



## MEETING AGENDA

May 6, 2019

6:30 PM

High School Library

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- 1 | Review / Approve April 29 Meeting Summary
- 2 | Review Intermediate/Middle School Needs
- 3 | Intermediate/Middle School Video Tour
- 4 | Tour Intermediate/Middle School
- 5 | Small Group Discussion | Intermediate/Middle School Needs & Priorities (if time)
- 6 | Business Office Objectives & Key Results
- 7 | School Finance 101 Presentation
- 8 | Adjournment



# **REVIEW / APPROVE APRIL 29 MEETING SUMMARY**

**TAB 4**



## MEETING SUMMARY

April 29, 2019

High School Library

*Learning Today, Leading Tomorrow*

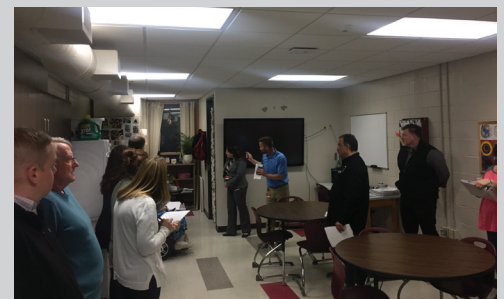
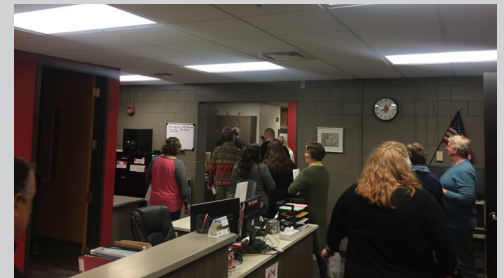
### OVERVIEW

The meeting started off with the discussion of the Elementary preliminary needs. Bray Architects collected the committee's comment sheets, some of the common observations were:

- Safety / Security
  - » Issues with Drop-Off / Pick-Up area
  - » Secure Entry being added this summer
- Infrastructure
  - » Worn carpet in the hallways
  - » Bathrooms are wanted closer to or in classrooms
- Educational Spaces
  - » Gym and Cafeteria should be different rooms
  - » Lack of Small Group Instruction and Common Spaces
- Site
  - » Land locked site / small green space

To Before touring the High School, Bray Architects presented the existing conditions report, which included: A building system evolution diagram, existing site plan and floor plan, building system summary, preliminary needs assessment, ADA assessment, roof plan, exterior door and window analysis, and engineer reports.

A video tour was presented showing some of the areas of the school that would not be covered during the physical tour, some areas included: Athletic fields, the greenhouse, the roof, and passing period between classes.



### NEXT MEETING >>>

**Monday, May 6 | 6:30-8:30 PM**

Intermediate / Middle School - Library

- Presentation | Intermediate / Middle Existing Conditions Report
- Intermediate / Middle Tour | Infrastructure Needs Focus
- Small Group Discussion | Intermediate / Middle Needs & Priorities
- Presentation | Business Office Objectives & Key Results
- Presentation | School Finance 101

### FOR MORE INFORMATION:

**Contact** Janel DeZarn-Vert [jdezarn@columbus.k12.wi.us](mailto:jdezarn@columbus.k12.wi.us)

**Visit** [www.columbus.k12.wi.us](http://www.columbus.k12.wi.us)



## MEETING SUMMARY

April 29, 2019

High School Library

*Learning Today, Leading Tomorrow*

### OVERVIEW - *continued*

After the brief discussion of the existing conditions report and the video tour, the group took a tour of the High School. The tour, which was the main focus of the meeting, was led by High School principal Loren Glasbrenner. Committee members observed the following:

- Areas of need as identified in the existing conditions report
- Teaching and learning spaces that are serving the school well and those that could use improvement
- All areas of the building (music rooms, shared auditorium/gym, technical education shops, special ed spaces etc.) that support students everyday

The meeting closed with small group discussion on the High School preliminary needs. Bray Architects collected some of the committee's comment sheets, some of the common observations were:

- Safety / Security
  - » Concerns about security / cameras at exterior doors
  - » Needs updates to traffic flow
- Infrastructure
  - » Limited bathrooms
  - » Desired music rooms with fully ADA access
  - » Windowless cafeteria and library
- Educational Spaces
  - » Main Gym and Auditorium should be different spaces
  - » Small classrooms / lacking flexible furniture
  - » Lack of Small Group Instruction and Common Areas
- Site
  - » Athletic Fields do not have enough spaces

### FOR MORE INFORMATION:

**Contact** Janel DeZarn-Vert [jdezarn@columbus.k12.wi.us](mailto:jdezarn@columbus.k12.wi.us)

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# **INTERMEDIATE / MIDDLE SCHOOL NEEDS**

## **TAB 5&6**

# 2 COLUMBUS INTERMEDIATE/ MIDDLE SCHOOL

Columbus Intermediate/ Middle School provides a comprehensive program for 3rd through 8th grade students.

BUILDING AREA: 95,845 sq. ft.  
STUDENT POPULATION: 565 STUDENTS  
GRADES SERVED: 3RD-8TH GRADES  
SITE SIZE: 3.01 ACRES  
PARKING: 112 STALLS (INCLUDES ELEMENTARY SCHOOL)





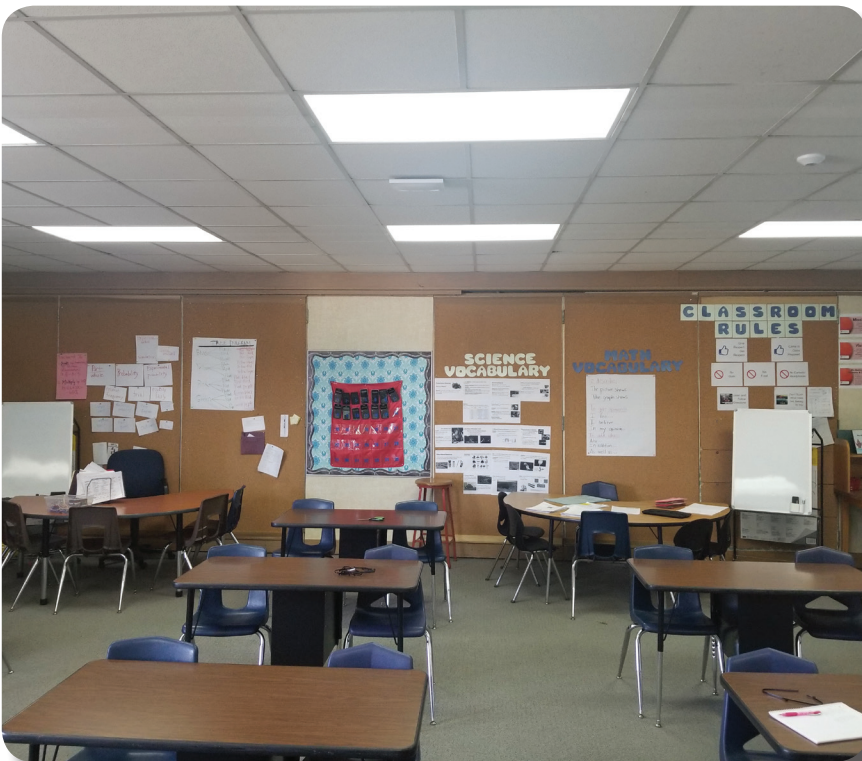
## COLUMBUS INTERMEDIATE/ MIDDLE SCHOOL: BUILDING EVOLUTION

Columbus Intermediate/ Middle School was originally two buildings constructed in different years. The 1964 addition connected the two buildings and is the largest of the additions.

The following building evolution diagram outlines the building's development over time.



Columbus Intermediate/ Middle School District Office



Columbus Intermediate/ Middle School Classroom



Columbus Intermediate/ Middle School Corridor







SITE PLAN  
not to scale





# COLUMBUS INTERMEDIATE/ MIDDLE SCHOOL: BUILDING SYSTEMS SUMMARY

The following is summary of Plumbing, HVAC and Electrical needs. This is not intended to be a comprehensive list, but a summary of existing building system needs and possible recommendations as identified by the engineering team. Full engineers' reports are located later in this document.

Intermediate/ Middle School	Analysis	Recommendations
<b>Building Systems</b>		
<b>Plumbing</b>		
<b>Domestic Water</b>		
Water Service	Supplied by a 4" water service with a 2" water meter.	If the building expanded, a new water service would be required.
Water Distribution Piping	Majority of the piping appears to be copper. Some galvanized piping still remains. Some pipe leaking was reported. Corroded and uninsulated piping in the locker room area. Thermostatic mixing valve appears to be old.	Replace existing galvanized piping, corroded and uninsulated piping, and existing thermostatic mixing valve.
Fire Sprinkler System	Does not have an automatic fire sprinklers system. Some remote cabinets exist in the 1950 portions.	Not required unless major addition and/or remodel occurs.
<b>Sanitary and Storm Piping</b>		
Sanitary Waste and Vent Piping	Is mostly cast iron. Vent piping in the original building is mostly galvanized. Piping is in good condition.	Continued maintenance of existing sewer and drainage systems. Replace when problems arise.
Kitchen Equipment	An interior grease interceptor is present, appears to be undersized. Dish machine's waste discharge is PVC which is not recommended.	Replace existing grease interceptor with new properly sized per kitchen equipment.
Floor Drains	Floor drain traps are drying out leading poor smell, some unused drains have been filled with concrete	Monitor and investigate floor drains. Provide trap seals devices to existing floor drains.
Storm System	Storm drains on the roof are in good condition.	Replace existing pipe insulation on storm conductor piping.
Sanitary Ejector Pump	Serving lower level appears to be original.	Replace sanitary ejector pumps serving lower level with new.
<b>Plumbing Equipment</b>		
Hot Water System	(2) HTP gas water heater unit serves the general hot water system, 2 years old.	
	(1) HTP gas water heater unit serves the kitchen hot water system, 2 years old.	
Water Softener	(1) Hellengrand water softener, 2 years old.	
<b>Plumbing Fixtures</b>		Provide floor drain in renovated restrooms
Plumbing Fixtures	Existing fixtures in the facility are generally in poor conditions. Kitchen equipment is in fair to good condition. Locker room fixtures are in fair to poor conditions.	Upgraded faucets to be low flow water efficient fixtures. Handles should be lever style for ADA Compliance.
Drinking Fountains	Mixture of drinking fountains and electric water coolers; some installed per ADA requirements.	
Water Closets / Urinals	These are flush valve style fixtures. A few tank types in smaller rooms; flush valves are in fair to poor condition.	Replace with new wall mount fixtures with sensor flush valves.
Lavatories	Majority of lavatory faucets are not per ADA requirements; lavatories are in fair to poor condition.	Replace old with new water conserving and ADA compliant fixtures.
Toilet Rooms	In the main toilet room, ADA compliant fixtures are present but room does not meet ADA requirements	Update to be meet ADA requirements.
Classroom Sinks	These are provided with tempered water. Water feels slightly warmer than room temperature.	Provide with hot and cold water. Replace existing faucets as required.
Science Rooms	Natural gas has been provided to science rooms and emergency eye-wash equipment is present.	

# COLUMBUS INTERMEDIATE/ MIDDLE SCHOOL: BUILDING SYSTEMS SUMMARY

Intermediate/ Middle School	Analysis	Recommendations
<b>HVAC</b>		
<b>Heating System</b>		
Boiler Plant	Served by one plant that consists of (3) hot water boilers. One DeDiertrich condensing boiler installed in 2016. Two Patterson Kelly non-condensing boilers installed in 2002, they are in good condition. 20 year life expectancy.	Continue preventative maintenance on the system. Future additions may require the addition of boiler capacity.
Piping and Pumping	Consists of a single circuit system with stand-by pump. Each boiler has an inline pump to circulate water.	
<b>Ventilation and Air Conditioning Systems</b>		
Air Handling Units	(3) systems provide ventilation for the facility. Unit ventilators, constant volume air handling systems and constant volume furnace.	
	Classrooms were originally served by hot water unit ventilators. These were abandoned in place when rooftop units were installed in 2002 and 2016.	
	Constant volume rooftop units serve the classrooms, library, and gym. 2002 units are in fair condition and have exceeded 15 year life expectancies. 2016 units are in good condition with life expectancies of 15 years. Hot water booster provide individual room control.	Plans should be made to replace aging rooftop units.
	A constant volume gas fired furnace unit serves the district office. Installed in 2016, is in good condition with life expectancies of 15 years. A room thermostat is used to control air.	Plans should be made to install a system with individual zone control to control multiple rooms.
Door Transfer Grilles	Door transfer grilles are currently utilized to transfer relief air from the classrooms to the corridor.	Plans should be made to replace the door transfer grille relief system with a code approved system.
<b>Control Systems</b>		
System	A Trend digital control system serves the entire building.	Continue to maintain and operate the control system.



# COLUMBUS INTERMEDIATE/ MIDDLE SCHOOL: BUILDING SYSTEMS SUMMARY

Intermediate/ Middle School		Analysis	Recommendations
<b>Electrical</b>			
<b>Electric Service</b>			The service is approximately at 70% of its capacity.
Utility Service	The service is an old style with a fusible switch feeds a distribution section.		A plan should be made to update the existing main and distribution section.
Distribution Panel	Distribution section feeds a new I-line panel, which was installed due to limited room and age of existing equipment. No surge suppression device was present.		If any additions are required to the service, this will trigger the replacement of the gear as there is no space remaining.
<b>Panelboards</b>			
	Panels are limited and do not have room for future additions; Panels dating more than 50 years were noted. Life expectancy is usually 40 years.		Upgrades on panels can be done if additional circuits are required. A plan should be in place to update aging panels.
<b>Generator</b>			
	An Kohler generator is present. It appears to be from the 1964 addition; an old style Zenith transfer switch feeds an emergency panel.		Replace this generator and transfer switch due to aging. Additional loads
<b>Light Fixtures &amp; Controls</b>			
Interior Lighting	Fluorescent light fixtures contain T8 lops and ballasts. The gym HID contains Fluorescent T8 high bay fixtures. Lighting motion sensors were added to classrooms.		Replace with LED when fluorescents fixtures begin to fail.
Exterior Lighting	New LED lighting replaced the existing HP3 fixtures.		
Emergency Lighting	Very little egress lighting in corridors.		Upgrade entire building with proper egress lighting. More complete building evaluation is needed.
<b>Data, Telephone</b>			
	Phone system is Mitel IP based and is linked to the Middle and High Schools; wireless connection; classrooms and offices have Cat 5 data drops; Data racks are full, no additional cabling can be added. IDF rack is wall mounted.		
<b>Access Control System</b>			
	A new "Tri Ad" IP Keyless entry system was recently added.		Add to existing system as required.
<b>Intercom System</b>			
	Existing intercom system is tied to the phone system. Original simplex system is still in place. It is assumed the amp is in place and drives the speakers through phone system.		Replace old style speakers and wiring with new ones. Remove old intercom system and replace IP system.
<b>Clock System</b>			
	New American Time battery clocks are present.		Add additional clocks as required.
<b>CCTV System</b>			
	IP CCTV system which was recently upgraded. Noted: CCTV on exterior of the building is lacking.		Add to existing system as required.
<b>Fire Alarm System</b>			
	A Simplex zoned 4002 panel fire alarm system is currently installed. Areas of the facility do not meet code requirements. Cubby areas do not contain smoke detection which is required by code.		Horn and strobe devices can be added to all occupied locations to complete code. More complete study to determine additional equipment needed.

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# COLUMBUS INTERMEDIATE/ MIDDLE SCHOOL: NEEDS ASSESSMENT

The following is a summary of potential improvements at Columbus Intermediate/ Middle School. This is not intended to be a comprehensive list. The following information was obtained through notations made by Bray Architects at extensive tours of the building and grounds, as well as needs identified by District staff.

No.	Intermediate/ Middle School	Type / Material	Area / Location	Analysis	Identified in Plans
<b>Infrastructure Improvement</b>					
<b>Building Interior</b>					
<b>1</b>	<b>Walls</b>				
a	Walls	CMU block	building	majority in good condition; some damaged	x
b	Walls	Tile	building	majority in good condition; some damaged	x
c	Walls	Gypsum	building	majority in good condition; some damaged	x
d	Walls	Modular brick	building; stack/band storage	majority in good condition; some damaged	x
e	Walls	Acoustic Tile	building	majority in poor condition	x
<b>2</b>	<b>Window Interior &amp; Openings</b>				
a	Interior Window Sills	Varies	building	majority in good condition	
b	Interior Window Heads	Steel	building	majority in good condition; some rusting/damaged	x
c	Windows	Wood/Glass	South	Single pane windows	x
<b>3</b>	<b>Interior Doors</b>				
a	Interior Doors	hollow metal	building	majority in good condition	
b	Interior Doors	wood w/ hollow metal frame	building	majority in good condition	
<b>4</b>	<b>Ceilings</b>				
a	Ceilings	acoustical tile	building	Paint covering up damaged areas; visibly dated, stained, worn, scratched, sagging, and / or peeling off / missing in some areas	
<b>5</b>	<b>Flooring</b>				
a	Flooring	carpet	building	majority in good condition; minimal dated and worn	
b	Flooring	VCT	building	majority in poor condition; visibly dated, worn, scratched, and / or rusted	
c	Flooring	concrete	locker rooms	visibly dated, worn, stained, cracked, and / or cracked	
d	Flooring	ceramic tile	locker rooms/bathrooms	majority in good condition; visibly dated	
e	Transitions	Varies	building	majority in poor condition; visibly dated, worn, damaged, and / or missing	
f	Base	tile	building	majority in poor condition; cracked, broken, or missing	
g	Base	rubber	building	majority in good condition	
<b>6</b>	<b>Miscellaneous</b>				
a	Casework	lamine & wood / veneer	building	majority in poor condition; visibly worn, scratched and / or wood / laminate chipping / peeling off	
b	Bleachers	wood	gymnasium	visibly worn, scratched and / or chipping	

# COLUMBUS INTERMEDIATE/ MIDDLE SCHOOL: NEEDS ASSESSMENT

No.	Intermediate/ Middle School	Type / Material	Area / Location	Analysis	Identified in Plans
<b>Building Exterior / Envelope</b>					
<b>7</b>	<b>Walls</b>				
a	Exterior Foundation Walls	concrete	building	overall in good condition; some areas where visibly worn and / or cracking / chipping off	x
b	Exterior Walls	brick	building	overall in fair condition; some instances where visibly stained, cracking / chipping, and / or grout is cracking / missing, especially at the base of the wall	x
<b>8</b>	<b>Windows</b>				
a	Windows	-	building	majority in good condition	
<b>9</b>	<b>Doors</b>				
a	Exterior Doors - Hollow Metal	hollow metal	building	rusting, visible scratching and poor painting	see door analysis
<b>10</b>	<b>Roof</b>				
a	Roof	-	building	majority in good condition; some leaking	see roof report
b	Roof - Soffits	plaster	building	cracking	x
<b>11</b>	<b>Miscellaneous</b>				
a	Façade		building	good condition	
<b>Site Development</b>					
<b>12</b>	<b>Asphalt / Paving</b>				
a	Parking Lots	asphalt	site	majority in good condition; some cracking	
b	Hard Surface Play Areas	asphalt	site	good condition appears to be new	
<b>13</b>	<b>Site Concrete</b>				
a	Walkways	concrete	site	majority in good condition; some cracking	
<b>14</b>	<b>Greenspace</b>				
a	No improvements needed	-	site	good condition	



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# COLUMBUS INTERMEDIATE/ MIDDLE SCHOOL: ADA ACCESSIBILITY ASSESSMENT

The following is an analysis of Columbus Intermediate/ Middle School in regards to meeting building code requirements under the Americans with Disability Act (ADA) and regulated by the American National Standard (ANSI) Accessible and Usable Buildings and Facilities. This is not intended to be a comprehensive list, but an analysis as identified by Bray Architects and engineers gathered through extensive tours and assessment of the existing building facility.

No.	Intermediate/ Middle School	Area / Location	Analysis	Potential Solution	Identified in Plans
<b>ADA Accessibility</b>					
<b>1</b>	<b>Building Entrance</b>				
a	Accessible Route of Travel	building	there are ADA compliant accessible routes of travel into the building	none	
<b>2</b>	<b>Parking</b>				
a	ADA Parking Stalls	west parking lot	there are designated ADA compliant stalls	none	
<b>3</b>	<b>Ramps &amp; Lifts</b>				
a	Accessible Routes of Travel Between Floor Levels - Ramps	-	-	-	
b	Accessible Routes of Travel Between Floor Levels - Lifts	-	-	-	
c	Accessible Routes of Travel Between Floor Levels - Elevators	lower level	there is currently no ADA compliant route	renovate as needed	x
<b>4</b>	<b>Railings</b>				
a	Stair Railings	building	ADA compliant standards for railings are not met	remove / replace to provide ADA compliant railings	x
b	Ramp Railings	office area	ADA compliant standards for railings are not met	install ADA compliant railings	x
<b>5</b>	<b>Maneuvering, Thresholds, &amp; Push / Pull</b>				
a	Push / Pull	building	ADA compliant standards for push/pull are not met	renovate as needed	x
b	Maneuvering	building	ADA compliant standards for maneuvering are not met	renovate as needed	x
c	Thresholds	showers	ADA compliant standards for thresholds are not met	renovate as needed	x
<b>6</b>	<b>Door Hardware &amp; Panic Hardware</b>				
a	Door Hardware	building	door hardware is not ADA compliant	replace as needed	x
<b>7</b>	<b>Restrooms</b>				
a	5'-0" Wheelchair Clearance	building	ADA compliant standards for wheelchair clearance are not met	renovate as needed to provide ADA compliant standards for wheelchair clearance	x
b	ADA Accessible Stall	building	ADA compliant stall is not provided	renovate as needed to provide at least (1) ADA compliant stall for the group restroom	x
c	Unisex Restrooms	2nd floor	at least (1) ADA compliant unisex restroom is not at this floor level	renovate as needed to provide at least (1) ADA compliant unisex restroom at this floor level	x
d	Grab Bars	building	ADA compliant standards for grab bars are not met	renovate to provide ADA compliant grab bars; wall relocation required to meet ADA compliant dimension requirements	x
e	Showers	-	-	-	
<b>8</b>	<b>Drinking Fountains &amp; Protruding Objects</b>				
a	Drinking Fountains	building	drinking fountain is not at ADA compliant height	remount drinking fountain to ADA compliant height	x
b	Protruding Objects				
<b>9</b>	<b>Casework, Transaction Counters, &amp; Counters with Sinks</b>				
a	Transaction Counters	library / office	ADA compliant		
b	Workstation Counters	building	does not contain at least 3'-0" length of workspace at ADA compliant height	provide 3'-0" length of counter / workspace at ADA compliant height	x
c	Counters with Sinks	building	ADA compliant		







ROOF PLAN  
*not to scale*





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# COLUMBUS INTERMEDIATE/ MIDDLE SCHOOL: EXTERIOR DOOR ANALYSIS

Intermediate/ Middle School			
No.	Door Type	Frame Type	Visual Condition
1	Aluminum	Aluminum Storefront	Good
2	Aluminum	Aluminum Storefront	Good
3	Aluminum	Aluminum	Good
4	Hollow Metal	Hollow Metal	Fair
5	Overhead Door - Wood	NA	Fair
6	Hollow Metal	Hollow Metal	Good
7	Hollow Metal	Hollow Metal	Good
8	Hollow Metal	Hollow Metal	Fair
9	Hollow Metal	Hollow Metal	Poor
10	Aluminum	Aluminum Storefront	Good
11	Hollow Metal	Hollow Metal	Good
12	Aluminum	Aluminum	Good
13	Aluminum	Aluminum	Good
14	Hollow Metal	Hollow Metal	Fair



1 ALUMINUM DOORS & ALUMINUM STOREFRONT



4 HOLLOW METAL DOOR & HOLLOW METAL FRAME



5 OVERHEAD DOOR - WOOD



9 HOLLOW METAL DOORS & HOLLOW METAL FRAME



14 HOLLOW METAL DOOR & HOLLOW METAL FRAME



12 ALUMINUM DOORS & ALUMINUM FRAME



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# COLUMBUS INTERMEDIATE/ MIDDLE SCHOOL: EXTERIOR WINDOW ANALYSIS

Intermediate/ Middle School		
No.	Window Type	Consider Replacement
1A	Aluminum w/ Double Pane	
1B	Aluminum w/ Double Pane	
2A	Aluminum w/ Single Pane	Replace Single Pane w/ Double Pane
2B	Aluminum w/ Single Pane	Replace Single Pane w/ Double Pane
3A	Aluminum w/ Single Pane	Replace Single Pane w/ Double Pane
3B	Aluminum w/ Single Pane	Replace Single Pane w/ Double Pane
4A	Aluminum w/ Single Pane	Replace Single Pane w/ Double Pane
4B	Aluminum w/ Single Pane	Replace Single Pane w/ Double Pane
5A	Aluminum w/ Double Pane	
6A	Aluminum w/ Double Pane	
7A	Aluminum w/ Double Pane	
7B	Aluminum w/ Double Pane	
8B	Aluminum w/ Single Pane	Replace Single Pane w/ Double Pane



1A ALUMINUM W/ DOUBLE PANE



3A ALUMINUM W/ SINGLE PANE



4A ALUMINUM W/ SINGLE PANE



7A/B ALUMINUM W/ DOUBLE PANE



6A ALUMINUM W/ DOUBLE PANE



5A ALUMINUM W/ DOUBLE PANE



## **Plumbing System Review:**

The following report is the result of a site visit by Justin Monk of Muermann Engineering, LLC that occurred on March 6, 2019. Site observations, existing plan review and interviews with staff were all used in the preparation of this report.

The original building was built in 1910, with additions and renovations in 1964 and 1991.

## **Domestic Water**

### Observations

- A. The existing building is provided with a 4" domestic water service with a 2" water meter.
- B. Water pressure in the building appears to be adequate.
- C. The majority of the domestic water piping appears to be copper tube pipe. Some galvanized piping still remains in the building. Some domestic water pipe leaking has been reported.
- D. Corroded and uninsulated water piping in locker room area. Thermostatic mixing valve appears to be old and in need of repair.
- E. The building does not have an automatic fire sprinklers system. Some remote hose cabinets exist in the 1950 portion of the building which is currently connected to the domestic water system. The existing water service is not large enough to support a new fire protection system.

### Recommendations

- A. Replace remaining galvanized domestic water piping.
- B. Replace corroded and uninsulated water piping in locker room area. Replace existing thermostatic mixing valve with new.
- C. If the building were to be expanded, a new water service would be required to accommodate a new fire protection system. In this scenario, the facility would also require a new domestic water meter and supply.

## **Sanitary and Storm Piping**

### Observations

- A. The majority of all sanitary piping is cast iron. Vent piping in the original building is mostly galvanized but appears to be in good condition.
- B. Problems with the sanitary sewer were not reported by the staff.
- C. The kitchen has an interior grease interceptor. The interceptor is maintained yearly, however the interceptor appears to be undersized per the kitchen equipment and washing load. Drain piping serving the dish machine's waste discharge is PVC which is not recommended for waste temperatures at or above 140 degree Fahrenheit.
- D. Problems have been reported with floor drain traps drying out which leads to sewer gas smell in the building. Some unused



Uninsulated Storm  
Conductor Piping

floor drains have been filled with concrete to help with the problem.

- E. Storm drains on the roof are in fair condition and no problems have been reported with the interior storm drainage system.
- F. Sanitary ejector pump serving lower level appears to be original installation.

### **Recommendations**

- A. Continue to monitor the existing sewer. Replace existing sewer sanitary and vent piping as problems arise.
- B. Replace existing pipe insulation on storm conductor piping.
- C. Replace the existing grease interceptor with new properly sized per the kitchen equipment and washing load. All waste receiving temperature at or over 140 degree Fahrenheit.
- D. Continue to monitor and investigate why the floor drain traps are drying out. Typically this is due to negative pressure within the area which dries out the traps. Provide trap seals devices to each existing floor drains to stop sewer smells form entering the building.
- E. Replace existing sanitary ejector pumps serving lower level with new.

### **Plumbing Equipment**

#### **Observations**

- A. There is (1) HTP gas 40-gallon water heater at 180 degree unit serving the kitchen equipment hot water system; it is 2 years old.
- B. There are (2) HTP gas 100-gallon at 120 degree units serving the general hot water system; they are 2 years old.
- C. There is (1) Water Softener Hellenbrand 75gpm water softener unit serving the general hot water system; it is 2 years old.

#### **Recommendations**

- A. N/A.

### **Plumbing Fixtures**

#### **Observations**

- A. Existing fixtures for the facility are generally in poor condition.
- B. There is a mixture of drinking fountains and electrical water coolers, some installed per ADA requirements. Some new electric water coolers with bottle filling stations are installed at various locations.
- C. The majority of all water closets and urinals are flush valve style fixtures. A few tank type water closets still remain in smaller toilet rooms. Existing flush valves are in fair to poor condition.

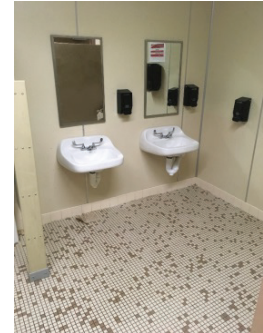


## COLUMBUS, VT

- D. Lavatories are in poor to fair condition. The majority of the lavatory faucets have handles that are not per ADA requirements.
- E. Classroom sinks are provided with tempered water. The water feels slightly warmer than room temperature.
- F. Although the main toilet rooms have ADA compliant fixtures, the rooms do not meet ADA requirements.
- G. Natural gas has been provided in the main Science rooms.
- H. All science labs have emergency eye-wash equipment.
- I. Kitchen equipment is old but in fair to good condition.
- J. Locker room fixtures are in poor to fair condition.
- K. Water efficient faucets are not utilized in this building.

## Recommendations

- A. Replace existing lavatory fixtures and faucets with new water efficient ADA fixtures.
- B. Upgraded faucets should be low flow water efficient fixtures with ceramic disc cartridges to promote positive shut-off. All handles shall be per ADA requirements.
- C. Replace water closets and urinal fixtures with new wall mount fixtures with sensor flush valves.
- D. Provide floor drain as required in renovated restrooms.
- E. Update toilet rooms to be ADA requirements.
- F. Classroom sinks should be provided with hot and cold water. Replace existing faucets as required.



Lavatories



Electric Water  
Coolers

The following report is the result of a site visit by Jason Testin of Fredericksen Engineering that occurred on March 6, 2019. Site observations, construction plan review, and interviews with staff were all used in the preparation of this report.

The original building was constructed in 1910, with additions being constructed in 1934, 1941, 1964 and 1991. There were HVAC upgrades performed in 2016.

### **1.7 Heating System**

#### **A. Existing Data**

1. One boiler plant serves the building. The boiler plant consists of three boilers; one DeDietrich condensing boiler and two Patterson Kelly non-condensing boilers. Each boiler is fired with natural gas. The two PK boilers were installed in 2002 while the DeDietrich was installed in 2016.
2. The piping and pumping system for the boilers consists of a single circuit system with a stand-by pump. If the primary pump fails, the secondary (stand-by) pump will provide hot water circulation to the system.

#### **B. Observations**

1. According to information obtained by the Owner, the boiler plants have no reserve capacity at this point, as all boilers are brought online during periods of colder weather.
2. The boiler plant is in good condition. The three boilers have an estimated life expectancy of 20 years.
3. The Owner has indicated that there are no current concerns or issues with the heating supply system.

#### **C. Recommendations**

1. Continue preventative maintenance on the system.
2. Any future additions or construction may require the addition of boiler capacity to serve the additional spaces.

### **1.8 Ventilation and Air Conditioning Systems**

#### **A. Existing Data**

1. There are three systems that provide ventilation for the facility. The three systems are unit ventilators, constant volume air handling systems and constant volume furnace.
2. The classrooms were originally served by hot water unit ventilators. The unit ventilators contain a supply fan, hot water heating coil and outside air damper. When rooftop units were installed in 2002 and 2016, the unit ventilators were abandoned in place.
3. The classrooms, library and gym are served by constant volume rooftop units. The rooftop unit consists of a supply fan, gas fired heat exchanger, packaged DX cooling section and outside air damper. Hot water booster coils are installed in the ductwork to provide individual room control.
4. The district office area is served by a constant volume gas fired furnace. A furnace consists of a supply fan, gas fired heat exchanger and outside air damper. A room thermostat is used to control the air supplied to the space.



### **B. Observations**

1. The rooftop units were installed in 2002 and 2016 and are in fair condition. The 2002 units have exceed the estimated life expectancy of 15 year.
2. The furnace was installed in 2016 and is in good condition. The furnace has an estimated life expectancy of 15 years.
3. Door transfer grilles are currently utilized to transfer relief air from the classrooms to the corridor.

### **C. Recommendations**

1. Plans should be made for the eventual replacement of the aging rooftop units.
2. The owner noted that the furnace serving the district office area is a single zone unit. There are occupant complaints due to one thermostat controlling multiple spaces. Plans should be made to install a system with individual zone control.
3. With any remodel or renovation, plans should be made to replace the door transfer grille relief system with a code approved system. The current building code does not allow transfer air into a path of emergency egress.

## **1.9 Control Systems**

### **A. Existing Data**

1. A Trend digital control system serves the entire building.

### **B. Observations**

1. Continue preventative maintenance on the system.

### **C. Recommendations**

1. Continue to maintain and operate the control system.



# **COLUMBUS INTERMEDIATE/ MIDDLE SCHOOL: ENGINEER REPORT - ELECTRICAL**

## **Electrical System Review:**

The following report is the result of a site visit by Curt Krupp of Muermann Engineering, LLC that occurred on March 6, 2019. Site observations, existing plan review and interviews with staff were all used in the preparation of this report.

The original building was built in 1910, with additions and renovations in 1964 and 1991.

## **Main Electrical Service**

### **Observations**

- A. The building is fed with a 120/208 volt 1600 Amp electrical service. The service is an old style with a fusible switch that feeds a distribution section. The distribution section feeds panels throughout the building with breakers. This section also feeds a new I-line panel located in the same room. This panel was installed due to limited room and age of existing distribution equipment. The CT is located in the switch gear and a meter is located next to the gear. The service is fed with a pad mounted transformer on grade located just north of the boiler room.
- B. No surge suppression device was present.



Electric Service

### **Recommendations**

- A. The service can remain in place and appears to service the school without any issues. Due to the age of the existing equipment, a plan should be in place to update the existing main and distribution section. This equipment typically has a useful life of 40 years. We estimated the equipment to be 50 plus years old. The new equipment could be located in the same location as the existing gear and will require a shutdown to allow for the switch over. If any additions are required to the service, this will also trigger the replacement of the gear as no additional space remains to add additional loads.
- B. The demand reading from Columbus Water and Light indicated that service peak demand is around 245 KW. This equates to approximately 850 amps. The service size is 1600 amps and not 100% rated allowing it to be loaded to 80% or 1200 amps. The service is approximately at 70% of its capacity.

## **Panelboards**

### **Observations**

- A. The panels in the facility are limited and do not have room for future additions. Panels dating more than 50 years old were noted.

### **Recommendations**

- A. Panels can remain in place as is. Upgrades on panels can be done if additional circuits are required in classrooms or other spaces. Due to the age of some of the existing panelboards, a plan should be in place to update them. This equipment typically has a useful life of 40 years. Breakers will become hard to find if replacement is required.



Panelboard



## Generator

### Observations

- A. A Kohler generator is located in the mechanical room. The set is air cooled and natural gas fired. It appears to be from the 1964 addition. An old style Zenith transfer switch feeds an emergency panel.

### Recommendations

- A. Replace this generator and transfer switch due to its age and locate on building exterior.
- B. Add additional loads to allow for data closets, intercom and phone systems to operate in a power outage.



Generator

## Interior Lighting and Control

### Observations

- A. The interior fluorescent light fixtures contain T8 lamps and ballasts. All exit lights have been replaced with LED type. The gym HID contains Fluorescent T8 high bay fixtures. Lighting motion sensors were added to classrooms. We did note areas of the corridors where exit lights were not present for clear direction to exits.

### Recommendations

- A. A possible option is to replace the interior fixtures with LED. We would recommend waiting until the fluorescent fixture components begin to fail, then do a replacement project.

## Emergency Lighting

### Observations

- A. We did not test the emergency egress lighting as the building was occupied at time of study. Based on the age of the building and the size of the existing generator, we feel the facility is probably lacking in egress lighting as code dictates today.

### Recommendations

- A. Upgrade entire building with proper emergency egress lighting. A more complete building evaluation needs to be performed and a simulated power outage to determine the exact needs.

## Exterior Lighting

### Observations

- A. New LED lighting replaced the existing HPS fixtures.

### Recommendations

- A. None



## **Fire Alarm System**

### **Observations**

- A. The system is a Simplex zoned 4002 panel. We did identify areas of the facility that do not meet code requirements with regard to annunciation for strobe and horn coverage. When this system was installed it met current codes. As additional code updates have occurred throughout the recent years, it has made many buildings non-code compliant.
- B. Owner noted they are experiencing problems with this older system.



Fire Alarm Control Panel

### **Recommendations**

- A. Additional horn and strobe devices can be added to all occupied areas to bring the system up to complete code compliance. This will require a more in-depth study to determine the areas that need additional equipment added.

## **Clock System**

### **Observations**

- A. New American Time battery clocks

### **Recommendations**

- A. Add as required.



Clock and Speaker

## **Intercom**

### **Observations**

- A. The existing intercom system was recently tied to the phone system. We noted the original Simplex intercom system was still in place. We assume the amp is in place and drives the speakers through the phone system.

### **Recommendations**

- A. Replace old style speakers and wiring with new due to age. Remove old intercom system and replace with IP system.



Intercom Head End

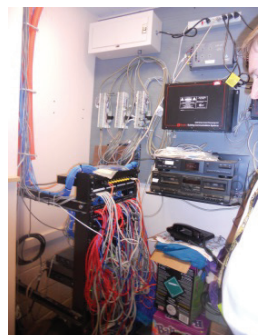
## **Data, Telephone**

### **Observations**

- A. The phone system for the district is Mitel IP based and linked to the Elementary and High schools. The facility contains wireless access throughout. The classrooms and offices contained Cat 5 data drops. Existing data racks are, for the most part, full and no additional cabling can be added. The IDF rack is wall mounted and not easily accessible.

### **Recommendations**

- A. None.



Data Rack



## **CCTV System**

### Observations

- A. The facility contains an IP CCTV system which was recently upgraded as part of a state wide security grant.
- B. Owner noted CCTV on exterior of building is lacking.

### Recommendations

- A. Add to the existing system as required.

## **Access Control System**

### Observations

- A. A new "Tri Ad" IP Keyless entry system was recently added as part of a state wide security grant.

### Recommendations

- A. Add to the existing system as required.

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# INTERMEDIATE / MIDDLE SCHOOL NEEDS & PRIORITIES

COMMUNITY FACILITY ADVISORY COMMITTEE (FAC)  
COLUMBUS SCHOOL DISTRICT  
COLUMBUS, WISCONSIN

Bray Associates Architects, Inc.  
Davenport | Milwaukee | Sheboygan



Monday | May 6, 2019

## PRELIMINARY NEEDS SUMMARY

Area of Need	Columbus Intermediate / Middle School
Safety / Security	
Infrastructure	
Educational	
Site	
Other	



# **BUSINESS OFFICE OBJECTIVES & KEY RESULTS**



# **PRESENTATION SCHOOL FINANCE 101**

## **TAB 11**



# COLUMBUS SCHOOL DISTRICT

## FINANCE 101 WORKSHOP

MAY 6, 2019

**Michele Wiberg**  
*SVP, MANAGING DIRECTOR*

PMA SECURITIES, LLC  
770 N. JEFFERSON ST  
MILWAUKEE, WI 53202



**Michele Wiberg**

SVP, Managing Director

mwiberg@pmanetwork.com

414.436.1834

- ~ Heads PMA's Wisconsin Office
- ~ 27 years of financial advisory experience to Wisconsin local governments
- ~ Advised on 216 transactions totaling over \$2.5 billion during past five years
- ~ BS and MBA from Marquette University

## What Services Does a Financial Advisor Provide?

### Community Facilities Advisory Committee

- Informs the Committee of factors that impact Wisconsin school finance
- Calculates the tax impact of potential facilities solutions
- Provides information only; does not advocate for the referendum

### School Board

- Supports the Board's efforts to communicate financial information
- Provides information only; does not advocate for the referendum

### District

- As a Financial Advisor, PMA has a fiduciary duty to act in the best interest of the District. If the referendum is successful, PMA will analyze all relevant financial information and will recommend the financing solution that best meets the District's needs.





## REVENUE LIMIT

- Established in 1993-94 to control the amount of revenue a school district can collect
- Based on 3-year average enrollment
- WI Biennial Budget determines maximum revenue per student



## *Minus (-)* STATE AID

- Based on property value per student
- Reimbursement at various levels depending on spending
- Primary, Secondary, Tertiary



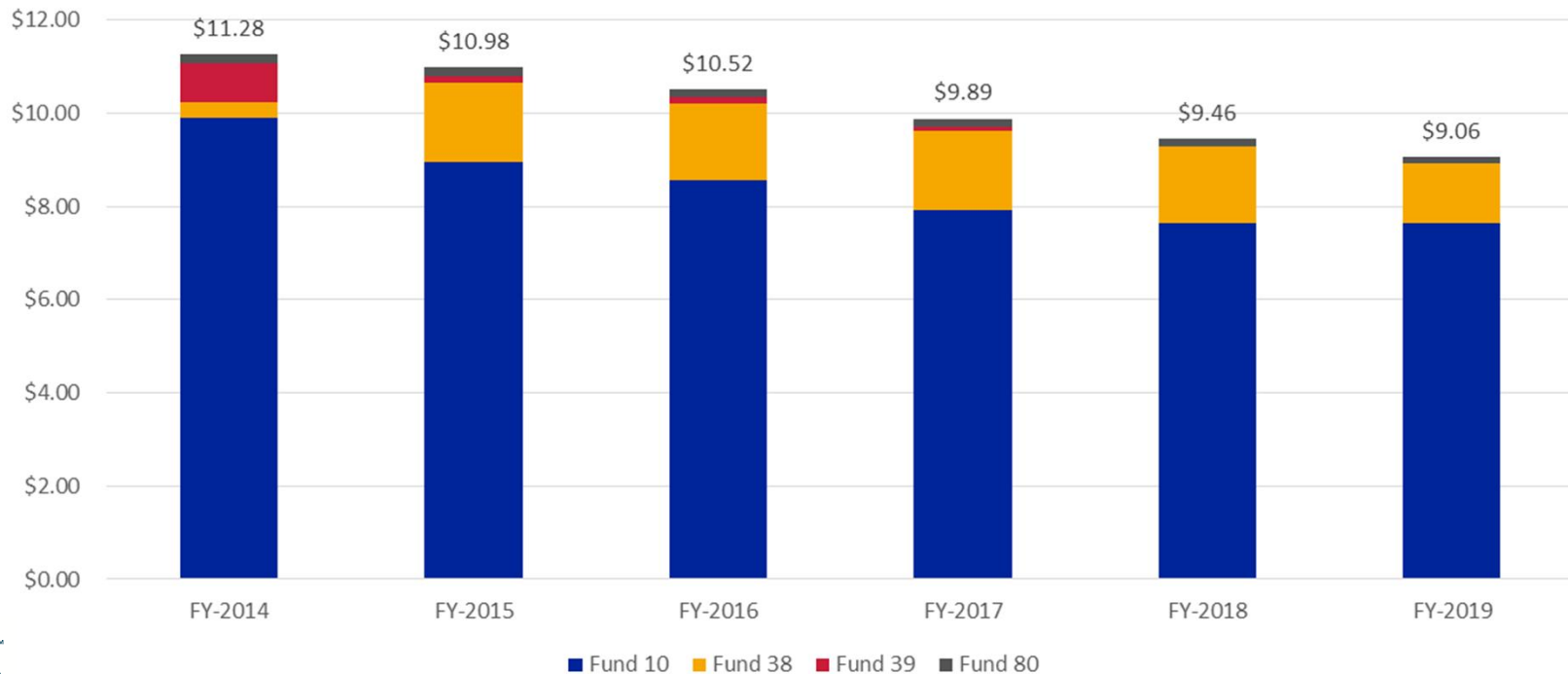
## *Equals (=)* LOCAL PROPERTY TAX LEVY



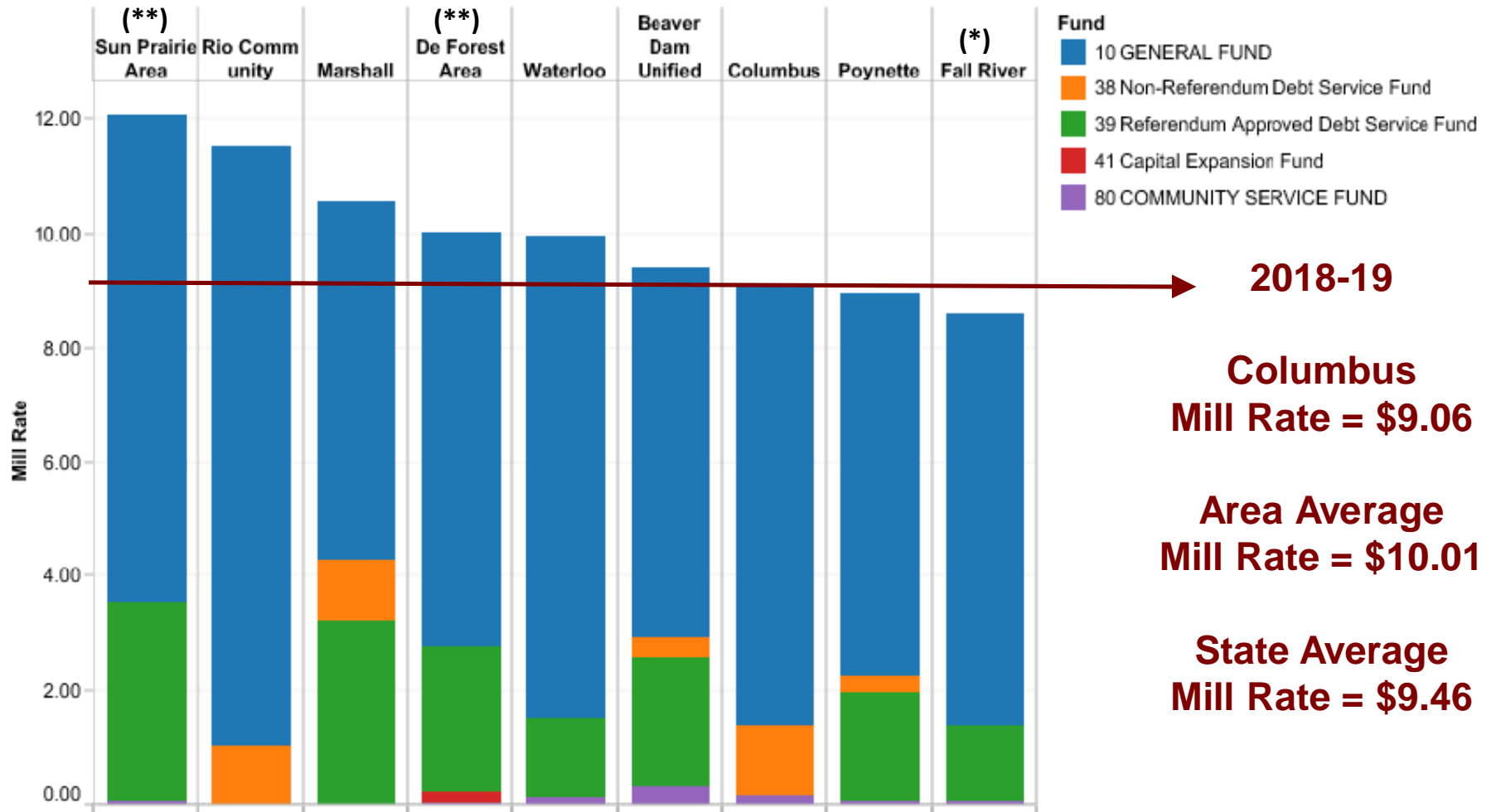
# COLUMBUS SCHOOL DISTRICT

## PROPERTY TAX LEVY & MILL RATE, 2014-Present

		ACTUAL					
		FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<b>TAX LEVY</b>							
Fund 10	General Fund	\$6,148,246	\$5,693,038	\$5,600,746	\$5,451,298	\$5,587,359	\$5,753,373
Fund 38	Non-Ref. Debt Svc.	\$206,584	\$1,074,752	\$1,073,541	\$1,162,970	\$1,196,316	\$943,968
Fund 39	Ref. Approved Debt Svc.	\$534,160	\$91,331	\$85,781	\$72,082	\$0	\$0
Fund 80	Community Service Fund	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000
<b>TOTAL LEVY</b>		<b>\$7,008,990</b>	<b>\$6,979,121</b>	<b>\$6,880,068</b>	<b>\$6,806,350</b>	<b>\$6,903,675</b>	<b>\$6,817,341</b>
<b>PERCENT CHANGE</b>			-0.43%	-1.42%	-1.07%	1.43%	-1.25%
<b>EQUALIZED VALUATION (TIF OUT)</b>		\$621,510,706	\$635,537,719	\$653,904,328	\$688,016,159	\$729,964,870	\$752,068,925
<b>Percent Change</b>			2.26%	2.89%	5.22%	6.10%	3.03%
<b>MILL RATE TOTAL</b>		<b>\$11.28</b>	<b>\$10.98</b>	<b>\$10.52</b>	<b>\$9.98</b>	<b>\$9.46</b>	<b>\$9.06</b>



# COLUMBUS SCHOOL DISTRICT 2018-19 AREA MILL RATE COMPARISON



- DATA IS TAKEN FROM PUBLICLY AVAILABLE SOURCES; THE ACTUAL MILL RATE IMPACT MAY DIFFER FROM ESTIMATES -

(\*) Projected mill rate increase for Fall River's successful \$8M referendum was \$0.81; total mill rate was projected to be \$10.74 post-referendum. It is not clear as to whether the referendum impact is included in the 2018-19 mill rate.

(\*\*) Data likely does not include debt service expense associated with the following successful facilities referenda:

	Amount	Referendum	Estimated
	Approved at	Date	Mill Rate
	Referendum		Impact
Sun Prairie Area School District	\$164,000,000	04/02/19	\$0.56
De Forest Area School District	\$125,000,000	04/02/19	\$1.80



# COLUMBUS SCHOOL DISTRICT

## TAX IMPACT ON SAMPLE PROPERTY VALUES

BORROWING AMOUNT	<b>\$20,000,000</b>
LENGTH OF BORROWING(S)	20 Years
EXAMPLE INTEREST RATE(S)	3.75% / 4.00%

ESTIMATED TAXPAYER IMPACT	Per \$1,000 of Property Fair Market Value ("FMV")
MAXIMUM MILL RATE IMPACT	<b>\$0.96</b>

### IMPACT ON SAMPLE PROPERTY VALUES



<b>\$100,000 FMV</b> (based on maximum mill rate)	
Annual	<b>\$96.00</b>
Monthly	<b>\$8.00</b>
<b>\$150,000 FMV</b> (based on maximum mill rate)	
Annual	<b>\$144.00</b>
Monthly	<b>\$12.00</b>
<b>\$200,000 FMV</b> (based on maximum mill rate)	
Annual	<b>\$192.00</b>
Monthly	<b>\$16.00</b>
<b>\$300,000 FMV</b> (based on maximum mill rate)	
Annual	<b>\$288.00</b>
Monthly	<b>\$24.00</b>



### Key Assumptions:

State aid impact based on prior fiscal year incremental expenditure over base year at the following aid level (2018-19 October certification):

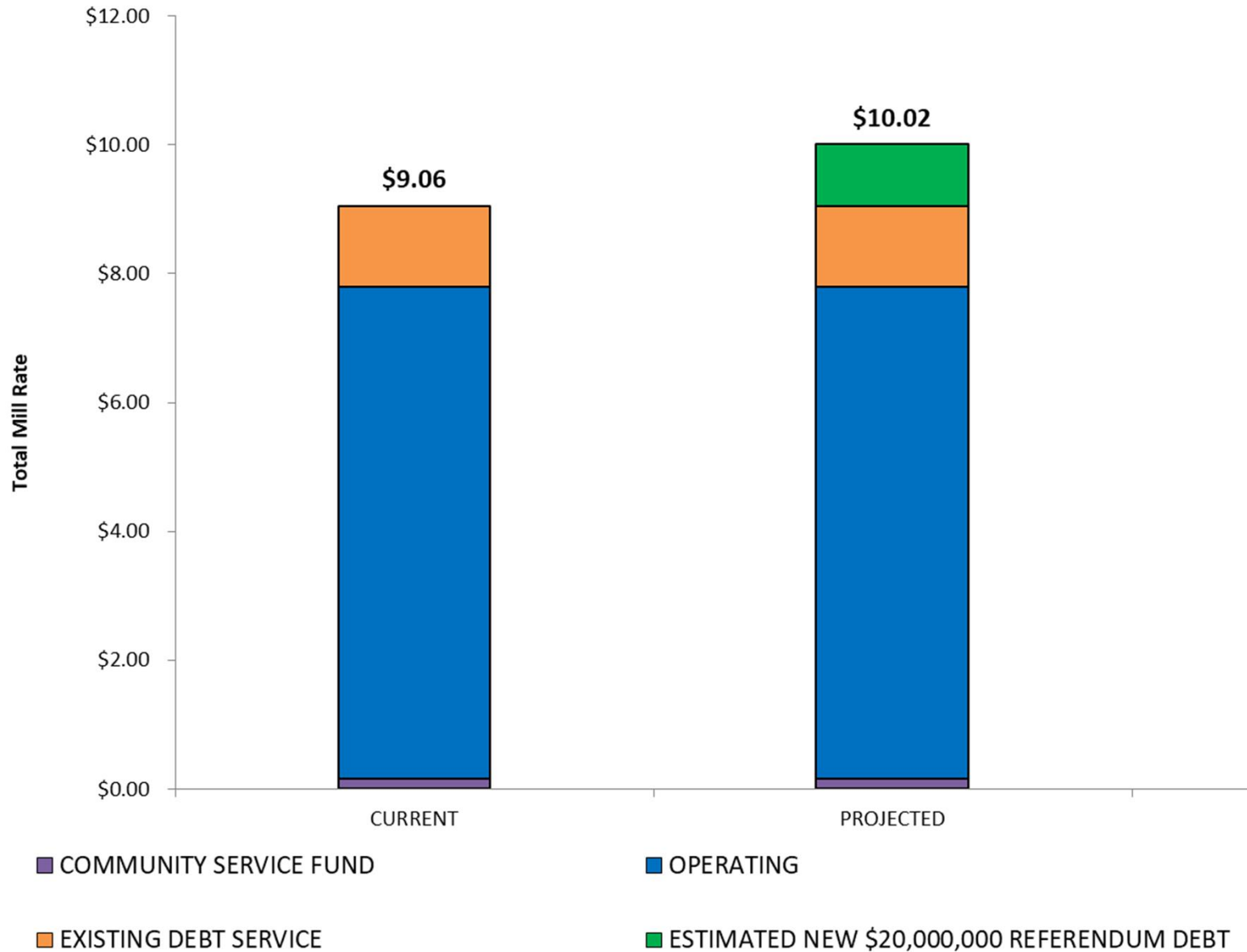
Tertiary Aid Percentage..... 4.52%

Mill rate based on 2018 Equalized Valuation (TID-OUT) of \$752,068,925 with annual growth of 2.00%.

**NOTE:** Mill rate may remain unchanged or decline in upcoming years if referendum not approved.



# COLUMBUS SCHOOL DISTRICT PROJECTED MILL RATE EXISTING DEBT + POTENTIAL \$20M REFERENDUM

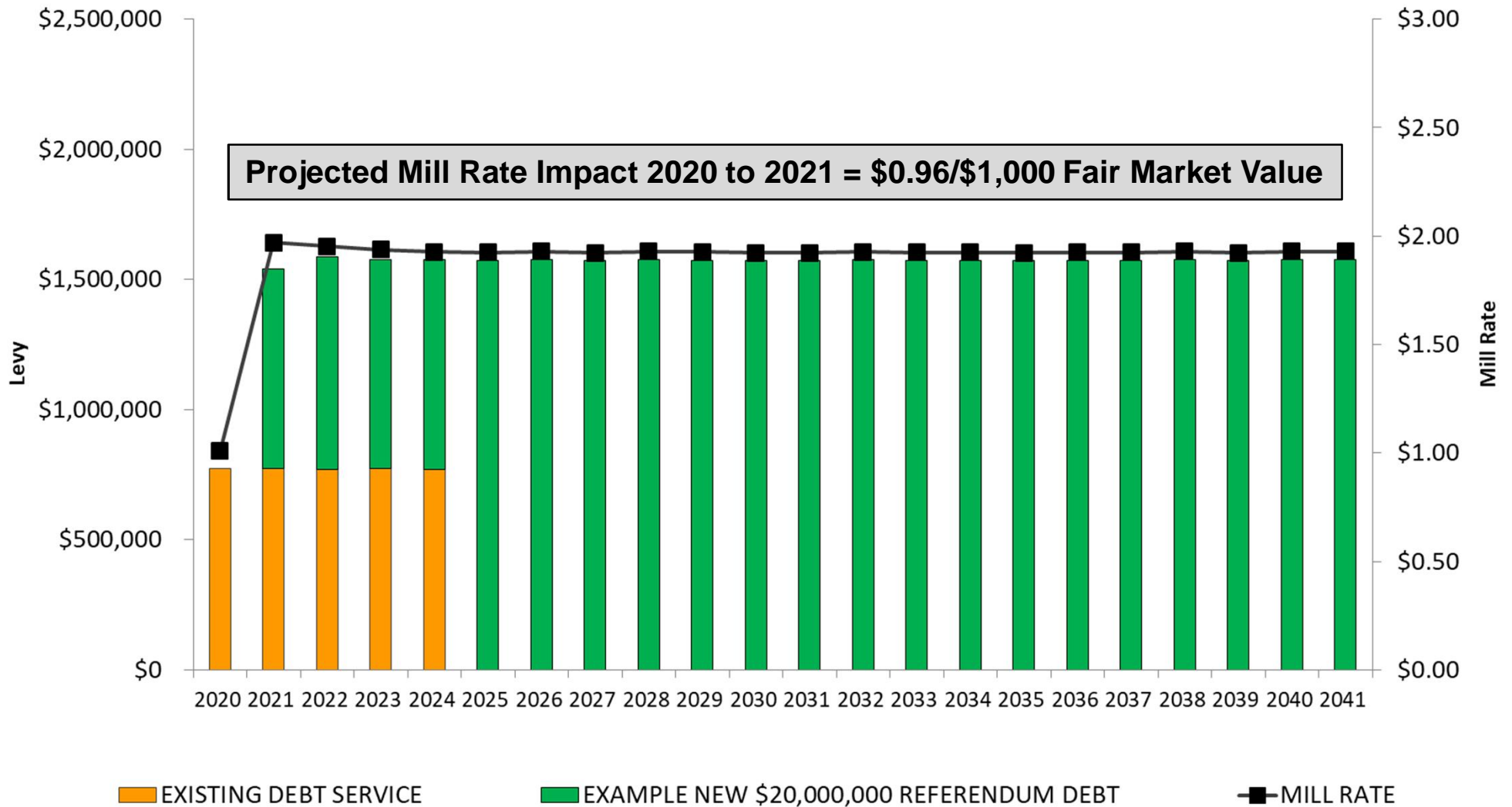




# COLUMBUS SCHOOL DISTRICT

## EXISTING DEBT + POTENTIAL \$20M REFERENDUM

### Debt Service Levy (*Bars*) and Debt Mill Rate (*Line*)



Notes: Referendum financing assumes 2-phases, 2020 and 2021 borrowings at estimated interest rates of 3.75% and 4.00%. Mill rate assumes estimated growth in equalized value of 2% through 2021, 0% thereafter and tertiary aid impact of 4.52%. Example financing scenarios could be impacted by other variables, such as significant market or statutory changes, which may necessitate adjustments to the financing plans. Mill rate may remain unchanged or decline in upcoming years if referendum not approved.



# HISTORICAL INTEREST RATE COMPARISON

## MMD "AAA" 20-Year Bond Index

### 20 Year History



Information shown is the Municipal Market Data index for AAA-rated, 20-year bonds.



Moody's released a G.O. rating methodology in January 2014 (updated Dec. 2016). There are a number of adjustments to the "simple" scorecard shown below.

Broad Rating Factors	Factor Weighting	Rating Sub-factors	Sub-factor Weighting
I. Economy/Tax Base	30%	Tax Base Size (Equalized Value)	10%
		Equalized Value Per Capita	10%
		Wealth (median family income)	10%
II. Finances	30%	Fund Balance (% of Operating Revenues)	10%
		Fund Balance Trend (5-year change)	5%
		Cash Balance (% of Operating Revenues)	10%
		Cash Balance Trend (5-year change)	5%
III. Management	20%	Institutional Framework*	10%
		Operating History	10%
IV. Debt/Pensions	20%	Debt to Equalized Value	5%
		Debt to Revenue	5%
		Moody's ANPL** (3-yr avg.) to Equalized Value	5%
		Moody's ANPL** (3-yr avg.) to Revenue	5%

\* All Wisconsin schools receive a score of "Aa"

\*\* Adjusted Net Pension Liability (pro rata allocation of Moody's calculated WRS liability)



Wisconsin School Districts Rating Distribution  
as of 27 September 2018

Aaa	5
Aa1	9
Aa2	52
Aa3	43
A1	41
A2	9
A3	0
Baa1 and Below	1
Total WI School Dist Ratings	160
Median WI School Dist Rating	Aa3

## Columbus School District is rated “Aa3”

- Upgraded in November 2018
- Credit Strengths
  - Low debt and pension burdens
  - Healthy resident income levels supported by proximity to Madison
  - Growing reserves
  - Consistent enrollment growth





The information contained herein is solely intended to suggest/discuss potentially applicable financing applications and is not intended to be a specific buy/sell recommendation, nor is it an official confirmation of terms. Any terms discussed herein are preliminary until confirmed in a definitive written agreement.

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**THANK YOU**  
**NEXT MEETING**  
**MONDAY MAY 20 - 6:30-8:30**  
**HIGH SCHOOL LIBRARY**