

MANAWA ELEMENTARY SCHOOL	TOTAL	\$6,953,726		
ITEM	TOTAL		PRIORITY	TIMEFRAME
The two existing domestic gas-fired water heaters 120 MBH and storage tank should be replaced immediately upon receipt of available funding for equipment replacement. The water heaters are beyond repair. The recirculation pumps should be replaced with the water heater replacement.	\$0		Immediate	Being completed
Replace existing two hot water boilers 2,000 MBH with high efficiency condensing boilers (minimum of three) sized at 40% capacity. The existing boilers are at the end of their useful life. One of two boilers is not functioning while the other has difficulty staying on.	\$0		Immediate	Being completed
Restore rated doors to original function by reconnecting door closers and removing door stops.	\$2,200		Immediate	0 to 1
Install detectable warning for AED cabinet.	\$420		Immediate	0 to 1
Relocate functions taking place in storage room or provide fresh air supply to the room per code requirements.	\$0		Immediate	0 to 1
Reconfigure main entry for secure entry.	\$375,600		Immediate	0 to 1
Install missing gutter.	\$0		Immediate	0 to 1
Paint exterior doors which are only primed.	\$700		Immediate	0 to 1
Fire alarm visual and audible coverages.	\$30,995		Immediate	0 to 1
Rework MES site at main parking lot to improve site circulation safety, replace poor asphalt, and add loop route around the school. The revisions will allow the separation of parent drop-off from bus drop-off.	\$902,685		Immediate	1 to 5
Provide additional hard surface play area at MES.	\$270,900		Immediate	1 to 5
Replace carpet.	\$162,073		Immediate	1 to 5
Repair damaged drywall.	\$3,100		Immediate	1 to 5
Install magnetic door holders for classroom wing doors to allow better access control.	\$7,600		Immediate	1 to 5
Replace deteriorated or missing sealant.	\$6,100		Immediate	1 to 5
Replace windows.	\$158,100		Immediate	1 to 5
Replace existing generator and relocate away from building switchboard.	\$120,400		Immediate	1 to 5
Emergency and standby power are not segregated.	\$15,100		Immediate	1 to 5
Add surge suppression to emergency system.	\$15,100		Immediate	1 to 5
Replace the fire alarm system entirely with a new system that is speaker based and provide full intelligibility.	\$161,073		Immediate	1 to 5
Replace air handling unit (AHU-7) indoor fan coil unit, DX condensing unit and associated duct electric coils.	\$225,700		Immediate	1 to 5

MANAWA ELEMENTARY SCHOOL	TOTAL		
ITEM	TOTAL	PRIORITY	TIMEFRAME
The existing door grilles installed at each room allow AHU system return air to flow into the path of the egress corridor for collection at a central location. Present day code does not allow this as an acceptable basis of design.	\$695,290	Immediate	5 to 10
Rework site at MES main building entry to incorporate walkway edge protection landscaping, new benches or seating areas and bicycle rack locations.	\$61,000	Long-Term	5 to 10
Remove or relocate all vegetation adjacent to building structures.	\$1,800	Long-Term	5 to 10
Due to the integral function of the art room sinks, a more accessible roll-under sink should be installed.	\$1,500	Long-Term	5 to 10
Install drywall expansion joints at manufacture recommended intervals.	\$5,100	Long-Term	5 to 10
Reconfigure kitchen serving line to be age appropriate.	\$65,000	Long-Term	5 to 10
Replace classroom door hardware for better security options.	\$14,700	Long-Term	5 to 10
Replace EPDM membrane roof original to building.	\$1,137,200	Long-Term	5 to 10
Provide increased lighting controls in classrooms, library and office areas to allow occupants to reduce lighting levels depending on tasks being performed.	\$222,625	Long-Term	5 to 10
Replace all receptacles and switches that are older than 10 years.	\$8,600	Long-Term	5 to 10
Add receptacles in classroom and offices that lack adequate number of receptacles.	\$338,000	Long-Term	5 to 10
Replace the existing clock system with wireless GPS technology type system.	\$14,058	Long-Term	5 to 10
Replace existing public address system with new.	\$55,731	Long-Term	5 to 10
Consider replacement of existing phone system to VoIP.	\$139,178	Long-Term	5 to 10
Use lighting occupancy sensors to control HVAC air terminal setpoints for unoccupied/occupied conditions.	\$32,500	Long-Term	5 to 10
Replace the hot water primary and secondary circulating pumps. The secondary circulating pumps could be replaced with variable speed pumps with VFD drives and piping loop differential pressure sensors.	\$32,500	Long-Term	5 to 10
Replace the chilled water primary and secondary circulating pumps. The secondary circulating pumps could be replaced with variable speed pumps with VFD drives and piping loop differential pressure sensors.	\$32,500	Long-Term	5 to 10

MANAWA ELEMENTARY SCHOOL	TOTAL	\$6,953,726		
ITEM	TOTAL		PRIORITY	TIMEFRAME
Consider replacement of (16) exhaust fans with direct drive with ECM motor as a part of facility improvement measure for increased efficiency and reduced maintenance costs.	\$13,100		Long-Term	5 to 10
Consider adding occupancy sensors within all corridors, classrooms, library, offices, and storage rooms for automatic shutoff of the lighting when spaces are not occupied.	\$29,400		Long-Term	5 to 10
Replace exterior metal halide fixtures with more energy efficient LED type fixtures. It's recommended that new fixtures be dark sky compliant to reduce the existing light pollution in the sky, and also ensure that light energy reaches the intended surfaces and is not wasted.	\$32,500		Long-Term	5 to 10
The building temperature controls should be upgraded to Direct Digital Control (DDC) as part of any future building renovation or upgrade. The current DDC system with electronic control is over 20 years old, which exceeds its expected life span and calibration.	\$268,100		Long-Term	5 to 10
Replace chiller	\$438,700		Long-Term	5 to 10
Upgrade lighting	\$292,500		Long-Term	5 to 10
Enclose dumpsters at MES in a location accessible to both the building and refuse vehicles.	\$18,700		Long-Term	10 to 20
Continue to monitor structure for any movement. Seal and protect any movement and cracking as it occurs.	\$3,800		Long-Term	10 to 20
Relocate remaining science equipment.	\$5,800		Long-Term	10 to 20
Remodel and update collaboration areas in classroom wings to be more appropriate personalized or flexible learning spaces.	\$233,200		Long-Term	10 to 20
Provide sound absorption and treatment in collaboration areas, library and commons to reduce noise levels.	\$37,300		Long-Term	10 to 20
Extend partition walls up to deck to reduce sound transmission between rooms.	\$167,900		Long-Term	10 to 20
Continue to monitor and replace sealant as necessary.	\$3,000		Long-Term	10 to 20
Continue to replace hollow metal doors and frames as they deteriorate. Consider a fiberglass door with aluminum frame which is a more expensive option that will be more durable than hollow metal.	\$18,700		Long-Term	10 to 20
Consider removal of unused phone system equipment.	\$1,100		Long-Term	10 to 20

MANAWA ELEMENTARY SCHOOL			
ITEM	TOTAL	PRIORITY	TIMEFRAME
Implement control strategy for duct static pressure reset in polling VAV air terminals and optimizing the fan energy use.	\$28,100	Long-Term	10 to 20
Implement demand ventilation controls for control strategy that varies the amount of ventilation outside air delivered to a space based on input from a single carbon dioxide (CO2) sensor or group of sensors, which is representative of the quantity of occupants within the space.	\$46,700	Long-Term	10 to 20
<b>TOTALS</b>	<b>TOTAL \$6,953,726</b>		
<b>YEAR 0 TO 1</b>	<b>TOTAL</b>		<b>\$409,915</b>
<b>YEAR 1 TO 5</b>	<b>TOTAL</b>		<b>\$2,047,930</b>
<b>YEAR 5 TO 10</b>	<b>TOTAL</b>		<b>\$3,931,582</b>
<b>YEAR 10 TO 20</b>	<b>TOTAL</b>		<b>\$564,300</b>

LITTLE WOLF JUNIOR / SENIOR HIGH SCHOOL			
ITEM	TOTAL	PRIORITY	TIMEFRAME
	TOTAL \$10,522,058		
Replace main entrance doors.	\$0	Immediate	Being completed
Restore rated doors to original function by reconnecting door closers and removing door stops.	\$1,900	Immediate	0 to 1
Remove items stored in front of electrical panels.	\$0	Immediate	0 to 1
Do not park any vehicles in garage adjacent to the kitchen.	\$0	Immediate	0 to 1
Restore proper door and hardware removed from openings in technical education shops to address rating requirements.	\$21,800	Immediate	0 to 1
Remove plywood and storage from ceiling trusses in agricultural shop storage room.	\$0	Immediate	0 to 1
Do not use rolling expanding gates.	\$0	Immediate	0 to 1
Install detectable warning for AED cabinet and drinking fountains.	\$420	Immediate	0 to 1
Remove wood shelving from kitchen. Replace with stainless steel options.	\$900	Immediate	0 to 1
Replace asphalt shingle roofs with new shingle or standing seam metal roofs.	\$79,400	Immediate	0 to 1
Remove vegetation from roof and from overhanging roof.	\$5,900	Immediate	0 to 1
Attach roof ladder to wall at commons roof.	\$700	Immediate	0 to 1
Fire alarm pullstations at 60" above finished floor.	\$30,500	Immediate	0 to 1
The two existing domestic gas-fired water heaters 670 MBH and storage tank should be replaced immediately upon available funding for equipment replacement. Water heaters have been serviced over the years and are beyond repairs. The recirculation pumps should be replaced with the water heater replacement.	\$101,200	Immediate	0 to 1
Undertake comprehensive analysis of soil and subsurface conditions of the football field and track including extensive soil borings and geotechnical analysis. Improve soil structure, improve drainage and reconstruct these areas as required to insure safe student participation in activities on these facilities.	\$30,100	Immediate	1 to 5
To maintain integrity and weather tightness of exterior wall structure, install vertical expansion joints in all masonry veneer per industry standard recommendations for location, frequency and sealants. When joints are installed on upper walls of commons, evaluate and repair bowing masonry wall as required.	\$9,200	Immediate	1 to 5
Replace carpet.	\$29,150	Immediate	1 to 5

LITTLE WOLF JUNIOR / SENIOR HIGH SCHOOL			
ITEM	TOTAL	PRIORITY	TIMEFRAME
	<b>TOTAL \$10,522,058</b>		
Abate and replace VAT.	\$177,600	Immediate	1 to 5
Replace ACT.	\$85,400	Immediate	1 to 5
Reconfigure main entry for secure entry.	\$376,200	Immediate	1 to 5
Replace classroom science lab and classroom casework. Install proper casework and equipment for junior high science.	\$270,900	Immediate	1 to 5
Replace 1995 ballasted EPDM roof.	\$278,400	Immediate	1 to 5
Tuckpoint masonry.	\$97,900	Immediate	1 to 5
Replace deteriorated or missing sealant.	\$15,100	Immediate	1 to 5
Replace failing windows.	\$78,300	Immediate	1 to 5
Service Entrance Conductors within the building exceed 8' in length.	\$30,100	Immediate	1 to 5
Emergency and standby power are not segregated.	\$15,100	Immediate	1 to 5
Add surge suppression to emergency system.	\$15,100	Immediate	1 to 5
Replace the fire alarm system entirely with a new system that is speaker based and provide full intelligibility.	\$175,576	Immediate	1 to 5
Fire alarm visual and audible coverages.	\$35,215	Immediate	1 to 5
The building temperature controls should be upgraded to Direct Digital Control (DDC) as part of any future building renovation or upgrade. The current Johnston Controls DDC system with electronic control is over 22 years old, which exceeds its expected life span and calibration.	\$280,822	Immediate	1 to 5
Replace existing distribution transformers with new transformers meeting the DOE 2016 Federal mandate. Exact savings for this depends on existing transformer age and size. However, efficiency savings will range from 0.4% to 1.5%.	\$15,100	Immediate	1 to 5
At LWJSHS, reconfigure and replace the front steps. Consider installing handicap access ramps to allow main entry to be accessible.	\$162,500	Long-Term	5 to 10
Replace asphalt paving at LWJSHS including any regrading necessary to adjust site drainage and handicap accessible route.	\$369,700	Long-Term	5 to 10
Continue to monitor structure for any movement. Seal and protect any movement and cracking as it occurs.	\$16,300	Long-Term	5 to 10
Address tiered seating in chorus and band rooms to create accessible spaces.	\$97,500	Long-Term	5 to 10
Install drywall expansion joints at manufacture recommended intervals.	\$2,100	Long-Term	5 to 10

LITTLE WOLF JUNIOR / SENIOR HIGH SCHOOL			
ITEM	TOTAL	PRIORITY	TIMEFRAME
	<b>TOTAL \$10,522,058</b>		
Replace classroom door hardware for better security options.	\$17,800	Long-Term	5 to 10
Make football field concessions stand counter height accessible.	\$6,600	Long-Term	5 to 10
Install electronic door strikes at card reader locations to eliminate power transfer cable.	\$6,600	Long-Term	5 to 10
Consider relocating locker rooms, wrestling room and fitness/weight room.	\$1,520,700	Long-Term	5 to 10
Relocate the training room to provide equal access to all users.	\$117,100	Long-Term	5 to 10
Consider options for integrating personalized and flexible learning spaces.	\$909,800	Long-Term	5 to 10
Replace dust collection system.	\$8,200	Long-Term	5 to 10
Replace roof over office/classroom/kitchen areas.	\$1,208,800	Long-Term	5 to 10
Add surge suppression at service entrance switchboard.	\$16,300	Long-Term	5 to 10
Replace panelboards that are original to the building.	\$81,300	Long-Term	5 to 10
Arc flash study and labeling required.	\$16,300	Long-Term	5 to 10
Replace all receptacles and switches that are older than 10 years.	\$11,300	Long-Term	5 to 10
Provide increased lighting controls in classrooms, library and office areas to allow occupants to reduce lighting levels depending on tasks being performed.	\$242,618	Long-Term	5 to 10
Add receptacles in classroom and offices that lack adequate number of receptacles.	\$15,326	Long-Term	5 to 10
Replace the existing clock system with wireless GPS technology type system.	\$15,326	Long-Term	5 to 10
Replace existing public address system with new.	\$60,804	Long-Term	5 to 10
For existing indoor AHU-1 & 2, use lighting occupancy sensors to control HVAC air terminal setpoints for unoccupied/occupied conditions.	\$24,500	Long-Term	5 to 10
For existing indoor AHU-1 & 2, implement demand ventilation controls for control strategy that varies the amount of ventilation outside air delivered to a space based on input from a single carbon dioxide (CO2) sensor or group of sensors, which is representative of the quantity of occupants within the space.	\$24,500	Long-Term	5 to 10
Consider replacement of (3) exhaust fans for the shop areas.	\$2,700	Long-Term	5 to 10

# Long-Term Maintenance Items

School District of Manawa

Manawa, Wisconsin

September 5, 2017



*Draft*

LITTLE WOLF JUNIOR / SENIOR HIGH SCHOOL			
ITEM	TOTAL	PRIORITY	TIMEFRAME
Consider replacement of (9) outdoor power roof ventilators (PRV) and seven (7) sidewall exhausters with direct drive with ECM motor as a part of facility improvement measure for increased efficiency and reduced maintenance costs.	\$13,100	Long-Term	5 to 10
Replace the hot water primary and secondary circulating pumps. The secondary circulating pumps could be replaced with variable speed pumps with VFD drives and piping loop differential pressure sensors.	\$32,500	Long-Term	5 to 10
Provide occupancy sensors within all corridors, classrooms, library, shop areas, offices, storage rooms and restrooms for automatic shutoff of the lighting when spaces are not occupied. This will result in significant energy savings as well as bring the lighting controls up to compliance with current energy code (2009 IECC).	\$42,400	Long-Term	5 to 10
Replace exterior metal halide fixtures with more energy efficient LED type fixtures. It's recommended that new fixtures be dark sky compliant to reduce the existing light pollution in the sky, and also ensure that light energy reaches the intended surfaces and is not wasted.	\$32,500	Long-Term	5 to 10
Replace doors which are shorter than code allows.	\$99,600	Long-Term	5 to 10
Provide accessible and code compliant stairways to the basement.	\$649,800	Long-Term	5 to 10
Provide accessible path to stage.	\$48,800	Long-Term	5 to 10
Remove or relocate all vegetation adjacent to building structures.	\$7,500	Long-Term	10 to 20
Update performing arts spaces including sound and lighting systems or consider providing new performing arts space.	\$1,883,200	Long-Term	10 to 20
Continue to monitor and replace sealant as necessary.	\$15,000	Long-Term	10 to 20
Replace hollow metal doors and frames as they deteriorate. Consider a fiberglass door with aluminum frame which is a more expensive option that will be more durable than hollow metal.	\$134,300	Long-Term	10 to 20
For existing indoor AHU-1 & 2, implement control strategy for duct static pressure reset in polling VAV air terminals and optimizing the fan energy use.	\$37,300	Long-Term	10 to 20
Provide accessible and proper number of toilet fixtures per the requirements dictated by the capacity of the gymnasium and commons.	\$111,900	Long-Term	10 to 20
<b>TOTAL</b>	<b>\$10,522,058</b>		



LITTLE WOLF JUNIOR / SENIOR HIGH SCHOOL		TOTAL	\$10,522,058		
ITEM	TOTAL	PRIORITY	TIMEFRAME		
Provide elevator to basement level spaces.	\$201,500	Long-Term	10 to 20		

TOTALS		TOTAL	\$10,522,058		
YEAR 0 TO 1	TOTAL		\$242,720		
YEAR 1 TO 5	TOTAL		\$2,015,264		
YEAR 5 TO 10	TOTAL		\$5,873,374		
YEAR 10 TO 20	TOTAL		\$2,390,700		