	4	5,031
Roof	Heat Pump	Packaged (RTU), 16 to 20 Ton	1 EA	Fair	Replace	6	39,982
Roof	Heat Pump	Packaged (RTU), 16 to 20 Ton	1 EA	Fair	Replace	6	39,982
Roof	Heat Pump	Packaged (RTU), 21 to 25 Ton	1 EA	Fair	Replace	6	42,490
Roof	Heat Pump	Packaged (RTU), 21 to 25 Ton	1 EA	Fair	Replace	6	42,490
Throughout	Radiator	Hydronic Baseboard	550 LF	Fair	Replace	12	73,024

Plumbing Systems - KING ELEMENTARY

Location	Component	Component Description	Quantity	Unit	Condition	Action	RUL	Est. Cost
Boiler room	Water Heater	Gas, Commercial, 60 to 120 GAL	1	EA	Good	Replace	12	10,699
Boiler room	Water Heater	Electric, Residential, 16 to 29 GAL	1	EA	Good	Replace	14	1,250
Throughout	Toilet	Tankless (Water Closet)	30	EA	Fair	Replace	9	25,289
Throughout	Urinal	Vitreous China	2	EA	Good	Replace	12	2,387
Throughout	Sink	Vitreous China	15	EA	Fair	Replace	9	12,923
Throughout	Sink	Stainless Steel	30	EA	Fair	Replace	7	31,622
Throughout	Drinking Fountain	Refrigerated	10	EA	Fair	Replace	4	12,575

Appendix D: Pre-Survey Questionnaire

EMG FACILITY CONDITION ASSESSMENT: PRE-SURVEY QUESTIONNAIRE

Building / Facility Name: MLK Elementary
 Name of person completing form: Joe Powell
 Title / Association with property: Lead Custodian
 Length of time associated w/ property: 4yr
 Date Completed: February 28
 Phone Number: 734.994.1940

Directions: Please answer all questions to the best of your knowledge and in good faith. Please provide additional details in the Comments column, or backup documentation for any Yes responses.

DATA OVERVIEW		RESPONSE			
1	Year/s constructed	1969			
2	Building size in SF	52,200 SF			
3	Major Renovation Dates	Façade	2015	HVAC	-
		Roof	-	Electrical	2017
		Interiors	2016	Site Pavement	2017
		Accessibility	-	other	
QUESTION		RESPONSE			
4	Provide additional detail about the scope of the MAJOR additions, renovations, or systemic rehabilitations since construction (referenced above in Question 3).	portable added 2017			
5	List other significant but somewhat lesser capital improvements, focusing on recent years (provide approximate year completed).	-			
6	List any major capital expenditures planned/requested for the next few years. Have they been budgeted?	-			
7	Describe any on-going extremely problematic, historically chronic, or immediate facility needs.	-			

Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any **Yes** responses. (NA indicates "Not Applicable", Unk indicates "Unknown")

QUESTION	RESPONSE				COMMENTS
	Yes	No	Unk	NA	
8		X			
9		X			
10	X				Caple roof
11		X			
12		X			
13		X			
14		X			
15		X			
16		X			
17		X			
18	X				
19		X			
20		X			

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.

INFORMATION REQUIRED

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| <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.

