

To: Dr. Mike Riggle
Board of Education

From: Kim Ptak

Date: June 13, 2016

Re: Authorization to Submit a Life Safety Amendment to the Illinois State Board of Education

Recommendation

It is recommended that the Board of Education authorize the District architect, ARCON Associates, Inc. (ARCON), to prepare and submit a Life Safety Amendment to the Illinois State Board of Education (ISBE) in the amount of \$15,000,000 to address District priorities identified through a recent Life Safety survey.

Background

Every ten years, public school districts in the State of Illinois, are required to have a Life Safety survey completed by a licensed architect. The District's survey is due December, 2016 and has been completed. The survey identifies life safety code violations throughout the buildings. A code violation can be safety related, such as an egress concern or aging fire detection devices. Code violations can also be critical components of the building infrastructure, such as roofing, mechanical systems, carpeting and bleachers that are at, or approaching, the end of their life cycle and, if not replaced, could impact the health and/or safety of the occupants. Items identified in a life safety survey typically fall into categories such as roofing, architectural, mechanical, electrical and plumbing.

What is a Life Safety Amendment?

In order to use Life Safety funds, through a bond issuance, to pay for items identified in a Life Safety survey, a Life Safety Amendment must be filed with the Illinois State Board of Education. The Life Safety amendment must document specific projects to be completed with the Life Safety bonds, in this case \$15,000,000. Under Life Safety code, the projects must be completed within a 5 year period. However, since the bonds are subject to arbitrage, the period of time is reduced to 3 years.

How were Items Identified for the Amendment?

The projects being recommended for the \$15,000,000 Life Safety amendment are all items critical to the overall infrastructure of the building, are aging, and at, or approaching, the end of their useful life. Regardless of the Life Safety bond issuance, these are projects that will need to be completed in the near future. If Life Safety bonds are not issued, the projects will need to be funded out of operating reserves. For each project a conservative budgetary placeholder has been assigned. As the projects get closer to being scheduled, various options and related budget estimates will be discussed with the facility committee and then brought to the full Board. In the event, when items are bid, the actual cost is less than the estimate, another amendment can be filed listing additional life safety items.

Attached is a list of life safety items being recommended for the \$15M Life Safety Amendment. Additionally, attached is a list for GBN and GBS of additional items documented in the Life Safety survey, that are not included in the recommended amendment.

Glenbrook High School District 225 - Life Safety Amendment - \$15M

Revised: June 7, 2016

LS Code	Project	Location(s)	Description of the violation and recommended action	Cost Est.	Cost Est.	Cost Est.	Cost Est.	Total
				GBN	GBS	OC		
Roofing								
R-1	Roof Replacement	Training Room/Locker Room	The Training Room/Locker Room is 11,800 S.F. and was last replaced in 1993. The Guidance/Activity Corridor and the Activity Corridor are 13,500 S.F. and were last replaced in 1993. These roof areas have reached the end of their serviceable life. Roof replacement recommended.	\$760,000				\$760,000
R-2	Roof Replacement	Women's Locker Room	The Women's Locker Room is 5,600 S.F. and was last replaced in 1993. This roof area has reached the end of its serviceable life. Roof replacement recommended.	\$200,000				\$200,000
R-3	Roof Replacement	Fieldhouse CPA House	The Fieldhouse is 42,000 S.F. and was part of new construction in 1989. The CPA House is 13,000 S.F. and was last replaced in 1993. These roof areas have reached the end of their serviceable life. Roof replacement recommended.	\$1,700,000				\$1,700,000
R-4	Roof Replacement	Fieldhouse	The Fieldhouse is 45,500 S.F. and was part of new construction in 1989. This roof area has reached the end of its serviceable life. Roof replacement recommended.		\$1,240,000			\$1,240,000
R-5	Roof Replacement	Wrestling Student Activity Corridor	The Wrestling is 4,600 S.F. and was last replaced in 1989. The Student Activity Corridor is 8,400 S.F. and was last replaced in 1994. Roof replacement recommended.		\$432,000			\$432,000
				\$2,660,000	\$1,672,000	\$0		\$4,332,000
Architectural								
A-38	Floor Replacement	Auxiliary Gyms (4)	The flooring in the four back gyms at GBN is original to the building and has reached the end of its useful life. Gym floor replacement recommended.	\$375,000				\$375,000
A-27	Floor Replacement	Main Gym	Flooring is original and has reached the end of its useful life. Gym floor replacement recommended.		\$400,000			\$400,000
A-47	Bleacher Replacement	Main Gym	The bleachers in the main gym at GBS are original and in need of replacement. The recent bleacher inspection revealed that end rails, power operation wheels, connections and hardware warrant replacement. It is best to time this replacement with the replacement of the main gym floor. Bleacher replacement recommended.		\$300,000			\$300,000

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A-29	Floor Replacement	Lower Level Running Track	The lower level running track is original to the building and is cracking and deteriorating, which is creating a tripping hazard. The track is used for PE and athletic warm-ups. The existing floor contains mercury. Rather than tearing out the existing floor, abating and installing a new flooring system, it is recommended that the existing floor be encapsulated and overlaid with a new floor. Overlay and encapsulate existing floor with new floor is recommended.		\$55,000		\$55,000
A-45	Address Slab Settling	Corridor W of Cafeteria	The existing concrete slab is showing signs of settlement, causing the carpet to tear. This creates a tripping hazard. Recommendation under review.		\$50,000		\$50,000
A-48	Carpet Replacement	Various Areas	There are several areas in the building with carpeting that is 30+ years old and has asbestos underneath. This will abate the area and replace the carpeting in the remaining known 39 classrooms. Asbestos abatement and carpet replacement recommended.		\$500,000		\$500,000
A-44	Carpet Replacement	Various Areas	There are several areas in the building with carpeting that is 30+ years old and has asbestos underneath. This will abate the area and replace the carpeting. This will address of all remaining known asbestos under carpeted areas. Asbestos abatement and carpet replacement recommended.	\$244,000			\$244,000
A-45	Ceiling Replacement	Various Areas	There are several areas in the building with ceilings that contain asbestos. This will abate the area and replace the ceiling. This will address the rest of the remaining known asbestos ceilings. Asbestos abatement and ceiling tile replacement recommended.	\$110,000			\$110,000
A-57	Track Repair	Outside Track	The existing track is heaving due to an underground storm pipe. To correct this, sections of the pavement and flowable fill will be removed. Fill will be replaced with stone and pavement/track surface will be patched. Track repair and patching recommended.		\$60,000		\$60,000
A-49	Create Rated Separation	Girls Varsity Locker Room	A rated separation is required between a storage room and locker room. This project will install a rated wall to separate storage, to replace the existing metal gate. Fire rated separation wall between storage room and locker room recommended.	\$9,500			\$9,500

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A-06	Window Replacement	Throughout Building	The windows at 1835 Landwehr Rd, the building used for Off Campus and Evening High School are original to the building. The windows leak air, water and are not energy efficient. Window replacement recommended.		\$130,000		\$130,000
A-04	Replace door and/or Hardware	Various Areas	There are various doors that do not open without excessive force and/or do not latch without effort, resulting in egress concerns. Door and/or hardware replacement recommended.	\$55,000			\$55,000
A-03	Replace door and/or Hardware	Various Areas	There are various doors that do not open without excessive force and/or do not latch without effort, resulting in egress concerns. This project replaces doors and/or hardware. Door and/or hardware replacement recommended.		\$55,000		\$55,000
Electrical				\$793,500	\$1,420,000	\$130,000	\$2,343,500
E-3	Arc Flash Project	Electrical Panels	It is an OSHA requirement to conduct an arc flash study of a workplace facility by a licensed engineer to determine the level of hazard & risk in relation to electrical systems. The arc flash hazard analysis calculation will be performed on all electrical panels to identify and label hazards as well as provide overall recommendations and required personal protective equipment. Arc flash study, analysis, labeling and report recommended.		\$45,000		\$45,000
E-2	Arc Flash Project	Electrical Panels	It is an OSHA requirement to conduct an arc flash study of a workplace facility by a licensed engineer to determine the level of hazard & risk in relation to electrical systems. The arc flash hazard analysis calculation will be performed on all electrical panels to identify and label hazards as well as provide overall recommendations and required personal protective equipment. Arc flash study, analysis, labeling and report recommended.	\$45,000			\$45,000
E-4	Replace transformers	Various Areas	Transformers located throughout the building's academic wing are original to the building, in a poor location (Janitor's closet with water, etc.) Transformer replacement and relocation recommended.		\$160,000		\$160,000
E-5	Install Fire Alarm Devices	Various Areas	Certain areas of the building requiring fire alarm devices do not have devices installed. Installation of additional fire alarm detection devices recommended.	\$31,500			\$31,500

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E-08	Add carbon monoxide detectors	Various Areas	Furnish carbon monoxide detectors within 20 feet of any carbon monoxide emitting device. Connect to fire alarm system. This is a new state standard. Installation of carbon monoxide detectors tied into fire alarm system is recommended.	\$10,000			\$10,000
E-12	Add carbon monoxide detectors	Various Areas	Furnish carbon monoxide detectors within 20 feet of any carbon monoxide emitting device. Connect to fire alarm system. This is a new state standard. Installation of carbon monoxide detectors tied into fire alarm system is recommended.		\$10,000		\$10,000
E-8	Upgrade Fire Alarm System	Auditorium Basement Fire Alarm	The auditorium and basement gymnasium has a subpanel that comes into conflict with the newer head-end installed in 2013. The fire alarm devices need to be changed out to correlate with the new headend. Replace fire alarm devices and improve communication with newer head-end is recommended.		\$230,000		\$230,000
E-9	Replace Fire Alarm Devices and Wiring	Academic Areas	The current system is a mix of old and new fire alarm devices. The old devices are zoned and the new are addressable - all need to be upgraded to the newer addressable devices. Upgrade all fire alarm devices from zoned to addressable is recommended.		\$420,000		\$420,000
E-10	Replace Fire Alarm Devices and Wiring	Gym, FH, Old Pool	The current system is a mix of old and new fire alarm devices. The old devices are zoned and the new are addressable - all need to be upgraded to the newer addressable devices. Upgrade all fire alarm devices from zoned to addressable is recommended.		\$170,000		\$170,000
E-12	Repair Intercom System	Throughout School	There are certain components of the intercom system providing faults and overall communication and connection issues. Cost is to repair certain components and replace head-end unit and clock system. Replace head-end unit and repair various components of intercom system is recommended. Replace clock system with wireless clocks.	\$125,000			\$125,000
E-14	Replace Fire Alarm Devices and Wiring	Throughout School	Fire alarm initiating devices are reaching the end of their useful life. Cost is to replace all heat and smoke detectors with new. Replace fire alarm initiating devices recommended.	\$155,000			\$155,000
E-17	Rebuild Electrical Distribution System	Mechanical Equipment Room	Existing electrical distribution equipment is older and exceeds the six switch rule. This project will rebuild the distribution equipment and include main circuit breaker.		\$60,000		\$60,000

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				GBN	GBS	OC		
E-19	New Main Circuit Breaker	Main Electrical Service	Rebuild the electrical distribution system and include a new main circuit breaker is recommended. Electrical service has a Pringle main bolted pressure switch. These switches have a known failure to re-close after fault or manual opening. Replace bolted pressure switch with new 100% rated main circuit. Replace bolted pressure switch with new 100% rated main circuit is recommended.		\$50,000			\$50,000
E-10	New Main Circuit Breaker	Main Electrical Service	Electrical service has a Boltswitch main bolted pressure switch. These switches have a known failure to re-close after fault or manual opening. Replace bolted pressure switch with new 100% rated main circuit. Replace bolted pressure switch with new 100% rated main circuit is recommended.	\$50,000				\$50,000
E-13	Rebuild Interior of Electrical Service	Main Electrical Service	Electrical service is original service in facility dating to 1953. Replace all interior components of the original building electrical service (circuit breakers, fuses) is recommended.	\$70,000				\$70,000
Mechanical				\$486,500	\$1,145,000	\$0	\$0	\$1,631,500
M-1	Hot Water Expansion Tanks & Temperature Control Valve Replacement	Mechanical Room	In 2008, the 3 main hot water boilers for the overall heating system, were replaced with 10 modular boilers. The expansion tank system was not upgraded to best support the new modular boiler system. It is not supporting the system properly which results in leaks throughout the building. This cost will replace the expansion tank system. As a result of the expansion tank not working properly, the temperature control valves have higher stress and are now approaching the end of their useful life and need to be replaced. Replace expansion tank and control valves is recommended.		\$265,000			\$265,000
M-1	Provide VAV Systems	Various	There are approximately 20 classrooms and the Spartan conference room served by unit ventilators that are over 20 years old. The units have original controls and are subject to failure. In addition it is difficult to maintain the proper temperature control and there are noise concerns in the classrooms with these units. Replace unit ventilators with a new system is recommended.	\$650,000				\$650,000

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M-1	Replace hot water boilers	Boiler Room	The existing gas fired hot water boilers are over 40 years old and showing signs of deterioration. Loss of the boilers would result in loss of heat to the entire building. Replace modular gas fired hot water boilers with new modular boilers is recommended.		\$190,000	\$190,000	
M-3	Add exhaust system	Jewelry and Ceramics	The jewelry and ceramics room lacks an exhaust system with hood and makeup air unit for kiln. Purchase of an exhaust system with hood and makeup air unit for kiln is recommended.	\$55,000		\$55,000	
M-4	Add exhaust system	Orchestra Pit	Due to the potential for dampness in the orchestra pit an exhaust system is recommended. Purchase of an exhaust system is recommended.	\$7,500		\$7,500	
M-9	Replace Dampers	Main Gym	Snow and rain are infiltrating through the barometric relief dampers above the main gym floor. Games have had to be cancelled due to this issue. This project should be tied in with the replacement of the new gym floor. Replacement of barometric relief dampers is recommended.	\$128,000		\$128,000	
M-11	Add exhaust system	Home Economics	There is currently not an exhaust system in the home economics room. This was sited during an ROE inspection. This cost adds the exhaust. Purchase of an exhaust system is recommended.	\$20,000		\$20,000	
M-14	Add exhaust grill to tie into existing exhaust system	Auditorium	There is a sump pump for the sanitary line in a closet in the basement of the auditorium. This fills with sewer gas, the exhaust would relieve the smell which infiltrates into the auditorium. This project will add an exhaust grill to tie into the existing exhaust system. Purchase of an exhaust grill to be tied into the existing exhaust system is recommended.	\$15,000		\$15,000	
M-20	Replace/Retrofit Pool Dehumidification System	Natatorium	The current Innovent system which provides the dehumidification and temperature control in the natatorium is 8 years old and is not working properly and the refrigerant compressors have failed numerous times resulting in a significant repair cost. Repair and recommissioning of dehumidification system is recommended.	\$145,000		\$145,000	
M-2	Replace/Retrofit Pool Dehumidification System	Natatorium	The current Dectronics system which provides the dehumidification and temperature control in the natatorium is at the end of its useful life. Replacement of dehumidification system is recommended.	\$760,000		\$760,000	

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LS Code	Project	Location(s)	Description of the violation and recommended action	Cost Est.			Total
				GBN	GBS	OC	
M-3	Replace Air Handling System	Auxiliary Gyms	The auxiliary gyms are served by original air handling units that are over 40 years old and have the original controls. Failure would result in a loss of heating and ventilation. Replacement of mechanical system is recommended.	\$450,000			\$450,000
M-5	Replace Air Handling System	CPA	The CPA is served by original air handling units that are over 40 years old and have the original controls. Failure would result in a loss of heating and ventilation. Replacement of mechanical system is recommended.	\$370,000			\$370,000
M-6	Replace Air Handling System	Scene Shop, Dressing Room, Stage	The scene shop, dressing room and stage are served by original air handling units that are over 40 years old and have the original controls. Failure would result in a loss of heating and ventilation. Replacement of mechanical system is recommended.	\$320,000			\$320,000
M-13	Add dust collection system	Wood Shop	The wood shop does not have a dust collector. The purchase of a dust collector is recommended.	\$15,000			\$15,000
M-14	Add dust collection systems	Metals Shop	There is not a dust collection system. This provides individual dust collectors for (4) wheel grinders, (2) belt grinders and (3) chop saws. The purchase of a dust collector is recommended.	\$36,000			\$36,000
M-15	Add dust collection system	CAM Lab	There is not a dust collection system. This provides a dust collection system for Router Tables. The purchase of a dust collector is recommended.	\$10,000			\$10,000
M-9	Outdoor Tank for LPG gas	Used by Art	The art department uses LPG gas for kilns. This gas needs to be properly stored outside the building. This project relocates the tank outside and provides a required locked enclosure. The relocation of LPG gas tank to the exterior of the building with a locked enclosure is recommended.	\$15,000			\$15,000
M-10	Add Exhaust System	Art Room	There is not an exhaust system for glazing and clay mixing. This project adds the required exhaust. The purchase of an exhaust system is recommended.	\$15,000			\$15,000
M-7	Replace Chiller Drive	Chiller Room	The drive on the main chiller plant is non operational which does not give efficient temperature control. This project replaces the drive. A chiller drive replacement is recommended.	\$200,000			\$200,000

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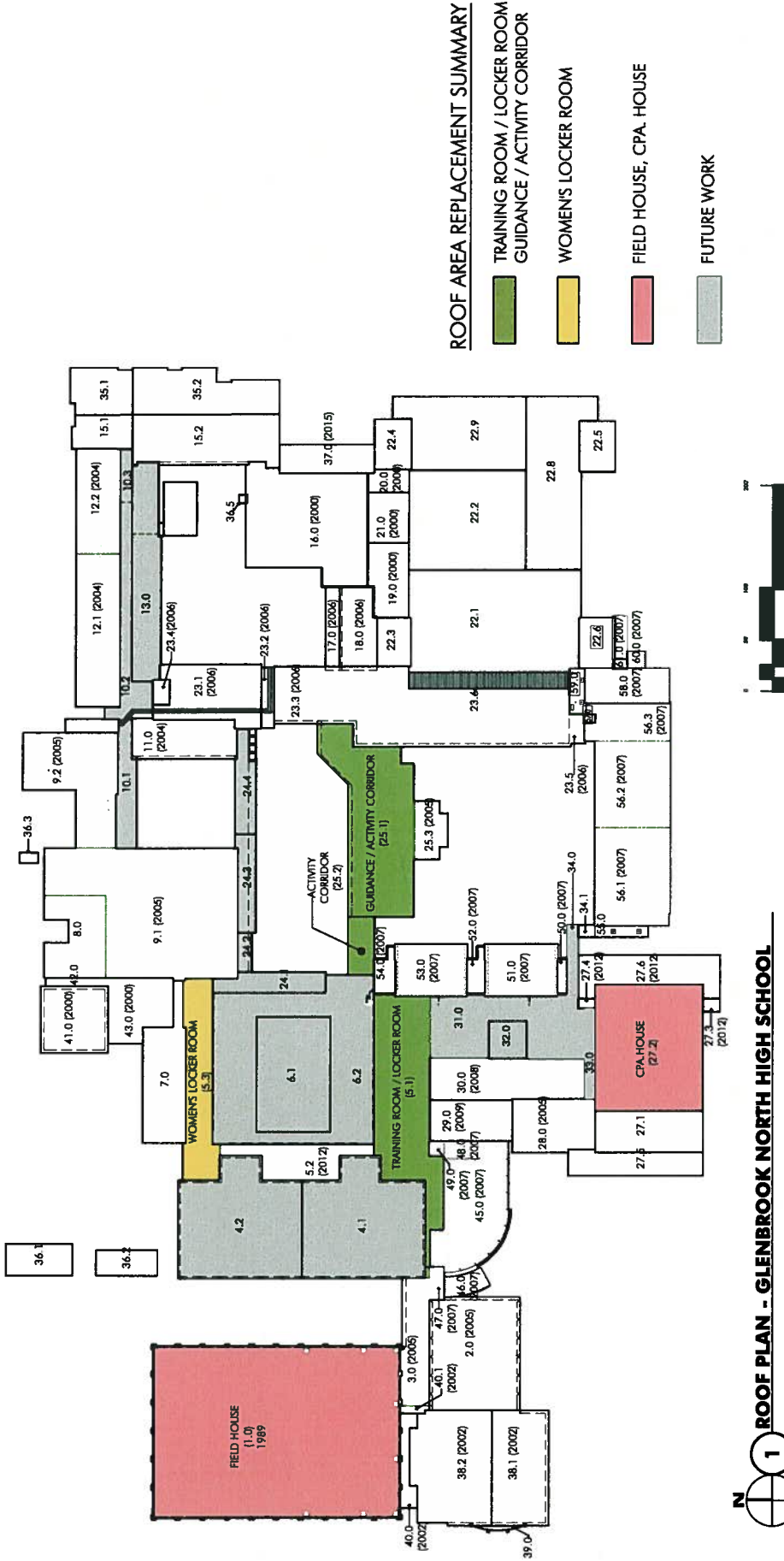
LS Code	Project	Location(s)	Description of the violation and recommended action	Cost Est.	Cost Est.	Cost Est.	Cost Est.
				GBN	GBS	OC	Total
M-8	Replace Air Handler	Math Wing	The air handler is undersized, especially during the cooling season and the system has a difficult time satisfying demand. The air handler is over 25 years old and the cooling coil on this air handler has been compromised. Two major coil repairs have taken place which drastically decreased capacity. Replacement of mechanical system is recommended.		\$120,000		\$120,000
M-16	Replace Rooftop Exhaust Fans	Fieldhouse	The existing rooftop exhaust fans are failing. The fans are required to maintain the proper static pressure in the fieldhouse along with the ventilation supply fans. Replacement of exhaust fans is recommended.		\$67,500		\$67,500
M-17	New Exhaust Grill	Janitor's Closet by B122	There currently is not a means of exhaust in the janitor's closet. Installation of exhaust grill that is connected to the existing exhaust system is recommended.	\$10,000			\$10,000
M-18	New Ventilation System	Shop Offices	There is no mechanical ventilation provided to these spaces. Purchase of mechanical ventilation is recommended.	\$40,000			\$40,000
M-21	Replace Valve	Mechanical Tunnels	The existing pressure and temperature relief valve on the heat exchanger is showing signs of age and needs to be replaced. Valve replacement is recommended.	\$20,000			\$20,000
Fire Protection				\$2,711,000	\$1,023,000	\$190,000	\$3,924,000
FP1	Sprinkler Head Replacement	Various Areas	There are several areas where the sprinkler is corroded and needs to be replaced and/or additional sprinkler heads need to be added. Replace and/or add sprinkler heads is recommended.		\$15,000		\$15,000
FP1	Sprinkler Head Replacement	Various Areas	There are several areas where the sprinkler is corroded and needs to be replaced and/or additional sprinkler heads need to be added. Replace and/or add sprinkler heads is recommended.	\$17,000			\$17,000
Plumbing				\$17,000	\$15,000	\$0	\$32,000
P-7	Modify Hot Water Return	Home Economics	The domestic hot water line is not providing hot water into the home economics classrooms, which is needed for cleaning and sanitizing cooking equipment and hand washing.		\$24,000		\$24,000

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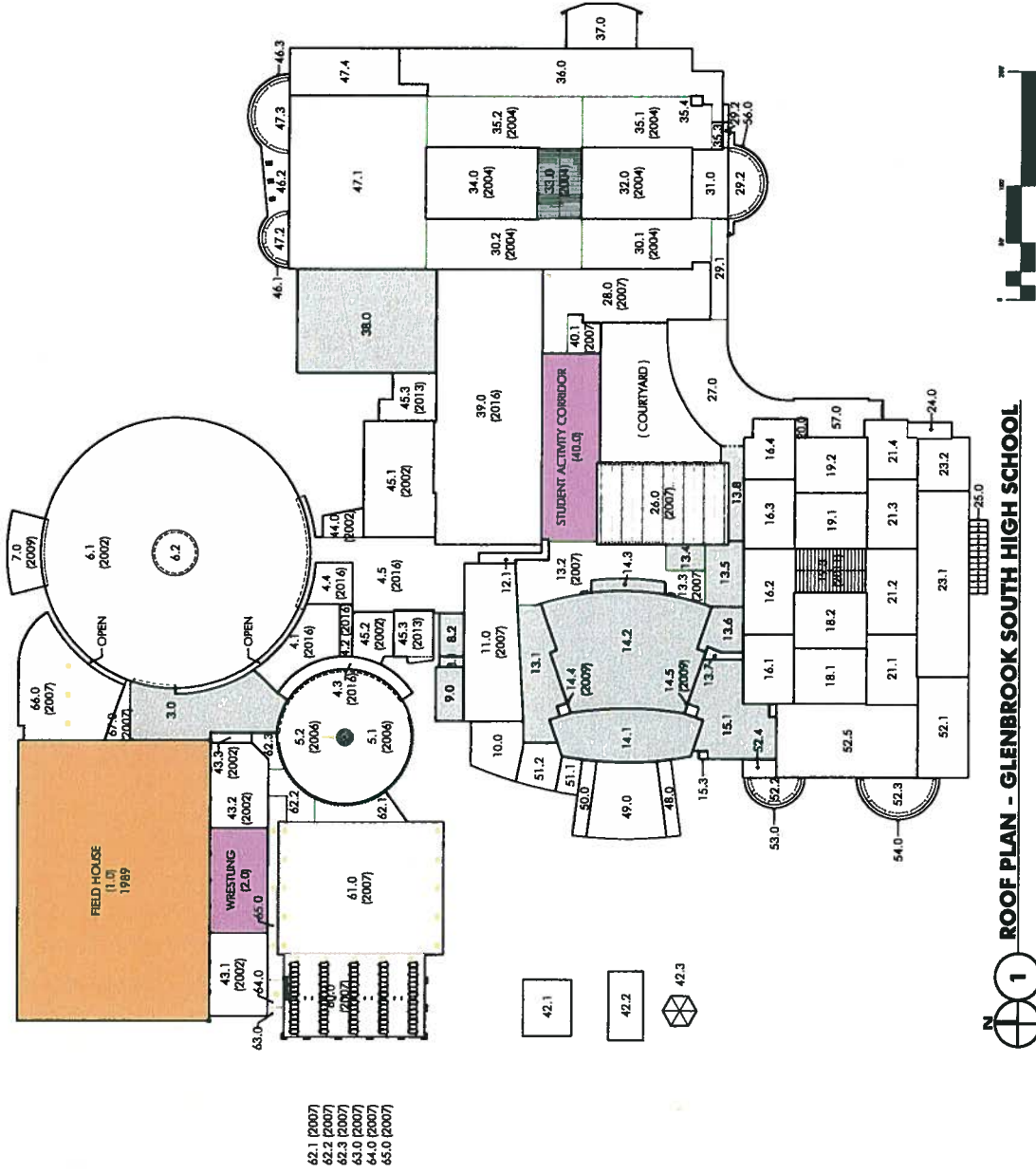
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				GBN	GBS	OC	Total	GBN	GBS
P-3	Replace Old Piping	East Pool Filter Room	Modification of hot water return system and add booster heat is recommended. Piping is rusting due to corrosive environment from chlorine. Replace rusted piping is recommended.		\$15,000				\$15,000
P-4	Replace Filtration System	Natatorium	The old pool filtration system is over 40 years old and in poor condition due to corrosion and age. Replacement of pool filtration system and surge tank is recommended.	\$205,000					\$205,000
P-4	Replace Filtration System	Natatorium	The old pool filtration system is over 40 years old and in poor condition due to corrosion and age. Replacement of pool filtration system and surge tank is recommended.		\$205,000				\$205,000
				\$205,000	\$244,000	\$0	\$0	\$0	\$449,000
Subtotal for All Project Areas				\$6,873,000	\$5,519,000	\$320,000	\$320,000	\$12,712,000	
18% Fees / Contingencies				\$1,237,140	\$993,420	\$57,600	\$57,600	\$2,288,160	
Grand Total				\$8,110,140	\$6,512,420	\$377,600	\$377,600	\$15,000,160	

GBN ROOFING



GBS ROOFING





	Locations, Room No.	Rule Violated	Description of the violation	Recommendation to correct violation	*Work Type	Estimated cost
Architectural						
A-01	B108, B106	Federal Glazing Legislation	The glass in the door and/or frame is not safety glass	Replace glass with safety glass	Safety Standard	\$1,000.00
A-02	Corr S of A138	Federal Glazing Legislation	Transom at rated door filled in with wood	Replace glass with rated glass	Safety Standard	\$2,000.00
A-07	Girls Lckr Rm, C107	175.210, 185.370.m.6.c.i	Door leaf scrapes floor	Adjust leaf/replace	Safety Standard	\$4,000.00
A-08	Throughout facility	175.210, 185.370.m.6.c.i	Total doors present ongoing maintenance issues	Replace Total Doors	Replacements	\$479,000.00
A-09	D206	185.370.b.4.D 175.410.C	Trip hazard at cpt transition	Replace transition	Safety Standard	\$1,000.00
A-10	Not Used					
A-11	B110	175.210 185.370.m.6.C.i	Door is past its useful life.	Replace door and frame	Replacements	\$3,000.00
A-13	Throughout facility	IL Accessibility Code	Existing door knobs.	Replace with lever and locks	Handicapped Access	\$39,000.00
A-17	A112, A110, F108a, S105, B112, C105	IL Accessibility Code	Obstruction prevents wheelchair passage	Remove obstruction	Safety Standard	No Cost
A-18	B110 Sto	175.310a (NFPA 101) 185.370.m.2	Obstruction at door may prevent exiting	Remove obstruction	Safety Standard	No Cost
A-19	A243, A245	185.370.m.6.B.1v	Damaged/worn carpet creates trip hazard	Replace flooring	Safety Standard	\$9,000.00
A-20	SE Stairwell near door, C108, C105, Stair N of C105	185.370.b.4.D 175.410.C	Existing floor is damaged, broken, missing and/or cracked	Replace flooring	Safety Standard	\$11,100.00
A-21	Throughout facility	175.10.b IL Accessibility Code 400.310.t	No tactile warning at stairs	Furnish and install new tactile warning	Handicapped Access	\$25,000.00
A-23	A112 Stair	IL Accessibility Code	Handrail configuration does not meet current code	Modify/replace handrails	Handicapped Access	\$10,000.00

A-24	N Toilet Rm near PTLW											Handicapped Access	\$600.00
A-25	Boiler Room		185.37	When unlocked, door opens to story below	ADA stall missing grab bars			Add removable guard rail or remove door leaf				Safety Standard	\$5,000.00
A-26	Boiler Room and adjacent		175.10b, IL Accessibility Code, 400.310.t	Guard rail is incorrect height or missing				Install 42in guard rail				Safety Standard	\$2,700.00
A-27	Not Used												
A-28	B129		185.30a	Floor Drain blocked				Remove obstruction				Safety Standard	No Cost
A-30	E114 Drivers Ed		175.210, 185.390	Damaged skylight (no evidence of water penetration)				Replace cracked skylight (needs further investigation)				Other Improvements	\$5,000.00
A-31	Spline @ corr N of E101a, N of A2SW, B125, C104		185.30a	Damaged or missing ceiling tile				Repair Ceiling				Safety Standard	\$5,000.00
A-32	B122		175.210, 185.390	Cracking tile at floor drain				Replace tile				Other Improvements	\$1,000.00
A-34			175.210, 185.390	Missing vent grille				Install grille				Safety Standard	\$300.00
A-35	Stage		185.37	Loose threshold				Replace threshold				Safety Standard	\$1,000.00
A-40	Loading Dock		175.210, 185.390	Dock is too low to admit deliveries				Re-work drive approach and overhang. Two approaches being investigated				Other Improvements	
A-41	Natorium		175.210, 185.390	Ceiling and structure require painting				Clean, prep, and repaint ceiling, unistrut, structure, etc.				Safety Standard	\$85,000.00
A-43	Not Used												
A-15	A2C		IL Accessibility Code	Step down with no landing				Construct landing				Safety Standard	\$5,000.00
A-22	A202			Carpet discoloration				Replace flooring				Other Improvements	\$30,000.00
A-36	Natorium		175.210, 185.390	Door hardware/lintel rusting				Replace door hardware/lintel				Safety Standard	\$24,000.00

A-39	CPA Toilet Rooms, Applied Tech Wing Toilet Rooms, Locker Room Remodeling (See P-1,2,3)	175.210, 185.390	Existing piping/fixtures/finishes are at the end of their useful life	Renovate washrooms	Safety Standard	\$380,000.00
A-12	Throughout facility	Federal Glazing Legislation	The existing doors/sidelites have wire glass	Replace glass with safety glass	Safety Standard	\$62,500.00
A-16	Corridor N of C111	175.41	Overhead gate creates dead-end corridor when closed	Remove overhead gate/patch wall	Safety Standard	\$1,500.00
A-29	Throughout facility	IL Accessibility Code	Room signage does not include braille and is not installed at ADA height	Replace room signage	Handicapped Access	\$15,000.00
A-37	Not Used					
A-42	Back Gym	175.210, 185.390	Ceiling is original spline with surface-mounted fixtures	Replace ceiling and lighting with energy efficient lights	Energy Conservation	\$30,000.00
A-46	Throughout Building	175.210, 185.390.1.4	Existing carpeting has reached the end of its useful life	Remove and replace	Other Improvements	\$293,425.00
Electrical						
E1	Natatorium	IEC 505.5.2	Existing fixtures are energy inefficient and high maintenance.	Replace 400W Metal Halide light fixtures with energy efficient LED fixtures. Reduce energy savings by 16,872kW or approximately 50%.	Energy Conservation	\$ 360,000.00
E6	Exterior Entrance Doors	105 ILCS 5/17-2.11	Door control system is in disrepair and has potential of allowing intruders unauthorized access to facility.	Replace door control system	School Security	\$ 60,000.00
E9	Throughout buidling - See Tags	NEC 210.8 (B)	Electical receptacles located within 6' of sinks required GFCI protection.	Replace existing receptacles with GFCI type.	Safety Standards	\$ 8,000.00

E11	Throughout Common Areas	105 ILCS 5/17-2.11	School does not have a method of warning authorities and students of an intruder.	Install a new wireless intruder alert system to include color coded pull stations, automatic police notification, building warning through flashing blue strobes and message repeater connected to intercom system.	School Security	\$ 60,000.00
E3	Throughout the Building - as tagged	185.57/175.480/BOC A 1024	Areas not properly covered by emergency lighting.	Replace existing fixture with new long lasting LED fixture and connect to existing electrical generator.	Safety Standards	\$ 250,000.00
E4	Throughout the Building - as tagged	185.37/175.480/BOC A 1023	Areas not properly covered by exit signs	Replace existing exit signs with new long lasting LED exit signs and connect to existing electrical generator.	Safety Standards	\$ 100,000.00
E15	Interior Classrooms	185.57/175.480/BOC A 1024	Building interior classrooms do not have emergency lighting	Add new LED emergency lighting to all interior classrooms.	Safety Standards	\$ 84,000.00
E17	Science Rooms	NEC 110.16	Science room fluorescent lighting and dimming system is at the end of its useful life and intermittently functioning	Replace fluorescent fixtures with new LED and control with new wall box 0-10V dimmer	Safety Standards	\$ 63,000.00
E7	Outdoor athletic field	IEC 505.5.2	Existing fixtures are energy inefficient and high maintenance.	Replace 400W Metal Halide light fixtures with energy efficient LED fixtures. Reduce energy savings by 16,872kW or approximately 50%.	Energy Conservation	\$ 180,000.00
E16	Auditorium	IEC 505.5.2	Existing house lighting is energy inefficient incandescent.	Replace all incandescent house lighting with energy efficient LED light fixtures.	Energy Conservation	\$ 350,000.00

Mechanical

M4	CPA Toilets	175.562	185.460	The existing exhaust fan serving this area is the original and does not provide sufficient exhaust to remove odors from the bathrooms.	Provide new exhaust fan	Safety Standards	\$8,500
M-11	Kiln Room C102			Gas fired kiln does not have emergency fuel shut off switch.	Provide EM Fuel Shut off switch at exit doors from kiln room.	Safety Standards	\$ 5,000.00
M-16	B112,B114,B116,B118,B120,B121,B122,B123,B125,B127,B131, B132 and Home Ec C108			There is no remote shut off switch to shut off the gas to the lab stations	Provide solenoid valve in gas supply line to each room with wall mounted push button	Safety Standards	\$ 75,000.00
M-7	Wood Shop B104, Auto Shop B106, Metal Shop B108 and Robotics Lab B110 Air Handling Units	175.543	185.457	The existing air handling systems for these areas are the original air handling units that is over 40 years old . Failure of these units will result in loss of heating and ventilation and the inability to maintain the proper space temperatures to the areas that they serve.	Provide new Air Handling Systems to serve these areas	Safety Standards	\$ 480,000.00
M-8	Replace Building Controls Throughout Building			The existing building controls are no longer being manufactured and the manufacturer is not going to be maintaining replacement parts or equipment . Failure of these units will result in loss of heating and ventilation and the inability to maintain the proper temperatures in the areas that they serve	Provide new controls	Safety Standards	\$xxxxxxx
M-19	Coaches Offices in Boy's Locker Room	175.543	185.457	There is no mechanical ventilation provided to these areas.	Provide new ventilation systems for these spaces.	Safety Standards	\$ 20,000.00

M-20	Field House	175.543	185.457	The existing building controls for the air handling systems serving the field house are the original controls and are over 30 years old . These controls are no longer being manufactured. Failure of these units will result in loss of heating and ventilation and the inability to maintain the proper temperatures in the areas that they serve	Provide new controls	Safety Standards	\$ 120,000
M-22	Boiler Room	175.51	185.405	The existing gas fired steam boilers are over 60 years old and showing signs of deterioration. Loss of the boilers would result in loss of heat to the entire building.	Replace existing Steam boilers with new gas fired hot water boilers. Extend new hot water supply and return mains to existing equipment	Safety Standards	\$ 1,700,000.00
Fire Protection							
Plumbing							
P-2	Applied Tech Wing Bathrooms			The existing domestic water piping mains are the original galvanized steel piping. The piping is deteriorated causing leaks and loss of water pressure to building. The existing plumbing fixtures in classrooms and toilet rooms are the original fixtures and are worn and scratched. This makes it difficult to keep the fixtures clean.	Replace piping and Fixtures with new	Safety Standards	\$ 52,000.00

P-3	Boys and Girls Locker Room Bathrooms	State Plumbing Code 890.200 and 890.610	The existing domestic water piping mains are the original galvanized steel piping. The piping is deteriorated causing leaks and loss of water pressure to building. The existing plumbing fixtures in classrooms and toilet rooms are the original fixtures and are worn and scratched. This makes it difficult to keep the fixtures clean.	Replace piping and Fixtures with new	Safety Standards	\$ 165,000.00
P-1	CPA Bathrooms	State Plumbing Code 890.200 and 890.610	The existing domestic water piping mains are the original galvanized steel piping. The piping is deteriorated causing leaks and loss of water pressure to building. The existing plumbing fixtures in classrooms and toilet rooms are the original fixtures and are worn and scratched. This makes it difficult to keep the fixtures clean.	Replace piping and Fixtures with new	Safety Standards	\$ 66,125.00

Architectural Summary

Life Safety Items- Remaining Priorities \$1,531,125.00

Electrical Summary

Life Safety Items- Remaining Priorities \$1,515,000.00

Mechanical Summary

Life Safety Items- Remaining Priorities \$2,408,500.00

FP Summary

Life Safety Items- Remaining Priorities \$0.00

Plumbing Summary

Life Safety Items- Remaining Priorities \$283,125.00

Total

Total: \$5,737,750.00



LS Code	Locations, Room No.	Rule Violated	Description of the violation	Recommendation to correct violation	*Work Type	Estimated cost
Architectural						
A-01	Throughout Building (as tagged)	Federal Glazing Legislation	The glass in the door and/or frame is not safety glass	Replace glass with safety glass (tempered)	Safety Standard	\$1,500.00
A-02	Not Used	175.410,175.21018				
A-07	SW Café S Door	5.370.m.6.B.i, 185.370.m.2	Trip hazard at doorway	Install threshold	Safety Standard	\$1,000.00
A-12	Wrestling 712, 715, 713	ROE	Door/sidelite glazing obstructed	Remove Obstruction	Safety Standard	No Cost
A-19	Not Used					
A-21	Throughout Building	Accessibility Code	Existing door knobs.	Replace with lever and locks	Handicapped Access	\$62,500.00
A-24	Main Gym S Corr, Corridor outside Rm 605	175.410g, 185.380g	Metal security gate creates dead end corridor	Remove gate/Patch walls	Safety Standard	\$2,000.00
A-25	Room 120, Room 364, Room 492, PE Off 760 Lckr Rm, 331, 333, 605	175.310b Accessibility Code 185.370.m.2.A.iii	Obstruction prevents wheelchair passage	Remove obstruction	Handicapped Access	No Cost
A-26	Corridor outside Rm 207, Tlt N of Old Pitt	175.210	Carpet joint creates trip hazard	Repair floor to eliminate trip hazard	Safety Standard	\$5,000.00
A-30	Throughout Building	Accessibility Code	No tactile warning at stairs	Furnish and install new tactile warning	Handicapped Access	\$14,000.00
A-31	Corridor outside Rm 605	185.370.b.4.D	Damaged floor tile creates trip hazard	Replace/repair popping floor tile to eliminate trip hazard	Safety Standard	\$1,000.00
A-32	Main Gym S Stair	175.210, 185.370.b.4.D	Stringer is delaminating from wall and causing safety hazard	Repair stringer	Safety Standard	\$1,500.00
A-35	LL East Gym 794	175.210	Junction Box protrudes from wall/safety hazard	Install protective matting	Safety Standard	\$1,500.00
A-36	Fieldhouse West overhead door	IBC	Delaminating metal skin	Repair/Replace door	Other Improvements	\$10,000.00

A-37	Auditorium N Stage	175.10.b, IL Accessibility Code 400.310.f 185.370.c.1.2	Missing handrails	Install handrails	Handicapped Access	\$2,700.00
A-38	Room 609	175.210	Cracked skylight	Repair/replace cracked skylight (No current evidence of water penetration)	Other Improvements	\$20,000.00
A-39	Room 208	IBC	Light lens falling	Replace/repair lens	Safety Standard	No Cost
A-41	Room 263, 202	175.430	Items hanging from ceiling	Remove items	Safety Standard	No Cost
A-42	PE Office 760	175.210	Trip hazard at concrete step	Repair concrete	Safety Standard	\$5,000.00
A-44	Storage S of Rm 100		Rated door should not be held open with floor stop	Remove floor stop		No Cost
A-46	NE Stairwell	Federal Glazing Legislation	Hole/crack in lower door sidelite- existing wire glass	Replace glass with safety glass		\$3,000.00
A-50	Toilet Rooms West of Cafeteria ("State and Madison") See item P-1)	State Plumbing Code 890.200 and 890.610 IL Accessibility Code	Toilet fixtures and piping require replacement. Toilet Room not ADA compliant, insufficient fixture count for traffic	Renovate toilet room	Handicapped Access	\$80,000.00
A-52	Exterior Entrance Doors- Fob locations (See E-11)	105 ILCS 5/17-2.11	Installation of new door control system will require frame and hardware modifications	Modify/replace frames and hardware as required to update control system	School Security	\$50,000.00
A-55	Wood Shop	175.420	Filters anchored to wall and are collecting dust	Remove filters from wall, clean		No Cost
A-09	N Doors, OO, Wrestling 712, Link Door D	175.290, 185.370.m.2	Closer squeaks or broken	Repair/Replace closer	Safety Standard	\$7,000.00
A-10	Boys/Girls LL Athletic Lckr Rm, Door E of Main Entry, West Gym 742B	175.210, 185.370.m.2	Door leaf scrapes floor	Modify door	Safety Standard	\$6,000.00
A-11	Throughout Building	175.210, 185.370.m.6	Total doors present ongoing maintenance issues	Replace Total Doors	Replacement	\$594,000.00
A-14	LL East Gym 794, W Door NW Café	175.210, 185.370 m.6.C.i	The door does not have the proper hardware to latch	Replace door and frame	Safety Standard	\$18,000.00

A-16	Not Used											
A-18	Nurse, 138		175.210 185.370.m.2.A.i	Door is past its useful life.	Replace door and frame	Other Improvements	\$6,000.00					
A-28	Various locations		175.210, 185.370.b.4.D 175.410.C	Existing floor is damaged, broken, missing and/or cracked	Replace flooring	Safety Standard	\$3,000.00					
A-43	Classroom 193, 208		175.210, 185.390.I.1	Wall Crack	Repair crack	Safety Standard	\$2,500.00					
A-51	East Pit Area Gang Toilets, Lower Level Dressing Rooms, Toilets 725 and 726 near main gym (see P-2)		State Plumbing Code 890.200 and 890.610 IL Accessibility Code	Toilet fixtures and piping require replacement	Renovate toilet rooms in conjunction with piping and fixture replacement	Other Improvements	\$514,000.00					
A-56	Throughout Building		ROE,	Hold open devices present that are not connected to fire alarm system (classroom doors, door wedges)	Remove hold open devices not connected to fire alarm system	Safety Standard	No Cost					
A-22	Throughout Building		Federal Glazing Legislation	The existing doors/sidelites have wire glass	Replace glass with safety glass (tempered)	Safety Standard	\$74,400.00					
A-23	Throughout Building		Federal Glazing Legislation	The existing borrowed lites have wire glass	Replace glass with safety glass (tempered)	Safety Standard	\$1,600,000.00					
A-33	Boys Athletic Lckr Rm 770		175.210	Peeling paint at ceiling	Scrape paint/re-paint	Other Improvements	\$7,500.00					
A-34	Boys Athletic Lckr Rm Toilet		175.210	Rusting Grab Bar	Replace grab bar	Handicapped Access	\$600.00					
A-40	Throughout Building		IL Accessibility Code	Room signage does not include braille and is not installed at ADA height	Replace room signage	Handicapped Access	\$15,000.00					
A-53	Throughout Building (20 Classrooms)		175.210, 185.390.I.1	Existing carpeting has reached the end of its useful life	Remove and replace (Phase 1)	Other Improvements	\$84,000.00					

Electrical

E2	Natatorium	IEC 505.5.2	Existing fixtures are energy inefficient and high maintenance.	Replace 400W Metal Halide light fixtures with energy efficient LED fixtures. Reduce energy savings by 16,872kW or approximately 50%.	Energy Conservation	\$260,000
E11	Exterior Entrance Doors	105 ILCS 5/17-2.11	Door control system is in disrepair and has to potential of allowing intruders unauthorized access to facility.	Replace door control system	School Security	\$60,000
E12	Orchestra Pit	NEC 110.3	Electrical junction boxes are corroded and in disrepair	Replace electrical junction boxes with new	Safety Standards	\$5,000
E14	Areas served by fossil fuels	105 ILCS 5/10-20.56	School does not have functioning carbon monoxide detectors.	Turn in carbon monoxide detectors within 20 feet of any carbon monoxide emitting device. Connect detector to fire alarm system.	Safety Standards	\$10,000
E15	Southwest and southeast cafeterias, Wood shop, 2nd floor library	185.57	Areas not properly covered by emergency lighting.	Replace existing fixture with new long lasting LED fixture and connect to existing electrical generator.	Energy Conservation	\$2,000
E16	Student Activity Area	185.57	Areas not properly covered by emergency lighting.	Repair emergency light fixture UL924 relay	Safety Standards	\$500
E18	1st Floor Academic Area - Art Room	NEC 210.8 (B)	Electrical receptacles located within 6' of sinks required GFCI protection.	Replace existing receptacles with GFCI type.	Safety Standards	\$1,000
E20	Throughout Common Areas	105 ILCS 5/17-2.11	School does not have a method of warning authorities and students of an intruder.	Install a new wireless intruder alert system to include color coded pull stations, automatic police notification, building warning through flashing blue strobes and message repeater connected to intercom system.	School Security	\$60,000

E5	Throughout the Building - as tagged	185.57/175.480/B OCA 1024	Areas not properly covered by emergency lighting.	Replace existing fixture with new long lasting LED fixture and connect to existing electrical generator.	Energy Conservation	\$210,000
E6	Throughout the Building - as tagged	185.37/175.480/B OCA 1023	Areas not properly covered by exit signs	Replace existing exit signs with new long lasting LED exit signs and connect to existing electrical generator.	Energy Conservation	\$105,000
E21	Interior Classrooms	185.57/175.480/B OCA 1024	Building interior classrooms do not have emergency lighting	Add new LED emergency lighting to all interior classrooms.	Safety Standards	\$ 126,000.00
E23	Auditorium	IEC 505.5.2	Existing house lighting is energy inefficient incandescent.	Replace all inandescent house lighting with energy efficient LED light fixtures.	Energy Conservation	\$350,000.00
E24	Science Rooms	NEC110.16	Science room fluorescent lighting and dimming system is at the end of its useful life and intermittently functioning	Replace fluorescent fixtures with new LED and control with new wall box 0-10V dimmer	Safety Standards	\$81,000.00
E1	Pool mechanical room	NEC 701	Standby electrical power not provided to loads that upon failure would cause health hazards.	Provide branch circuits from generator supplied panelboards to sewage sump pumps and storm water pits.	Safety Standards	\$15,000
E7	Throughout facility - as tagged	IBC 505.2.2.2	Corridors and common spaces do not include automatic lighting shutoff.	Provide automatic lighting control in corridors and all common spaces. Utilize building automation system to provide time-of-day scheduling	Energy Conservation	\$150,000
E13	Outdoor athletic field	IEC 505.5.2	Existing fixtures are energy inefficient and high maintenance.	Replace 400W Metal Halide light fixtures with energy efficient LED fixtures. Reduce energy savings by 16,872kW or approximately 50%.	Energy Conservation	\$180,000
E22	Auditorium	IEC 505.5.2	Existing house lighting is energy inefficient incandescent.	Replace all inandescent house lighting with energy efficient LED light fixtures.	Energy Conservation	\$ 350,000.00

Mechanical

M-5	Not Used							
M-15	Conference Room 661A at LRC and Field House Coaches Office 707	175.543 185.457	There is no mechanical ventilation provided to these areas.	Provide new ventilation systems for these spaces.	Safety Standards	\$ 5,000.00		
M-2	Replace Building Controls Throughout Building	175.543 185.457	The existing building controls are no longer being manufactured and the manufacturer is not going to be maintaining replacement parts or equipment . Failure of these units will result in loss of heating and ventilation and the inability to maintain the proper temperatures in the areas that they serve	Provide new controls	Safety Standards	\$xxxxxxx		
M-10	Rooms 331, 333, 360, 362, 366, 108, 11 and 162		There is no remote shut off switch to shut off the gas to gas fired equipment or laboratory stations	Provide solenoid valve in gas supply line to each room with wall mounted push button	Safety Standards	\$ 52,500.00		
M-12	SPED Toilet, Day Care 183, 121	175.562 185.460	The Toilet Room, Day Care Room and Special Ed Rooms require exhaust to remove objectionable Odors	Provide exhaust systems	Safety Standards	\$ 15,000.00		
M-13	Print Shop 167	175.562 185.460	The Print Shop require exhaust to remove objectionable Fumes and Odors	Provide exhaust systems	Safety Standards	\$ 7,500.00		
M-17	Field House	175.543 185.457	The existing building controls for the air handling systems serving the field house are the original controls and are over 30 years old . These controls are no longer being manufactured. Failure of these units will result in loss of heating and ventilation and the inability to maintain the proper temperatures in the areas that they serve	Provide new controls	Safety Standards	\$ 120,000		

M-18	Replace Building Controls Throughout Building	175.543 185.457	The existing building controls are no longer being manufactured and the manufacturer is not going to be maintaining replacement parts or equipment . Failure of these units will result in loss of heating and ventilation and the inability to maintain the proper temperatures in the areas that they serve	Provide new controls	Safety Standards	\$xxxxxxxx
M-19	Weight room at Field House	175.562 185.460	The weight room is not furnished with exhaust to remove odors	Install new exhaust fan and controls	Safety Standards	\$ 45,000.00
Fire Protection						

Plumbing						
P-1	Bothrooms West of Cafeteria (" State and Madison")	State Plumbing Code 890.200 and 890.610	The existing domestic water piping mains are the original galvanized steel piping. The piping is deteriorated causing leaks and loss of water pressure to building. The existing plumbing fixtures in classrooms and toilet rooms are the original fixtures and are worn and scratched. This makes it difficult to keep the fixtures clean.	Replace piping and Fixtures with new	Safety Standards	\$ 50,000.00
P-6		State Plumbing Code 890.1130	The existing mop sink has a hose connection without backflow protection	Provide vacuum breaker on faucet	Safety Standards	\$1,000

P-2	East Pit Area Gang Toilets, Lower Level Dressing Rooms, Toilets 725 and 726 near main gym	State Plumbing Code 890.200 and 890.610	The existing domestic water piping mains are the original galvanized steel piping. The piping is deteriorated causing leaks and loss of water pressure to building. The existing plumbing fixtures in classrooms and toilet rooms are the original fixtures and are worn and scratched. This makes it difficult to keep the fixtures clean.	Replace piping and Fixtures with new	Safety Standards	\$ 150,000.00
P-5	Lower Level Auditorium Storage at Costume Room	State Plumbing Code	The existing sump pump check valves are in-operable and do not close when pumps shut down. This causes the pump basin to not empty completely and can cause high water level in pit and drain lines.	Provide new check valves	Safety Standards	\$2,000

Architectural Summary

Life Safety Items- Remaining Priorities \$3,192,700.00

Electrical Summary

Life Safety Items- Remaining Priorities \$1,965,500.00

Mechanical Summary

Life Safety Items- Remaining Priorities \$245,000.00

FP Summary

Life Safety Items- Remaining Priorities \$0.00

Plumbing Summary

Life Safety Items- Remaining Priorities \$203,000.00

Total

Total LS Items: \$5,606,200.00