

# School Facility Planning Report

*March 15, 2014*

# School Facility Planning Report

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**Introduction:**

This report presents an overview of MMSD facility needs and a series of recommendations for consideration by the Board of Education. Our fifty school sites are vital assets in the Madison community. However, operating and maintaining these assets presents a wide range of challenges, from urgent and specific school capacity shortages to broad strategic facility issues that have long-range implications for the entire district.

The recommendations in this report are intended to:

- ✓ Provide ADA accessibility in seven of MMSD’s school sites which currently lack a barrier-free environment
- ✓ Improve conditions for teaching and learning in ‘at-capacity’ schools as early as September 2015
- ✓ Renovate three MMSD schools which have poor Facility Condition Index (FCI) scores
- ✓ Upgrade the HVAC systems at the five combination elementary-middle schools to include air conditioning for summer programs
- ✓ Demonstrate responsiveness to community requests for facility improvements in arts, athletics, school forest, and planetarium
- ✓ Support a long-term facilities master plan to guide strategic decisions for the next decade

The recommendations listed above are inter-related. For example, a successful plan for addressing urgent capacity shortages will not only accomplish the primary purpose of relieving over-crowded schools. It will also lend credibility to MMSD’s planning efforts and provide time to focus on long-term strategic considerations.

This report is based upon several earlier facility studies, the annual enrollment and capacity report, and is guided by MMSD’s Strategic Framework. The specific sources are as follows:

- |   |              |
|---|--------------|
| • MMSD Annual Enrollment and Capacity Report      | January 2014 |
| • MMSD Strategic Framework                        | August 2013  |
| • MMSD Annual Enrollment and Capacity Report      | January 2013 |
| • MMSD Facility Reinvestment Committee Report     | April 2012   |
| • Durant Engineering Facility Evaluation Report   | March 2010   |
| • Barton Mallow Architects – MMSD Facility Report | August 1996  |

## **Major Project Categories**

The report is organized into five major facility categories:

1. ADA Accessibility Retrofits
2. School Additions to Address Capacity Shortages
3. Major Maintenance Projects
4. Community Partnership Projects
5. Long-range Facilities Master Planning

### **1. ADA Accessibility Retrofits**

ADA retrofits will remove access barriers in multi-level schools. These schools were built before current building codes and do not have an elevator. These schools serve students, staff, parents and guests who have physical limitations. There are ten such facilities in MMSD. This plan addresses seven of the ten.

<b><u>Recently Completed</u></b>	<b><u>Proposed</u></b>	<b><u>Pending<sup>1</sup></u></b>
Whitehorse-Schenk	Franklin	Randall
Emerson	Kennedy	Lowell
Toki-Orchard Ridge	Mendota	Allis
	Spring Harbor	
	Shorewood	
	Lake View	
	Midvale	

Retrofitting an elevator into an existing school is more expensive than it would be during new construction. However, given the mission of our public schools, where every child is welcome, a barrier-free environment should be a top priority.

We estimate an average cost of \$1MM per school site as a stand-alone project. However, to maximize the return on our capital investment, we will combine a new elevator tower with a new secure entrance to improve building security. In some cases, a new elevator tower will also include a new main office area, thus allowing the old office area to be converted into classrooms.

Kennedy Elementary provides a good example of stacking projects for increased cost efficiency. At Kennedy, we propose an elevator tower, thus gaining accessibility, with a secure entrance, and additional classroom capacity, all in one coordinated project.

## **2. School Additions to Address Capacity Shortages**

The schools presented in this category are those in which enrollment regularly exceeds 90% of capacity, with enrollment expected to remain at current levels or increase over the next five years. We propose to expand the capacity of these schools to relieve space shortages and provide a margin for future enrollment.

### **Kennedy Elementary:**

- In conjunction with building an elevator tower, add an expanded secure entrance, including new main office and two additional classrooms.
- Remodel existing office area to gain two additional classrooms for a total gain of four classrooms, providing the capacity needed to host a 4K program.

### **Sandburg Elementary:**

- Build a gymnasium and four additional classrooms.
- Consider other design approaches, such as building a library plus 2-4 classrooms.

### **Van Hise / Hamilton (Elementary & Middle)**

- Build a centrally located, shared library.
- Convert the two existing libraries back into classrooms, thus gaining six full size classrooms and providing the capacity needed to host a 4K program.

### **Lake View Elementary**

- In conjunction with building an elevator tower, which would also provide a secure entrance area, add two classrooms, which would provide the capacity needed to host a 4K program.

### **Midvale Elementary**

- In conjunction with building an elevator tower, add a new cafeteria.
- Convert the existing cafeteria into four classrooms.

### **Shorewood Elementary**

- In conjunction with building an elevator tower, add a four-classroom addition. The additional classrooms are a relatively easy gain based on the building design.

### **Hawthorne**

- Recommend a library addition and interior renovation to convert existing library to three new classrooms, which would improve access to an existing elevator.

### **3. Major Maintenance Projects**

Each MMSD school carries a Facility Condition Index (FCI) rating (see attached table). The rating system establishes the priority list for school specific major maintenance projects.

In the summer of 2013, Elvehjem and Hawthorne received major maintenance renovations, which are defined here as a new energy plant, ceilings, lights, and related.

Following the FCI schedule, the next phase of school specific major maintenance projects would include these schools:

#### **Major Maintenance Renovation:**

- ✓ Huegel
- ✓ Mendota
- ✓ Black Hawk/Gompers (see below)

The Facility Condition Index identifies the need for air conditioning as an 'Instructional Use' priority. However, this factor does not carry significant weight in the actual rating, which was created prior to the summer of 2012.

To support summer programs, we recommend HVAC upgrades, including air conditioning, to all of the combined elementary/middle school sites:

- ✓ Black Hawk/ Gompers
- ✓ Marquette / O'Keeffe
- ✓ Toki / Orchard Ridge
- ✓ Whitehorse / Schenk
- ✓ Hamilton / Van Hise

These ten 'combination' schools would provide much needed flexibility for summer programming. They are geographically balanced within the school district and can support summer programs for 4K through eighth grade. Also, during the regular school year, these ten schools enroll over five thousand students, all of whom would benefit from the proposed HVAC improvements.

#### **4. Community Partnership Projects**

As noted earlier in this report, MMSD's short-term and long-term facility needs are inter-related. The projects included in this section provide an opportunity to demonstrate responsiveness, collaboration, and creative problem solving, all of which help build MMSD's credibility with key stakeholders and help prepare the way for long-term strategic facility solutions.

The projects included here have a public-private funding component. As with any private fund-raising effort, the timing and outcome are less than certain. Also, there may be, at this time, less community familiarity with the need and purpose for each of these projects. For these reasons, these projects require a more flexible funding plan and are recommended for non-referendum financing.

We would recommend that specific private fund-raising targets be established for each of the following possible partnership projects:

- East High School Theater Renovation
- Lussier and Mansfield Athletic Improvements
- School Forest – Acquisition of Additional Forest Land

The MMSD portion of the project cost would be provided by a non-referendum note via the State Trust Fund or similar funding source. Debt service payments on non-referendum debt are funded within the school district revenue limit.

## **Part 5: District-wide Facilities Master Plan**

Description: A Facilities Master Plan is intended to provide a flexible framework to manage the growth and development of the school district's facilities over the next ten years. Long-range planning is an institutional challenge for an organization as large and diverse as MMSD. The Madison community is a dynamic environment where the community development and demographic changes greatly impact facility needs. A Facilities Master Plan is typically updated every two years so the plan remains relevant and retains its ability to guide future MMSD decision-making.

### **Issues Which Impact a Facilities Master Plan**

- ✓ Class Size Guidelines
- ✓ Future Locations for 4K
- ✓ MMSD Alternative Sites Plan
- ✓ Attendance Boundaries
- ✓ Over and Under Utilized Schools
- ✓ MMSD Rented Sites (e. g. Maywood)
- ✓ Open Enrollment Losses
- ✓ Instructional Program Changes (Hybrids, On-Line)
- ✓ Community Growth Trends

### **Specific Issues**

- ✓ East Side Strategy
- ✓ South Side Strategy
- ✓ Four Major High Schools – Long Term Viability and Needs
- ✓ Allied Drive Area



**Recommendation # 1:**

**November 2014 School Bond Referendum**

**Project Estimate: \$39,500,000**

- ✓ ADA Accessibility Retrofits
- ✓ School Additions to Address Capacity Shortages
- ✓ Major Maintenance Projects

**Recommendation # 2:**

**Community Partnership Projects:**

**Project Estimate: \$5,000,000 / MMSD Share: To Be Determined**

- ✓ East Theater Renovation
- ✓ Lussier and Mansfield Upgrades
- ✓ School Forest Acquisition

**Recommendation # 3:**

**Organize a Facilities Master Planning Effort**

**Project Estimate: \$250,000**

- ✓ Hire K-12 Architect to Lead the Effort
- ✓ Appoint Representatives for Instructional Vision & Community Input
- ✓ Fund the Planning Effort in the 2014-15 and 2015-16 Operating Budgets

# Appendix A

Debt Service Planning:

November 2014

Referendum Options

# Madison Metropolitan School District

## SUMMARY OF FINANCING SCENARIOS

<b>\$39,500,000 Borrowing</b>
-------------------------------

<b>SCENARIO</b>	<b>1</b>	<b>2</b>
<b>TOTAL INTEREST COST</b>	\$19,586,063	\$21,116,513
<b>MAX MILL RATE IMPACT</b> <i>(Per \$1,000 valuation)</i>	\$0.16	\$0.22
<b>TAX IMPACT ON PROPERTY WITH FAIR MARKET VALUE:</b>		
<b>\$100,000 Home</b>		
<i>Annual Impact</i>	\$16.00	\$22.00
<i>Monthly Impact</i>	\$1.33	\$1.83
<b>\$200,000 Home</b>		
<i>Annual Impact</i>	\$32.00	\$44.00
<i>Monthly Impact</i>	\$2.67	\$3.67
<b>\$300,000 Home</b>		
<i>Annual Impact</i>	\$48.00	\$66.00
<i>Monthly Impact</i>	\$4.00	\$5.50



**Assumptions:**

- 20-year Borrowing
- Interest Rate: 4.50%
- Tertiary Aid Impact: -48.27%.
- Mill rate based on 2013 Equalized Valuation (TID-OUT) of \$21,724,503,362 with annual growth of 0.00%.
- Does not include annual levies for 2012 Energy Efficiency Borrowing in Fund 38.

# Appendix B

Master Facility  
Condition Index (FCI)  
Fall 2013

Facility Condition Score  
Madison Metropolitan School District

3/4/2014

Building	Gross Area (Sq. Ft.)	Median Age of Facility (Years)	Estimated Replacement Value	Estimated Cost of Deficiencies	Facility Condition Score	Current Grade	Amount of Funding Required to Reach a FCI Score of 80	Proposed Five-Year Replacement Budget	Projected Grade after Five Year Implementation
Administration	84,200	74	\$ 13,893,000	\$ 6,543,600	53	F	\$ 3,765,000	\$ 160,300	F
Allied	10,350	44	\$ 1,138,500	\$ 120,100	89	B	\$ -	\$ 3,900	A
Allis Elementary	82,000	63	\$ 13,530,000	\$ 2,502,200	82	B	\$ -	\$ 291,000	B
Blackhawk/Gompers	104,960	50	\$ 17,318,400	\$ 6,520,400	62	D	\$ 3,056,700	\$ 2,166,900	C
Chavez Elementary	88,000	13	\$ 14,520,000	\$ 248,700	98	A	\$ -	\$ 32,800	A
Cherokee Middle	89,390	59	\$ 14,749,350	\$ 2,443,100	83	B	\$ -	\$ 37,000	B
Crestwood Elementary	67,675	48	\$ 11,166,375	\$ 2,975,800	73	C	\$ 742,500	\$ 94,100	C
East High	460,388	69	\$ 75,964,020	\$ 20,583,900	73	C	\$ 5,391,100	\$ 642,600	C
Elvehjem Elementary	72,234	42	\$ 11,918,610	\$ 2,025,800	83	B	\$ -	\$ 29,800	B
Emerson Elementary	71,760	88	\$ 11,840,400	\$ 1,874,600	84	B	\$ -	\$ 320,200	B
Falk Elementary	66,525	39	\$ 10,976,625	\$ 3,365,500	69	D	\$ 1,170,200	\$ 923,700	C
Franklin Elementary	51,760	81	\$ 8,540,400	\$ 2,568,000	70	C	\$ 859,900	\$ 21,300	C
Glendale Elementary	78,875	55	\$ 13,014,375	\$ 2,199,900	83	B	\$ -	\$ 32,400	B
Hamilton/Van Hise	124,977	52	\$ 20,621,205	\$ 4,937,300	76	C	\$ 813,100	\$ 539,700	C
Hawthorne Elementary	54,091	46	\$ 8,925,015	\$ 471,900	95	A	\$ -	\$ 20,200	A
Hoyt Elementary	33,900	57	\$ 5,593,500	\$ 3,132,900	44	F	\$ 2,014,200	\$ 1,090,400	D
Huegel Elementary	64,000	36	\$ 10,560,000	\$ 3,457,400	67	D	\$ 1,345,400	\$ 2,034,300	B
Jefferson Middle	81,029	45	\$ 13,369,800	\$ 5,606,400	58	F	\$ 2,932,400	\$ 33,300	F
Kennedy Elementary	67,220	48	\$ 11,091,300	\$ 3,625,900	67	D	\$ 1,407,600	\$ 300,500	C
La Follette High	330,861	49	\$ 54,592,100	\$ 16,830,800	69	D	\$ 5,912,400	\$ 136,100	D
Lussier	4,011	11	\$ 1,500,000	\$ 41,900	97	A	\$ -	\$ -	A
Lake View Elementary	40,500	53	\$ 6,682,500	\$ 1,760,700	74	C	\$ 424,200	\$ 346,800	C
Lapham Elementary	73,744	72	\$ 12,167,800	\$ 3,570,600	71	C	\$ 1,137,000	\$ 882,100	C
Leopold Elementary	93,308	36	\$ 15,395,800	\$ 2,437,800	84	B	\$ -	\$ 156,600	B
Lincoln Elementary	58,822	46	\$ 9,705,600	\$ 1,159,600	88	B	\$ -	\$ 21,900	B
Lindbergh Elementary	34,475	47	\$ 5,688,400	\$ 1,293,600	77	C	\$ 155,900	\$ 12,900	C
Lowell Elementary	68,896	90	\$ 11,367,800	\$ 2,023,200	82	B	\$ -	\$ 306,900	B
Maintenance/Food Service	68,160	37	\$ 7,497,600	\$ 1,500,400	80	B	\$ -	\$ 25,600	B
Mansfield Stadium	3,600	48	\$ 1,500,000	\$ 406,900	73	C	\$ 106,900	\$ 1,400	C
Memorial High	365,868	43	\$ 60,368,200	\$ 15,185,900	75	C	\$ 3,112,300	\$ 188,600	C
Mendota Elementary	49,400	57	\$ 8,151,000	\$ 2,039,800	75	C	\$ 409,600	\$ 1,145,100	B
Midvale Elementary	64,950	64	\$ 10,716,800	\$ 2,920,400	73	C	\$ 777,000	\$ 26,700	C
Muir Elementary	69,000	37	\$ 11,385,000	\$ 3,127,600	73	C	\$ 850,600	\$ 853,200	B
O'Keefe/Marquette	137,110	56	\$ 22,623,150	\$ 5,702,900	75	C	\$ 1,178,300	\$ 276,700	C
Olson	86,396	6	\$ 14,255,300	\$ 36,400	100	A	\$ -	\$ 32,400	A
Randall Elementary	61,540	99	\$ 10,154,100	\$ 2,070,300	80	B	\$ -	\$ 107,800	B
Sandburg Elementary	42,864	43	\$ 7,072,600	\$ 1,031,300	85	B	\$ -	\$ 17,800	B
School Forest	6,287	51	\$ 408,700	\$ 48,400	88	B	\$ -	\$ -	B
Sennett Middle	98,300	41	\$ 16,219,500	\$ 3,393,200	79	C	\$ 149,300	\$ 168,000	B
Sherman/Shabazz	131,490	60	\$ 21,695,900	\$ 4,993,200	77	C	\$ 654,000	\$ 72,300	C
Shorewood Elementary	60,950	60	\$ 10,056,800	\$ 1,471,300	85	B	\$ -	\$ 23,900	B
Spring Harbor	32,534	56	\$ 5,368,100	\$ 1,911,900	64	D	\$ 838,300	\$ 427,100	C
Stephens Elementary	72,000	38	\$ 11,880,000	\$ 2,342,300	80	B	\$ -	\$ 27,100	B
Thoreau Elementary	58,500	38	\$ 9,652,500	\$ 1,586,000	84	B	\$ -	\$ 24,100	B
Toki/Orchard Ridge	113,907	51	\$ 18,794,700	\$ 5,483,500	71	C	\$ 1,724,600	\$ 44,700	C
West High	362,112	64	\$ 59,748,500	\$ 12,521,600	79	C	\$ 571,900	\$ 396,600	B
Whitehorse/Schenk	119,203	58	\$ 19,668,500	\$ 4,173,600	79	C	\$ 239,900	\$ 235,200	B
Wright	55,150	17	\$ 9,099,800	\$ 537,800	94	A	\$ -	\$ 206,800	A
<b>District Wide</b>	<b>4,517,272</b>	<b>53</b>	<b>\$ 742,147,625</b>	<b>\$ 176,806,300</b>	<b>76</b>	<b>C</b>		<b>\$ 14,938,800</b>	<b>C</b>
<b>Total Funding Required to Maintain a FCI of 80:</b>							<b>\$ 41,740,300</b>		

# Appendix C

## Summary of Air-Conditioned Spaces 2014

Summary of Air Conditioning Spaces  
**Madison Metropolitan School District**

Building Services

3/5/2014

<b>Facility</b>	<b>Cooled Floor Area (Sq. Ft.)</b>	<b>Percent Cooled (1)</b>
Allis	4,175	5%
Black Hawk/Gompers	1,015	1%
Chavez	88,000	100%
Cherokee	9,254	10%
Crestwood	1,875	3%
East	198,093	43%
Elvehjem	755	1%
Emerson	1,704	2%
Falk	2,819	4%
Franklin	5,774	11%
Glendale	4,698	6%
Hamilton/VanHise	10,108	8%
Hawthorne	4,512	8%
Huegel	2,007	3%
Jefferson	27,869	34%
Kennedy	1,116	2%
LaFollette	52,843	16%
Lake View	970	2%
Lapham	18,231	25%
Leopold	14,393	15%
Lincoln	4,735	8%
Lindbergh	1,213	4%
Lowell	16,385	24%
Marquette/O'Keeffe	16,081	12%
Memorial	219,521	60%
Mendota	969	2%
Midvale	2,564	4%
Muir	2,485	4%
Olson	86,396	100%
Randall	512	1%
Sandburg	5,386	13%
Sennett	1,922	2%
Sherman/Shabazz	15,822	12%
Shorewood	3,910	6%
Spring Harbor	1,666	5%
Stephens	645	1%
Thoreau	2,245	4%
Toki/Orchard Ridge	11,373	10%
West (2)	289,690	80%
Whitehorse/Schenck	7,234	6%
Wright	31,976	58%
<b>TOTAL</b>	<b>1,276,970</b>	<b>29%</b>

(1) Expressed as a percentage of gross area of the facility

(2) West is currently undergoing a major energy renovation scheduled to be completed in the fall of 2014. Prior to this work approximately 16 percent was cooled.

# Appendix D

## Long-Range Planning Project Summary



Proposed Project List  
Long Range Planning

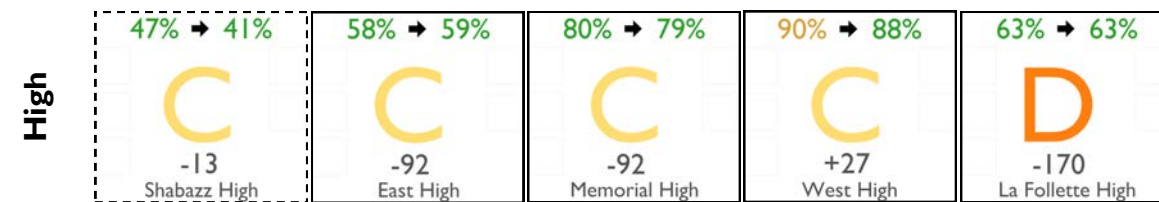
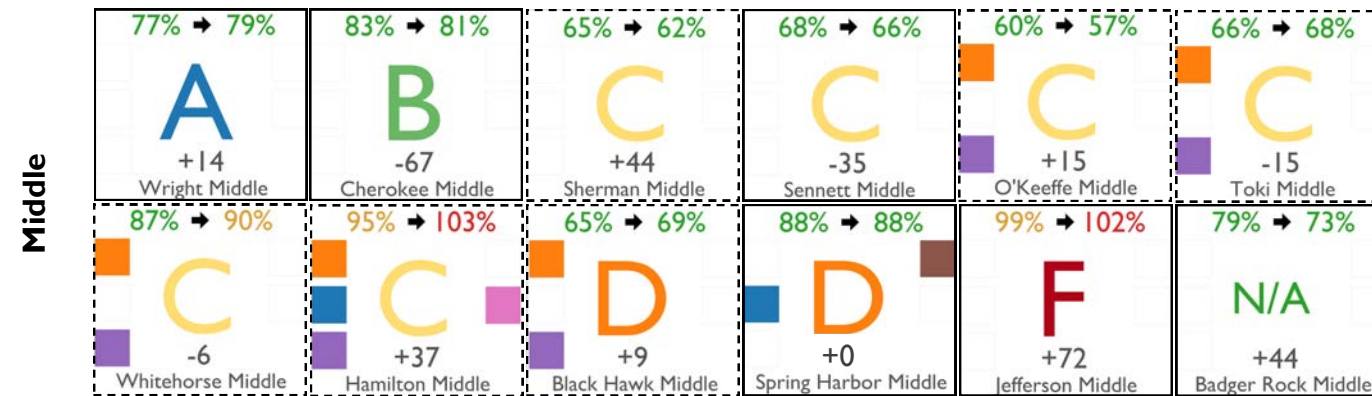
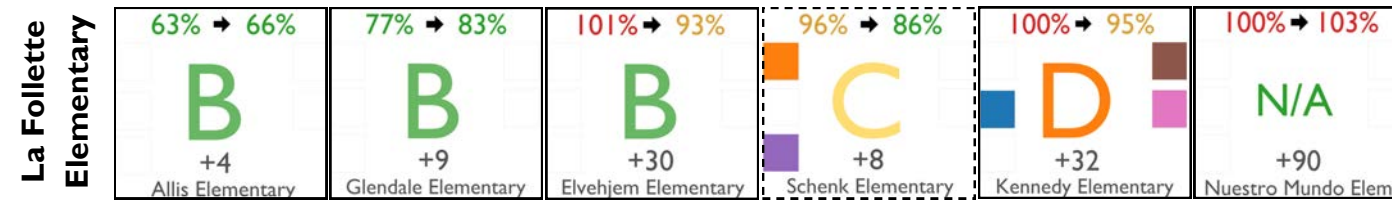
3/6/2014

Location	Project Description	Budget	Type				
			ADA	Security	Energy	HVAC	Capacity
Franklin Elementary	Accessibility Addition and elevator to serve 1955 addition	\$ 1,150,000	●				
Kennedy Elementary	Accessibility Addition with Main Office, and renovation. Total of 4 additional classrooms.	\$ 1,750,000	●	●			●
Mendota Elementary	Accessibitily Addition	\$ 700,000	●				
Mendota Elementary	Upgrade HVAC System	\$ 2,800,000			●	●	
Spring Harbor Middle	Accessibility Addition with Main Office relocation	\$ 1,250,000	●	●			
Shorewood Elementary	Accessibility Additions	\$ 1,200,000	●				
Shorewood Elementary	Classroom Addition - 4 classrooms	\$ 1,000,000					●
Lake View Elementary	Accessibility Addition	\$ 750,000	●	●			
Lake View Elementary	Classroom Addition - 2 classrooms	\$ 500,000					●
Midvale Elementary	Accessibility Addition	\$ 1,000,000	●				
Midvale Elementary	Classroom Renovation - Renovate Cafeteria into 4 classrooms & add kitchen to existing gym	\$ 1,000,000					●
Huegel Elementary	Upgrade HVAC System	\$ 1,500,000		●	●	●	
Black Hawk/Gompers	Upgrade HVAC System	\$ 4,500,000			●	●	
O'Keefe/Marquette	Upgrade HVAC System	\$ 3,500,000			●	●	
Toki/Orchard Ridge	Upgrade HVAC System	\$ 4,500,000			●	●	
Whitehorse/Schenk	Upgrade HVAC System	\$ 3,000,000			●	●	
Hamilton/Van Hise	Upgrade HVAC System	\$ 3,000,000			●	●	
Sandburg Elementary	Gym & 4 classroom Addition	\$ 2,200,000	●	●			●
Hamilton/Van Hise	LMC Addition & Internal Renovation to Create 6 classrooms	\$ 2,200,000		●			●
Hawthorne	LMC Addition and Interior renovation - 3 classrooms	\$ 2,000,000					●
<b>Total Budget</b>		<b>\$ 39,500,000</b>					

# Appendix E

## The MMSD Periodic Table of Facilities

# MADISON METROPOLITAN SCHOOL DISTRICT



**Building Condition and Recommended Projects**

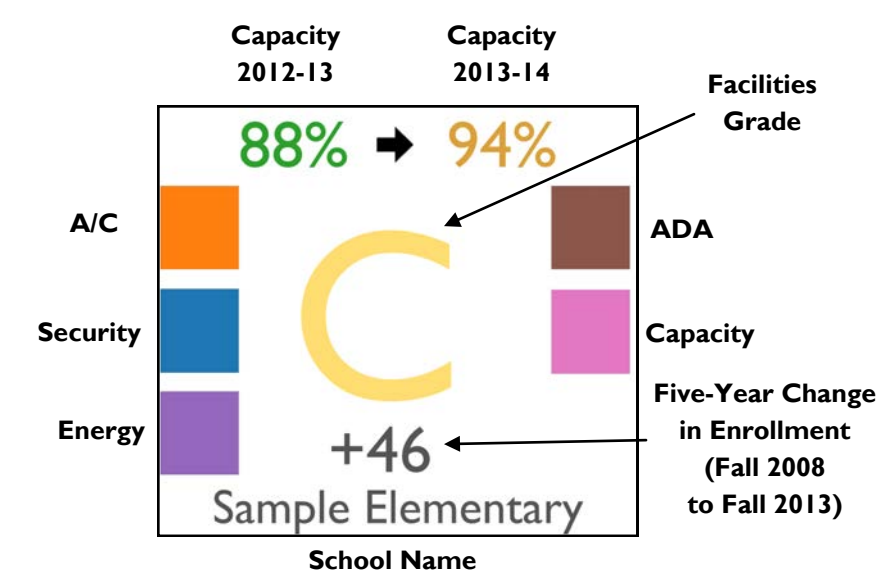
Each box contains key information about each building.

Colored squares represent the category of proposed projects at each school. These proposed projects come from MMSD's Building Services department.

Boxes with dotted borders indicate schools sharing the same building with another school. Schools sharing a building have the same building grade and the same proposed projects. A list of these schools appears at the bottom of this page.

Building grades come from the Fall 2013 report of the Facility Reinvestment Committee.

See the key below for more details.



Built by Bo McCready  
MMSD Research & Program Evaluation Office  
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<b>Shared Buildings</b>	Sherman-Shabazz	Gompers-Black Hawk	Orchard Ridge-Toki
	Marquette-O'Keeffe	Schenk-Whitehorse	Van Hise-Hamilton