

# Okemos Public Schools

Facilities Assessment

September 2018

# Kingscott



# Okemos Public Schools

## Facilities Assessment

September 2018

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### SUMMARY

The suburban K-12 Okemos Public Schools is situated in the south-central portion of Michigan's lower peninsula near Lansing, the state capital, and shares a common border with Michigan State University. Over four thousand students attend four elementary schools (three traditional and one public Montessori), a 5-6 school and a 7-8 school (each with Montessori), and one high school. The District has grown over 500 students since 2011/2012 school year and is nearing full capacity. In addition to the student occupied buildings, district facilities include an Early Childhood Center, Central Administration Building, Operations buildings, Transportation Facility and one currently closed Elementary School. Total square footage of the 12 District buildings is approximately 972,000 SF. Edgewood Early Childhood was built in 1963 with additions/renovations in 1966, 1978 and 1988. Wardcliff Elementary now closed as a school was built in 1955 with additions/renovations in 1963. Hiawatha Elementary was built in 1988. Cornell Elementary was built in 1955 with additions/renovations in 1958, 1977 and 1988. Central Elementary was built in 1948 with additions/renovations in 1963. Bennett Woods Elementary was built in 1993. Kinawa 5 – 6 School was built in 1965. Chippewa 7 – 8 School was built in 1958 with additions/renovations in 1963, 1966, 1977 and 1995. Chippewa was the former High School. The new Okemos High School was built in 1994 with additions/renovations in 2015. The Central Administration Building (attached to Central Elementary was built in 1948 with additions/renovations in 1963 and 1988. The Transportation Facility was built in 1993. The last successful capital bond programs were passed for technology and bus purchase in 2007 for \$6,800,000 and in 2013 for \$7,500,000. The last capital bond program for facilities was passed in 1991 for the new High School and Bennett Woods Elementary. In addition, the district has made judicious use of a \$1 million yearly sinking fund for the past 18 years to maintain district facilities.

### PROCESS

This Facilities Assessment Study, developed through a combination of personnel interviews, Owner documents, facility walk-throughs and building system analysis, was performed to accomplish the following objectives:

- Provide an inventory of the District's facilities in an excel format which can be easily updated and maintained by Okemos Public Schools personnel and allow for quick access to facilities information.
- Determine the general condition of the District facilities and provide the data in a concise format, allowing quick determination of the current replacement value and condition of each facility.
- Determine a Facilities Condition Index (FCI) for each assessed building, campus site and an aggregate FCI for all facilities in the District. The FCI is a benchmark index that rates the condition of existing District buildings and used by facilities managers nationwide to quantify and prioritize deferred maintenance projects for capital planning purposes.

While program improvements have been assessed in a separate study, some deferred maintenance improvements could be considered program improvements. The intent is to first determine the physical condition of the facilities as currently used before exploring program improvements with a separate study. Our approach was to prioritize the list with the following categories:

**Priority 1      Must do - code/life safety/ADA/system or product failure likely (0-4 years)**

Examples:      Replace roofing to prevent collateral damage  
                    Replace boilers to avoid costly shut-down

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**Priority 2**      **Should do - code/life safety/ADA/improve physical environment (energy/air/light/acoustic) or (product failure 5-9 years)**

Examples:      Replace flooring to improve maintenance  
Upgrade mechanical/electrical systems for energy efficiency

**Priority 3**      **Like to do - Replace old but serviceable systems/products (10+ years)**

Examples:      Replace rooftop HVAC units (10+ years remaining life)  
Replace casework

**Priority 4**      **Program Improvements**

Examples:      Some items listed in this report would be considered program improvements and were not included in the Facilities Condition Index.

Items were prioritized based on Owner review along with the professional judgement of the Architects, Engineers and Construction Manager. Some items that wear out such as roofing are easy to categorize. Other items are subjective based on perceived need and benefit.

## GLOSSARY

### Deferred Maintenance Backlog (DMB)

**Deferred Maintenance is defined as maintenance work that has been deferred on a planned or unplanned basis to a future budget cycle or postponed until funds are available.** Roof replacements, major building component repairs, mechanical equipment, underground utilities, and roads and walkways are projects that are often deferred to the next annual funding cycle. This definition could serve just as well for major maintenance and offers a temptation to bypass the use of annual operating budgets and fund major maintenance through a deferred maintenance reduction program. The difference is that a deferred maintenance program is a comprehensive, one-time approach, often extended over several years, to control a massive backlog of maintenance work.

Deferred maintenance reduction programs result from a district policy to group deferred major maintenance projects, and sometimes other plant needs, into a program funded separately (such as a sinking fund or general budget funds) from major maintenance or capital renewal and replacement. Major maintenance and deferred maintenance are expenditure programs designed to accommodate the deterioration process of facilities; both programs cope with facilities renewal. As a strategy to achieve funding to eliminate problems of facilities deterioration, deferred maintenance reduction programs can be expanded to include life safety, code compliance requirements, and provisions for accessibility. In contrast, major maintenance is a planned activity of facilities renewal funded by the annual operating budget. Failure to perform needed repair, maintenance, and renewal as part of normal maintenance management creates deferred maintenance.



Today's buildings, grounds, infrastructure, and equipment--amassed to house and support academic programs—are the legacy of the dramatic growth of new and existing facilities following growth after World War II with more than half constructed between 1950 and 1990. Currently, many institutions not only are facing the challenge of an increasing debt burden due to an aging facilities organization, but are also planning to replace or renew their facilities using debt.<sup>1</sup>

The period between 1990 and mid-2000 saw growth in Michigan K-12 Facilities with new and renovated buildings spurred on by a change in the operational funding of schools. Since the mid-2000s a general decline in school populations and the economy has forced districts to cut back in facilities maintenance and improvements. In summary, K-12 districts across Michigan face the challenge of financing to maintain the conditions of their facilities as they face their natural life cycle of deterioration.

1 Harvey Kaiser, "Capital Renewal and Deferred Maintenance Programs" (portions of text derived from definitions)

### **Facility Statistics**

Basic building information— building use types (classroom, library, and administration), year built, building area in square feet, and number of floors.

### **Observation Highlights**

This is a summary of field observations, highlighting major repair/replacement items supported by images. For a more complete list of field observations, see the individual building data sheets in the appendix.

### **Current Replacement Value (CRV)**

The CRV is the cost to construct a typical replacement building in today's dollars. The figure is based on the square footage of the current structure and the estimated current construction cost for that type of structure. By the nature of the calculations and square foot construction costs, the current replacement value has a  $\pm 20\%$  margin of error and will increase annually due to inflation.

### **Facilities Condition Index (FCI)**

Simply put, the FCI is the current DMB divided by the CRV. The resulting number is compared against nationally accepted standards and used to determine the condition of the building, campus or college.




The APPA - Leadership in Education Facilities <http://www.appa.org/> recommends that the FCI for any given building should not exceed 5% for the building to be considered in "Good" condition. The rating of "Fair" indicates that the building requires some attention to bring it up to standard, with some problems areas potentially requiring immediate attention. The rating of "Poor" indicates that the building needs urgent attention to prevent the existing problems from affecting other building systems and compounding future repair costs.

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The APPA FCI Ratings, indicating the general condition of the building, are as follows:

	<b>Good Condition</b>	<b>FCI &lt; 5%</b>
	<b>Fair Condition</b>	<b>FCI &gt;= 5% &lt;= 10%</b>
	<b>Poor Condition</b>	<b>FCI &gt; 10%</b>

### **Zero-Four Year Cumulative Deferred Maintenance Backlog (0 – 4 YR DMB)**

The **Priority 1** – Zero to Four Year DMB represents the total value of projects that will require attention within the next five years, including those that would fall under the highlighted “Immediate action required.” This value is included to help determine the investment required over the next five years to repair and/or replace problem items before they become critical.

### **Zero-Four Year DMB Excess**

This amount represents the investment to bring the DMB in line with the APPA benchmark of 5% of the Current Replacement Value. In situations where a building is in better than “Good” condition the five-year DMB excess is shown as zero.

***For example, if a building has a CRV of \$1,000,000 and an FCI of 10%, the DMB would be \$100,000. This would leave a DMB excess of \$50,000 – the amount to be spent to reduce the FCI to within the APPA 5% ‘Good’ benchmark***

*This number is a good starting point for determining budgets – it allows the district to see what to spend to bring buildings into the APPA “Good” range – with the understanding that complete elimination of the Deferred Maintenance Backlog is not a likely scenario.*

### **Five-Nine Year Cumulative Deferred Maintenance Backlog (4 – 9 YR DMB)**

The **Priority 2** –Five to Nine Year DMB represents the total value of projects that will require attention within the next five to nine years. This value is included to help determine the investment required over the next five to nine years to repair and/or replace problem items before they become critical.

Looking at the previous example, if the building condition survey indicated an additional \$250,000 in repairs from years 5-9, then the DMB would total \$350,000 (including \$100,000 from the 0-4 year DMB).

### **Five-Ten Year DMB Excess**

Like the Zero to Four Year DMB Excess value, this amount represents the investment to bring the DMB in line with the APPA benchmark of 5% of the Current Replacement Value.

### **DMB Equilibrium (Annual cost to maintain current DMB)**

This is the dollar amount to be invested annually to keep the FCI (and DMB) from deteriorating – regardless of the current condition of the building.

Reusing the previous example, the amount required to maintain the FCI at current levels would be \$20,000 annually (2% of \$1,000,000).

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The number is based on a nationally accepted rule of 2% of the CRV and assumes that building components have a 50-year renewal cycle and depreciate along a straight line. The assumptions were made to simplify calculations; in reality, building components DO NOT expire according to straight-line depreciation, and most components will require replacement within 30-40 years (excluding structure and foundation).

***To restate – this annual investment will only maintain the existing FCI and do little or nothing to reduce any existing backlog***

Facility Statistics:

This facilities assessment for Okemos Public Schools focuses on 12 District buildings totaling approximately 972,000 square feet on multiple sites. **The estimated Current Replacement Value (CRV) for these facilities (and site development) is approximately \$306,527,964.**

The date of completion for the assessed facilities ranges from 1948 to 1994. The buildings currently range from good condition at Bennett Woods Elementary and Okemos High School to fair to poor condition at the remaining school buildings. Factors contributing to the condition of the balance of the buildings include: building age; condition of roofing systems; deterioration of some exterior building cladding systems finishes; typical wear and tear on high-use items such as interior and exterior doors and windows; flooring systems, security items, restrooms; Some mechanical issues were noted, however the district has maintained most physical plant items such as boilers and chillers with the sinking fund. Electrical improvements could be made with lighting and older electrical panels. Site issues include deteriorated paving systems and site walkways. Most areas of the buildings comply with the current requirements of the Americans with Disability Act (ADA), but several areas could be challenged with existing toilet rooms and classroom 'pocket' entrances.

By APPA standards, short-term critical issues (those considered critical to operation, safety-related or having potential for collateral damage) are small. The district has done a good job containing these issues with the sinking fund. Few items of great cost are likely to fail or significantly impact building viability within the next year. When looking forward five years, however, long-term conditions for most buildings quickly become rated 'poor' with the High School and Bennett Woods the exception at a 'fair' rating. This is also common, as over this longer timeframe, systems in older buildings become critical due to age or failure. The higher five to ten-year Facility Condition Index (FCI) for these buildings is predictive of these failures and based on the assumption that everything anticipated to fail will do so. **It should be noted that exceptional maintenance as exhibited at Okemos Public Schools can and has extended the life of many systems and materials beyond the normal life.**

## RECOMMENDATIONS

### Short Term Recommendation:

Okemos Public Schools should review the items that comprise the **Priority 1** zero to four-year Deferred Maintenance Backlog of **\$56,203,869** and address those affecting life/safety issues, focusing first on those having the greatest potential for future damage to other building components, and those that are code compliance issues.

In addition to the zero to four-year issues that will carry over into the next five years, the District should also immediately begin budgeting for the projected **\$27,382,144** in deferred maintenance issues over the next five years (**Priority 2**) and evaluate alternative solutions where the cost of repairs outweighs the benefits.

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### Long Term Recommendation:

The District should budget as much as possible of the industry recommended “2% of CRV” maintenance fund of **\$6,130,559 annually** for ongoing repairs to maintain the buildings once they are upgraded (**DMB Equilibrium**). While this benchmark is difficult for most institutions to attain, the goal of setting aside as close to this amount annually as possible through sinking funds or future capital improvement bonds to ensure the buildings remain at their current condition.

To put it in perspective, predictable systems such as paving (18 years) and roofing (20 years) amount to approximately \$807,000/year or 15% of the recommended annual recommendation.



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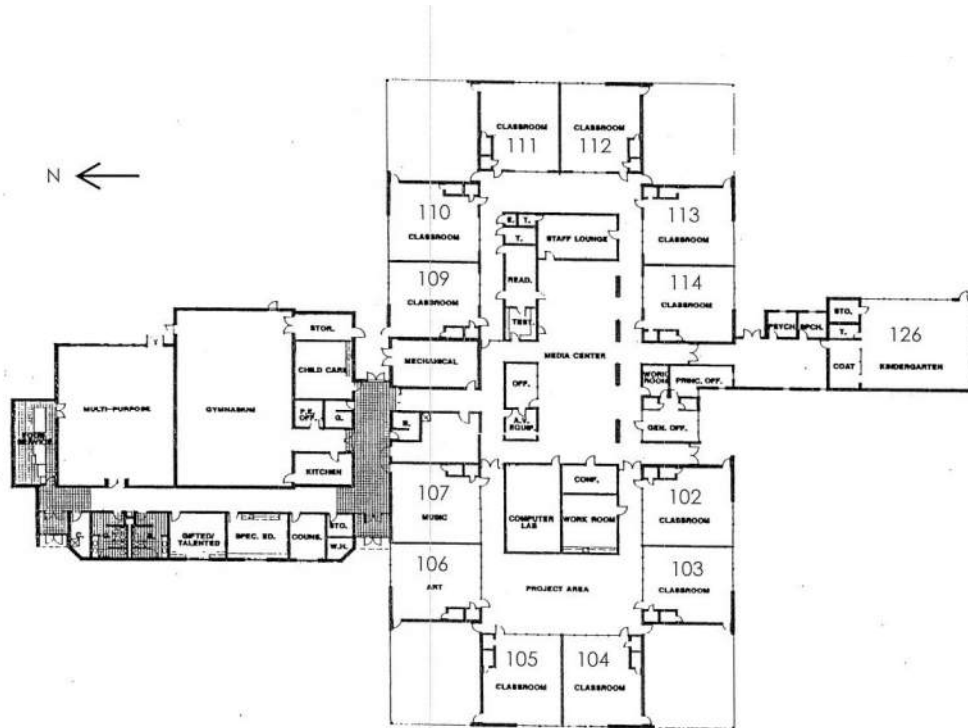
### September 2018

#### EDGEWOOD EARLY CHILDHOOD CENTER

Use: Pre-school/childcare

Population/Capacity: NA  
 Built: 1963  
 Additions/Renovations: 1966, 1978, 1988  
 Total Area: 33,100 SF  
 Site: 12 Acres

CRV \$12,762,533  
 Priority 1; 0 – 4 year DMB/**FCI** \$ 2,054,366/**16%**  
 DMB Excess (over APPA 5%) \$ 1,416,239  
 Annual Cost to maintain current DMB \$ 165,500/Year



Edgewood Elementary School

#### EDGEWOOD EARLY CHILDHOOD FLOOR PLAN

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### EDGEWOOD EARLY CHILDHOOD CENTER

#### Observation Highlights

The 12-acre Edgewood site is set in a residential area. Site access is from a single entrance drive from Osage Lane, just off Manitou Road. Since there is no bus traffic, parents typically park and walk kids into building. Site is well maintained with no known issues. Playground equipment in fair condition. Structures replaced in 2002. Some replacement may be required. District maintains and adds surfacing yearly.



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#### EDGEWOOD EARLY CHILDHOOD CENTER

##### Observation Highlights

##### Paving:

Entry drive was repaved in 2009 and appears to be in good condition. North and South lots were repaved in 2011 and in good condition. With proper maintenance and light duty traffic, paving should be serviceable for the next 10 - 15 years. 'Magic Square' hard surface play is in fair condition. Multiple cracks observed. Recommend repaving in next 5 years. Site concrete in fair condition. Recommend allowance to reconstruct select concrete walks.



##### Playgrounds:

Playground equipment is in fair condition. Structures replaced in 2002. Some replacement may be required. District maintains and adds surfacing yearly. Provide allowance for new playground structures.



Playfields are in good condition. No issues noted.





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### EDGEWOOD EARLY CHILDHOOD CENTER

#### Observation Highlights

##### Code:

Built in 1963 with 1966, 1978, 1988 remodeling/additions, building meets barrier free codes in force during the latest remodeling (Grandfathered).

Functional remodeling or an ADA challenge may require upgrades as follows:

- Replace select door hardware with BF lever (nic CRs)
- In-room toilet rooms are very small and do not meet BF requirements. Group toilets do not meet BF requirements. Remodel select Toilet Rooms to meet BF. Add new toilet rooms to compensate for lost fixtures in BF remodeling.
- Add BF counters in classrooms

Building meets life safety and building code from time of most recent construction.

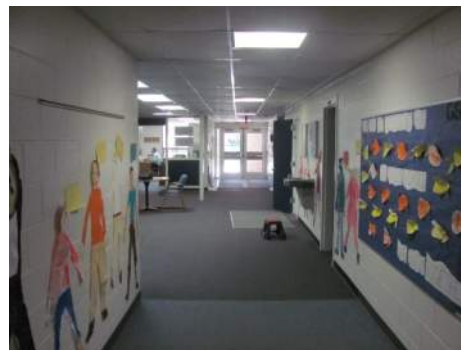
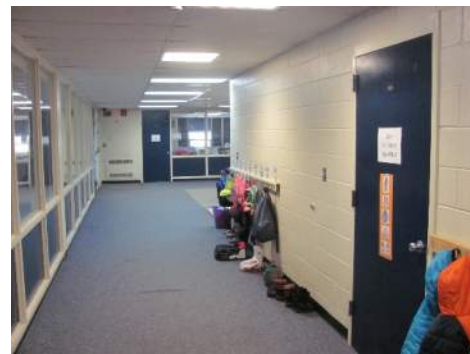
Functional remodeling may kick-in current building codes. Recommend maintaining current use in current configuration.

##### Hazardous Materials:

There are no known hazardous materials.

##### Security:

Building has secure entrance with electronic locks and recently installed camera system to control main entrance. The building has a web-based security camera system throughout building. There is not a secure vestibule into the main office. There does not appear to be door contacts to notify when exterior doors are compromised. Consider secure vestibule, security window film and door contacts in program improvements.





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### EDGEWOOD EARLY CHILDHOOD CENTER

#### Observation Highlights

##### Building Envelope:

Generally, the roofs are in good condition with single-ply adhered EPDM roofing membranes installed in 2006, 2007 and 2008. If maintained properly, roofing should be serviceable for 10 - 15 years.

Existing brick envelope with metal panel fascia is in excellent condition with no issues noted.

Aluminum window systems with integral blinds appear to be in good condition. Note window AC units should be replaced with new AC system. Existing storefront entrances are all in excellent condition. No issues noted.

Existing HM doors/frames are in fair condition. Eventually HM doors/frames rust and should be replaced w/Alum/FRP doors/frames.



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#### EDGEWOOD EARLY CHILDHOOD CENTER

#### Observation Highlights

##### Interiors:

**Flooring** is a mix of carpet, vinyl composition tile (VCT), sports flooring, quarry tile and ceramic mosaic tile all mainly in good condition. Carpet in corridors and select classrooms is worn and nearing the end of its serviceable life. The district has done a good job of selectively replacing carpet throughout all buildings through their sinking fund.

Replace VCT flooring in select areas.

Sports flooring in Gym is in good condition.

VCT in vestibules is in fair condition, but often covered with throw rugs. Recommend replacement with special recessed entrance 'walk-off' carpet mats

Sheet flooring in cafeteria is in poor condition and should be replaced.

While dated in appearance, tile in toilet rooms and Kitchen is in fair condition. Replace within toilet room remodeling budget.



Cafeteria Flooring



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### EDGEWOOD EARLY CHILDHOOD CENTER

#### Observation Highlights

##### Interiors:

Interior walls for the most part are painted concrete masonry units (CMU) with some gypsum board partitions/bulkheads. All are well maintained and other than routine patching, maintenance/painting especially at the drywall partitions, no major work is currently necessary.



Ceilings are mainly suspended acoustical 2 x 4 panels, gypsum board and exposed metal deck and are in good serviceable condition. No issues noted



Corridor Lockers are in good/fair condition. No issues noted.

Existing classroom classroom storage cabinets are generally in good condition. No issues noted.



#### EDGEWOOD EARLY CHILDHOOD CENTER

##### Observation Highlights

##### Mechanical:

In general, the existing mechanical systems have been very well maintained through wise sinking fund investments and are in good condition. Continue normal maintenance procedures to maximize life cycle.

Boilers and associated pumps replaced in 2002. No work is required.

Childcare classrooms have window air-conditioners. Remove and provide A/C through unit ventilators.

Recommend replacing existing Gym AHU and controls.

Recommend replacing (heating only) classroom unit ventilators. Provide packaged cooling units where A/C required.

Exhaust systems are original to building and should be replaced.

Replace existing pneumatic temperature controls with new DDC system to communicate with district's system. Replace CO2 sensors.





**EDGEWOOD EARLY CHILDHOOD CENTER**  
**Observation Highlights**

**Mechanical:**

Plumbing systems and fixtures are mainly all working adequately.

Majority of piping is original to building and has a life expectancy of 80 years. Past water quality events in Flint have led to concerns about the water quality in all schools across Michigan. Aging facilities with old piping and water service sources may lead to future legislation requiring potential costly piping and fixture replacement. Until testing has been completed at each school facility, it is difficult to predict the cost impact or where funding will come from. As such a budget for testing is included in this assessment for each school building.

Domestic water heater is a 100 gallon, 199 Mbh, serves building well and is in good condition. Water heater is 18 years old and may need replacement in 5-10 years.



**Electrical:**

Recommend replacing original panelboards remaining in building.



Provide tamper proof receptacles in areas required by NEC 406.12

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### EDGEWOOD EARLY CHILDHOOD CENTER

#### Observation Highlights

##### Electrical:

Existing building has T-8 fluorescent lighting installed. Energy savings and better light quality would be realized with new LED lighting. Recommend converting lighting to LED. Presently there is no automatic lighting control within the building. Energy savings would be realized by adding occupancy sensors and automatic lighting control.

Provide/upgrade emergency lighting throughout building.

Similarly recommend replacing existing site lights with new LED site lighting and poles as well as replacing existing building HID fixtures with fixtures.

Consider adding a generator to handle boilers and designated essential items.

Existing exit signs have emergency battery backup and are in good condition.

The existing fire panel is a Potter Plus P300. No issues noted.



LED



**EDGEWOOD EARLY CHILDHOOD CENTER**

**Observation Highlights**

**Special Systems:**

Public Address System – No issues noted

The program bell system – No issues noted

The original clock system is inadequate and recommended for replacement.

Sound systems – no issues noted.



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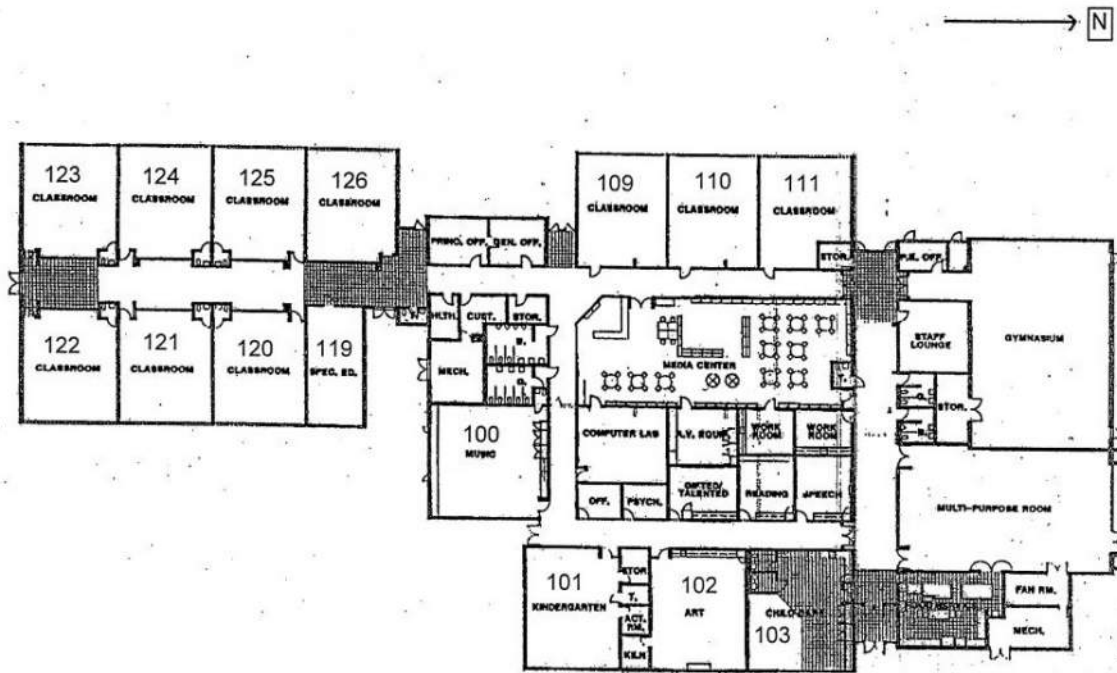
#### WARDCLIFF ELEMENTARY

Use: Closed/Community Health

Population/Capacity: NA  
 Built: 1955  
 Additions/Renovations: 1963  
 Total Area: 32,700 SF  
 Site: 20 Acres



CRV \$12,608,303  
 Priority 1; 0 – 4 year DMB/**FCI** \$ 7,194,297/**57%**  
 DMB Excess (over APPA 5%) \$ 6,563,882  
 Annual Cost to maintain current DMB \$ 252,166/Year



WARDCLIFF FLOOR PLAN



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### WARDCLIFF ELEMENTARY

#### Observation Highlights

Wardcliff has been closed as a school for over 8 years. The north end is currently being utilized by the Community Mental Health Authority. The 12-acre Wardcliff site is set in a residential area. Site access is from two entrance drives Wardcliff Drive making it difficult to separate parent drop/pick-up with Bus traffic should the school be reopened as a school. Site is well maintained and drained. Site utilities are adequate however if reopened as a school facility, code will require a fire suppression system with new separate water service.



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### WARDCLIFF ELEMENTARY

#### Observation Highlights

##### Paving:

Existing paving is in poor condition with evidence of alligating and cracks. When repaving, recommend adding another access drive and reconfiguring traffic flow to accommodate safe separations. Site concrete in fair condition. Recommend allowance to reconstruct select concrete walks. Repave hard surface 'Magic Square' play and walking paths.

##### Playgrounds:

Playground equipment in fair condition. Some replacement may be required. District maintains and adds surfacing yearly.

Playfields are in fair condition. No issues noted.



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### WARDCLIFF ELEMENTARY

#### Observation Highlights

##### Code:

Building has not been used as a school for over 5 years. State code requires entire building to meet current building codes to reopen as a school. Improvements below will reflect new code requirements.

Built in 1955 and subsequent 1963 remodeling/additions, building does not meet barrier free codes. Remodeling will require upgrades as follows:

- Replace door hardware with BF lever (nic CRs)
- Remodel classroom 'pocket' entrances in 1955 CRs to meet BF
- Remodel Toilet Rooms to meet BF including new TRs to meet plumbing code fixture count.
- Add BF counters in classrooms

Building upgrades are required to meet current life safety code including fire sprinkling.

##### Hazardous Materials:

There appears to be some vinyl asbestos tile that should be abated. Unaware of other potential asbestos such as plaster or pipe insulation. Recommend an allowance for abatement.

##### Security:

There is not a secure vestibule into the main office. Remodel and add to entrance and Principal office to direct visitors through office reception.

There does not appear to be door contacts to notify when exterior doors are compromised. Consider secure vestibule, security window film and door contacts in program improvements.





#### WARDCLIFF ELEMENTARY

##### Observation Highlights

###### Building Envelope:

Royal West/Firestone PVC roof installed in 2004. Roof membrane is nearing the end of its warranty. With proper maintenance, roof should be serviceable for another 5 years. Recommend replacement in next 5 years.

The existing modular brick and ground faced block in-fill envelope appears to be in good condition with no reported problems. Exterior Insulation and Finish System (EIFS) above windows is in fair condition however, not a long-term quality material. Recommend removing and replacing with an insulated metal panel system. Recommend applying a sealer on ground faced masonry every five years (maintenance).

Aluminum window systems with integral blinds appear to be in good condition. Add windows/translucent panels to Gym to meet new daylight harvesting code.

Existing storefront entrances are all in excellent condition. No issues noted.

Existing HM doors/frames are in fair condition. Eventually HM doors/frames rust and should be replaced w/Alum/FRP doors/frames.





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### WARDCLIFF ELEMENTARY

#### Observation Highlights

##### Interiors:

With the exception of the Gym and several classrooms remodeled for County Health, the facility condition reflects it's age and the fact that it has not been open in the past several years. Recommend general remodeling as follows:

##### General Classroom Remodeling:

Recommend new flooring, ceilings, visual display boards, doors, wall finishes (due to removed VDBs), casework/cabinets, lighting, power and HVAC upgrades.

Remodel corridors including lockers, display.

Sheet flooring in cafeteria is in poor condition and should be replaced.

Remodel toilet rooms including barrier free requirements.

Kitchen has been out of service and majority of equipment removed. Remodel to meet health code and provide new equipment.



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### WARDCLIFF ELEMENTARY

#### Observation Highlights

##### Mechanical:

In general, the existing mechanical systems have been very well maintained through wise sinking fund investments and are in good condition. Continue normal maintenance procedures to maximize life cycle.

Boilers and associated pumps replaced in 2004. No work is required.



Computer Lab has dedicated rooftop unit, installed in 2007.

Recommend replacing existing Gym AHU and controls.

Recommend replacing (heating only) classroom unit ventilators.

Exhaust systems are original to building and should be replaced.

Replace existing pneumatic temperature controls with new DDC system to communicate with district's system. Update existing energy management system (Trane). Replace CO2 sensors.



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#### WARDCLIFF ELEMENTARY

#### Observation Highlights

##### Mechanical:

Plumbing systems and fixtures are mainly all working adequately.

Majority of piping is original to building and has a life expectancy of 80 years. Past water quality events in Flint have led to concerns about the water quality in all schools across Michigan. Aging facilities with old piping and water service sources may lead to future legislation requiring potential costly piping and fixture replacement. Until testing has been completed at each school facility, it is difficult to predict the cost impact or where funding will come from. As such a budget for testing is included in this assessment for each school building.

Domestic water heater includes a 40 gallon, 34 Mbh water heater in mechanical room serves portion building and is in fair condition. Water heater is 20+ years old and may need replacement in 0-5 years. Also includes a 100 gallon, 199 Mbh water heater in mechanical room serves portion of building and is in good condition. Water heater is 13 years old and may need replacement in 5-10 years.



New plumbing fixtures will be required in toilet room remodeling. Provide new BF electric water coolers.

A new fire protection system is required to bring building up to current code. Provide new fire sprinkler system.

##### Electrical:

Recommend replacing original panelboards remaining in building.

Replace original bulldog service switch



Provide tamper proof receptacles in areas required by NEC 406.12



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### WARDCLIFF ELEMENTARY

#### Observation Highlights

##### Electrical:

Existing building has T-8 fluorescent lighting installed. Energy savings and better light quality would be realized with new LED lighting. Recommend converting lighting to LED. Presently there is no automatic lighting control within the building. Energy savings would be realized by adding occupancy sensors and automatic lighting control.

Provide/upgrade emergency lighting throughout building.

Similarly recommend replacing existing site lights with new LED site lighting and poles as well as adding building LED fixtures.

Consider adding a generator to handle boilers and designated essential items.

Replace existing exit signs with emergency battery backup.

Provide code compliant fire alarm system and new audio and visual devices.



#### WARDCLIFF ELEMENTARY

##### Observation Highlights

##### Special Systems:

Public Address System – Replace

The program bell system – Replace

The original clock system is inadequate and recommended for replacement.

Sound systems – Replace.





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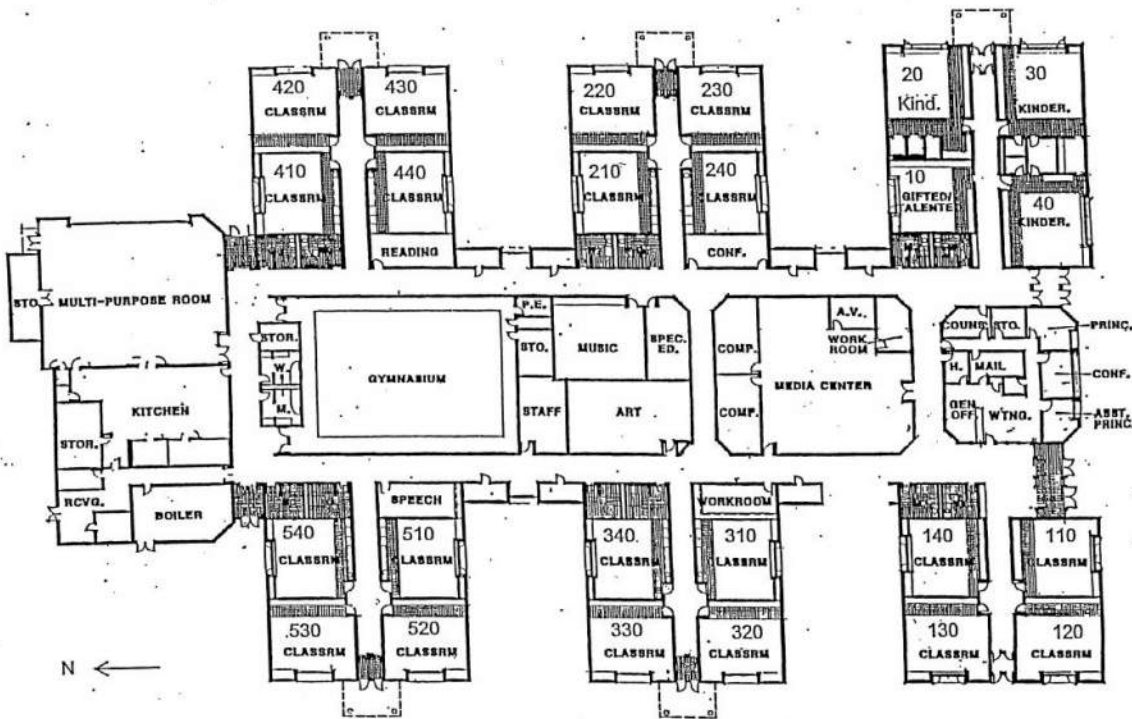
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#### HIAWATHA ELEMENTARY

Use: K - 4  
 Population/Capacity: 466/600  
 Built: 1988  
 Additions/Renovations:  
 Total Area: 62,100 SF  
 Site: 19 Acres

CRV \$24,847,763  
 Priority 1; 0 – 4 year DMB/**FCI** \$ 2,747,582/**11%**  
 DMB Excess (over APPA 5%) \$ 1,505,194  
 Annual Cost to maintain current DMB \$ 496,955/Year



HIAWATHA ELEMENTARY FLOOR PLAN

# Okemos Public Schools

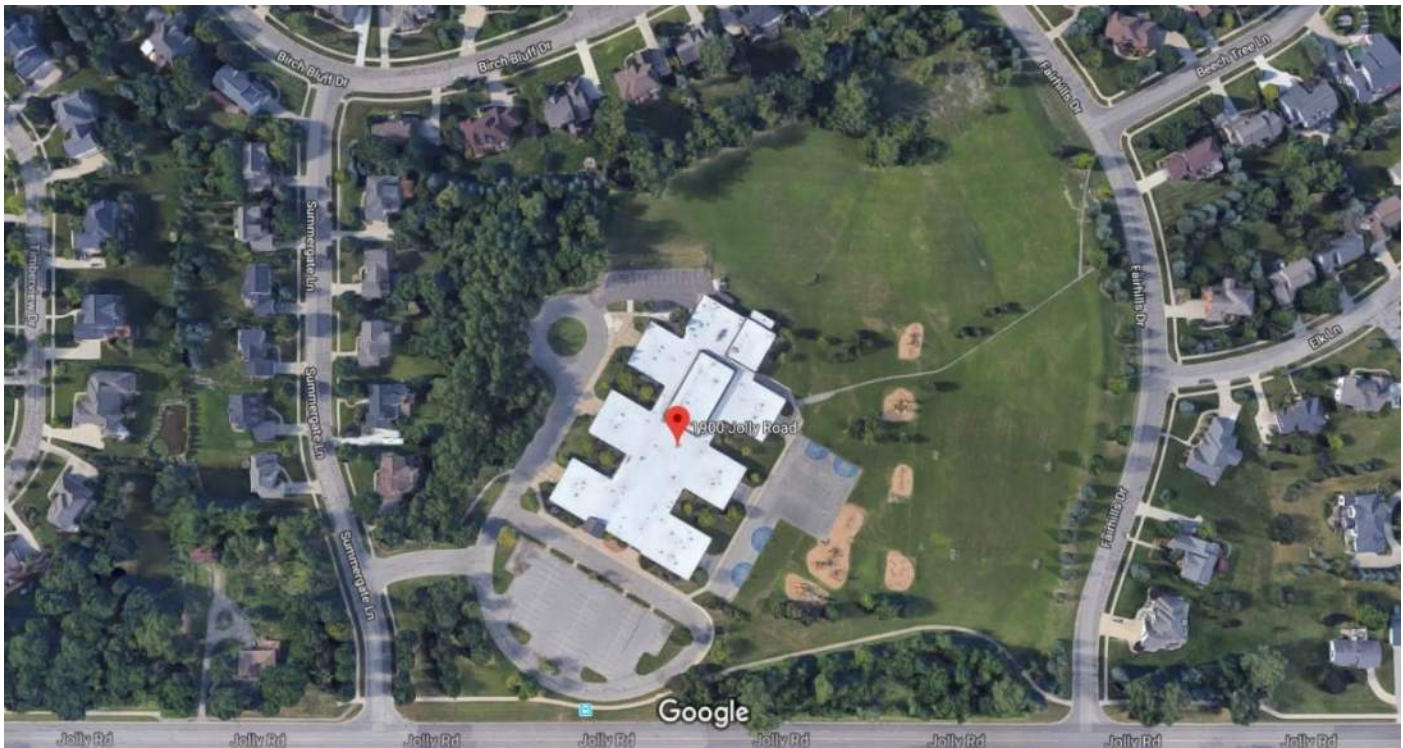
## Facilities Assessment

### September 2018

#### HIAWATHA ELEMENTARY

#### Observation Highlights

The 19-acre Hiawatha site is set in a residential area. Site access is from a single entrance drive from Summergate Lane, just off of Jolly Road. While there is a potential bus/auto conflict until they split, the school appears to manage it well. Site is well maintained with no known issues.



#### HIAWATHA ELEMENTARY

##### Observation Highlights

###### **Paving:**

South drive was repaved in 2006 and in fair to poor condition. Some cracks were observed. Recommend repaving in next 5 years. Main entry and drive in front of office was repaved in 2007 and in fair to poor condition. Some cracks were observed. Recommend repaving in next 5 years. Main lot was repaved in 2008. Lot is in fair condition. Multiple cracks observed. Recommend repaving lot in next 5 years. Bus drive was repaved in 2009 and is in good condition. With proper maintenance it should be serviceable for the next 5 - 10 years. A new lot at the north end was constructed in 2014 and in excellent condition. With proper maintenance it should be serviceable for the next 10 - 15 years. Magic Square is in good condition and should be serviceable for next 5 - 10 years. Site concrete in fair condition. Recommend allowance to reconstruct select concrete walks.



###### **Playgrounds:**

Playground equipment in fair condition. Structures replaced in 2002 and 2006. Some replacement may be required. District maintains and adds surfacing yearly. Provide allowance for new playground structures.

Playfields are in good condition. No issues noted.





# Okemos Public Schools

## Facilities Assessment

September 2018

### HIAWATHA ELEMENTARY

#### Observation Highlights

##### Code:

Built in 1988, building meets barrier free codes in force during the latest remodeling (Grandfathered). Functional remodeling or an ADA challenge may require upgrades as follows:

- Replace select door hardware with BF lever (nic CRs)
- Remodel select Toilet Rooms to meet BF. Add new toilet rooms to compensate for lost fixtures in BF remodeling.
- Add BF counters in classrooms

Building meets life safety and building code from time of most recent construction.

Functional remodeling may kick-in current building codes.

Recommend maintaining current use in current configuration.



##### Hazardous Materials:

There are no known hazardous materials.



##### Security:

Building has secure entrance with electronic locks and recently installed camera system to control main entrance. The building has a web-based security camera system throughout building. There is not a secure vestibule into the main office. There does not appear to be door contacts to notify when exterior doors are compromised. Consider secure vestibule, security window film and door contacts in program improvements.



# Okemos Public Schools

## Facilities Assessment

September 2018

### HIAWATHA ELEMENTARY

#### Observation Highlights

##### Building Envelope:

McDonald/Carlisle roofing system replaced in 2012 and in excellent condition. If maintained properly, roofing should be serviceable for 10 - 15 years.

Existing brick envelope is in excellent condition with no issues noted. Exterior Insulation and Finish System (EIFS) over entrance is in fair condition. No issues currently noted, but recommend painting in near future through maintenance budget.

Aluminum window systems with integral blinds appear to be in good condition.

Existing storefront entrances are all in excellent condition. No issues noted.

Existing HM doors/frames are in fair condition. Eventually HM doors/frames rust and should be replaced w/Alum/FRP doors/frames. Replace HM sidelights and transoms associated with new interior vestibule doors with aluminum frames and security glazing.





# Okemos Public Schools

## Facilities Assessment

### September 2018

#### HIAWATHA ELEMENTARY

#### Observation Highlights

#### Interiors:

#### General Remodeling:

Facility is well maintained. No general remodeling necessary from cyclical maintenance required.

**Flooring** is a mix of carpet, vinyl composition tile (VCT), sports flooring, quarry tile and ceramic mosaic tile all mainly in good condition. Carpet in some areas is worn and nearing the end of it's serviceable life. The district has done a good job of selectively replacing carpet throughout all buildings through their sinking fund.

Replace VCT flooring in select areas.

Sports flooring in Gym is in good condition.

Sheet flooring in cafeteria is in poor condition and should be replaced with a durable polished concrete.

While dated in appearance, tile in toilet rooms and Kitchen is in fair condition. Replace within toilet room remodeling budget.



Cafeteria Flooring



# Okemos Public Schools

## Facilities Assessment

September 2018

### HIAWATHA ELEMENTARY

#### Observation Highlights

##### Interiors:

Corridor walls are mainly gypsum board and are very well maintained. Other than minor patching, no issues are noted. Classroom spaces are a combination of painted gypsum board and CMU and in good condition. No issues noted. Restroom walls are a combination of painted gypsum board and CMU and in good condition. No issues noted. Some will be updated in BF remodeling.



Ceilings are mainly suspended acoustical 2 x 4 panels in fair condition with some 'pillowing'. Gypsum board and exposed metal deck and are in good serviceable condition. No issues noted



Corridor Lockers are in fair/poor condition. Some rust occurs in bottoms and some doors are out of alignment. Recommend replacement with new.

Existing interior wood door/frames are in good condition. District installed electronic access locks at all classrooms. No issues noted.



Existing classroom classroom storage cabinets are generally in good condition. Replace fully or partially in selective rooms with new laminate clad casework including BF counter heights. Assume 120 LF of uppers and lowers. Unit price includes demolition and wall remodeling to accommodate new casework.

# Okemos Public Schools

## Facilities Assessment

September 2018

### HIAWATHA ELEMENTARY

#### Observation Highlights

##### Interiors:

Majority of visual display boards (VDB) appear to be in good condition. No issues noted.



Replace existing fixed basketball goals with new adjustable units for elementary students.



Replace select metal toilet partitions that show rust and mirrors are deteriorating.

that

Some classroom furnishings are old and educationally inflexible. In order to encourage collaboration and 21st century pedagogies replacement furnishings should be lightweight, stackable, ergonomically appropriate to facilitate learning. Media centers should be designed with comfortable project, study and reading areas wired for current technologies.



# Okemos Public Schools

## Facilities Assessment

### September 2018

#### HIAWATHA ELEMENTARY

#### Observation Highlights

##### Mechanical:

In general, the existing mechanical systems have been very well maintained through wise sinking fund investments and are in good condition. Continue normal maintenance procedures to maximize life cycle.

Boilers and associated pumps replaced in 2013, no work required.

Air-handling units serve building core areas and are in fair to good condition. Units have median life expectancy of 30-40 years.

Rooftop unit provides heating and cooling for administration and is in fair condition. Unit is 20 years old with a median life expectancy of 15-25 years.

Recommend replacing (heating only) classroom unit ventilators.

Exhaust fans are original to building (20 years old) and should be replaced in next ten years.

Replace existing pneumatic temperature controls with new DDC system to communicate with district's system. Update existing energy management system (Trane). Replace CO2 sensors.





**HIAWATHA ELEMENTARY**  
**Observation Highlights**

**Mechanical:**

Plumbing systems and fixtures are mainly all working adequately.

Majority of piping is original to building and has a life expectancy of 80 years. Past water quality events in Flint have led to concerns about the water quality in all schools across Michigan. Aging facilities with old piping and water service sources may lead to future legislation requiring potential costly piping and fixture replacement. Until testing has been completed at each school facility, it is difficult to predict the cost impact or where funding will come from. As such a budget for testing is included in this assessment for each school building.

Domestic water heater is a 225 Mbh water heater with separate 500-gallon tank provides hot water for building and is in poor to fair condition. Water heater should be replaced in next 5 years.



A 6-inch fire suppression main with two 4-inch risers provide fire suppression for entire building.

**Electrical:**

No issues noted with existing panels/distribution.



Provide tamper proof receptacles in areas required by NEC 406.12



# Okemos Public Schools

## Facilities Assessment

September 2018

### HIAWATHA ELEMENTARY

#### Observation Highlights

##### Electrical:

Existing building has T-8 fluorescent lighting installed. Energy savings and better light quality would be realized with new LED lighting. Recommend converting lighting to LED. Presently there is no automatic lighting control within the building. Energy savings would be realized by adding occupancy sensors and automatic lighting control.

Provide/upgrade emergency lighting throughout building.

Similarly recommend replacing existing site lights with new LED site lighting and poles as well as replacing existing building HID fixtures with LED fixtures.

Consider adding a generator to handle boilers and designated essential items.

Existing exit signs have emergency battery backup and are in good condition.



# Okemos Public Schools

## Facilities Assessment

### September 2018

#### HIAWATHA ELEMENTARY

##### Observation Highlights

Code compliant fire alarm system installed in 2018. No issues noted.

##### Special Systems:

Public Address System – No issues noted

The program bell system – No issues noted

The original clock system is inadequate and recommended for replacement.

Sound systems – no issues noted.



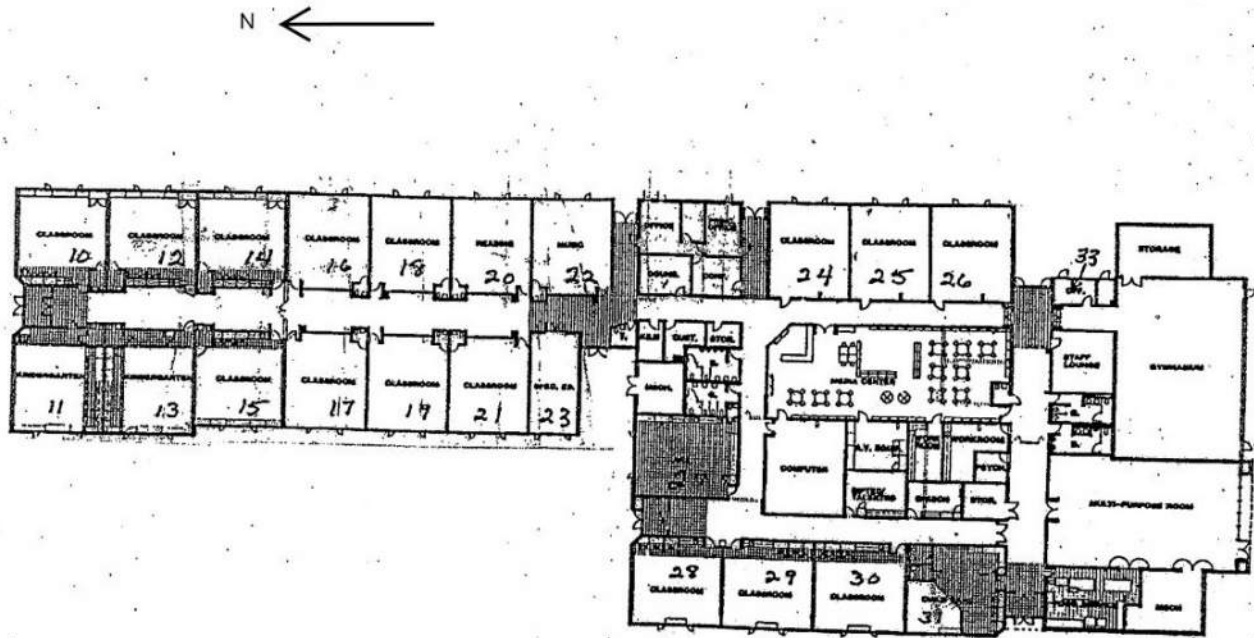
# Okemos Public Schools

## Facilities Assessment

### September 2018

#### CORNELL ELEMENTARY

Use:	K - 4
Population/Capacity:	430/500
Built:	1955
Additions/Renovations:	1958, 1977, 1988
Total Area:	43,130 SF
Site:	10 Acres
CRV	\$17,257,391
Priority 1; 0 – 4 year DMB/ <b>FCI</b>	\$ 4,028,649/ <b>23%</b>
DMB Excess (over APPA 5%)	\$ 3,165,779
Annual Cost to maintain current DMB	\$ 345,148/Year



CORNELL ELEMENTARY FLOOR PLAN

# Okemos Public Schools

## Facilities Assessment

September 2018

### CORNELL ELEMENTARY

#### Observation Highlights

The 10-acre Cornell site is set in a residential area. Site circulation is a challenge due to the proximity of the building to Cornell Road. There are 2 curb cuts off Cornell Road, leading to parking lots to the north and south and serving a drive fronting the entire building. It is difficult to separate parent and bus traffic safely. There is not enough curb length to cue parent pick-up/drop, thus causing back-ups on Cornell Road. Recommend looking at expanding the north parking lot to allow expanded parking and curb length for parent pick-up/drop freeing the bus traffic to the frontage drive. Site is well maintained with no known issues.





# Okemos Public Schools

## Facilities Assessment

September 2018

### CORNELL ELEMENTARY

#### Observation Highlights

##### Paving:

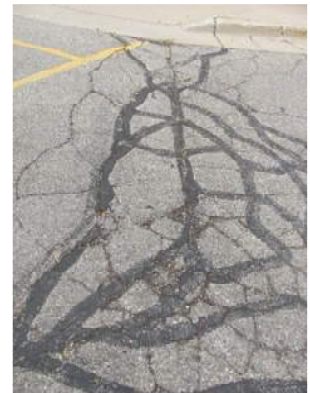
Main drive was repaved in 2003 and in fair to poor condition. Some cracks were observed. North lot repaved in 2005 and is in poor condition. Multiple cracks observed. Recommend repaving in next 5 years. Recommend repaving in next 5 years. South lot and 'Magic Square' hard surface play area were repaved in 2007. Magic Square is in fair condition. South lot is in fair to poor condition. Multiple cracks observed. Recommend repaving South lot in next 5- 10 years. Add new parking and parent pick-up/drop lanes west of north lot. Assume Road Commission will require deacceleration and by pass lanes. Site concrete in fair condition. Recommend allowance to reconstruct select concrete walks.



Site appears to be well drained. No issues noted with existing. Provide new retention and site drainage structures for new lot.

##### Playgrounds:

Playground equipment in fair condition. Structures replaced in 2001. Some replacement may be required. District maintains and adds surfacing yearly. Provide allowance for new playground structures.



Playfields are in good condition. No issues noted.



# Okemos Public Schools

## Facilities Assessment

September 2018

### CORNELL ELEMENTARY

#### Observation Highlights

##### Code:

Built in 1955-57 and subsequent 1977, 1988 remodeling/additions, building meets barrier free codes in force during the latest remodeling (Grandfathered). Functional remodeling or an ADA challenge may require upgrades as follows:

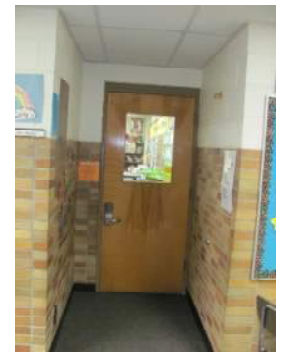
- Replace select door hardware with BF lever (nic CRs)
- Remodel classroom 'pocket' entrances in 1955 CRs to meet BF
- Remodel select Toilet Rooms to meet BF.
- Add BF counters in classrooms



Building meets life safety and building code from time of most recent construction. Functional remodeling may kick-in current building codes. Recommend maintaining current use in current configuration.

##### Hazardous Materials:

There appears to be some vinyl asbestos tile that should be abated. Unaware of other potential asbestos such as plaster or pipe insulation. Recommend an allowance for abatement.



##### Security:

Building has secure entrance with electronic locks and recently installed camera system to control main entrance. The building has a web-based security camera system throughout building. There is not a secure vestibule into the main office. There does not appear to be door contacts to notify when exterior doors are compromised. Consider secure vestibule, security window film and door contacts in program improvements.



# Okemos Public Schools

## Facilities Assessment

September 2018

### CORNELL ELEMENTARY

#### Observation Highlights

##### Building Envelope:

Cooley PVC roof installed over gym/MP and west wing in 2003, north wing by Royal West/Firestone in 2004. Cooley out of business and roof out of warranty. Replace entire roofing system in next 5 years.

With the exception of the pump room on the west side, existing modular brick and burnished block in-fill envelope appears to be in good condition with no reported problems. Exterior Insulation and Finish System (EIFS) above windows is in poor condition and deteriorating due to poor drainage and bird infestation. Recommend removing and replacing with an insulated metal panel system. Original porcelain panels are in fair condition, but should be replaced at the same time as the EIFS.

Aluminum window systems with integral blinds appear to be in good condition. Existing storefront entrances are all in excellent condition. No issues noted.

Existing HM doors/frames are in fair condition. Eventually HM doors/frames rust and should be replaced w/Alum/FRP doors/frames.





# Okemos Public Schools

## Facilities Assessment

September 2018

### CORNELL ELEMENTARY

#### Observation Highlights

##### Interiors:

##### General Remodeling:

While well maintained, facility condition reflects its age. No general remodeling necessary from cyclical maintenance required. Refer to program improvements for potential remodeling for program updates.

**Flooring** is a mix of carpet, vinyl composition tile (VCT), sports flooring, quarry tile and ceramic mosaic tile all mainly in good condition. Carpet in select areas is worn and nearing the end of its serviceable life. The district has done a good job of selectively replacing carpet throughout all buildings through their sinking fund.

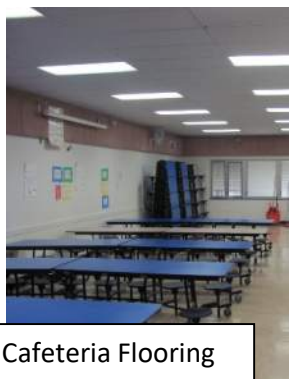
Replace VCT flooring in select areas.

Sports flooring installed in Gym in 2005 is in good condition.

VCT in vestibules is in fair condition, but often covered with throw rugs. Recommend replacement with special recessed entrance 'walk-off' carpet mats

Sheet flooring in cafeteria is in poor condition and should be replaced.

While dated in appearance, tile in toilet rooms and Kitchen is in fair condition. Replace within toilet room remodeling budget.



Cafeteria Flooring





# Okemos Public Schools

## Facilities Assessment

September 2018

### CORNELL ELEMENTARY

#### Observation Highlights

##### Interiors:

Corridor walls are a combination of brick, block and some gypsum board and are very durable and well maintained. Other than low reflectivity, no issues are noted. Classroom spaces are a combination of painted gypsum board and CMU and in good condition. No issues noted. Restroom walls are generally painted CMU and in fair condition. These will be updated in BF remodeling.

Acoustical 2 x 4 panel ceilings and grid are in fair condition. Some are fiberglass and in poor condition. Consider replacing in the future with 2 x 2 grid and panels.

Existing interior wood door/frames are in fair condition. Recommend replacement for select doors. District installed electronic access locks at all classrooms. Note 7 'pocket' entrance doors included above in BF item.

Majority of visual display boards (VDB) appear to be in good condition. No issues noted.

Corridor Lockers are in fair/poor condition. Some rust occurs in bottoms and some doors are out of alignment. Recommend replacement with new.

Replace existing fixed basketball goals with new adjustable units for elementary students.

Existing classroom classroom storage cabinets are in fair/poor condition. Replace fully or partially in selective rooms with new laminate clad casework. Assume 12 rooms with an average of 24 LF of uppers and lowers. Unit price includes demolition and wall remodeling to accommodate new casework.

Some classroom furnishings are old and educationally inflexible. In order to encourage collaboration and 21st century pedagogies replacement furnishings should be lightweight, stackable, ergonomically appropriate to facilitate learning. Media centers should be designed with comfortable project, study and reading areas wired for current technologies.



# Okemos Public Schools

## Facilities Assessment

September 2018

### CORNELL ELEMENTARY

#### Observation Highlights

##### Mechanical:

In general, the existing mechanical systems have been very well maintained through wise sinking fund investments and are in good condition. Continue normal maintenance procedures to maximize life cycle.

Boilers and associated pumps replaced in 2003. No work is required.



Recommend replacing existing Gym AHU and controls.

Recommend replacing (heating only) classroom unit ventilators.

Exhaust systems are original to building and should be replaced.

Replace existing pneumatic temperature controls with new DDC system to communicate with district's system. Replace CO2 sensors.



# Okemos Public Schools

## Facilities Assessment

### September 2018

#### CORNELL ELEMENTARY

#### Observation Highlights

##### Mechanical:

Plumbing systems and fixtures are mainly all working adequately.

Majority of piping is original to building and has a life expectancy of 80 years. Past water quality events in Flint have led to concerns about the water quality in all schools across Michigan. Aging facilities with old piping and water service sources may lead to future legislation requiring potential costly piping and fixture replacement. Until testing has been completed at each school facility, it is difficult to predict the cost impact or where funding will come from. as such a budget for testing is included in this assessment for each school building.

Domestic water heaters are a 40 gallon, 40 Mbh water heater in good condition and 100 gallon, 199 Mbh water heater in good condition. Water heaters are 15+ years old and may need replacement in 5-10 years.

##### Electrical:

Recommend replacing original panelboards remaining in building. Replace original bulldog service panel.

Provide tamper proof receptacles in areas required by NEC 406.12

Existing building has T-8 fluorescent lighting installed. Energy savings and better light quality would be realized with new LED lighting. Recommend converting lighting to LED. Presently there is no automatic lighting control within the building. Energy savings would be realized by adding occupancy sensors and automatic lighting control.

Provide/upgrade emergency lighting throughout building.

Similarly recommend replacing existing site lights with new LED site lighting and poles as well as replacing existing building HID fixtures with LED fixtures.

Consider adding a generator to handle boilers and designated essential items.



# Okemos Public Schools

## Facilities Assessment

September 2018

### CORNELL ELEMENTARY

#### Observation Highlights

#### Electrical:

Replace existing exit signs.

Provide code compliant fire alarm system and new audio and visual devices.



#### Special Systems:

Public Address System – No issues noted

The program bell system – No issues noted

The original clock system is inadequate and recommended for replacement.

Sound systems – no issues noted.





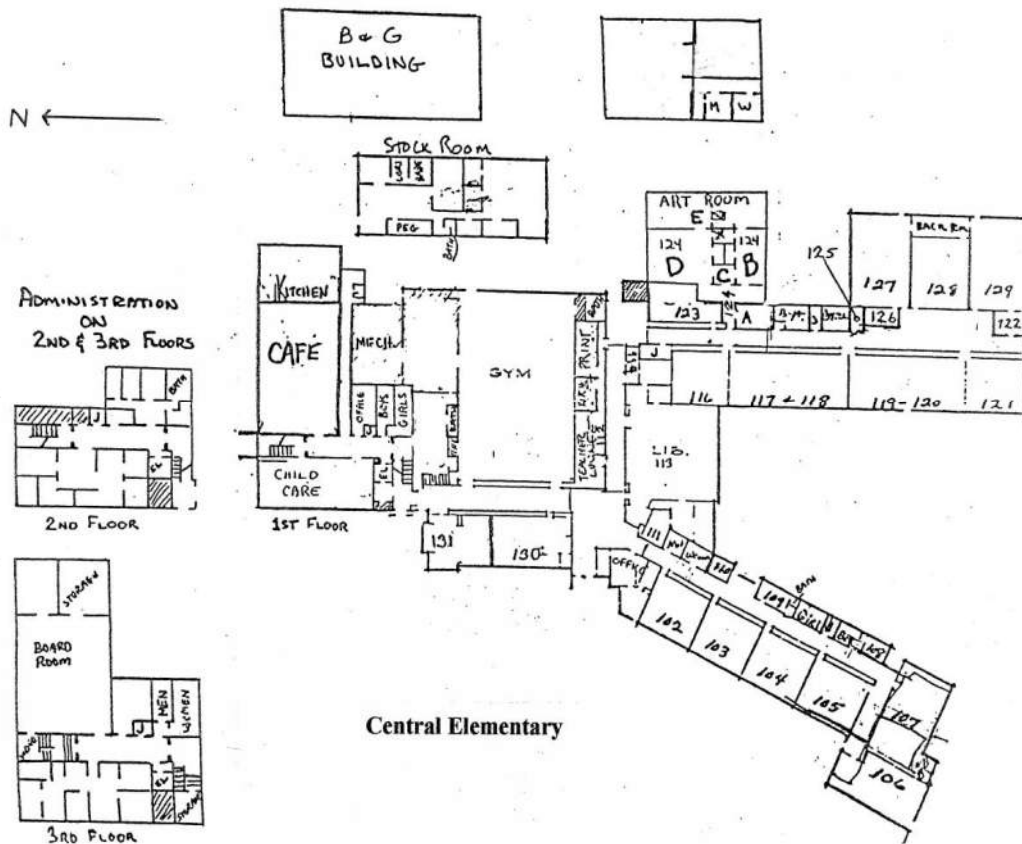
# Okemos Public Schools

## Facilities Assessment

### September 2018

#### OKEMOS MONTESSORI @ CENTRAL

Use:	PK - 4
Population/Capacity:	340/425
Built:	1948
Additions/Renovations:	1963 +
Total Area:	50,400 SF
Site:	28 Acres
CRV	\$20,166,300
Priority 1; 0 – 4 year DMB/ <b>FCI</b>	\$ 5,331,551/ <b>26%</b>
DMB Excess (over APPA 5%)	\$ 4,323,236
Annual Cost to maintain current DMB	\$ 403,326/Year



OKEMOS MONTESSORI @ CENTRAL FLOOR PLAN

# Okemos Public Schools

## Facilities Assessment

### September 2018

#### OKEMOS MONTESSORI @ CENTRAL

##### Observation Highlights

The 28-acre Central site is set on busy Okemos Road. Site circulation appears to be fairly well organized despite multiple uses on the site (Elementary, Central Admin and Central Maintenance). A long drop off drive paralleling Okemos Road with a south entrance and north exit allows parent drop/pick-up (Choice school - no Busses). There is some interaction with the north parking lot, however parents seem 'well trained' to the situation.



# Okemos Public Schools

## Facilities Assessment

September 2018

### OKEMOS MONTESSORI @ CENTRAL

#### Observation Highlights

##### Paving:

Main drive and east and north lots repaved in 2011 and in good condition. Some cracks were observed. With proper maintenance paving should be serviceable for another 5 - 10 years. South lot repaved in 2007 and in fair condition. Multiple cracks observed. With proper maintenance and minimum use, paving should be serviceable for another 5 - 10 years. South lot repaved in 2007 and in fair condition. Multiple cracks observed. With proper maintenance and minimum use, paving should be serviceable for another 5 - 10 years. Site concrete in fair condition. Recommend allowance to reconstruct select concrete walks.

##### Playgrounds:

Playground equipment in fair condition. Structures replaced in 2001 and 2006. Some replacement may be required. District maintains and adds surfacing yearly. Provide allowance for new playground structures.

Playfields are in good condition. No issues noted.





# Okemos Public Schools

## Facilities Assessment

September 2018

### OKEMOS MONTESSORI @ CENTRAL

#### Observation Highlights

##### Code:

Built in 1948 and subsequent remodeling, building meets barrier free codes in force during the latest remodeling (Grandfathered). Functional remodeling or an ADA challenge may require upgrades as follows:

- Replace select door hardware with BF lever (nic CRs)
- Remodel classroom 'pocket' entrances to meet BF
- Remodel and addition to Toilet Rooms to meet BF (addition required to meet fixture count)
- Add BF counters in classrooms



Building meets life safety and building code from time of most recent construction. Functional remodeling may kick-in current building codes. Recommend maintaining current use in current configuration.

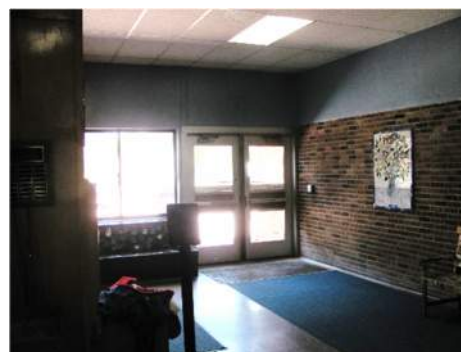
##### Hazardous Materials:

There appears to be some vinyl asbestos tile that should be abated. Unaware of other potential asbestos such as plaster or pipe insulation. Recommend an allowance for abatement.



##### Security:

Building has secure entrance with electronic locks and recently installed camera system to control main entrance. The building has a web-based security camera system throughout building. There is not a secure vestibule into the main office. There does not appear to be door contacts to notify when exterior doors are compromised. Consider secure vestibule, security window film and door contacts in program improvements.





# Okemos Public Schools

## Facilities Assessment

September 2018

### OKEMOS MONTESSORI @ CENTRAL

#### Observation Highlights

##### Building Envelope:

Cooley PVC roof installed in 2002 and 2008 (includes Central Administration). Cooley out of business and roof out of warranty. Replace in next 5 years.

Existing modular brick envelope appears to be in good condition with no reported problems. Wood fascia on southeast wing is deteriorating. Replace with Metal siding.

Window systems appear to have been replaced in the late 1970s/early 1980s with a great majority of the openings covered with panels, presumably to save energy. Recommend replacing full openings with insulated, thermally broke aluminum frames and insulated glazing and insulated translucent panels. These will allow daylight harvesting, increased fresh air openings and energy efficiency.

Existing storefront entrances are all in excellent condition. No issues noted.

Existing HM doors/frames are in fair condition. Eventually HM doors/frames rust and should be replaced w/Alum/FRP doors/frames.



# Okemos Public Schools

## Facilities Assessment

September 2018

### OKEMOS MONTESSORI @ CENTRAL

#### Observation Highlights

##### Interiors:

While well maintained, facility condition reflects its age. No general remodeling necessary from cyclical maintenance required. Refer to program improvements for potential remodeling for program updates.

**Flooring** is a mix of carpet, vinyl composition and asbestos tile (VCT & VAT), wood sports flooring, terrazzo, quarry tile and ceramic mosaic tile and with the exception of carpet, in good condition. Most carpet is worn and nearing the end of its serviceable life. The district has done a good job of selectively replacing carpet throughout all buildings through their sinking fund.

Replace VCT/VAT flooring in select areas.

Wood sports flooring in Gym is in good condition.

VCT in vestibules is in fair condition, but often covered with throw rugs. Recommend replacement with special recessed entrance 'walk-off' carpet mats

Sheet flooring in cafeteria is in poor condition and should be replaced.

While dated in appearance, tile/terrazzo in toilet rooms and Kitchen is in fair condition. Replace within toilet room remodeling budget.



# Okemos Public Schools

## Facilities Assessment

September 2018

### OKEMOS MONTESSORI @ CENTRAL

#### Observation Highlights

##### Interiors:

Corridor walls are a combination of brick, block and glazed tile and while 'dated' in color, are very durable. Other than low reflectivity, no issues are noted.

Classroom spaces are a combination of painted gypsum board and CMU and in good condition. With the removal of existing chalkboards and replacement with new, walls damaged from removal will require patching, repair and finishing.

Restroom walls are generally glazed tile/painted gypsum board/CMU and in fair to poor condition. These will be updated in BF remodeling.

Acoustical 2 x 4 panel ceilings and grid are in fair condition. Some are sagging from moisture. Consider replacing in the future with 2 x 2 grid and panels.

Existing interior wood door/frames are in poor condition. Recommend replacement with new HM frames/wood doors. District installed electronic access locks at all classrooms. Reuse in new doors. Note 10 'pocket' entrance doors included above in BF item.

Corridor Lockers are in fair/poor condition. Some rust occurs in bottoms and some doors are out of alignment. Recommend replacement with new.

Majority of classroom storage cabinets are the original built-in wood and are in poor condition. Replace with new laminate clad casework. Assume 20 rooms with an average of 24 LF of uppers and lowers. Unit price includes demolition and wall remodeling to accommodate new casework.





# Okemos Public Schools

## Facilities Assessment

### September 2018

#### OKEMOS MONTESSORI @ CENTRAL

#### Observation Highlights

##### Interiors:

Recommend new blinds integral with proposed new windows above.

Replace sills with new windows.

Recommend adding acoustical panels to mitigate noise in Gym and Cafeteria.

Majority of visual display boards (VDB) are chalkboards. Recommend removing existing and replacing with porcelain enamel markerboards and tackboards.

Display cases in existing corridors are original wood and should be replaced with new aluminum/glass units that meet corridor fire safety rules.

Replace existing fixed basketball goals with new adjustable units for elementary students.

Remove existing wood bleachers - in poor condition.

Some classroom furnishings are old and educationally inflexible. In order to encourage collaboration and 21st century pedagogies replacement furnishings should be lightweight, stackable, ergonomically appropriate to facilitate learning. Media centers should be designed with comfortable project, study and reading areas wired for current technologies.





# Okemos Public Schools

## Facilities Assessment

### September 2018

#### OKEMOS MONTESSORI @ CENTRAL

##### Observation Highlights

##### Mechanical:

In general, the existing mechanical systems have been very well maintained through wise sinking fund investments and are in good condition. Continue normal maintenance procedures to maximize life cycle.

Boilers and associated pumps replaced in 20032. No work is required.

Heating piping installed when building converted from steam to hot water heat and has a life expectancy of 80 years.

Recommend replacing (heating only) classroom unit ventilators.

Exhaust systems are original to building and should be replaced.

Replace existing pneumatic temperature controls with new DDC system to communicate with district's system. Update existing energy management system (Trane). Replace CO2 sensors.



# Okemos Public Schools

## Facilities Assessment

### September 2018

#### OKEMOS MONTESSORI @ CENTRAL

#### Observation Highlights

#### Mechanical:

Plumbing systems and fixtures are mainly all working adequately.

Provide new gas line from Central Elementary, through tunnel, to Print Shop to replace broken line and eliminate propane tank.

Majority of piping is original to building and has a life expectancy of 80 years. Past water quality events in Flint have led to concerns about the water quality in all schools across Michigan. Aging facilities with old piping and water service sources may lead to future legislation requiring potential costly piping and fixture replacement. Until testing has been completed at each school facility, it is difficult to predict the cost impact or where funding will come from. as such a budget for testing is included in this assessment for each school building.



Domestic water heater is a 100 gallon, 199 Mbh, serves building well and is in good condition. Water heater is 10 years old and may need replacement in 10 years.

#### Electrical:

Recommend replacing all electrical distribution in building including fusible panelboards in corridors accessible to children.



Provide tamper proof receptacles in areas required by NEC 406.12

# Okemos Public Schools

## Facilities Assessment

### September 2018

#### OKEMOS MONTESSORI @ CENTRAL

#### Observation Highlights

##### Electrical:

Existing building has T-8 fluorescent lighting installed. Energy savings and better light quality would be realized with new LED lighting. Recommend converting lighting to LED. Presently there is no automatic lighting control within the building. Energy savings would be realized by adding occupancy sensors and automatic lighting control.

Provide/upgrade emergency lighting throughout building.

Similarly recommend replacing existing site lights with new LED site lighting and poles as well as replacing existing building HID fixtures with LED fixtures.

Consider adding a generator to handle boilers and designated essential items.

Replace existing exit signs.

Provide code compliant fire alarm system.



# Okemos Public Schools

## Facilities Assessment

September 2018

### OKEMOS MONTESSORI @ CENTRAL

#### Observation Highlights

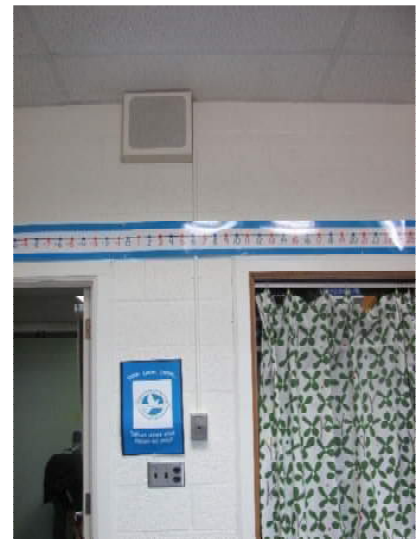
##### Special Systems:

Public Address System – Recommend replacing.

The program bell system – Recommend replacing

The original clock system is inadequate and recommended for replacement.

Sound systems – no issues noted.





# Okemos Public Schools

## Facilities Assessment

September 2018

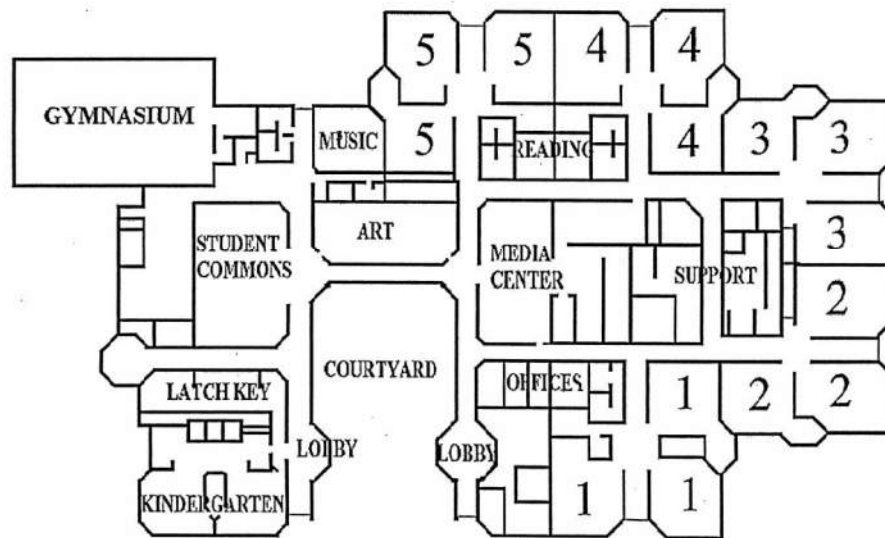
### BENNETT WOODS ELEMENTARY

Use: K-4  
Population/Capacity: 413/475  
Built: 1993  
Additions/Renovations:  
Total Area: 50,000 SF  
Site: 45 Acres



CRV \$20,006,250  
Priority 1; 0 – 4 year DMB/**FCI** \$ 1,282,814/**6%**  
DMB Excess (over APPA 5%) \$ 282,502  
Annual Cost to maintain current DMB \$ 400,125/Year

### BENNETT WOODS ELEMENTARY



### BENNETT WOODS ELEMENTARY FLOOR PLAN

# Okemos Public Schools

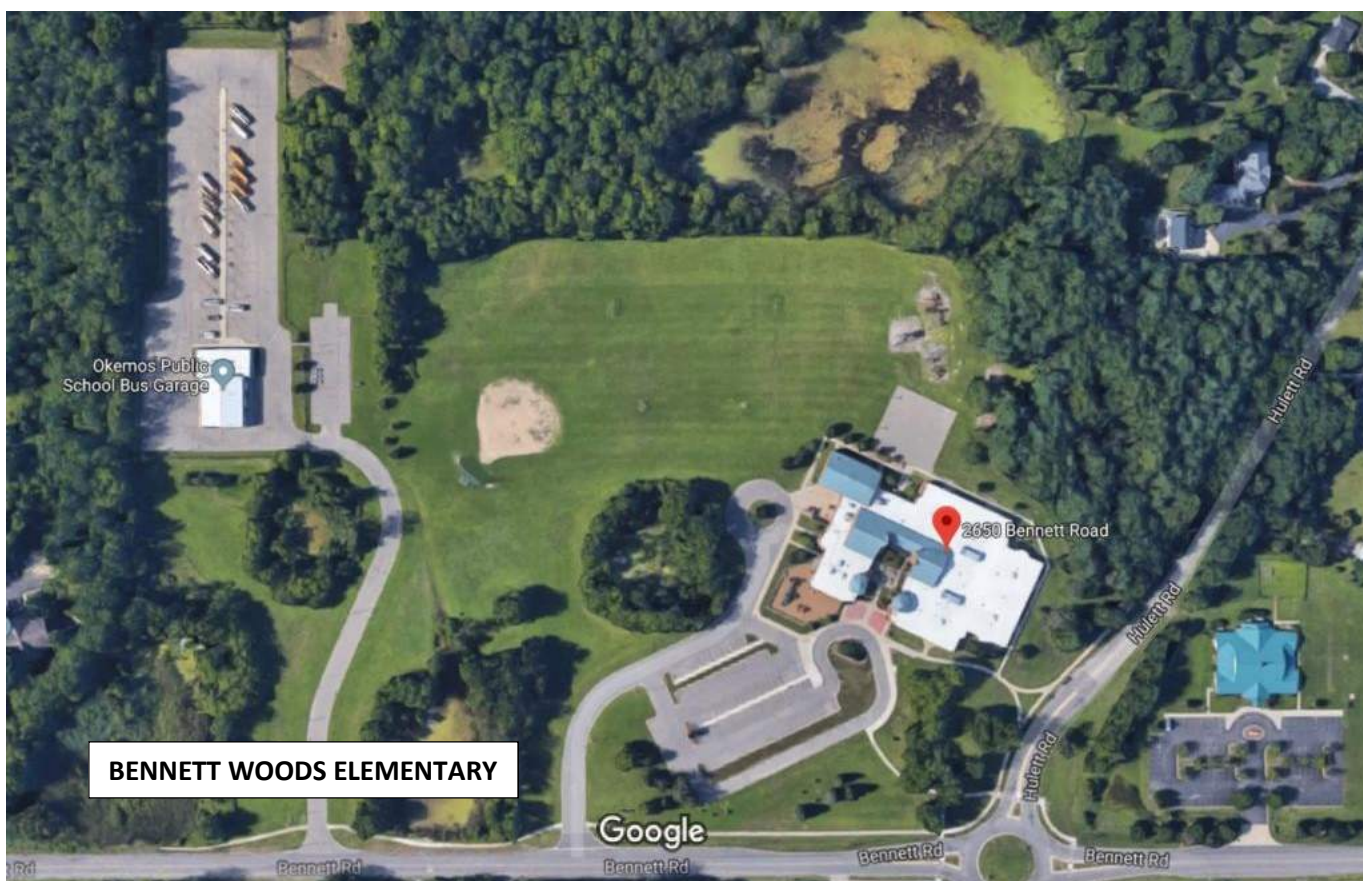
## Facilities Assessment

### September 2018

#### BENNETT WOODS ELEMENTARY

##### Observation Highlights

The 45-acre Bennett Woods site is shared with the District Transportation Facility. Site access is from a single entrance drive from Bennett Road. Site circulation appears to be well organized, separating bus, parent drop after entering the site on a common entrance drive. Consider adding a separate bus drive from the Transportation drive to the existing bus loop, separating the current drive for parents and visitors.



# Okemos Public Schools

## Facilities Assessment

September 2018

### BENNETT WOODS ELEMENTARY

#### Observation Highlights

##### Site:

Site appears to be well drained with the exception of the interior courtyard near the front where water has been reported to drain into the corridor with heavy rains. Regrade and landscape this area with a drainage structure.

Existing masonry chiller screen wall is deteriorating. Recommend removal and replacement.



##### Paving:

Drives and lots repaved in 2013 and in excellent condition. With proper maintenance lots should be serviceable for another 10 - 15 years. Site concrete in fair condition. Recommend allowance to reconstruct select concrete walks. Brick pavers at entrance are deteriorating. Could be a potential trip hazard. Recommend replacing with stamped, colored concrete.



##### Playgrounds:

Playground equipment is in fair condition. Structures replaced in 2002. Some replacement may be required. District maintains and adds surfacing yearly. Provide allowance for new playground structures. Existing masonry playground wall is deteriorating. Recommend removal and replacement with decorative steel fence.



Playfields are in good condition. No issues noted.



# Okemos Public Schools

## Facilities Assessment

September 2018

### BENNETT WOODS ELEMENTARY

#### Observation Highlights

##### Code:

Built in 1993, building appears to meet most current barrier free codes.

Building meets life safety and building code from time of most recent construction.

##### Hazardous Materials:

There are no known hazardous materials.

##### Security:

Building has secure entrance with electronic locks and recently installed camera system to control main entrance. The building has a web-based security camera system throughout building. There is not a secure vestibule into the main office. There does not appear to be door contacts to notify when exterior doors are compromised. Consider secure vestibule, security window film and door contacts in program improvements.





# Okemos Public Schools

## Facilities Assessment

September 2018

### BENNETT WOODS ELEMENTARY

#### Observation Highlights

##### Building Envelope:

Royal West/Firestone PVC roof over west wing was replaced in 2008 and if well maintained, should be serviceable until 2025 - 2028.

Metal roof, gutters, downspouts over are in excellent condition. No issues noted.

Jumbo brick with cast stone bands envelope in excellent condition. No issues noted.

Original colored aluminum insulated windows with integral blinds are in excellent condition. No issues noted. Existing storefront entrances are all in excellent condition. No issues noted.

Existing HM doors/frames are in fair condition. Eventually HM doors/frames rust and should be replaced w/Alum/FRP doors/frames.



# Okemos Public Schools

## Facilities Assessment

September 2018

### BENNETT WOODS ELEMENTARY

#### Observation Highlights

##### Interiors:

**Flooring** is a mix of carpet, vinyl composition tile (VCT), wood sports flooring, porcelain, quarry and ceramic mosaic tile all mainly in good condition. Carpet in corridors and select classrooms is worn and nearing the end of its serviceable life. The district has done a good job of selectively replacing carpet throughout all buildings through their sinking fund.

Replace sheet flooring in Art Room. Consider polished concrete.

Wood sports flooring in Gym is in good condition.

Porcelain tile in vestibules is in excellent condition, but often covered with throw rugs. Recommend replacement with special recessed entrance 'walk-off' carpet mats.



# Okemos Public Schools

## Facilities Assessment

### September 2018

#### BENNETT WOODS ELEMENTARY

##### Observation Highlights

###### Interiors:

Interior classroom walls are a combination of painted gypsum board and CMU and in good condition. With continuing good maintenance, these shall serve well into the future.

Majority of public space walls are a durable 'Zolotone' paint system finish in fair to good condition. Surfaces that are damaged are not 'patchable' with this system. Recommend replacing surfaces with semi-gloss enamel coatings.

Restroom walls are generally ceramic tile/painted gypsum board/CMU and in excellent condition. No issues noted.

Ceilings are mainly suspended acoustical 2 x 4 panels, gypsum board and exposed metal deck and are in excellent serviceable condition. No issues noted.

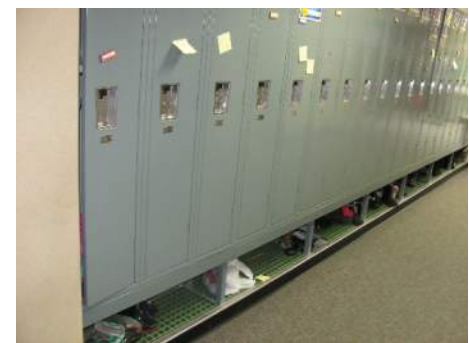
Majority of interior wood doors are in excellent condition. District installed electronic access locks at all classrooms. No issues noted.

Restroom and locker room walls are generally ceramic tile/painted gypsum board/CMU and in excellent condition. No issues noted.

Replace existing fixed basketball goals with new adjustable units for elementary students.

Majority of laminate clad casework is in good condition with the exception of some oversized doors and some countertop delamination in places. Recommend replacement allowance in 5 years and in 5 - 10 years.

Some classroom furnishings are old and educationally inflexible. In order to encourage collaboration and 21st century pedagogies replacement furnishings should be lightweight, stackable, ergonomically appropriate to facilitate learning. Media centers should be designed with comfortable project, study and reading areas wired for current technologies.



# Okemos Public Schools

## Facilities Assessment

September 2018

### BENNETT WOODS ELEMENTARY

#### Observation Highlights

##### Mechanical:

In general, the existing mechanical systems have been very well maintained through wise sinking fund investments and are in good condition. Continue normal maintenance procedures to maximize life cycle.

Boilers and associated pumps replaced in 2015. No work is required.

Central AHU rooftop units have built in DX cooling. Rooftop units and associated VAV boxes are original to building. Rooftop units have median life expectancy of 15-25 years. Replace in next 5 -10 years.



Exhaust systems are original to building (20 years old) and should be replaced.



Building is on district temperature control system, no work required. Replace CO2 sensors.





# Okemos Public Schools

## Facilities Assessment

### September 2018

#### BENNETT WOODS ELEMENTARY

#### Observation Highlights

##### Mechanical:

Plumbing systems and fixtures are mainly all working adequately.

Majority of piping is original to building and has a life expectancy of 80 years. Past water quality events in Flint have led to concerns about the water quality in all schools across Michigan. Aging facilities with old piping and water service sources may lead to future legislation requiring potential costly piping and fixture replacement. Until testing has been completed at each school facility, it is difficult to predict the cost impact or where funding will come from. as such a budget for testing is included in this assessment for each school building.

Domestic water heaters are a 75 gallon, 76 Mbh and 80 gallon, 190 Mbh, serving building well and in good condition. Water heaters are 15+ years old and may need replacement in 5-10 years.

A 6-inch fire suppression main with two 4-inch risers provide fire suppression for entire building.



##### Electrical:

Panels and distribution in good condition. No issues noted.

Recommend replacing existing site lights with new LED site lighting on existing poles.

Recommend replacing existing HID fixtures with new LED fixtures.

Provide tamper proof receptacles in areas required by NEC 406.12



# Okemos Public Schools

## Facilities Assessment

September 2018

### **BENNETT WOODS ELEMENTARY**

#### **Observation Highlights**

##### **Electrical:**

Existing building has T-8 fluorescent lighting installed. Energy savings and better light quality would be realized with new LED lighting. Recommend converting lighting to LED. Presently there is no automatic lighting control within the building. Energy savings would be realized by adding occupancy sensors and automatic lighting control.

Consider adding a generator to handle boilers and designated essential items.



##### **Special Systems:**

Public Address System – No issues noted

The program bell system – No issues noted

The original clock system is inadequate and recommended for replacement.

Sound systems – no issues noted.

# Okemos Public Schools

## Facilities Assessment

September 2018

### KINAWA 5-6 SCHOOL

Use: Grades 5 - 6

Population/Capacity: 712/900

Built: 1965

Additions/Renovations:

Total Area: 153,300 SF

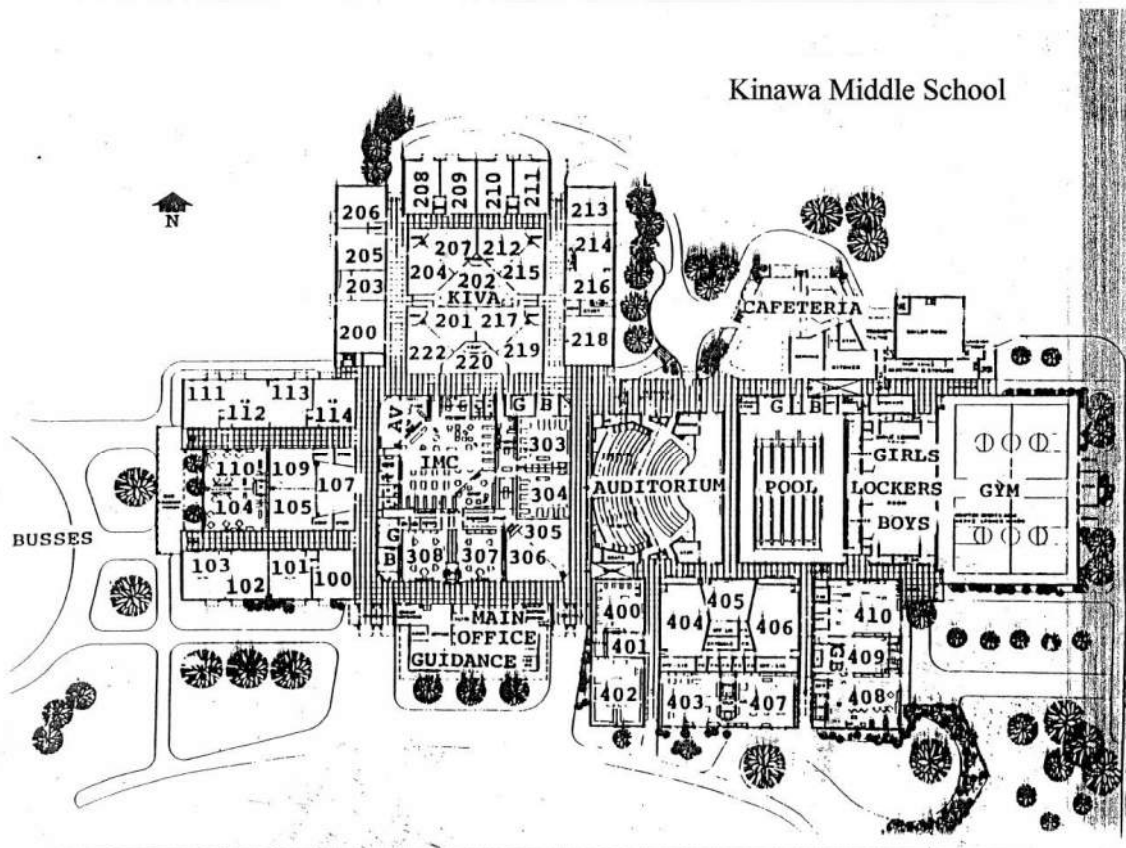
Site: 72 Acres

CRV \$42,157,500

Priority 1; 0 – 4 year DMB/**FCI** \$13,057,881/**31%**

DMB Excess (over APPA 5%) \$10,950,006

Annual Cost to maintain current DMB \$ 843,150/Year



### KINAWA 5-6 SCHOOL FLOOR PLAN



# Okemos Public Schools

## Facilities Assessment

### September 2018

#### KINAWA 5-6 SCHOOL

##### Observation Highlights

The Kinawa School is sited on a generous 72 acres. Site access is from five separate entrances off Kinawa Drive. An additional access is provided to a small parking lot on the east side of the site for athletic fields. Site circulation is well organized, separating bus, parent drop and parking safely.





# Okemos Public Schools

## Facilities Assessment

September 2018

### KINAWA 5-6 SCHOOL

#### Observation Highlights

##### Site:

Site appears to be well drained. Landscape is well maintained. Site retaining wall on southeast is deteriorating. Remove, regrade and re-seed.

Existing masonry chiller screen wall is deteriorating. Recommend removal and replacement.

##### Paving:

Main lot on east and drives received new base and asphalt in 2004 in fair condition. Exhibiting cracks and wear especially in the drive. Recommend repaving. Asphalt walks off east lot in poor condition. Exhibiting cracks and wear. Recommend repaving w/concrete. Asphalt hard play area in poor condition. Exhibiting cracks and alleagatoring. Recommend repaving.

##### Playgrounds:

Playground equipment is in fair condition. Some replacement may be required. District maintains and adds surfacing yearly. Provide allowance for new playground structures. Existing masonry playground wall is deteriorating. Recommend removal and replacement with decorative steel fence.

Tennis courts w/fencing in fair condition. Resurfaced in 2008. Rebuild with concrete base and surfacing in 5 - 10 years

Ballfields are in good condition. No issues noted.



# Okemos Public Schools

## Facilities Assessment

September 2018

### KINAWA 5-6 SCHOOL

#### Observation Highlights

##### Code:

Built in 1965, building meets barrier free codes in force during the latest remodeling (Grandfathered). Functional remodeling or an ADA challenge may require upgrades as follows:

- Replace door hardware with BF lever (nic CRs)
- Remodel Toilet Rooms to meet BF
- Add BF counters in classrooms (incl. in casework replacement)

Building meets life safety and building code from time of most recent construction.

##### Hazardous Materials:

There are no known hazardous materials.



##### Security:

Building has secure entrance with electronic locks and recently installed camera system to control main entrance. The building has a web-based security camera system throughout building. There is not a secure vestibule into the main office. There does not appear to be door contacts to notify when exterior doors are compromised. Consider secure vestibule, security window film and door contacts in program improvements.



# Okemos Public Schools

## Facilities Assessment

September 2018

### KINAWA 5-6 SCHOOL

#### Observation Highlights

##### Building Envelope:

S & B Firestone PVC roof over west and north classroom wings were replaced in 2001 and reaching the end of their serviceable life. Recommend replacement in next 1 - 5 years. Cooley PVC roof over south classrooms and cafeteria were replaced in 2003 in and reaching the end of their serviceable life. Recommend replacement in next 1 - 5 years. McDonald Carlisle PVC roof over auditorium, pool gym were replaced in 2011 in and if well maintained should be serviceable until 2027.

Brick envelope in excellent condition. No issues noted. Original brick chimney is in poor condition and not necessary anymore. Remove and cap. Plaster soffits/fascia overhangs in good condition. No issues noted. Loading dock is in poor condition. Rebuild.

Original single glazed aluminum windows are in fair to poor condition. Recommend replacing with insulated glazing w/integral blinds.

Existing storefront entrances are all in excellent condition. No issues noted.

Existing HM doors/frames are in fair condition. Eventually HM doors/frames rust and should be replaced w/Alum/FRP doors/frames.





# Okemos Public Schools

## Facilities Assessment

September 2018

### KINAWA 5-6 SCHOOL

#### Observation Highlights

##### General Remodeling:

Facility in excellent condition. With the exception of closing or repurposing the pool/lockers and remodeling the auditorium, no general remodeling necessary from cyclical maintenance.

Existing pool is currently closed. Consider upgrades necessary to reopen pool as physical education learning space or redevelop for project-based learning/STEAM space or other function.

Recommend upgrading Auditorium systems including stage lighting, drapery, sound/AV and stage flooring.





# Okemos Public Schools

## Facilities Assessment

September 2018

### KINAWA 5-6 SCHOOL

#### Observation Highlights

##### Interiors:

**Flooring** is a mix of terrazzo, carpet, vinyl composition (and some Asbestos) tile (VCT/VAT), wood sports flooring, quarry and ceramic mosaic tile all mainly in good condition. Carpet in select classrooms/areas is worn and nearing the end of its serviceable life. The district has done a good job of selectively replacing carpet throughout all buildings through their sinking fund.

Terrazzo and hard tile flooring in excellent condition. No issues noted.

Replace flooring in Art Room. Consider polished concrete.

Wood sports flooring in Main Gym is in good condition.



# Okemos Public Schools

## Facilities Assessment

September 2018

### KINAWA 5-6 SCHOOL

#### Observation Highlights

##### Interiors:

Existing walls in the classroom wings are demountable partitions, secured to the ceilings. This system does not prevent the transmission of noise between classrooms and corridors. Recommend removing and replacing with acoustically treated gypsum partitions to the deck. This will also require ceiling replacement.

Existing operable panel partitions are not in good working condition and are not used. Recommend removal and replacement with gypsum partitions

Majority of public space walls are a very durable brick, CMU and some gypsum board in excellent condition. These should serve well into the future.

Restroom and lockerroom walls are generally glazed tile/painted gypsum board/CMU and in excellent condition. No issues noted.

Acoustical panel ceilings and grid are in fair to good condition. Some panels are 'pillowed' from moisture, but still serviceable. Some gypsum board ceilings were observed to be damaged from water. Recommend replacement.

Exposed tectum deck ceiling in Gym in excellent condition. No issues noted.

Majority of interior wood doors are in excellent condition. District installed electronic access locks at all classrooms. Recommend allowance to replace existing damaged interior wood doors.

Corridor Lockers are in fair condition. Some rust will occur in bottoms and some doors are out of alignment. With good maintenance, lockers should be serviceable for next 5 -10 years. PE/Team lockers are in fair condition. Typically PE lockers are in a high abuse environment. Recommend replacing half in next 5 years and half in 5 - 10 years.



# Okemos Public Schools

## Facilities Assessment

September 2018

### KINAWA 5-6 SCHOOL

#### Observation Highlights

##### Interiors:

Majority of laminate clad casework is in good condition with the exception of some oversized doors and some countertop delamination in places. Recommend replacement allowance in 5 years and in 5 - 10 years.

Science room casework/tables/stations in fair condition. With good maintenance, they should be serviceable for the next 5+ years.

Recommend replacement in 5 - 10 years

Music room/corridor instrument storage in fair to poor condition.

Recommend replacement in next 5 years.

Acoustical wall treatments in sensitive areas such as music, gyms, cafeteria in excellent condition and appear to control noise well.

Remove bleachers and rebuild railing system at upper gym.

Upgrade foodservice equipment as follows:

Add a disposer to the three-compartment sink, a new 4 well hot food table, a new 5 well cold food table, two – 2 door refrigerators, re-equip the Ala-Carte area, Replace Hood & Fire System (to meet current MMC codes).

Some classroom furnishings are old and educationally inflexible. In order to encourage collaboration and 21st century pedagogies replacement furnishings should be lightweight, stackable, ergonomically appropriate to facilitate learning. Media centers should be designed with comfortable project, study and reading areas wired for current technologies.





# Okemos Public Schools

## Facilities Assessment

### September 2018

#### KINAWA 5-6 SCHOOL

##### Observation Highlights

##### Mechanical:

In general, the existing mechanical systems have been very well maintained through wise sinking fund investments and are in good condition. Continue normal maintenance procedures to maximize life cycle.

Boilers and associated pumps replaced in 2006. No work is required.

Two air-cooled chillers provide cooling for the building. Units are approximately 10 years old and in good condition.

Central air-handling units provide heating and cooling for the majority of the building. Units are in good condition.

Replace rusting diffusers in 200 wing.

Exhaust systems are original to building (40 years old) and should be replaced.

Replace existing pneumatic temperature controls with new DDC system to communicate with district's system.

Update existing energy management system (Trane). Add/replace CO2 sensors.





**KINAWA 5-6 SCHOOL**  
**Observation Highlights**

**Mechanical:**

Plumbing systems and fixtures are mainly all working adequately.

Majority of piping is original to building and has a life expectancy of 80 years. Past water quality events in Flint have led to concerns about the water quality in all schools across Michigan. Aging facilities with old piping and water service sources may lead to future legislation requiring potential costly piping and fixture replacement. Until testing has been completed at each school facility, it is difficult to predict the cost impact or where funding will come from. As such a budget for testing is included in this assessment for each school building.

Domestic water heaters are Two (2) 100 gallon, 300 Mbh water heaters in mechanical room serve the building and are in good condition. Water heaters are less than 10 years old.

Ground water is ponding on floor of basement. Provide storm water sump and pump.

A limited area fire suppression system serves the Auditorium Stage, Boiler Room, and Receiving.

Pool heater (boiler) has been disconnected and abandoned.

**Electrical:**

Panels and distribution in good condition. No issues noted.

Provide tamper proof receptacles in areas required by NEC 406.12



# Okemos Public Schools

## Facilities Assessment

### September 2018

#### KINAWA 5-6 SCHOOL

##### Observation Highlights

##### Electrical:

Existing building has T-8 fluorescent lighting installed. Energy savings and better light quality would be realized with new LED lighting. Recommend converting lighting to LED. Presently there is no automatic lighting control within the building. Energy savings would be realized by adding occupancy sensors and automatic lighting control.



Recommend replacing existing site lights with new LED site lighting on existing poles.

Recommend replacing existing HID exterior building fixtures with new LED fixtures.

Recommend upgrading Fire Alarm System.

Recommend replacing exit lights with new LED units.

Recommend replacing existing generator.



##### Special Systems:

Public Address System – No issues noted

The program bell system – No issues noted

The original clock system is inadequate and recommended for replacement.

Sound systems – no issues noted.

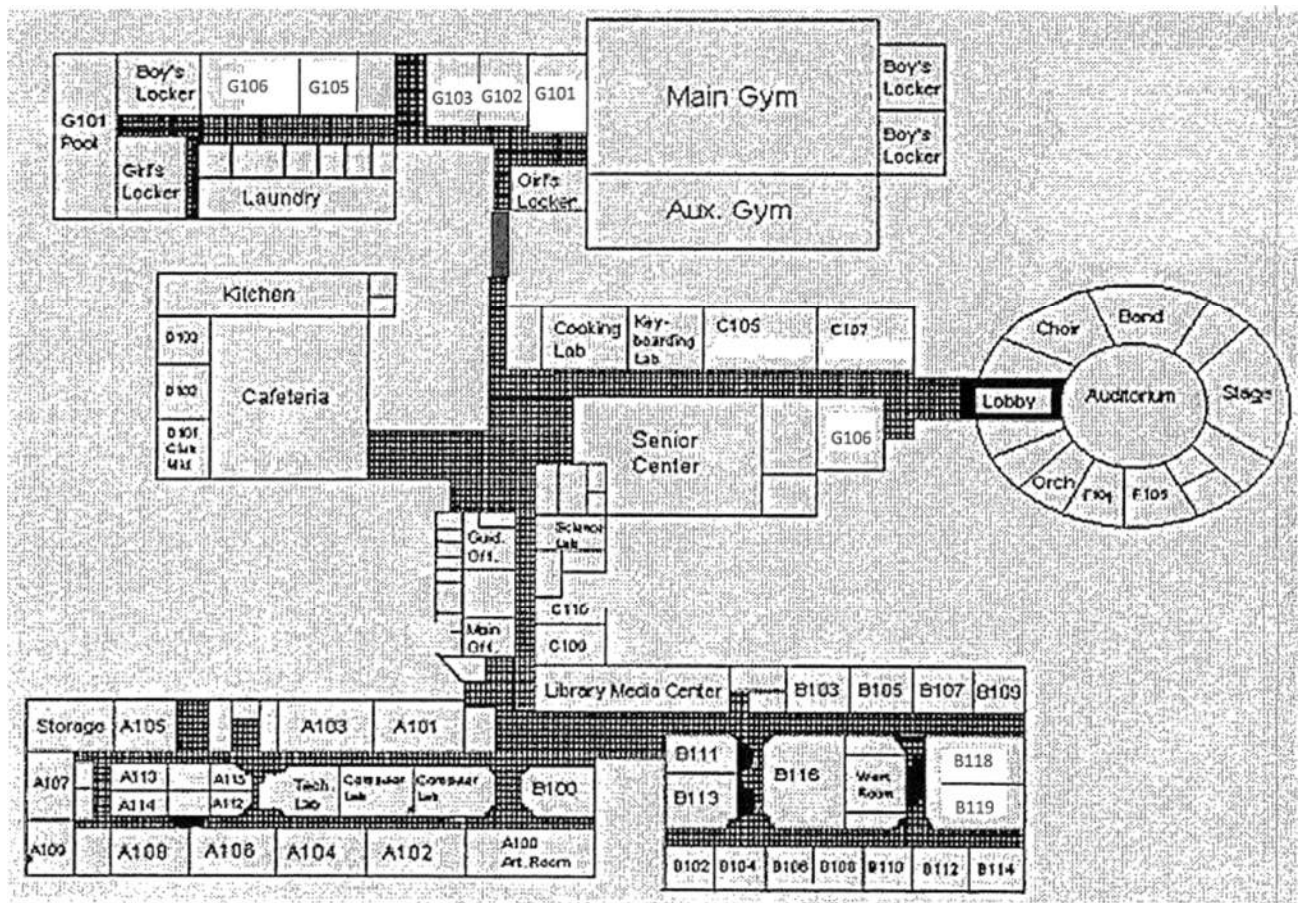
# Okemos Public Schools

## Facilities Assessment

September 2018

### CHIPPEWA 7-8 MIDDLE SCHOOL

Use:	Grades 7 - 8
Population/Capacity:	700/950
Built:	1958
Additions/Renovations:	1963, 1966, 1977, 1995
Total Area:	196,750 SF
Site:	78 Acres
CRV	\$54,106,250
Priority 1; 0 – 4 year DMB/ <b>FCI</b>	\$11,971,980/ <b>22%</b>
DMB Excess (over APPA 5%)	\$ 9,266,668
Annual Cost to maintain current DMB	\$ 1,082,125/Year



CHIPPEWA 7-8 MIDDLE SCHOOL FLOOR PLAN



# Okemos Public Schools

## Facilities Assessment

September 2018

### CHIPPEWA 7-8 MIDDLE SCHOOL

#### Observation Highlights

The Chippewa School is sited on a generous 78 acres. Site access is from four separate entrances off Kinawa Drive. An additional access is provided to a small parking lot on the east side of the site for athletic fields and Ingham ISD Building. Site circulation is well organized, separating bus, parent drop and parking safely.





# Okemos Public Schools

## Facilities Assessment

September 2018

### CHIPPEWA 7-8 MIDDLE SCHOOL

#### Observation Highlights

##### Site:

Site appears to be well drained. Landscaping is well maintained. Note that no irrigation on playfields. No other issues noted. As a former High School, site is populated with numerous ballfields, football/track stadium and tennis courts.

##### Paving:

SE entrance and Bus drive were repaved in 2005/2006 and are in good/fair condition. Exhibiting some cracks and wear. Repave in the next 5 - 10 years. Senior Center lot and drive were repaved in 2008/2009 and in good condition. With proper maintenance these lightly traveled surfaces should be serviceable for another 10 years. Main lot/drives on the west were reconfigured and repaved in 2010 and in excellent condition. With proper maintenance these surfaces should be serviceable for another 10 years. Paving at service area is in poor condition and should be repaved. There is a desire to add a new 30 car lot near tennis courts by removing 2 tennis courts.

Site concrete in good/fair condition. Recommend allowance to reconstruct select concrete walks.

##### Playfields:

Tennis courts w/fencing in fair condition. Resurfaced in 2008. Rebuild with concrete base and new surfacing in 5 - 10 years.

Ballfields in fair condition. No issues noted.

Football field concessions and press booth are in poor condition. Demolish Press Box and replace concessions.



# Okemos Public Schools

## Facilities Assessment

September 2018

### CHIPPEWA 7-8 MIDDLE SCHOOL

#### Observation Highlights

##### Code:

Built in 1958 and subsequent 1963 - 1995 remodeling/additions, building meets barrier free codes in force during the latest remodeling (Grandfathered).

Functional remodeling or an ADA challenge may require upgrades as follows:

- Replace door hardware with BF lever (nic CRs)
- Remodel Toilet Rooms to meet BF
- Add BF counters in classrooms (incl. in casework replacement)

Building meets life safety and building code from time of most recent construction.

##### Hazardous Materials:

There are no known hazardous materials.

##### Security:

Building has secure entrance with electronic locks and recently installed camera system to control main entrance. The building has a web-based security camera system throughout building. There is not a secure vestibule into the main office. There does not appear to be door contacts to notify when exterior doors are compromised. Consider secure vestibule, security window film and door contacts in program improvements.



# Okemos Public Schools

## Facilities Assessment

September 2018

### CHIPPEWA 7-8 MIDDLE SCHOOL

#### Observation Highlights

##### Building Envelope:

Cooley PVC roof over A, B, office and Media wings were replaced in 2001 and reaching the end of their serviceable life. Recommend replacement in next 1 - 5 years. Bloom/JP Stevens PVC roof over D wing/cafeteria/commons and G wing conference were replaced in 2002 in and reaching the end of their serviceable life. Recommend replacement in next 1 - 5 years. Cooley PVC roof over auditorium, senior center and G Wing were replaced in 2003 and if well maintained should be serviceable until 2023. Royal West/Firestone PVC roof over auditorium (low) and Gym were replaced in 2010 and if well maintained should be serviceable until 2030.

Majority of the envelope is precast panels and ground faced block along with high bay metal siding and some brick veneer on connecting links and upper Auditorium. A & B wing envelope is in good condition with no known issues. Ground faced block should be sealed every 5 years (maintenance). Precast panels are damaged at some corners and should be repaired (maintenance). Joints should be resealed when necessary (no current issues). Finish on the metal panels on high bays are flaking and should be refinish.

Aluminum window systems with integral blinds appear to be in good condition in all units except in C wing (Community Ed and Theater/Music). Replace windows in C wing/auditorium/Music. Some storefront glazing between D and G wings appears to be original single glazed units. Consider replacing with thermally broke insulated aluminum units.



# Okemos Public Schools

## Facilities Assessment

September 2018

### CHIPPEWA 7-8 MIDDLE SCHOOL

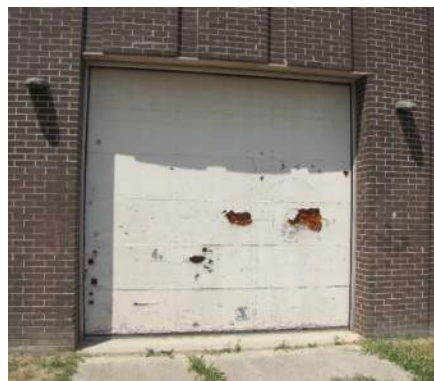
#### Observation Highlights

##### Building Envelope:



Existing storefront entrances are all in excellent condition. Replace select thermally broke insulated aluminum transoms and sidelights.

Existing HM doors/frames are in fair condition. Eventually HM doors/frames rust and should be replaced w/Alum/FRP doors/frames.





# Okemos Public Schools

## Facilities Assessment

### September 2018

#### CHIPPEWA 7-8 MIDDLE SCHOOL

##### Observation Highlights

###### General Remodeling:

Most of the academic wings are in good condition. The existing pool has been shut down and emptied. Plans are to fill pool in and repurpose as a Multi-purpose room. Remodel/repurpose pool locker rooms. The Fine Arts wing is worn and in need of remodeling (with the exception of the corridor/Lobby ceilings/lighting and toilet rooms). Phase 4 remodeling of the G wing includes locker rooms, storage and multi-purpose room. Refer to program improvements for potential remodeling for program updates.

Close pool, fill in and remodel into a multi-purpose facility and reopen as physical education learning space or redevelop for project-based learning/STEAM space or other function.

Recommend upgrading Fine Arts/Auditorium wing including new flooring, new ceilings, LED lighting, doors, acoustical treatment and music storage in classrooms, stage lighting, drapery, sound/AV and stage flooring.



# Okemos Public Schools

## Facilities Assessment

September 2018

### CHIPPEWA 7-8 MIDDLE SCHOOL

#### Observation Highlights

##### Interiors:

**Flooring** is a mix of terrazzo, carpet, vinyl composition (and some Asbestos) tile (VCT/VAT), wood sports flooring, quarry and ceramic mosaic tile all mainly in good condition. Carpet in select classrooms/areas is worn and nearing the end of it's serviceable life. The district has done a good job of selectively replacing carpet throughout all buildings through their sinking fund.

Terrazzo and hard tile flooring in excellent condition. No issues noted.

Cafeteria VCT flooring is in poor condition. Recommend replacing with polished concrete.

Replace sheet flooring in Art Room. Consider polished concrete.

Main Gym flooring is worn and should be replaced. Auxiliary gym wood floor is in good condition.



# Okemos Public Schools

## Facilities Assessment

September 2018

### CHIPPEWA 7-8 MIDDLE SCHOOL

#### Observation Highlights

##### Interiors:

Classroom walls are a combination of painted gypsum board and CMU and in good condition. With continuing good maintenance, these shall serve well into the future.

Majority of public space walls are brick, painted concrete block with some gypsum board partitions. All are in good condition. With continuing good maintenance, these shall serve well into the future.

Restroom and lockerroom walls are generally glazed tile/painted gypsum board/CMU and in excellent condition. No issues noted.

Acoustical panel ceilings and grid are in good condition. No issues noted. Exposed metal acoustical deck ceiling in Gym in excellent condition. No issues noted.

Majority of interior wood doors are in excellent condition. District installed electronic access locks at all classrooms. Recommend allowance to replace existing damaged interior wood doors.

Corridor Lockers are in fair condition. Some rust will occur in bottoms and some doors are out of alignment. With good maintenance, lockers should be serviceable for next 5 -10 years. PE/Team lockers are in good condition with recent and 2018 G wing remodeling. Pool lockers will be replaced in remodel/repurpose of pool.



# Okemos Public Schools

## Facilities Assessment

September 2018

### CHIPPEWA 7-8 MIDDLE SCHOOL

#### Observation Highlights

##### Interiors:

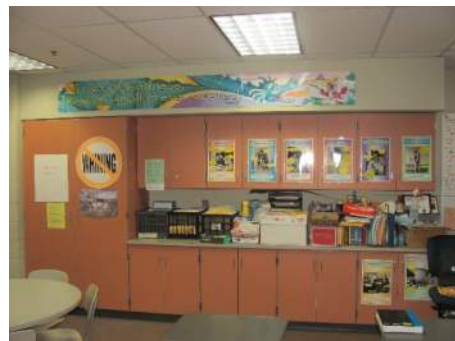
Majority of laminate clad casework is in good condition with the exception of some oversized doors and some countertop delamination in places. Recommend replacement allowance in 5 years and in 5 - 10 years.

Science room casework/tables/stations in fair condition. With good maintenance, they should be serviceable for the next 5+ years. Recommend replacement in 5 - 10 years

Acoustical wall treatments in sensitive areas such as music, gyms, cafeteria in excellent condition and appear to control noise well. Recommend acoustician model spaces for further improvements. Provide lump sum allowance.

FS equipment will be maintained by FS budget. No issues noted.

Some classroom furnishings are old and educationally inflexible. In order to encourage collaboration and 21st century pedagogies replacement furnishings should be lightweight, stackable, ergonomically appropriate to facilitate learning. Media centers should be designed with comfortable project, study and reading areas wired for current technologies.





# Okemos Public Schools

## Facilities Assessment

### September 2018

#### CHIPPEWA 7-8 MIDDLE SCHOOL

#### Observation Highlights

##### Mechanical:

In general, the existing mechanical systems have been very well maintained through wise sinking fund investments and are in good condition. Continue normal maintenance procedures to maximize life cycle.

Boilers and associated pumps replaced in 2010 (A&B) and 2013 (G), no work required.

Replace AHUs serving Auditorium, band, and choir areas (add A/C)

Replace heating only (HW) AHU serving science rooms (add A/C).

Replace Admin rooftop unit and add VAV boxes for more occupant control.

Replace DX cooling, gas heat rooftop units.

Replace noisy classroom unit ventilators (A&B).

Replace (heating only) classroom unit ventilators (C), with units with packaged cooling.

Exhaust systems are original to building (60 years old) and should be replaced.

Replace existing pneumatic temperature controls with new DDC system to communicate with district's system.

Update existing energy management system (Trane). Add/replace CO2 sensors.



# Okemos Public Schools

## Facilities Assessment

September 2018

### CHIPPEWA 7-8 MIDDLE SCHOOL

#### Observation Highlights

##### Mechanical:

Plumbing systems and fixtures are mainly all working adequately.

Majority of piping is original to building and has a life expectancy of 80 years. Past water quality events in Flint have led to concerns about the water quality in all schools across Michigan. Aging facilities with old piping and water service sources may lead to future legislation requiring potential costly piping and fixture replacement. Until testing has been completed at each school facility, it is difficult to predict the cost impact or where funding will come from. As such a budget for testing is included in this assessment for each school building.

Domestic water heater is an 85 gallon, 365 Mbh unit and is in good condition. Water heater is approximately 10 years old.

Provide mixing valves and pipe-wrap at traps for barrier-free fixtures.

##### Electrical:

Panels and distribution are aged. Replace existing original panels, transformers, and disconnects

Provide tamper proof receptacles in areas required by NEC 406.12



# Okemos Public Schools

## Facilities Assessment

September 2018

### CHIPPEWA 7-8 MIDDLE SCHOOL

#### Observation Highlights

##### Electrical:

Existing building has T-8 fluorescent lighting installed. Energy savings and better light quality would be realized with new LED lighting.

Recommend converting lighting to LED. Presently there is no automatic lighting control within the building. Energy savings would be realized by adding occupancy sensors and automatic lighting control.

Recommend replacing existing site lights on the east with new LED site lighting on new poles.

Recommend replacing existing HID exterior building fixtures with new LED fixtures.

No issues noted on existing Fire Alarm System.

Recommend adding generator to handle boilers and designated essential items.

##### Special Systems:

Public Address System – No issues noted

The program bell system – No issues noted

The original clock system is inadequate and recommended for replacement.

Sound systems – no issues noted.



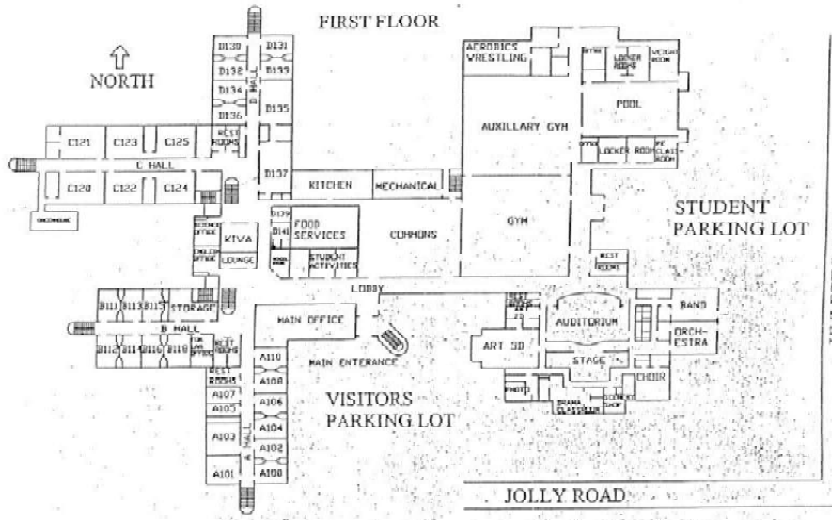
# Okemos Public Schools

## Facilities Assessment

### September 2018

#### OKEMOS HIGH SCHOOL

Use:	Grades 9 - 12
Population/Capacity:	1382/19006
Built:	1994
Additions/Renovations:	2015
Total Area:	320,000 SF
Site:	96 Acres
CRV	\$96,000,000
Priority 1; 0 – 4 year DMB/ <b>FCI</b>	\$ 6,643,967/ <b>7%</b>
DMB Excess (over APPA 5%)	\$ 1,843,967
Annual Cost to maintain current DMB	\$ 1,920,000/Year



OKEMOS HIGH SCHOOL FLOOR PLAN



# Okemos Public Schools

## Facilities Assessment

September 2018

### OKEMOS HIGH SCHOOL

#### Observation Highlights

Okemos High school is sited on a generous 96 acres. Main visitor and bus access is from Jolly Road. Student entrance and parent drop/pick-up is off Hulett Road with separate entrance/exit drives. An additional access is provided to a parking lot that serves the stadium. Site circulation is well organized, separating bus, student parking, parent drop and parking safely.



# Okemos Public Schools

## Facilities Assessment

September 2018

### OKEMOS HIGH SCHOOL

#### Observation Highlights

##### Site:

Site appears to be well drained. Landscaping is well maintained. Site is populated with numerous ballfields, football/track stadium and tennis courts.

##### Paving:

Athletic Complex parking and drives in fair condition. Exhibiting cracks and wear. Mill and repave. Drives off Hulett Rd rebuilt and repaved in 2018. Good for 15 - 20 years. Student lot repaved in 2017. Good for 15 - 20 years. Entrance drive off of Jolly up to west parking lot and parking lot on south was repaved in 2018. Good for 15 - 20 years. Drive and parking west and north of HS in fair condition. Exhibiting cracks and wear. Mill and repave in next 5 years.

Site concrete in good/fair condition. Recommend allowance to reconstruct select concrete walks.

##### Playfields/stadium:

Tennis courts w/fencing in fair condition. Resurfaced in 2014. Rebuild with concrete base and new surface in 5 - 10 years.

Ballfields in excellent condition. No issues noted.

Football stadium field upgraded in 2018 with artificial turf. Bleachers/fencing good condition. Fieldhouse appears to be in good condition. Budget for future locker upgrades.



# Okemos Public Schools

## Facilities Assessment

September 2018

### OKEMOS HIGH SCHOOL

#### Observation Highlights

##### Code:

Built in 1994, building appears to meet most current barrier free codes.

Building meets life safety and building code from time of most recent construction.

##### Hazardous Materials:

There are no known hazardous materials.

##### Security:

Building has secure entrance with electronic locks and recently installed camera system to control main entrance. The building has a web-based security camera system throughout building. There is not a secure vestibule into the main office. There does not appear to be door contacts to notify when exterior doors are compromised. Consider secure vestibule, security window film and door contacts in program improvements.



##### Building Envelope:

Metal roof, gutters, downspouts over classroom wings, around pool and PAC in excellent condition. No issues noted. McDonald/Carlisle PVC roof over PAC was replaced in 2011 and if well maintained, should be serviceable until 2026 - 2031. McDonald/Firestone PVC roof over gyms was replaced in 2007 in and if well maintained should be serviceable until 2022 - 2027. Royal West/Firestone PVC roof over pool, office and central area was replaced in 2008 and if well maintained should be serviceable until 2023 - 2028.





# Okemos Public Schools

## Facilities Assessment

September 2018

### OKEMOS HIGH SCHOOL

#### Observation Highlights

##### Building Envelope:

Jumbo brick envelope in excellent condition. No issues noted. Rounded cast sills are covered with silt/dirt. Power wash and seal.

Original colored aluminum insulated windows with integral blinds are in excellent condition. No issues noted.

Existing storefront entrances are all in excellent condition. No issues noted.

Existing HM doors/frames are in fair condition. Eventually HM doors/frames rust and should be replaced w/Alum/FRP doors/frames.





# Okemos Public Schools

## Facilities Assessment

September 2018

### OKEMOS HIGH SCHOOL

#### Observation Highlights

##### General Remodeling:

Facility in excellent condition. Other than auditorium and Natatorium upgrades, no general remodeling necessary from cyclical maintenance required. Refer to program improvements for potential remodeling for program updates.

Recommend upgrading Auditorium systems including stage lighting, drapery, sound/AV and stage flooring.

Corrosion apparent in Natatorium skylights, some equipment and HM doors. Provide a lump sum to replace equipment.

##### Interiors:

**Flooring** is a mix of terrazzo, carpet, vinyl composition tile (VCT), wood sports flooring, quarry and ceramic mosaic tile all mainly in good condition. Carpet in select classrooms/areas is worn and nearing the end of its serviceable life. The district has done a good job of selectively replacing carpet throughout all buildings through their sinking fund.

Terrazzo and hard tile flooring in excellent condition. No issues noted.

Replace sheet flooring in Art Room. Consider polished concrete.

Main Gym and auxiliary gym in excellent condition. No issues noted.



# Okemos Public Schools

## Facilities Assessment

September 2018

### OKEMOS HIGH SCHOOL

#### Observation Highlights

##### Interiors:

Majority of public space walls are a very durable burnished block with timeless colors in excellent condition. These should serve well into the future.

Classroom spaces are a combination of painted gypsum board and CMU and in good condition. With continuing good maintenance, these shall serve well into the future.

Restroom and lockerroom walls are generally glazed tile/painted gypsum board/CMU and in excellent condition. No issues noted.

Acoustical panel ceilings and grid are in excellent condition. No issues noted. Exposed metal acoustical deck ceiling in Gyms in excellent condition. No issues noted. Some gypsum board ceilings were observed to be damaged from water. Recommend replacement.

Majority of interior wood doors are in excellent condition. District installed electronic access locks at all classrooms. Recommend allowance to replace existing interior wood doors in high abuse areas such as gym/cafeteria areas.

Corridor Lockers are in fair condition. Some rust will occur in bottoms and some doors are out of alignment. With good maintenance, lockers should be serviceable for next 10+ years. PE Locker Rooms renovated in 2013 and in good condition. Team lockers are in fair condition. Typically PE lockers are in a high abuse environment. Recommend replacing Team in next 5. Pool lockers should be replaced in pool upgrades.



# Okemos Public Schools

## Facilities Assessment

September 2018

### OKEMOS HIGH SCHOOL

#### Observation Highlights

##### Interiors:

Majority of laminate clad casework is in good condition with the exception of some oversized doors and some countertop delamination in places. Recommend replacement allowance in 5 years and in 5 - 10 years.

Science room casework/tables/stations in fair condition. With good maintenance, they should be serviceable for the next 5+ years. Recommend replacement in 5 - 10 years. Existing fume hoods in chemistry rooms do not appear to be used. Code requires expensive continuous 100% air exchange. Recommend removing 5 of 6 units.

Music room/corridor instrument storage in fair to poor condition. Recommend replacement in phases 5 years and 5 - 10 years.

Acoustical wall treatments in sensitive areas such as music, gyms, cafeteria in excellent condition and appear to control noise well. It was noted modifications to the rear house of the PAC were made to improve reverberation times. Recommend acoustician model space for further improvements. Provide lump sum allowance.

Some classroom furnishings are old and educationally inflexible. In order to encourage collaboration and 21st century pedagogies replacement furnishings should be lightweight, stackable, ergonomically appropriate to facilitate learning. Media centers should be designed with comfortable project, study and reading areas wired for current technologies.

Most FS equipment will be maintained by FS budget. Add a double deck combi-oven under the existing bakery hood.





# Okemos Public Schools

## Facilities Assessment

### September 2018

#### OKEMOS HIGH SCHOOL

#### Observation Highlights

#### Mechanical:

In general, the existing mechanical systems have been very well maintained through wise sinking fund investments and are in good condition. Continue normal maintenance procedures to maximize life cycle.

Boilers and associated pumps replaced in 2014, no work required.

Two chillers, one water-cooled and one air-cooled, provide cooling for the building. The Trane air-cooled chiller needs refurbishing.

Central station air handling units provide heating and cooling throughout the building. Units are 20+ years old and in good condition.

Exhaust systems are original to building and in good condition, no work required.

Building is on district temperature control system, no work required.

Add/replace CO2 sensors.





# Okemos Public Schools

## Facilities Assessment

### September 2018

#### OKEMOS HIGH SCHOOL

##### Observation Highlights

##### Mechanical:

Plumbing systems and fixtures are mainly all working adequately.

Majority of piping is original to building and has a life expectancy of 80 years. Past water quality events in Flint have led to concerns about the water quality in all schools across Michigan. Aging facilities with old piping and water service sources may lead to future legislation requiring potential costly piping and fixture replacement. Until testing has been completed at each school facility, it is difficult to predict the cost impact or where funding will come from. As such a budget for testing is included in this assessment for each school building.

Domestic water heater is a 2000 Mbh water heater with remote 500-gallon storage tank provide hot water for the building. Heater and tank are in good condition.

An 8-inch water service with 30-hp fire pump and multiple risers provide fire suppression for the building.

A 500 Mbh boiler provides heat to pool water and is in good condition.



# Okemos Public Schools

## Facilities Assessment

### September 2018

#### OKEMOS HIGH SCHOOL

##### Observation Highlights

##### Electrical:

No issues noted with service or distribution.

Provide tamper proof receptacles in areas required by NEC 406.12

Existing fluorescent lighting was converted to LED in approximately 75% of the building. Convert/replace remaining 25% with LED (In Pool, PE & FA wing). Energy savings and better light quality would be realized with new LED lighting in these areas as well. Recommend converting lighting to LED. Presently there is no automatic lighting control within the building. Energy savings would be realized by adding occupancy sensors and automatic lighting control.

Recommend replacing existing site lights with new LED site lighting on existing poles.

Recommend replacing existing HID exterior building fixtures with new LED fixtures.

Add duct detectors on existing Fire Alarm System.

##### Special Systems:

Public Address System – No issues noted

The program bell system – No issues noted

The original clock system is inadequate and recommended for replacement.

Sound systems – no issues noted.



# Okemos Public Schools

## Facilities Assessment

### September 2018

#### CENTRAL ADMINISTRATION

Use: District Administration

Population/Capacity: NA

Built: 1948

Additions/Renovations: 1963, 1988

Total Area: 18,000 SF

Site: 28 Acres (W/Central EI)

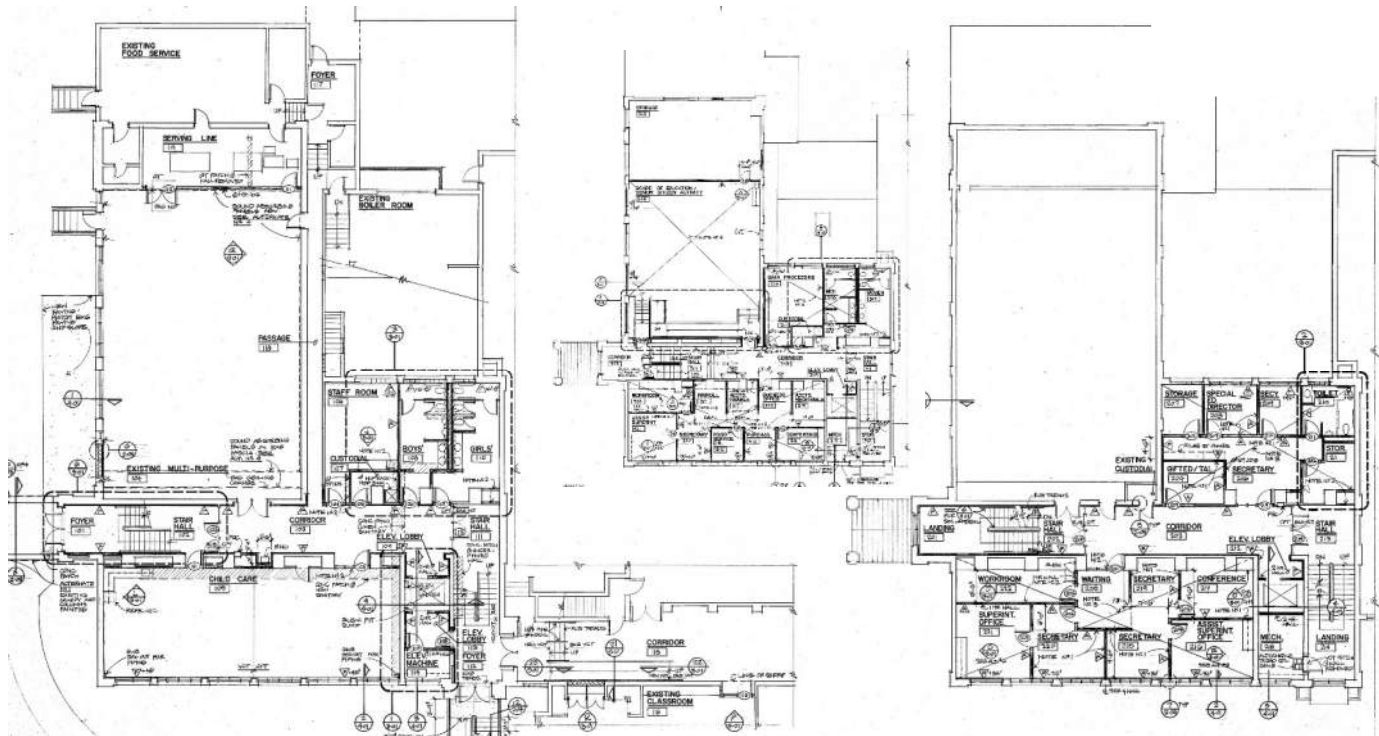


CRV \$ 3,600,000

Priority 1; 0 – 4 year DMB/**FCI** \$ 475,463/**13%**

DMB Excess (over APPA 5%) \$ 295,463

Annual Cost to maintain current DMB \$ 72,000/Year



First Floor

Third Floor

Second Floor

#### CENTRAL ADMINISTRATION FLOOR PLANS

# Okemos Public Schools

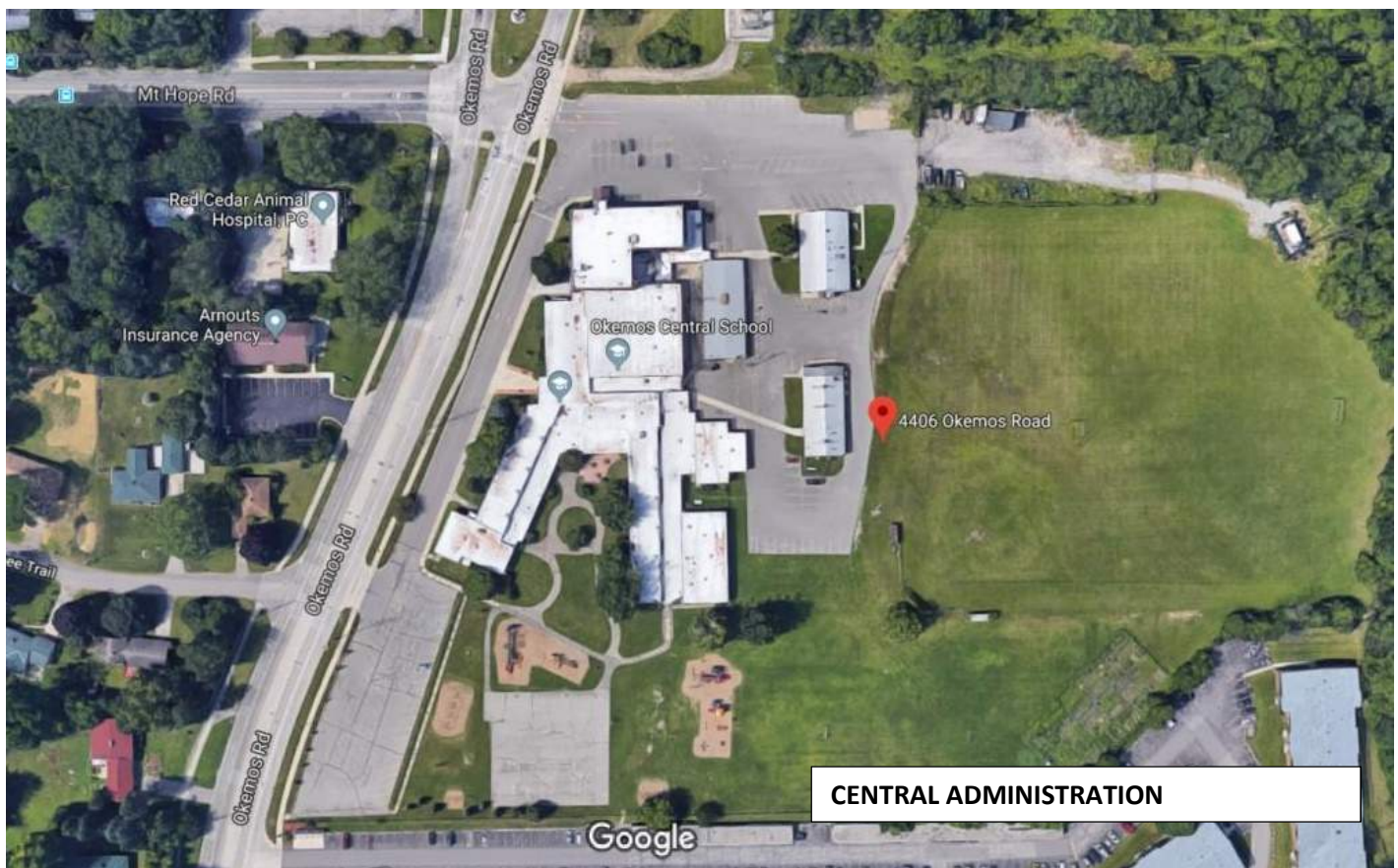
## Facilities Assessment

### September 2018

#### CENTRAL ADMINISTRATION

##### Observation Highlights

The 28-acre Central site is set on busy Okemos Road. Site circulation appears to be fairly well organized despite multiple uses on the site (Elementary, Central Admin and Central Maintenance). A long drop off drive paralleling Okemos Road with a south entrance and north exit allows parent drop/pick-up (Choice school - no Busses). There is some interaction with the north parking lot, however parents seem 'well trained' to the situation.





# Okemos Public Schools

## Facilities Assessment

September 2018

### CENTRAL ADMINISTRATION

#### Observation Highlights

##### Site:

Refer to site evaluation on Okemos Montessori @ Central.



##### Code:

Built in 1948 and remodeled for Central administration in 1988, building meets barrier free codes in force during the latest remodeling (Grandfathered). Functional remodeling or an ADA challenge may require upgrades as follows:

- Replace select door hardware with BF lever
- Remodel and addition to Toilet Rooms to meet BF (addition required to meet fixture count)

Building meets life safety and building code from time of most recent construction. Functional remodeling may kick-in current building codes. Recommend maintaining current use in current configuration.

##### Hazardous Materials:

There appears to be some vinyl asbestos tile that should be abated. Unaware of other potential asbestos such as plaster or pipe insulation. Recommend an allowance for abatement.

##### Security:

Building has secure entrance with electronic locks and recently installed camera system to control main entrance. The building has a web-based security camera system throughout building. There is not a secure vestibule nor reception on the entrance level into the main office. This is probably not feasible due to the multiple level configuration. recommend continuing with a camera-based system.

# Okemos Public Schools

## Facilities Assessment

### September 2018

#### CENTRAL ADMINISTRATION

##### Observation Highlights

##### Building Envelope:

Cooley PVC roof installed in 2008 (included in Central Elementary assessment). Cooley out of business and roof out of warranty. Replace in next 5 years.

Existing modular brick envelope appears to be in good condition with no reported problems.

Window systems appear to have been replaced in the late 1970s/early 1980s with a great majority of the openings covered with panels, presumably to save energy. As long as parts are available and windows are weather tight, recommend keeping existing window systems.



Existing storefront entrances are all in excellent condition. No issues noted.

##### Interiors:

While well maintained, facility condition reflects its age. Facility is well maintained and for its current use will be serviceable as long as space meets needs of Central Administration. No general remodeling necessary from cyclical maintenance.

##### Mechanical:

Heating plant - Refer to mechanical evaluation on Okemos Montessori @ Central.

Replace air-cooled condensing unit serving 2nd floor multizone unit.

Replace air-cooled condensing unit serving 3rd floor multizone unit.

Replace multizone unit serving 2nd floor.

Replace multizone unit serving 2nd floor.

Replace multizone unit serving 2nd floor.

Controls - Refer to mechanical evaluation on Okemos Montessori @ Central.

Plumbing - Refer to mechanical evaluation on Okemos Montessori @ Central.

#### **CENTRAL ADMINISTRATION**

##### **Observation Highlights**

##### **Electrical:**

Service and distribution - Refer to electrical evaluation on Okemos Montessori @ Central.

Existing building has T-8 fluorescent lighting installed. Energy savings and better light quality would be realized with new LED lighting. Recommend converting lighting to LED. Presently there is no automatic lighting control within the building. Energy savings would be realized by adding occupancy sensors and automatic lighting control.

Provide/upgrade emergency lighting throughout building.

# Okemos Public Schools

## Facilities Assessment

### September 2018

#### TRANSPORTATION

Use: Bus Parking & Maintenance

Population/Capacity: NA

Built: 1993

Additions/Renovations:

Total Area: 8,057 SF

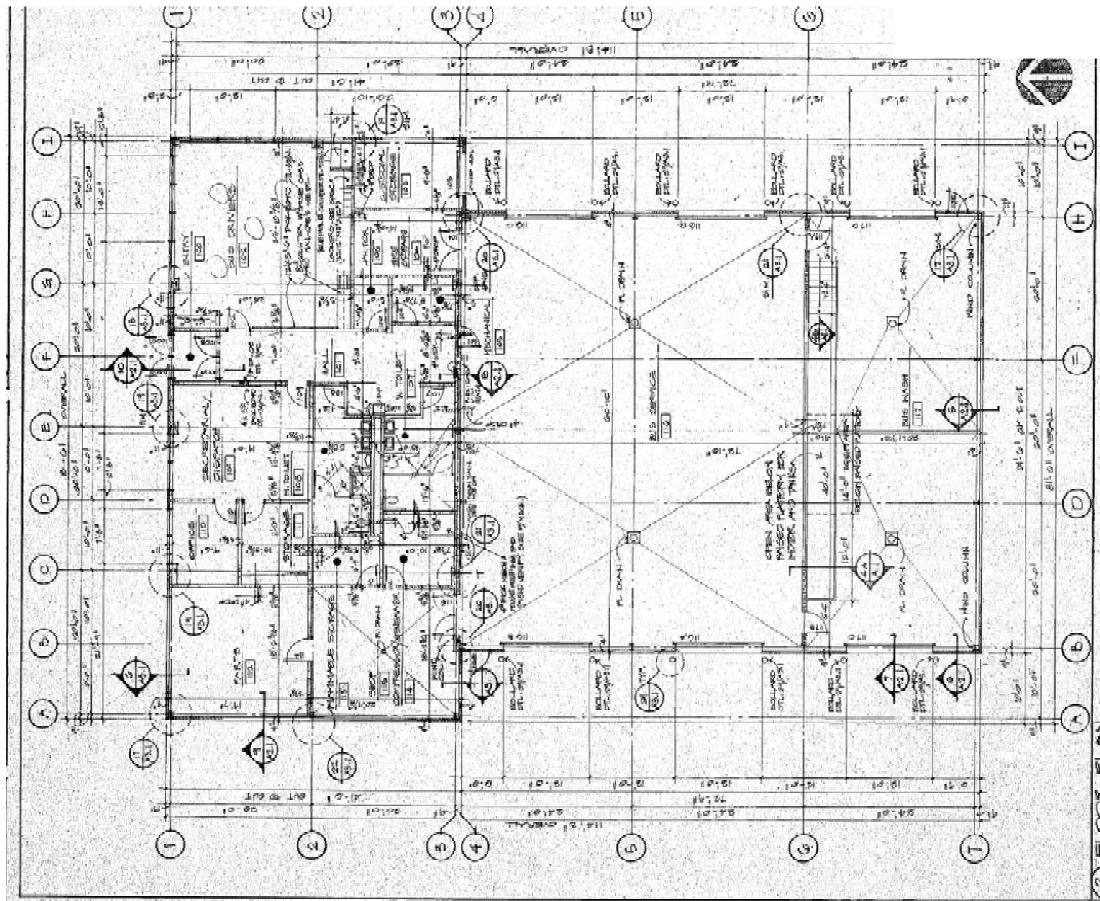
Site: 15 Acres

CRV \$ 2,215,675

Priority 1; 0 – 4 year DMB/FCI \$ 982,484/44%

DMB Excess (over APPA 5%) \$ 871,700

Annual Cost to maintain current DMB \$ 44,314/Year



TRANSPORTATION FLOOR PLAN



# Okemos Public Schools

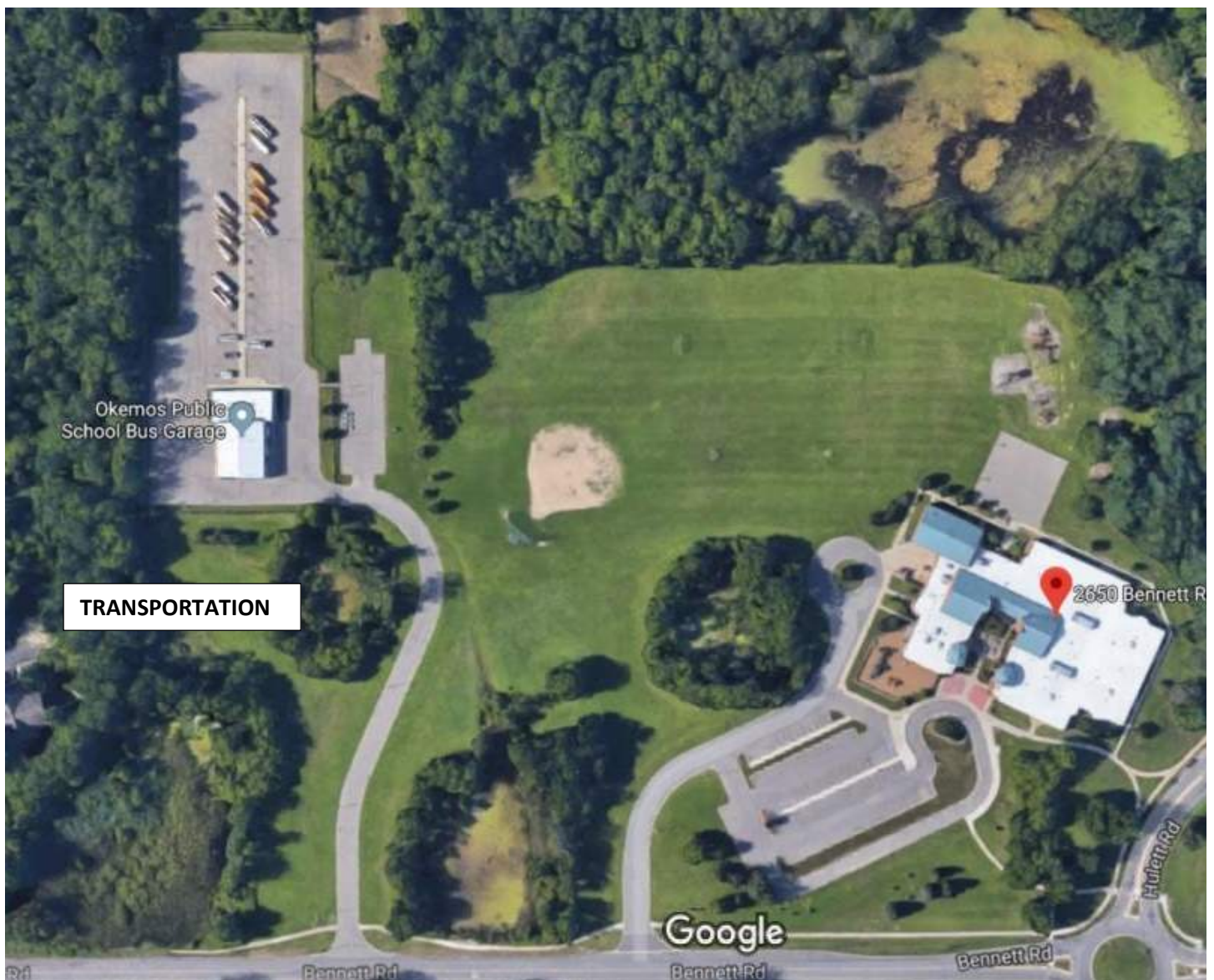
## Facilities Assessment

September 2018

### TRANSPORTATION

#### Observation Highlights

The 15-acre Transportation site is shared with Bennett Woods Elementary site. Site access is from a single entrance drive from Bennett Road.



# Okemos Public Schools

## Facilities Assessment

September 2018

### TRANSPORTATION

#### Observation Highlights

##### Paving:

The north bus parking lot was repaved in 2016 and is in excellent condition. With proper maintenance, paving should remain serviceable for 15 - 20 years. Existing entrance drive is showing signs of wear with cracks. Re-pave in next 5 years with HD pavement. Existing pavement in front and rear of garage is showing signs of wear with cracks. Re-pave in next 5 years with HD pavement. Existing employee lot is showing signs of wear with cracks. Re-pave in next 5 years with standard pavement.



Existing underground fuel tanks require expensive monthly environmental monitoring. Recommend removal and replacement with above ground station and containment.



##### Bus Parking:

Busses are parked in the open with no protection from ice/snow. Recommend a canopy to keep windshields clear and driver safety.



# Okemos Public Schools

## Facilities Assessment

### September 2018

#### TRANSPORTATION

##### Observation Highlights

###### Code:

Built in 1993, building appears to meet most current barrier free codes.

Building meets life safety and building code from time of most recent construction.

###### Building Envelope:

Roof was replaced in 2014 and along with gutters/downspouts is in excellent condition. Roof should remain serviceable for over 20 years.

Metal siding is in good condition with the exception of a few rust spots at ground level. Recommend removing rust and repainting (maintenance).

Existing overhead garage doors appear to be in good condition. No issues noted.

Existing entrance and service doors appear to be in good condition. No issues noted.

###### Interiors:

Existing facility is in excellent condition. No issues noted.





# Okemos Public Schools

## Facilities Assessment

September 2018

### TRANSPORTATION

#### Observation Highlights

##### Special Systems:

There is currently no bus lift. Recommend adding a bus lift to one bay.

The wash bay is currently a manual system. Recommend a new automated wash system.



##### Mechanical:

Existing Reznor space heaters in garage appear adequate. No issues noted.

Office HVAC appears adequate. No issues noted.

Rework floor / floor drains in work bay (water doesn't go to drains).



##### Electrical:

No issues noted.

Existing building has T-8 fluorescent lighting installed. Energy savings and better light quality would be realized with new LED lighting. Recommend converting lighting to LED. Presently there is no automatic lighting control within the building. Energy savings would be realized by adding occupancy sensors and automatic lighting control.





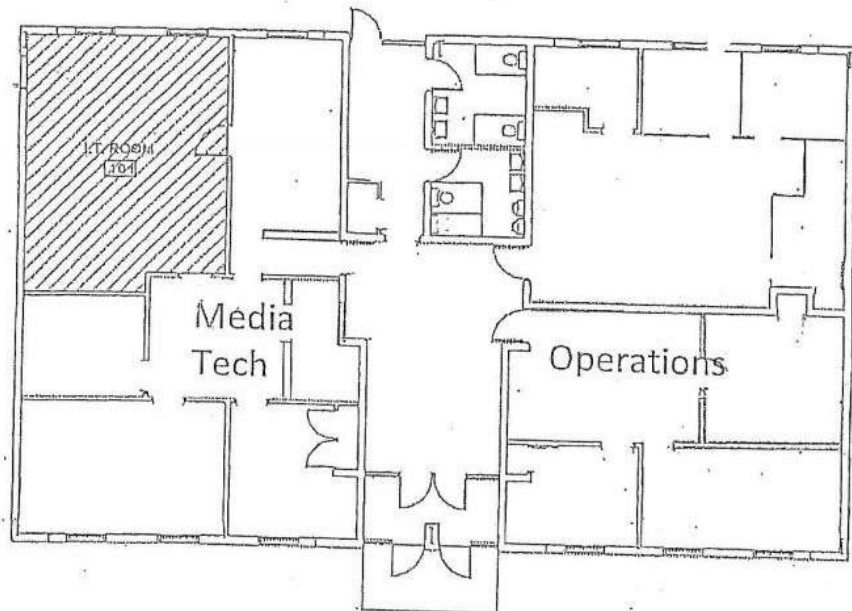
# Okemos Public Schools

## Facilities Assessment

September 2018

### OPERATIONS

Use:	District Operations, Maintenance and Technology Hub
Population/Capacity:	NA
Built:	Additions/Renovations:
Total Area:	4,000 SF
Site:	On Central Site
CRV	\$ 800,000
Priority 1; 0 – 4 year DMB/FCI	\$ 432,834/54%
DMB Excess (over APPA 5%)	\$ 392,834
Annual Cost to maintain current DMB	\$ 16,000/Year



### TRANSPORTATION FLOOR PLAN OPERATIONS

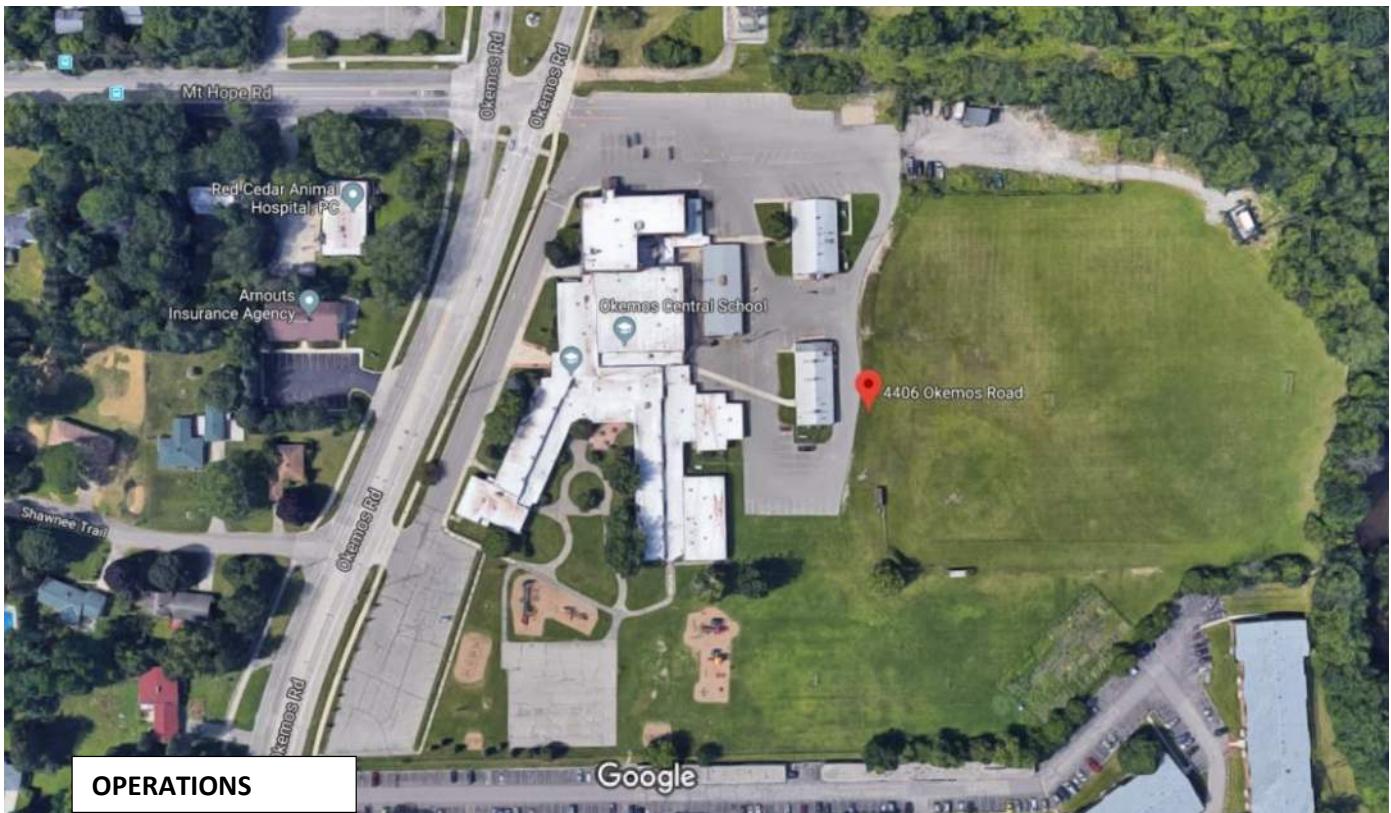
# Okemos Public Schools

## Facilities Assessment

September 2018

### Observation Highlights

The 28-acre Central site is set on busy Okemos Road. Site circulation appears to be fairly well organized despite multiple uses on the site (Elementary, Central Admin and Central Maintenance). A long drop off drive paralleling Okemos Road with a south entrance and north exit allows parent drop/pick-up (Choice school - no Busses). There is some interaction with the north parking lot, however parents seem 'well trained' to the situation..



# Okemos Public Schools

## Facilities Assessment

September 2018

### OPERATIONS

#### Observation Highlights

##### Site:

Refer to site evaluation on Okemos Montessori @ Central.

##### Code:

building meets barrier free codes in force during the latest remodeling (Grandfathered). Functional remodeling or an ADA challenge may require upgrades as follows:

- Replace select door hardware with BF lever
- Remodel Toilet Rooms to meet BF

Building meets life safety and building code from time of most recent construction.

##### Security:

Building has secure entrance with electronic locks and recently installed camera system to control main entrance.

##### Building Envelope:

Metal roofing appears to be in poor condition (previously coated). Consider replacing with new shingled roof and wood deck.

Existing brick envelope in good condition. Painted wood siding in fair condition. Replace with metal siding.

Replace existing exterior windows.

Replace existing HM service doors/frames w/Alum/FRP doors/frames. Replace existing vestibule doors/frames w/Alum doors/frames.





# Okemos Public Schools

## Facilities Assessment

September 2018

### OPERATIONS

#### Observation Highlights

##### Interiors:

While well maintained, facility condition reflects its age. Facility is well maintained and for its current use will be serviceable as long as space meets needs of Operations. No functional remodeling necessary.

Replace office flooring.

Acoustical panel ceilings and grid appear to be in good condition. No issues noted.

##### Mechanical:

Heating plant - Replace post-mounted rooftop unit at building exterior.

Ground mounted Liebert air-cooled condensing unit appears new. No issues noted.

Replace existing pneumatic temperature controls with new DDC system to communicate with district's system.

Route heating piping from Central, thru tunnel, to Operations building.

Route heating piping from Central, thru tunnel, to Operations building.





# Okemos Public Schools

## Facilities Assessment

### September 2018

#### OPERATIONS

##### Observation Highlights

##### Electrical:

Service and distribution - Replace original panelboards remaining in building.

Provide tamper proof receptacles in areas required by NEC 406.12.

Existing building has T-8 fluorescent lighting installed. Energy savings and better light quality would be realized with new LED lighting. Recommend converting lighting to LED. Presently there is no automatic lighting control within the building. Energy savings would be realized by adding occupancy sensors and automatic lighting control.

Provide/upgrade emergency lighting throughout building.

Provide code compliant fire alarm system.

Existing Kohler Generator for District data systems appears to be in good condition. No issues noted.

