

JACKSON COUNTY CENTRAL SCHOOL DISTRICT

2018 Facilities Assessment





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EXECUTIVE SUMMARY



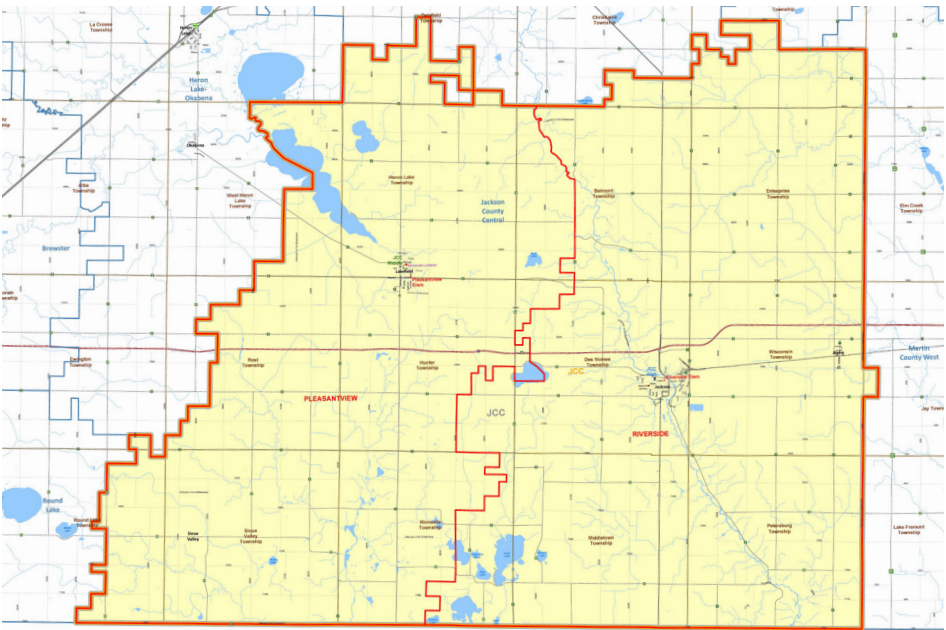
EXECUTIVE SUMMARY

DISTRICT OVERVIEW

The following pages provide a snapshot of the Jackson County Central School District (JCC) and insight into its demographics and facilities.

COMMUNITIES SERVED + GEOGRAPHIC AREA

The Jackson County Central School District serves the cities of Jackson and Lakefield and a portion of rural Jackson County. A district map is provided below. The Middle School and Pleasantview Elementary are located in the city of Lakefield, while the High School and Riverside Elementary School are located in the city of Jackson.



- A High School
- B Middle School + Athletic Complex
- C Pleasantview Elementary School
- D Riverside Elementary School

The Minnesota Department of Education indicates the average area served by Minnesota school districts is 254.09 square miles. JCC Schools serve an area encompassing 439.18 square miles, which places your area served well above the state average. When sorted by area served, JCC Schools is Minnesota's 35th largest school district.

FACILITY AGE

According to the Minnesota Department of Education (MDE) data, the average age of all school facilities in the state is 38.95 years. Based on data collected, 78.49% of JCC facilities are over 30 years of age.

The JCC Middle School is the oldest facility, closely followed by the Elementary Schools. The oldest facilities typically require the most financial reinvestment moving forward as system wear out and need replacement.

As anticipated, the highest estimated renewal costs for JCC Schools falls upon the Middle School with a weighted average age of 66.62 years.

FACILITY AVERAGE AGE

Riverside Elementary
58.54 years

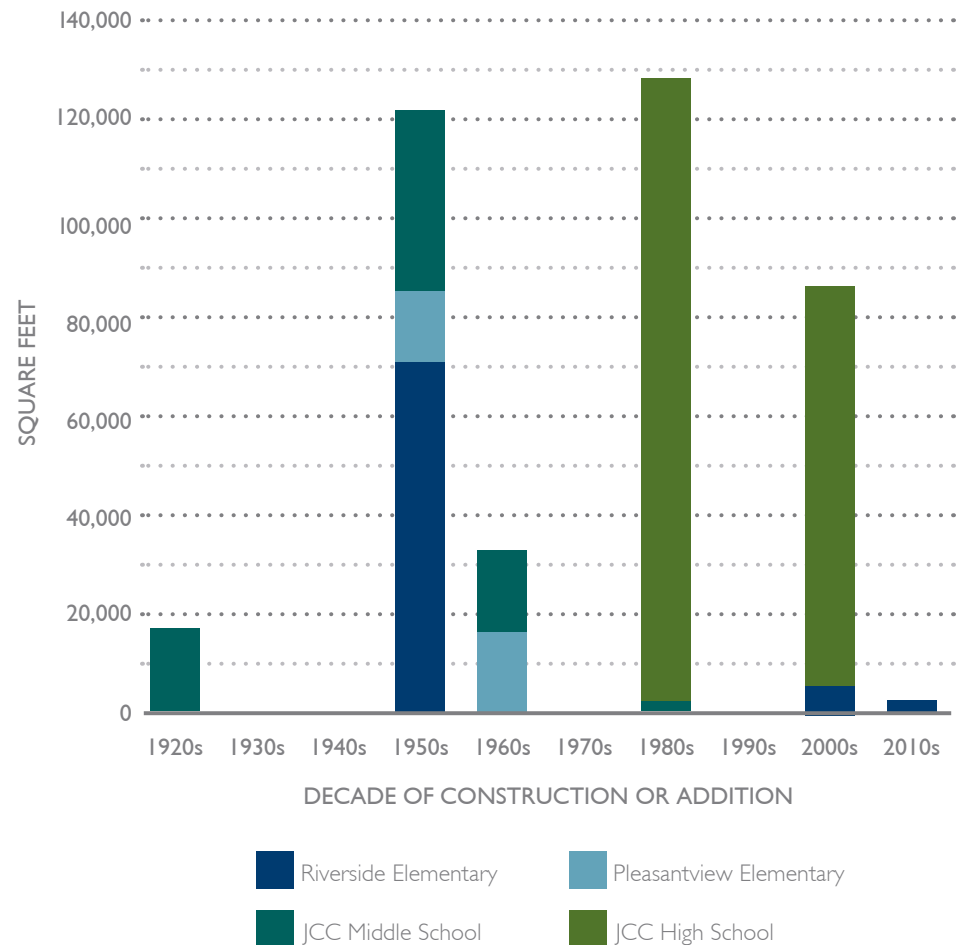
Pleasantview Elementary
56.87 years

JCC Middle School
66.62 years

JCC High School
27.12 years

EXISTING FACILITIES

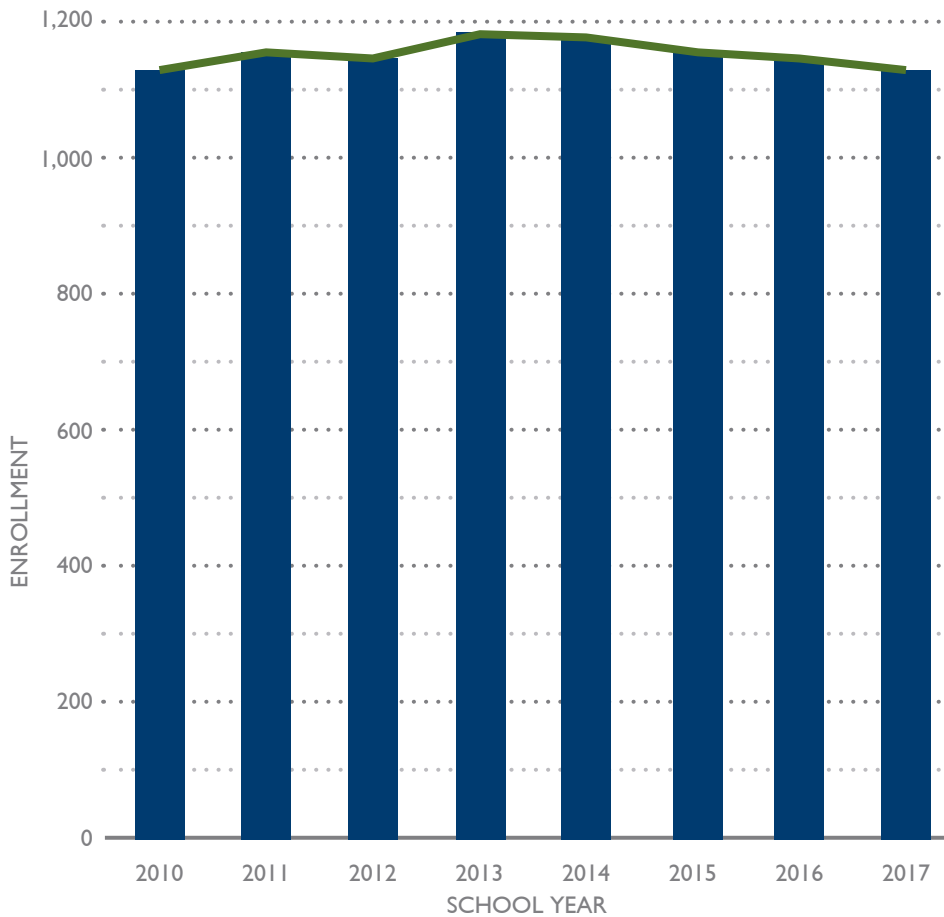
The District consists of two elementary schools, a middle school and a high school and various athletic facilities. A breakdown of the building facilities is as follows (athletic facilities are not included due to various facilities with differing ages, locations, etc.).



FACILITY	SPACE USE TYPE	BUILDING AREA (SF)	CONSTRUCTION YEAR	TOTAL SITE AREA (ACRES)
RIVERSIDE ELEMENTARY	School	81,201	1951, 1958, 2003, 2016	5.66
PLEASANTVIEW ELEMENTARY	School	31,572	1958, 1962	10.11
JCC MIDDLE SCHOOL	School	73,432	1920, 1953, 1958, 1964, 1984	1.71
JCC HIGH SCHOOL	School	206,689	1981, 2004	51.73
ATHLETICS	Athletic Complex	-	-	7.62
TOTAL	-	392,894	-	76.83

DISTRICT ENROLLMENT

The District provided recent enrollment data for use within this assessment. The District's historical enrollment data indicated an overall decreasing trend that has leveled off. Projections indicate that enrollment should be stable for the next five years. There are many transitions occurring within the District throughout the year, similar to more urban areas. However, it is considered to be overall stable. Additional details and indicators can be inferred from the charts and graphs below.



YEAR	ENROLLMENT	#CHANGE
2010	1,132	
2011	1,150	+18
2012	1,147	-3
2013	1,194	+47
2014	1,192	-2
2015	1,156	-36
2016	1,147	-9
2017	1,111	-36

FORECASTING PURPOSE

Measure enrollment trend for financial forecasting.

TARGET

Stable to high enrollment are desirable indicators.

NEED/CONCERN

Continue to offer quality programs for the children in the District and community at large with structurally sound, efficient, and accessible facilities and sites.

FIVE YEAR ENROLLMENT ESTIMATE

GRADE	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
K	81	85	80	80	80	80
1	82	81	85	80	80	80
2	76	82	81	85	80	80
3	80	76	82	81	85	80
4	76	80	76	82	81	85
5	94	76	80	76	82	81
6	77	94	76	80	76	82
7	91	77	94	76	80	76
8	97	91	77	94	76	80
9	82	100	94	80	97	80
10	103	82	100	94	80	97
11	88	100	82	100	94	80
12	84	82	100	82	100	94
TOTAL	1111	1106	1107	1090	1091	1075

EXECUTIVE SUMMARY

SCOPE OF EVALUATION

ISG conducted facility condition assessments of five buildings within the Jackson County Central School District. The purpose of this assessment is to enhance District learning environments by providing planning and prioritization input for needed maintenance and improvements to school and District facilities.

PURPOSE

In July 2017, Jackson County Central School District authorized ISG to conduct a facilities condition assessment of its buildings within the District. The purpose of this assessment is multi-faceted, and when complete, will assist the School Board with:

- Understanding overall facility conditions
- Planning for maintenance and improvements to school facilities
- Developing strategies for financial planning and future budgeting
- Developing and enhancing a 10-year facilities maintenance plan
- Informing stakeholders of facility needs

SCOPE OF ASSESSMENT

ISG visited each District site to perform comprehensive site and facility evaluations. The following sites were included within the scope of the assessment:

- Riverside Elementary School
- Pleasantview Elementary School
- JCC Middle School
- JCC High School
- Athletic Facilities

During the assessment process, Jackson County Central School District staff provided access to all areas of each property along with relevant information about each building/site and associated infrastructure.

IMPACT

WHAT DOES AN AGING FACILITY POTENTIALLY MEAN FROM A MAINTENANCE, SAFETY, AND OPERATIONAL STANDPOINT?

May not meet current ADA standards

May not meet current energy standards

May need to upgrade or replace aging building systems

May need to repurpose spaces to meet new educational requirements/techniques

Requires need to address deferred maintenance

CONDITION CATEGORIES



Site Conditions



Pavement Conditions



Exterior Building Conditions



Interior Building Conditions



Structural System Conditions



Life Safety Conditions



Accessibility Conditions



Plumbing Conditions



Mechanical Conditions



Electrical Conditions



Security Considerations

The following assessment considers information gathered from field observations, review of existing plans, and information provided by District staff and School personnel. The assessments performed on site were limited to nondestructive, visual reviews of existing systems. Existing information and plans were made available to ISG by Jackson County Central School District for review. The following categories were reviewed within the scope of this assessment:

Site Conditions

Review of the existing building site including parking spaces, concrete walks, and other horizontal site elements. Site circulation, grading, paving, parking, stormwater, and playground spaces were also reviewed.

Pavement Conditions

To evaluate the structural condition of a flexible pavement, the Pavement Condition Index (PCI) rating system was employed. The system was originally created by the United States Army Construction Engineering Research Laboratory and has become a standard method of evaluating and rating flexible pavement. The method of evaluation is non-destructive, meaning that core samples are not taken, and the subgrade soils are not directly evaluated. Twelve different pavement distresses are considered and these distresses in conjunction with overall pavement areas, are used to assign a PCI between 0 and 100. A rating of 100 is a pavement in excellent condition, while a rating of 0 is a failed road condition.

A repair map including all conditions follows each facility's priority table of recommendation.

Exterior Building Conditions

Review of the building's exterior shell including an assessment of the structure, foundation, exterior walls, windows and doors, and thermal efficiency as well as conditions of the existing roof (limited), gutters, and downspouts.

Interior Building Conditions

Examination of the finishes, equipment, and other conditions found in classrooms, offices, hallways, gymnasiums, libraries, art and music rooms, locker rooms, stairwells, kitchen, and cafeteria areas.

Structural System Conditions

Review of structural integrity of existing buildings with analysis of columns, walls, and roof.

Life Safety Conditions

Review of life safety, egress, and potential code deficiencies as discovered during field observation. Also includes conditions of the fire alarm system.

Accessibility Conditions

Review of the existing structure for conformance with the State's Accessibility Code. Site parking, access into the building and entrances, accessibility routes inside of building, and restroom accessibility were also considered.

Plumbing Conditions

Review of the existing building plumbing systems including water service, water fountains, sinks, toilets, and showers.

Mechanical Conditions

Review of existing mechanical systems and their components including verification that HVAC systems, as well as plumbing fixture counts, water piping, and water supply meet current building codes.

Electrical Conditions

Review of existing building electrical systems including electrical service, distribution, and lighting. This section also documents the security system.

Security Considerations

Assessment of existing security equipment installed throughout the building. Review of existing primary entryways into the facility including door locations and visitor access.

CONDITION ASSESSMENT RATING

A condition assessment was performed at each site to determine the physical conditions and results were categorized using a good, fair, or poor designation.

GOOD	<i>In working condition and does not require immediate or short term repairs above an agreed threshold</i>
FAIR	<i>In working condition, but may require immediate or short term repairs above an agreed threshold</i>
POOR	<i>Not in working condition or requires immediate or short term repairs substantially above any agreed threshold</i>

PRIORITY SUMMARY

Based on the items evaluated in the assessment, issues or deficiencies documented in have been assigned a lever of priority and estimate of costs using the below roadmap.

PRIORITY	ISSUE	DESCRIPTION
1	Life Safety	<i>As typically noted by Fire Marshall/ Life Safety Officials.</i>
	Deterioration	<i>Further deterioration will create higher future repair costs or may cause damage to other areas of the structure.</i>
	Health	<i>Areas that do not meet the state health code requirements. Mechanical systems that do not currently comply with ASHRAE Standards are given a high priority. However, these upgrades are not mandated and would not be required unless other substantial work is being done to the facility and systems in question.</i>
	Accessibility	<i>Items that must be completed to allow access to the building or primary function areas within the building.</i>
	Haz. Materials	<i>Items that pose a significant impact to building occupants.</i>
2	Energy	<i>Item results in payback within 10 years or less.</i>
	Deterioration	<i>Material or system that currently functions but will require replacement or major maintenance within five years.</i>
	Accessibility	<i>Modifications required to meet state guidelines.</i>
	Haz. Materials	<i>Removal of items affected by other changes occurring in Priority 2.</i>
	Health	<i>Inadequate exhaust and ventilation near lab equipment or other areas lacking adequate ventilation.</i>
3	Energy	<i>Item results in payback in more than 10 years.</i>
	Health	<i>Items that do not meet state health code requirements.</i>
	Deterioration	<i>Material or system currently functions but will require replacement or major maintenance in 6-10 years.</i>
	Haz. Materials	<i>Removal of item affected by other changes occurring in Priority 3.</i>
4	Aesthetics	<i>Item which impacts the visual environment.</i>
	Haz. Materials	<i>Removal of items affected by other changes occurring in Priority 4.</i>
	Accessibility	<i>Items which do not meet full requirements of federal accessibility guidelines.</i>

Physical condition is the physical state of a property, system, component, or piece of equipment. Within the context of the assessment, ISG has offered opinions of the physical condition of the property, or systems, components and equipment observed. Such opinions commonly employ terms such as good, fair and poor; though additional terms such as excellent, satisfactory, and unsatisfactory may be used if deemed appropriate. The property condition assessment is independent of the priority ranking structure.

The issues with the highest priority items include life safety deficiencies, while less urgent issues, including necessary maintenance, replacement, and aesthetic improvements, are defined with lower priority levels. While lower priority items still warrant attention, they are not critical to safety, security, or health concerns.

Please note that current costs shown within the assessment are estimated construction costs only. For total project costs, 20% - 25% should be added to the construction costs of the following items:

- Project administration
- Permitting
- Owner fixtures and finishes
- Design fees
- Inflation
- Contingency Fees

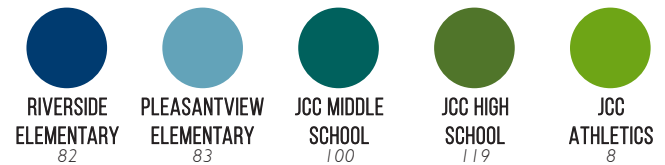
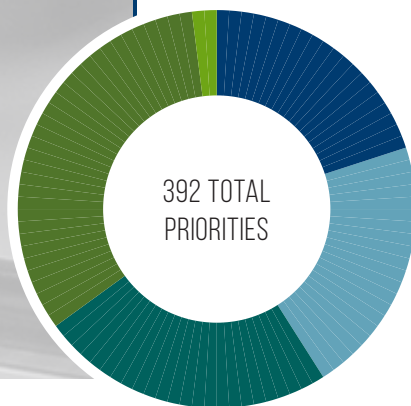
EXECUTIVE SUMMARY

SUMMARY OF FINDINGS

The following pages provide a snapshot of the Jackson County Central School District assessment and general summary of findings. Detailed information relative to each site and review area/site conditions can be found within this assessment and support information provided below.

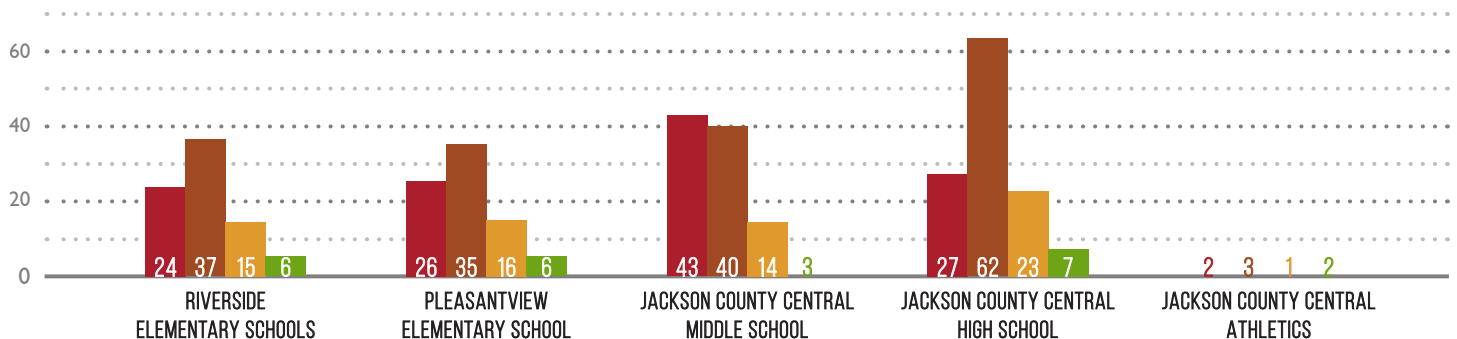
IDENTIFIED NEEDS

The assessment identified approximately 392 items that should be addressed within the buildings and sites, and incorporated into Jackson County Central School District's 10 year facilities plan. The assessment contains data for specific use by the School Board and Administration to assist with determining the short and long-term needs for Jackson County Central School District. ISG has not expressed or implied any conclusions within this assessment. ISG is providing information to the School District to assist with decisions only.



The High School received the highest number of recommendations. Based on the larger square footage of the facility, it is expected that there would be more recommendations. The priorities were fairly well distributed between schools with Priority 2 being assigned to the most recommendations. There were 55 more recommendations for Priority 2 items than Priority 1. Nearly half of all recommendations were rated Priority 2.

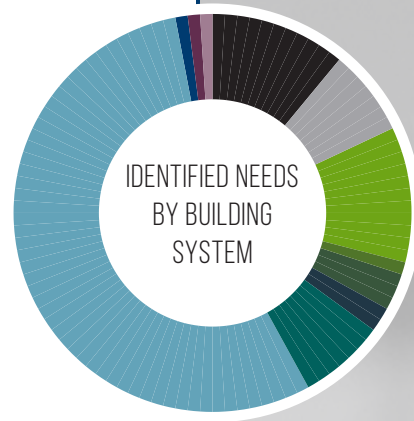
OVERALL PRIORITIES BY NUMBER



PRIORITY	RIVERSIDE ELEMENTARY	PLEASANTVIEW ELEMENTARY	JCC MIDDLE SCHOOL	JCC HIGH SCHOOL	JCC ATHLETICS	GRAND TOTAL
1	24	26	43	27	2	122
2	37	35	40	62	3	177
3	15	16	14	23	1	69
4	6	6	3	7	2	24
TOTAL	82	83	100	119	8	392

DISTRIBUTION

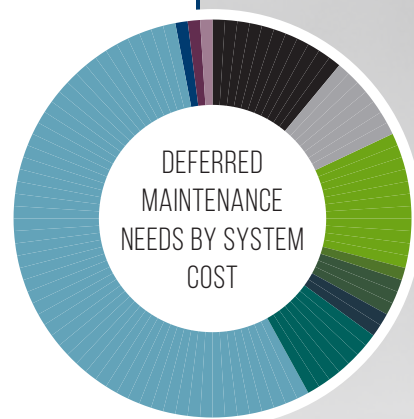
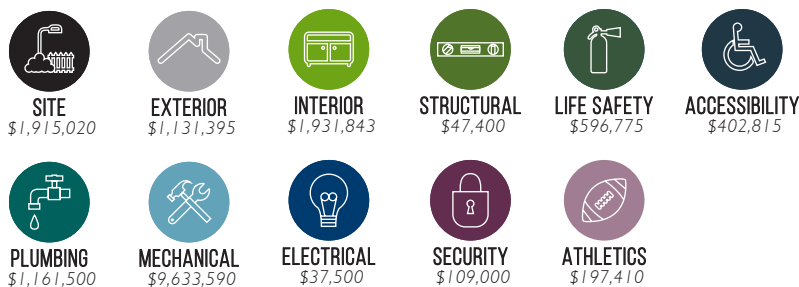
Of the needs identified, the mechanical systems had the highest number of priorities encompassing 45.63% of all identified. When closely related plumbing and electrical systems are aggregated with the mechanical priorities, the heart of the building's infrastructure have 54.29% of identified needs. These are largely due to dramatic changes in building controls, efficient operations and code changes since the original construction. Building Interiors and Site Conditions were the next highest building systems in need with 13.95% and 13.83% respectively.



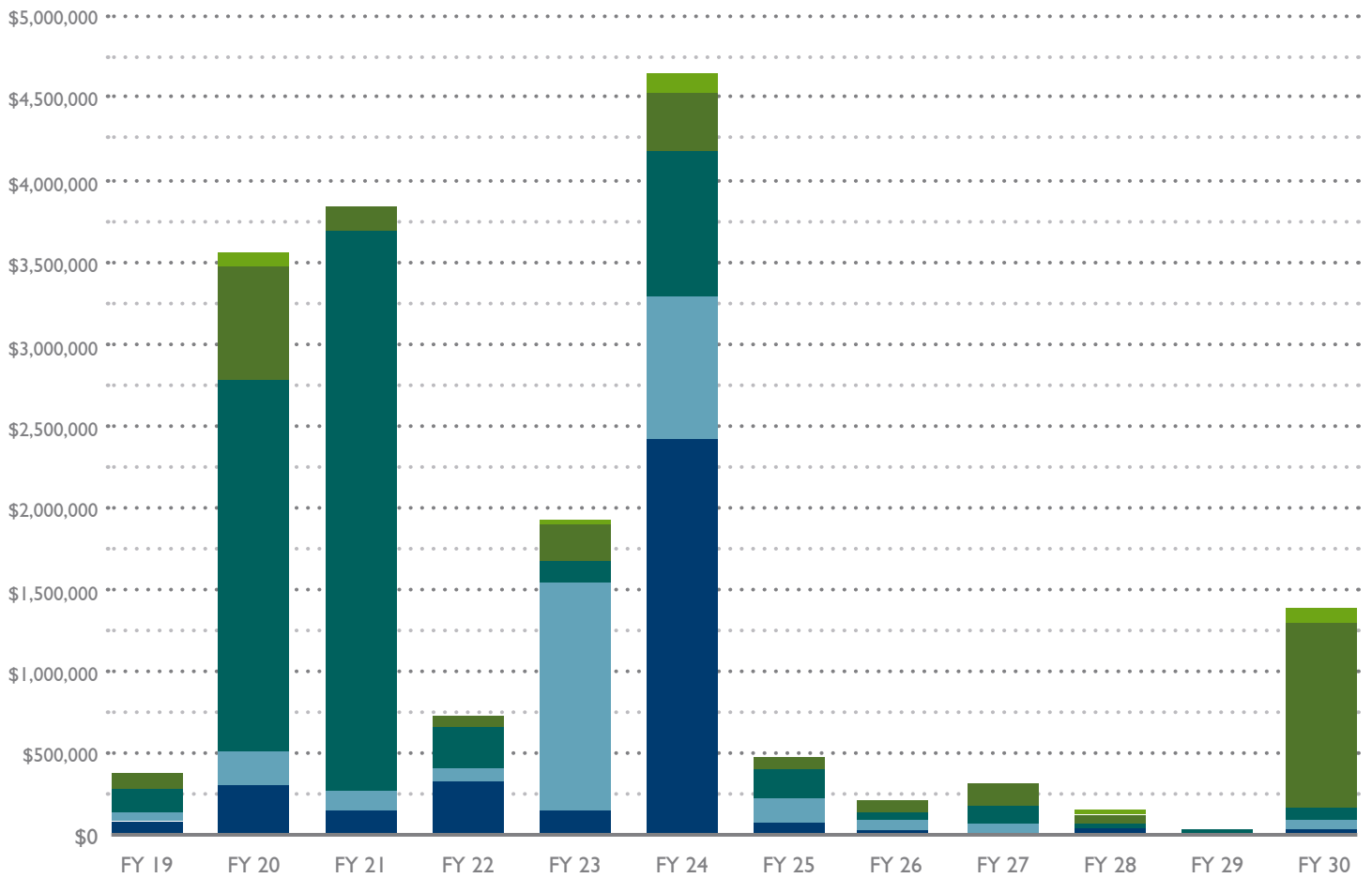
FINANCIAL IMPACT

The assessment identified \$17,164,248 worth of needs for Jackson County Central School District. Based on priority, a planned year of completion was assigned to each identified need. Through charts provided on the pages to follow, three major spikes are evident in years 2020, 2021 and 2024, with estimated costs at \$3,544,940; \$3,867,350; and \$4,637,960 respectively.

Using data presented, then breaking down by facility, Jackson County Central School District can review the anticipated spending per year, per facility. This information will allow Jackson County Central School District to identify how spending aligns with each site, during each year. This information should help organize and prioritize projects in specific locations to eliminate disruption at multiple facilities during the same year. This will also allow the District to budget for each facility while being aware of overall impact.

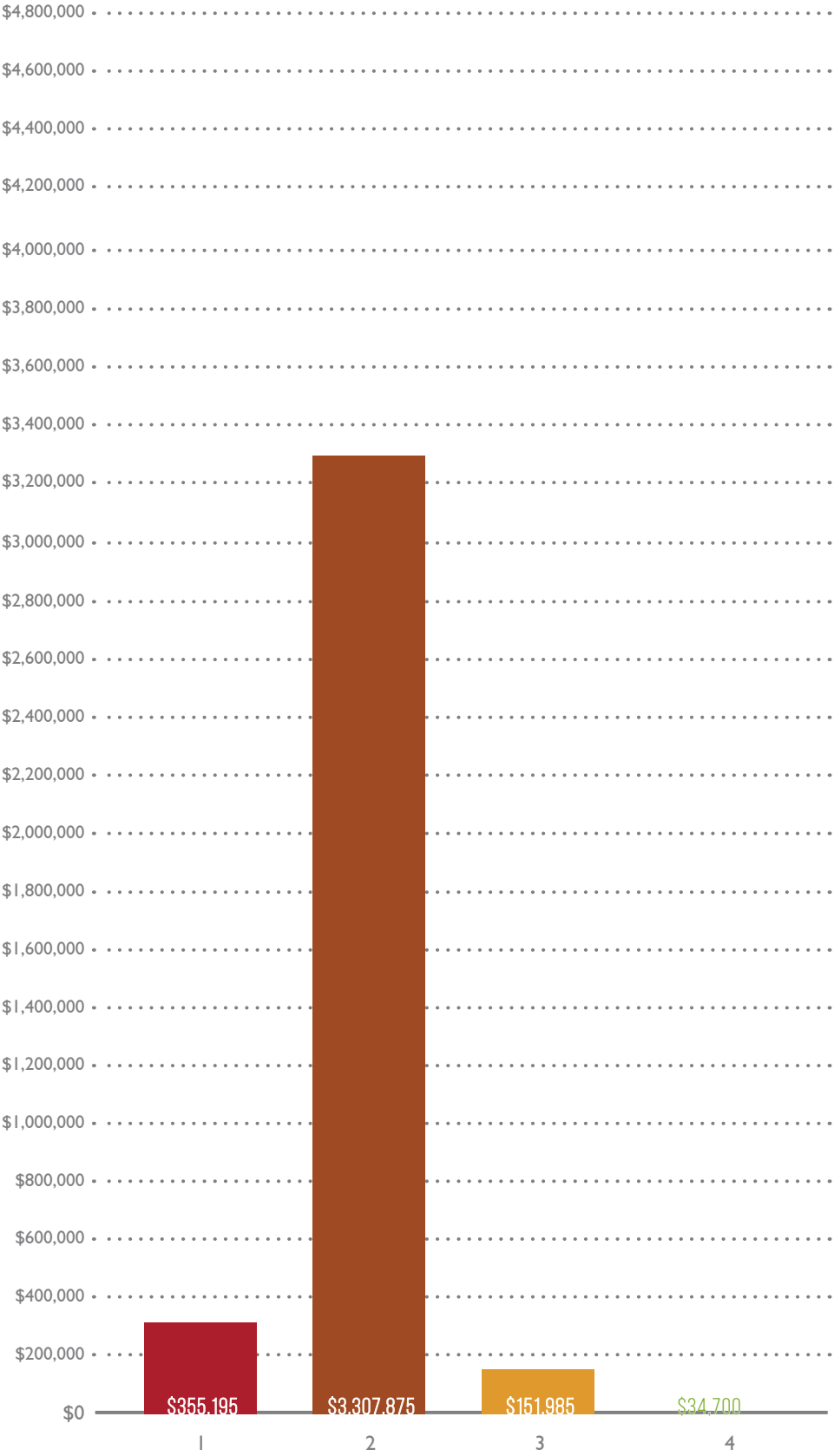


OVERALL PRIORITIES BY DOLLAR VALUE + FISCAL YEAR

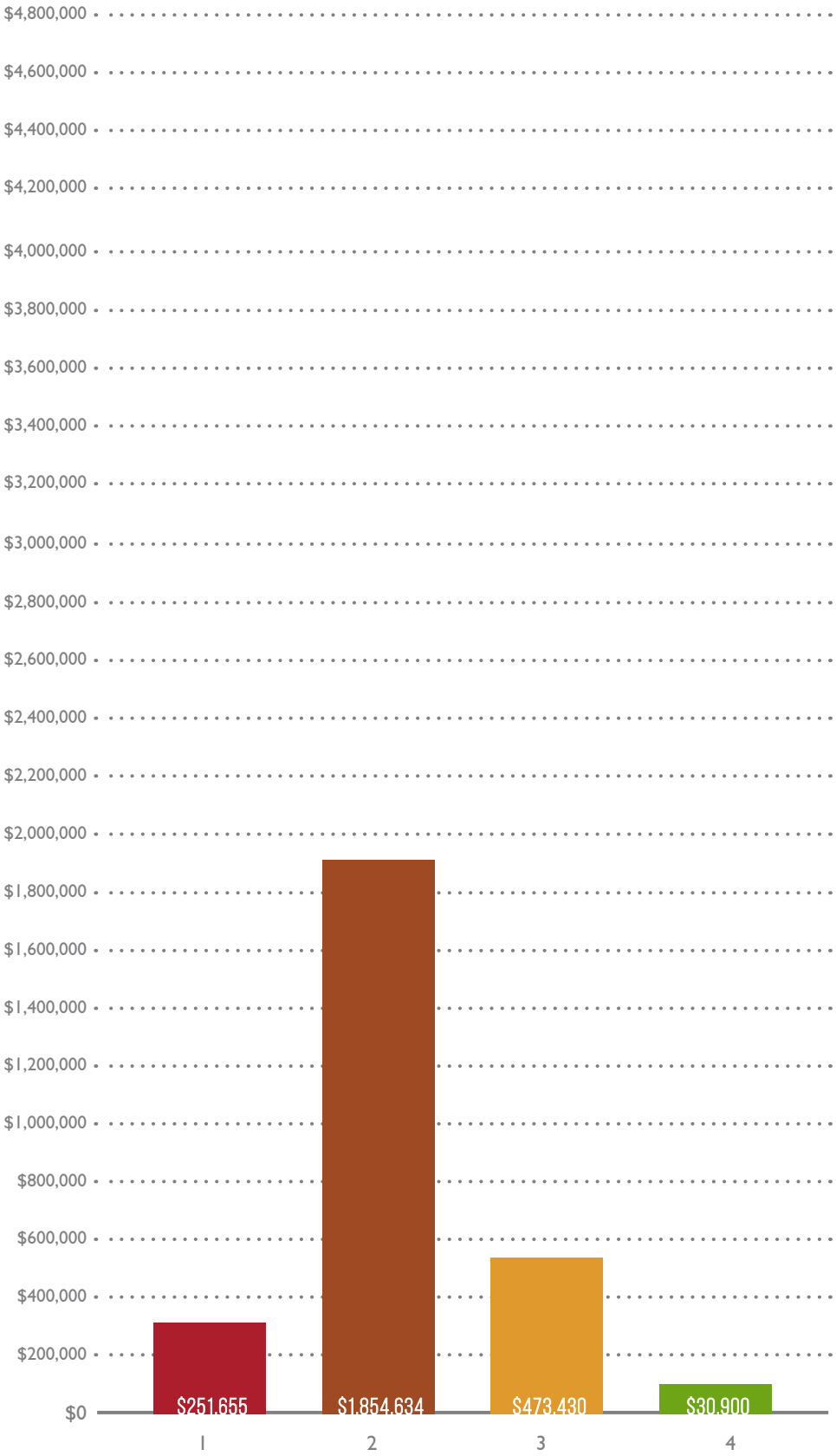


YEAR	RIVERSIDE ELEMENTARY	PLEASANTVIEW ELEMENTARY	JCC MIDDLE SCHOOL	JCC HIGH SCHOOL	JCC ATHLETICS	GRAND TOTAL
2019	\$73,570	\$25,680	\$133,000	\$75,550		\$307,800
2020	\$281,625	\$225,975	\$2,272,770	\$724,400	\$40,170	\$3,544,940
2021	\$181,750	\$88,440	\$3,464,410	\$132,750		\$3,867,350
2022	\$308,325	\$59,620	\$269,000	\$65,400		\$702,345
2023	\$178,700	\$1,441,524	\$141,000	\$216,150	\$1,150	\$1,978,524
2024	\$2,639,100	\$542,650	\$913,500	\$388,300	\$154,410	\$4,637,960
2025	\$70,735	\$142,750	\$131,400	\$41,700		\$386,585
2026	\$37,450	\$27,580	\$17,300	\$75,600		\$157,930
2027		\$25,500	\$82,000	\$105,944		\$213,444
2028	\$43,800		\$9,900	\$47,000	\$1,250	\$101,950
2029			\$5,500			\$5,500
2030	\$34,700	\$30,900	\$52,500	\$1,114,320	\$27,500	\$1,259,920
TOTAL	\$3,849,755	\$2,610,619	\$7,492,280	\$2,987,114	\$224,480	\$17,164,248

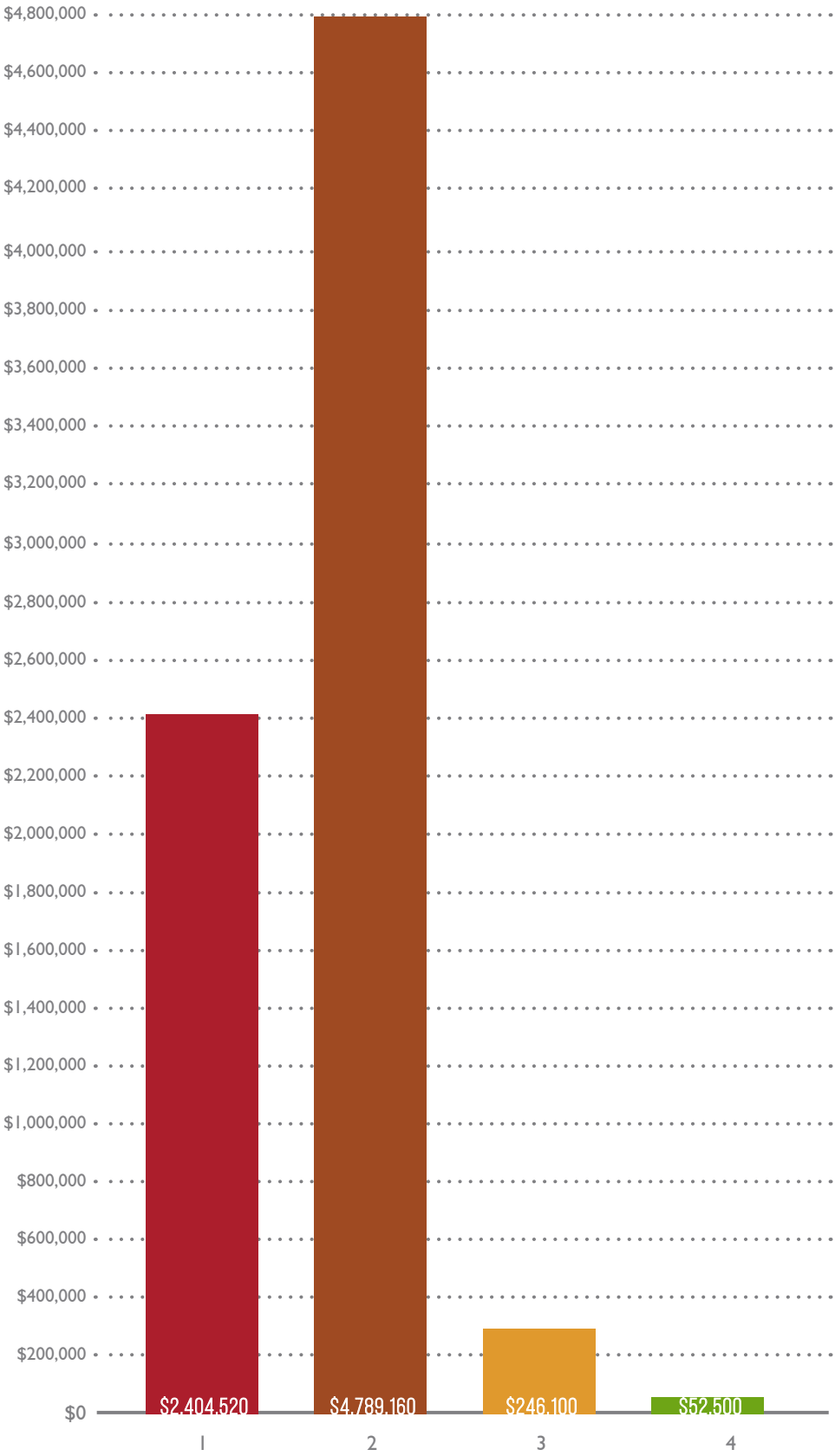
RIVERSIDE ELEMENTARY SCHOOL PRIORITIES BY DOLLAR VALUE



PLEASANTVIEW ELEMENTARY SCHOOL PRIORITIES BY DOLLAR VALUE



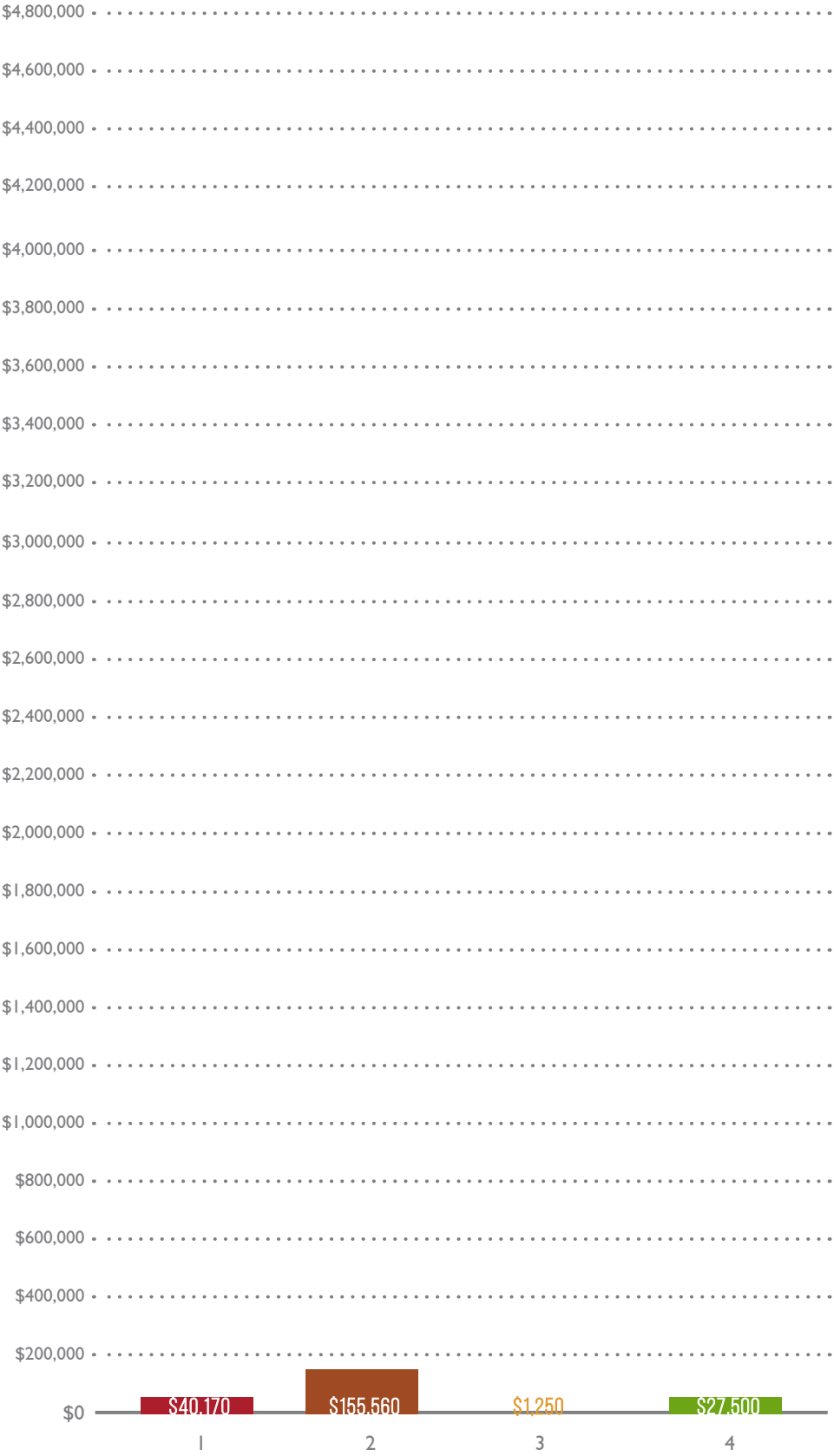
JCC MIDDLE SCHOOL PRIORITIES BY DOLLAR VALUE



JCC HIGH SCHOOL PRIORITIES BY DOLLAR VALUE



JCC ATHLETICS PRIORITIES BY DOLLAR VALUE



FCI CONDITION INDEX RATING

POOR - Greater than 30

FAIR - 15-30

GOOD - Less than 15

FACILITY CONDITION INDEX

Each facility was assessed for physical condition, repair, maintenance, and capital renewal needs and remaining expected life. Items identified were described, categorized, and prioritized along with cost estimates for expenditure projections and reporting. Through these efforts, each facility received a Facility Condition Index (FCI), which is the cost of identified needs divided by the replacement cost (estimated at \$300/square foot for construction costs) for the facility.

FACILITY	IDENTIFIED NEEDS	REPLACEMENT VALUE	FCI CONDITION
RIVERSIDE ELEMENTARY	\$3,849,755	\$24,360,300	15.80
PLEASANTVIEW ELEMENTARY	\$2,610,619	\$9,471,600	27.56
JCC MIDDLE SCHOOL	\$7,492,280	\$22,029,600	34.01
JCC HIGH SCHOOL	\$2,987,114	\$62,006,700	4.82
JCC ATHLETICS	\$224,480	-	-

Riverside Elementary School

Nearly \$4 million of needs were identified within Riverside Elementary School, resulting in an FCI rating of 15.80. This represents a fair condition. Overall, the facility is adequately sized to handle current enrollment with annual fluctuations. Riverside Elementary offers the majority of its students with adequate spaces and amenities to learn. With the FCI rating at the lower end of the fair condition range, investment in renewal efforts may be a sound investment.

Pleasantview Elementary School

A smaller footprint combined with over \$2.6 million of needs results in an FCI of 27.56 for Pleasantview Elementary School. The large site provides adequate room for outdoor educational activities, recess space, and room for expansion.

Several spaces within Pleasantview are undersized and may not be sufficiently equipped to comply with MDE recommendations and standards.

With space shortages and an FCI rating approaching the poor category, the question of replacement versus repair is typically raised.

JCC Middle School

Encompassing one city block with limited green space for outdoor activities, the Middle School is landlocked with few opportunities for expansion. The current facility is a combination of 5 different additions which results in excess circulation space and inefficiencies. With the highest investment needs of all JCC facilities, the FCI is 34.01. While the overall size of the Middle School may be appropriate for current enrollment, the individual spaces do not lend themselves to the flexibility and collaboration needed to meet current teaching and learning practices.

JCC High School

With an FCI of 4.82, the High School is solidly in good condition. Spaces are adequately sized and the facility offers amenities that other high schools are not as fortunate to have. The biggest concerns for investment are associated with indoor air quality and better controls for thermal comfort.

RIVERSIDE ELEMENTARY SCHOOL





FACILITY OVERVIEW

RIVERSIDE ELEMENTARY SCHOOL

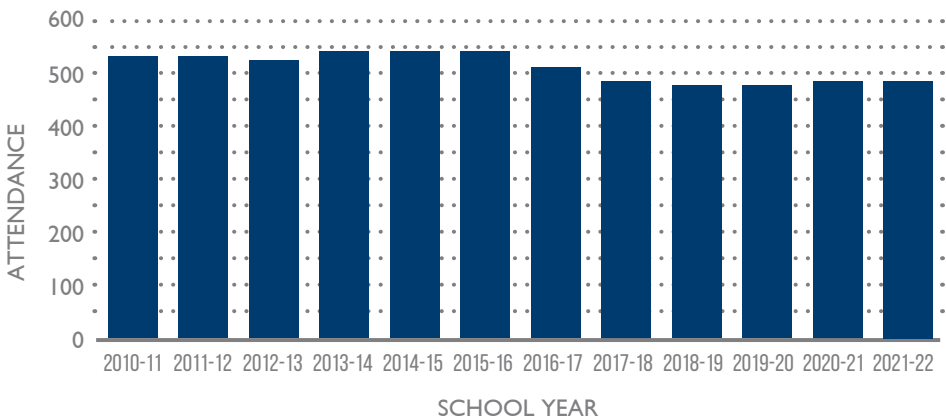
PROPERTY

LAND PARCELS COMPRISING RIVERSIDE ELEMENTARY SCHOOL PROPERTY

233010010	2.07 Acres	Elementary School and green space
233010010	0.65 Acres	Elementary School, play area, and green space
240331100	2.94 Acres	Play areas and green space



ENROLLMENT



SITE INFORMATION

CONSTRUCTED: 1951

ADDITIONS: 1958, 2003, 2016

SITE ACREAGE: 5.66 Acres

BUILDING AREA: 81,201 sf

USES: PreK-5th Grade

PHYSICAL CONDITIONS



PHYSICAL CONDITIONS

SITE CONDITIONS

Review of the existing building site including parking spaces, concrete walks, and other horizontal site elements. Site circulation, grading, paving, parking, stormwater, and playground space were also reviewed.

SITE OBSERVATIONS

Ingress + Egress

System Description: Ingress and egress to the school is provided off Park Street.

System Observation: Since the Park Street provides the only access to both of the parking lots on the site, congestion can be expected during pick-up/drop-off times.

North of Riverside Elementary, Springfield Parkway is approximately 38-feet wide which allows for two-way traffic in the street to be maintained with a parked vehicle. There are two “No Parking” signs west of the stairway which indicate approximately 100-feet of no parking on the street between the two signs from 7:30 AM – 3:30 PM Monday through Friday. There is a 10-foot wide concrete sidewalk adjacent to the roadway with a pedestrian ramp located near the stairway access to door 7.

System Condition: Fair

SITE OBSERVATIONS: PARKING + CIRCULATION

Bus Loading Zone

System Description: There is no marked bus loading zone, however buses stack along Park Street. The bus loading area provides access to two doors on the west side of the school via a 5-foot wide sidewalk along the street. Park Street is approximately 40-feet wide which allows for two-way traffic in the street to be maintained with a parked vehicle. There are no parking restriction signs along the street that would help in maintaining available parking. During pick-up/drop-off times, congestion can be expected from the increase of traffic and decrease pedestrian safety.

System Observation: The bus zone is approximately 300 feet long, which allows for an approximate stacking space for up to five buses. There is no ADA accessible ramp directly from the drop-off area to the parallel city sidewalk.

Stormwater drainage in the bus loading area sheet flows north on Park Street and into the city’s storm sewer collection system. There were no apparent areas of sediment collection along the street, indicating possible adequate drainage.

System Condition: Fair

North Parking Lot

System Description: The lot is constructed of bituminous pavement with concrete curb and gutter adjacent to the pedestrian walk area. Concrete bollards and a steel safety cable protect vehicles along the northern edge of the lot. The lot provides a total of 40 parking stalls, one of which is designated as handicap accessible.



No Parking sign west of the stairway



Unmarked bus loading zone



Concrete bollards and steel safety cable on northern face of north parking lot



Handicap parking sign below the ADA 60 inch height requirement



Fading striping in north parking lot



Alligator block cracking in north parking lot



Crack filling, seal coating and patching



Minor cracking and faded paint on curb

System Observation: A minimum of one parking space per staff member and three per classroom is required by the City of Jackson's City Code, with 24 classrooms and 72 staff members, the school is not meeting the minimum City parking standards of 144 between the north and south parking lot.

The parking lot currently does not meet 2010 Americans with Disabilities Act (ADA) Standards for Accessible Design, which requires two accessible spaces, one of which must be van-accessible for lots containing 26-50 stalls.

During the site visit, it was noted that the handicap signage is not placed the required 60-inches from the ground. The lot is striped to function in a one-way orientation although no signage is present. The striping is fading, but still visible throughout the lot.

The north parking lot received a PCI score of 42 out of 100 which falls in the fair category. The value can primarily be attributed to the large areas of alligator block cracking which indicate base failure. Additional longitudinal and transverse cracking with a series of patches also impacted the overall pavement rating. The pavement has been maintained with crack filling, seal coating and patching, however due to the large areas of base failure, the pavement is expected to need reconstruction within the next five years.

There is curbing located along the southwest edge of the parking lot, which provides a barrier between the parking lot and sidewalk. The curbing is in fair condition, with minor cracking and faded paint noted. The curb is elevated above both the sidewalk and parking lot which could create a tripping hazard.

Stormwater from the parking lot sheet flows to the north into a grassed area which then drains into the city storm collection system in Springfield Parkway. The drainage within the lot appears to be adequate with only minor sediment buildup noted along the north pavement/grass edge.

System Condition: Fair

South Parking Lot

System Description: The south parking lot is located south of the facility building and is constructed of bituminous pavement with concrete curb and gutter. There is a total of 24 parking stalls provided in the parking area, with one of the stalls designated for van-accessible handicap parking. The lot is striped to operate in a two-way orientation and no traffic conflicts were noted.

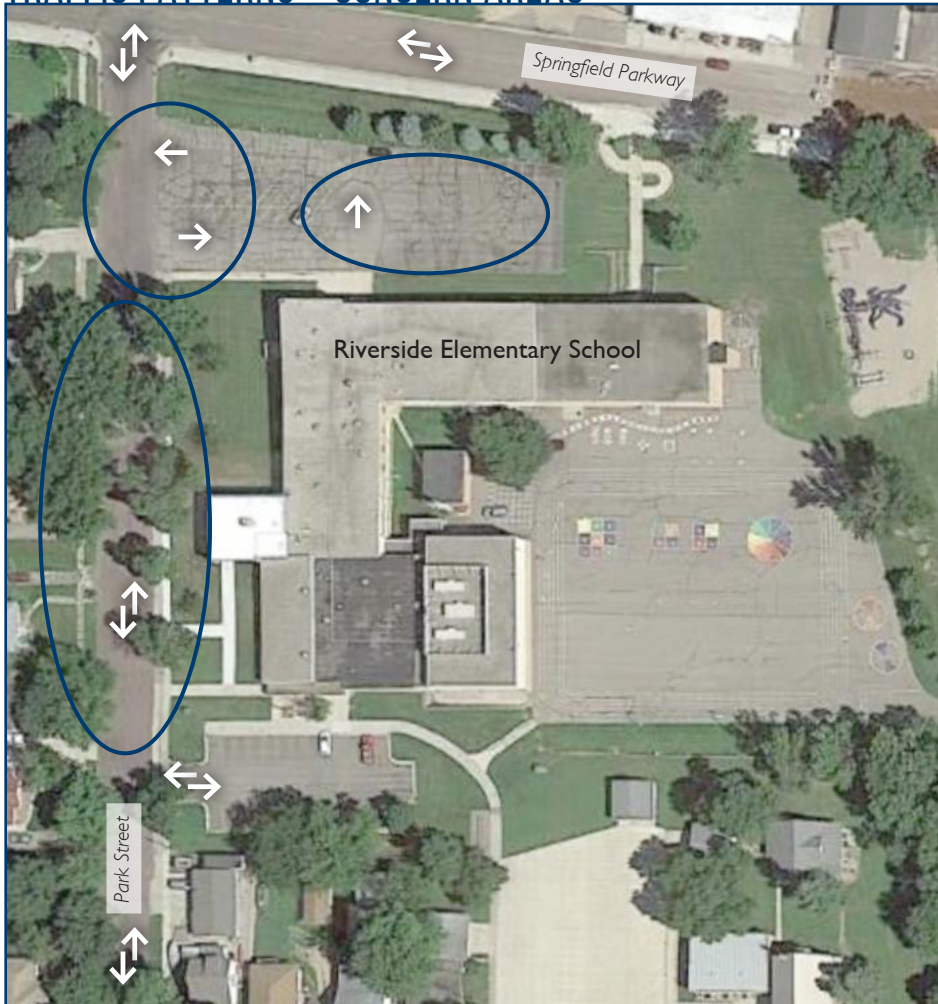
System Observation: The bituminous pavement received a PCI value of 84 out of 100 which is classified as "Very Good to Excellent" condition. Minor longitudinal / transverse cracking is present and the pavement markings are fading with vegetation growing through cracks and edges of the pavement. The concrete curb and gutter appears to be in good condition with some scraping visible. The concrete pavement of the driveway apron has severe cracking throughout the center two panels and linear cracking within the two southern panels.

The 2010 Americans with Disabilities Act (ADA) Standards for Accessible Design require one accessible spaces, one of which must be van-accessible, for lots containing 1-25 stalls.

Stormwater drainage of the western half of the parking lot sheet flows west into Park Street. The eastern half of the parking lot flows into a catch basin which is connected to the city's storm sewer in Park Street. A large amount of sediment was observed in front of the catch basin being blocked by vegetation that had grown through bituminous pavement and concrete curb and gutter joint. Sediment was also noted in the northwest edge of the pavement, which indicates inadequate drainage of the area.

System Condition: Good

TRAFFIC PATTERNS + CONCERN AREAS



SITE OBSERVATIONS: WALKWAYS

System Description: Concrete sidewalk is located throughout the facility and is predominately located on the north and south of the building. There is no accessible path to and from the recreational facilities on the east of the site.

System Observation: Overall the concrete pavement on the facility grounds is in fair condition. Minor cracking was observed throughout the concrete sidewalk and curbing on the site. Vegetation was found growing through construction jointing and the edging of the concrete. Not all of the concrete pads leading to the doorways were flush with the surrounding ground.

The northern concrete pavement leading to door 7 is in good condition with minimum signs of age, connecting the concrete stairs and ramp. Corner breaking was observed on five of the north walkway panels leading to the door.

The sidewalk's path leading from the existing concrete sidewalk along Park Street to the main doors of the facility is constructed of concrete paneling. The concrete is in fair condition, exhibiting some cracking in the paneling, loss of aggregate, separation between the panels, vegetation growing through the joints, and polished aggregate along the edge of the pavement.



Minor sediment buildup along the north pavement/grass edge



Minor longitudinal / transverse cracking with growing vegetation in pavement in southern parking lot



Cracking in concrete pavement of the southern parking lot driveway apron



Sediment and vegetation buildup in front of south parking lot catch basin



Sediment buildup in northwest edge of southern parking lot



Corner breaking on five of the north walkway panels



Concrete pavement raised approximately 2-3 inches from adjacent sidewalk



Cracking on the landings of stairs connecting the southern parking lot to the bituminous play area

There are sidewalk pathways leading to and from the southern parking lot, connecting to the Park Street sidewalk and a stairway. The pavement provides access to the eastern bituminous playground, the school's southern set of doors, and southern sidewalk that runs parallel to North Highway.

The slab of concrete that leads to the southern set of doors is raised approximately two to three inches from the adjacent sidewalk. This does not comply with ADA regulations for surface level criteria where there shall be no height differentials with a lip greater than 1/4" in height. Exceptions, are for a height differential between 1/4" and 1/2" where a bevel exists at a 2:1 slope, or a height differential greater than 1/2" is acceptable if it is ramped with a slope of 8.33% or less.

The stairs connecting the southern parking lot to the bituminous play area was observed having large cracking on the landings that have caused deflections of up to an inch and the edges of the stairs are not flush with the ground. The railings and paint are fading and there is no ADA accessible route following the stairs.

System Condition: Fair

SITE OBSERVATIONS: RETAINING WALLS

System Description: The topography of the site features changes in elevations which are accommodated by retaining walls. A wooden retaining wall is located northeast of the baseball field and serves as the main school signage. Additional retaining walls surround the concrete sidewalk on the north side of the site.

System Observation: The wooden retaining wall shows signs of rot and is bowing outward. Additionally, the retaining wall is not fenced off and allows direct access to the intersection of Springfield Parkway, 4th Street, and 3rd Street from the baseball field.

Retaining walls surrounding the concrete sidewalk on the north side of the site provide access to door 7 of the school facility. Some of the retaining wall bricks were observed to be loose, missing, or cracked. Stepped retaining walls are also located near door 7 and it was noted that some of the bricks were also loose.

System Condition: Fair

SITE OBSERVATIONS: UTILITIES

System Description: Utility locations are based on information from Madsen Land Survey Inc.'s survey of Riverside Elementary School from 2002 in conjunction with site observations during the site inspection.

The following utility services are provided to the site by the associated entity:

UTILITY SERVICE	PROVIDER + CONNECTION INFORMATION
STORM SEWER	Jackson Public Utilities via connection at Park Street
SANITARY SEWER	Jackson Public Utilities via connection at Park Street
WATERMAIN	Jackson Public Utilities via connection at Park Street
GAS SERVICE	Minnesota Energy Resources via connection at North Highway
ELECTRIC SERVICE	Jackson Public Utilities or Federated Rural Electric Association via connection at North Highway
TELECOMMUNICATIONS	CentryLink or Southwest Minnesota Broadband Services via connection at Park Street

System Observation: Utility lines at the eastern perimeter of the site were observed to be exposed and damaged.

System Condition: Fair

SITE OBSERVATIONS: RECREATIONAL FACILITIES

General

System Observation: The site is equipped with two baseball fields, a pea-rock playground, open fields, and a large bituminous playground. All of the facilities are located east of the school.

There is no ADA access to the playground facilities or baseball fields.

Baseball Fields

System Observation: Chain-link fencing surrounds the perimeter of the site and baseball fields. Sections of the chain-link mesh have been manually tied and areas where the mesh does not extend to the top rail are creating 3 to 4-inch gaps.

The baseball fields have a shared outfield with no outfield fencing, only backstops, first and third base fencing. The backstop and first/third base fencing on the north field is in fair condition, but the south field's fencing is in poor condition with posts leaning, warped top rails and mesh. Both fields have dugouts with wood edging that is deteriorating. The uneven wood edging creates a tripping hazard at the dugout gates. The dugout benches are faded and leaning.

Along the eastern fence line, a deteriorating wooden door, flush with the ground was noted. The door is located near an old electrical panel.

There are two storage sheds on the south side of the south baseball field. One is constructed of wood and is poor condition. The wood is rotten creating holes and many roof shingles are missing. The second shed is good condition and is raised on cement blocks and wood.

System Condition: Fair

Bituminous Play Area

System Description: The bituminous play area is located east of the school. The playground contains three basketball hoops, a painted track, tether ball posts, and a series of painted games.



Rotting in wood retaining wall



Loose bricks on northern retaining wall



Exposed and damaged utility line



Exposed and damaged utility lines



Exposed electrical utilities along southern perimeter of site



Baseball field with no outfield fencing



Deteriorating wood edging in dugout



Deteriorating wooden door near old electrical panel

System Observation: It received a PCI rating of 76 out of 100 which is classified as “Very Good”. The primary defects in the pavement are a series of longitudinal / transverse cracks and localized depressions throughout the pavement. The playground has been maintained by sealing cracks, however since the last maintenance period, new cracks have formed.

The basketball hoops and posts appear new, and the nylon nets are in good shape with only minor signs of aging. The pavement markings for the games and track are beginning to fade but still easily visible.

Stored soccer field nets were observed along the gravel road connecting to 4th Street. The nets were in good condition.

System Condition: Good

Playground Equipment

System Description: The playground is located near the northeast corner of the school and contains one large play structure, four swings, a separate bounce structure, a triple set of pull-up bars, three parallel bars, and an overhead horizontal ladder. The playground consists of a pea gravel safety surface.

The playground was audited on July 19, 2017 by a Certified Playground Safety Inspector. Their findings and general comments on the playground can be found in the Appendix.

System Observation: The playground does not have a defined container edge, spreading the pea gravel safety surface throughout the surrounding grass. Debris and vegetation was observed within the safety surfacing and there are no ADA access routes to or throughout the playground. The existing safety surface for the playground is pea gravel and per the National Recreation and Park Association’s requirements, a loose-fill depth of nine inches is required to protect fall heights of 5 feet.

The large play structure appears to be in fair condition, but is located notably close to the surrounding grass, possibly encroaching on the approximate use and safety zones of the equipment. There are visible signs of use on the structure, notably on the slides. The southern play structure platforms are beginning to be buried with the surrounding safety surface / vegetation, reducing their intended functionality. The platforms provide access to a piece of track equipment and passage to the balancing platforms. The track equipment is visibly bowing at the center of the track and cannot be used for its intended purpose.

The playground is equipped with four single axis swings. The swings are in good condition, but are beginning to show signs of wear. There are no rubber coating over the metal chains present, which can create a pinching hazard. The safety surface below the swings has been eroded from the high use and is no longer providing fall protection. The frame of the swing appears in good condition, with only minor paint loss noted. It was also observed that there are no bucket swings for the Pre-K age range and may need to be considered in future equipment installations. Nearby tree branches to the east of the swing set may be within the swing use zone. There should be a minimum clearance of 84 inches from overhead obstructions.

The stand-alone bounce structure appears to be in good condition with no noted defects.

Additionally, the playground has a series of older, metal equipment that has visible signs of rusting, discoloring, scraping, and missing pieces. The bare metal of the equipment can reach high temperatures, creating a burn risk.

Certain openings of the playground equipment could present an entrapment hazard if the distance between any interior opposing surfaces is greater than 3.5 inches and less than 9 inches. The equipment protrusions also create a safety hazard that may not meet National Recreation and Park Association safety standards.

System Condition: Fair

RECOMMENDATIONS

Ingress + Egress

System Recommendations: A dedicated entrance and exit at the north parking lot access to increase mobility through the site.

Bus Loading Zone

System Recommendations: To safely allow for students to line-up along the sidewalk, it is recommended to reconstruct and expand the sidewalk to be 10-feet wide, allowing for bus overhang and clearance. Park Street should have the bus-loading zone striping to indicate to motorists where the bus loading zone is located and be

North Parking Lot

System Recommendations: The bituminous parking lot pavement has a large amount of base failure and it is expected that the parking lot will need to be reconstructed within the next five years. Replacement of the adjacent curb and gutter, concrete bollards, concrete sidewalk, and safety cable should also be replaced. To meet ADA accessibility requirements and reduce congestion, at the time of the reconstruction, the parking lot should be restriped with standard and accessible parking stalls with a dedicated entrance and exit to aid in traffic flow. The accessible signage and striping should meet MUTCD and ADA standards.

Routine inspection and maintenance is recommended for the entire parking lot to ensure proper drainage. Crack fill and seal coat maintenance every 5-7 years is typical of bituminous pavement with mill and overlay or reconstruction of the parking lot in 10-20 years.

At the time of parking lot reconstruction, restriping of the northern parking lot to maximize capacity is recommended and could increase the capacity to an estimated 52 parking stalls. Between the north and south parking lot there is not enough parking stalls to meet the city requirement of 144 stalls, however there is a parking lot located south of the school that has a connecting sidewalk path to the southern school door. If a shared maintenance agreement is in place, an additional 33 parking stall could be utilized. If no agreement is in place, and should additional parking be desired off-street parking could be added along neighboring streets.

South Parking Lot

System Recommendations: The concrete driveway apron pavement paneling should be replaced.

Additional, routine inspection and maintenance is recommended for the entire parking lot to ensure proper drainage and functionality of curbs/curb cuts and storm sewer intakes. Crack fill and seal coat maintenance every 5-7 years is typical of bituminous pavement with mill and overlay or reconstruction of the parking lot in 10-20 years.



Rotten wood with missing shingles in storage shed on south side of the south baseball field



Vegetation in southern play structure platforms



Bowing in center of track equipment



Rusting, discoloring, scraping, and missing pieces on metal playground



Cracks and localized depressions throughout bituminous play area pavement



No defined container edge of play area and impending on use zone



Chain-link fencing surrounds the perimeter of the site and baseball fields.



Stepped retaining walls

Walkways

System Recommendations: ADA accessible routes should be created throughout the site and areas with a difference in pavement height greater than 1/4" should be corrected.

The older sections of sidewalk not being replaced as recommended are expected to need full removal and replacement in the next 15 to 25 years due to the concrete reaching the 50 year life expectancy. The newer sidewalk may not need replacement for another 25 to 30 years.

Retaining Walls

System Recommendations: Replace dislodged or broken modular blocks within the various concrete block retaining walls. Reconstruct the wooden retaining wall/school sign and install chain-link fencing to connect the existing fence.

Utilities

System Recommendations: Replace and properly cover exposed / damaged utilities located at northeast corner of property. The construction at the time of the site walk-through should be assessed to have been properly finished and covered to improve site safety.

Baseball Fields

System Recommendations: Replace deficient chain-link fencing mesh, ties, posts and railings. Remove the wooded posts creating a step between the dugout fence line and the infield. Construction additional fencing to protect players and extend to be parallel with the playground bounce structure, while leaving an access for players.

If not in use, remove and fill the space accessible by the flush wooden door. If in use repair and replace the door access.

The wooden storage shed should also be removed as it is currently not structurally sound.

Bituminous Play Area

System Recommendations: Crack-fill and seal coating the bituminous playground will aid in extending the pavement life. A mill and overlay of the bituminous pavement is expected within the next 10 years.

Routine crack-sealing and maintenance is typically performed for the bituminous pavement every 3-5 years with mill and overlay or reconstruction of the parking lot in 10-20 years.

Playground Equipment

System Recommendations: To reduce the amount of safety surfacing loss, it is recommended to construct a container edging. All of the safety surfacing below the swings should be replaced and to reduce the surface loss in future years, additional rubber swing mats can be placed below the swings.

Playground equipment with protrusions and areas of entrapment are recommended to be removed or repaired to meet current safety standards. The large play structure's track equipment should either be removed or replaced. The metal equipment is rusting and should be removed.

A third party Playground Audit Report is located in the Appendix.

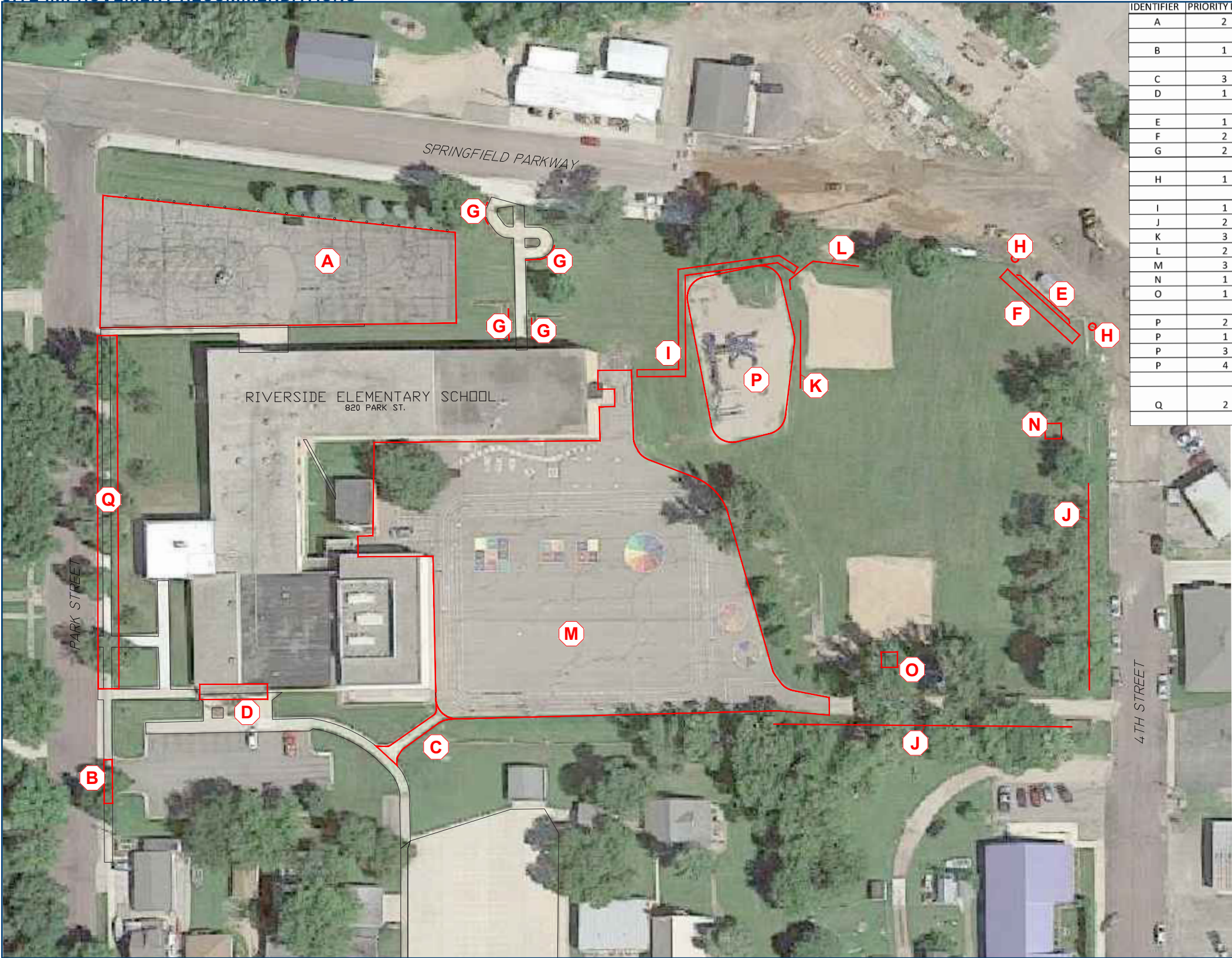


SITE CONDITIONS SYSTEM PRIORITY TABLE

	1	2	3	4	COST
Repair safety surfacing and ensure it extends to all equipment use zones	●				\$1,000
Provide adequate accessible routes to and from playground and northern baseball field	●				\$20,000
Remove the wooden door in baseball field that is flush with the ground and the wooden shed	●				\$2,250
Remove and replace wooden retaining wall/school sign located on the northeast	●				\$3,000
Remove & replace concrete driveway apron	●				\$2,000
Replace and properly cover exposed / damaged utilities located at northeast corner of property	●				\$500
Widen the sidewalk along Park Street – including the expansion of the sidewalk to ten-foot wide, bus loading zone striping, and the addition of bus loading zone signage		●			\$15,000
Reconstruct north parking lot - regrade, replace bollards / safety wiring, walkways, restriping, and signage		●			\$145,000
Construct safety surface edging		●			\$3,500
Repair and fix all deficient fencing around perimeter and baseball field		●			\$13,000
Construct railing/fencing at northeast corner of site		●			\$6,000
Replace any loose modular blocks from western retaining walls		●			\$5,000
Playground equipment removal/replacement per manufacture specifications - track equipment and all metal equipment on site and provide rubber mats below swings to reduce the loss of safety surfacing			●		\$2,360
Install fencing to the extents of being parallel with the bounce structure, between the baseball field and playground			●		\$8,400
Crack-fill, seal coat, restripe bituminous playground			●		\$25,000



SITE IMPROVEMENT RECOMMENDATIONS



IDENTIFIER	PRIORITY LEVEL	CONSTRUCTION ITEM
A	2	Reconstruct north parking lot - regrade, replace bollards / safety wiring, walkways, restriping, and signage
NORTH PARKING LOT		
B	1	Remove & replace concrete driveway apron
SOUTH PARKING LOT		
C	3	Reconstruct the southern concrete stairs leading to the bituminous playground with an ADA accessible ramp
D	1	Provide ADA compliant access to southern door slab - connecting to southern parking lot, remove and replace concrete paneling
WALKWAYS		
E	1	Remove and replace wooden retaining wall/school sign located on the northeast
F	2	Construct railing/fencing at northeast corner of site
G	2	Replace any loose modular blocks from northern retaining walls
RETAINING WALLS		
H	1	Replace and properly cover exposed / damaged utilities located at northeast corner of property
UTILITIES		
I	1	Provide adequate ADA accessible routes to and from playground and northern baseball field
J	2	Repair and fix all deficient fencing around perimeter
K	3	Install fencing to the extents of being parallel with the bounce structure, between the baseball field and playground
L	2	Repair and fix deficient fencing around baseball fields - replace broken mesh, retie mesh to top and bottom rail, replace line posts
M	3	Crack-fill, seal coat, restripe bituminous playground
N	1	Remove the wooden door in baseball field that is flush with the ground
O	1	Remove deteriorating wooden shed
RECREATIONAL FACILITIES		
P	2	Construct safety surface edging
P	1	Repair safety surfacing and ensure it extends to all equipment use zones
P	3	Playground equipment removal/replacement per manufacture specifications - track equipment and all metal equipment on site
P	4	Rubber mats below swings to reduce the loss of safety surfacing below swings
PLAYGROUND EQUIPMENT		
Q	2	Reconstruct the sidewalk along Park Street - including the expansion of the sidewalk to ten-feet wide, bus loading zone striping, and the addition of bus loading zone signage
BUS LOADING ZONE		

PHYSICAL CONDITIONS

EXTERIOR BUILDING CONDITIONS

Review of the building's exterior shell including an assessment of the structure, foundation, exterior walls, windows and doors, and thermal efficiency, as well as conditions of the existing roof, gutters, and downspouts.

OBSERVATIONS

Walls

System Description: Constructed with brick walls, stone walls, stucco and stucco panels, metal panel system

System Observations: The brick and mortar system and stone and mortar system have localized cracking and joint failure, and severe discoloration at some locations at grade; stucco panels have significant discoloration and peeling at corners; metal panel system is in good condition

System Condition: Fair

Doors

System Description: Constructed of hollow metal doors, hollow metal entrance doors with glazing, aluminum entrance doors with glazing, automatic doors with control switches at three main entrance locations.

System Observation: The hollow metal doors have rusting, peeling paint and moderate damage; aluminum doors, frames and glazing in very good condition.

System Condition: Hollow metal doors: Fair; aluminum doors: Good

Stoops

System Description: Constructed of concrete slab.

System Observation: Concrete stoops have some damaged edges, cracking, uneven surfaces and gaps; some stoops are significantly higher than adjacent sidewalks.

System Condition: Fair

Windows

System Description: Aluminum framed fixed windows with insulated glazing, operable hoppers, and stone sills; glass block units.

System Observation: Aluminum framed windows are in very good condition; stone sills have significant discoloration; glass block units in gymnasium in very good condition; glass block units in classrooms in fair condition with some damaged units

System Condition: Good

Roof

System Description: Constructed of adhered TPO roof system on 2016 addition, adhered rubber roof membrane with stone cap on older gymnasium roof, ballasted rubber roof membrane on remainder of roof.

System Observation: TPO in excellent condition; adhered rubber roof has large amount of standing water, damaged metal flashing and discolored stone cap; most



Riverside exterior walls



Cracking and joint failure, and discoloration on brick wall



Discoloration and peeling at corners on stucco panels



Rusting, peeling paint and damage on metal door



Elevation difference in stoops and sidewalks



Large amount of standing water on rubber roof



Damaged metal flashing and glass block at rubber roof



Shifting at corners of stone retaining walls

ballasted rubber roof in good condition; roof on 1958 addition and adjacent to older gymnasium scheduled for replacement in 2018.

System Condition: The adhered roof is in poor condition; while the remainder is in very good condition, while other sections are scheduled for replacement in 2018.

Mechanical Building

System Description: A detached brick building with adhered rubber roof membrane.

System Observation: Exterior brick has localized cracking, joint failure and staining; while the rubber roof is in good condition.

System Condition: Fair

Retaining Walls

System Description: There is a stone retaining wall and planter system on north side.

System Observation: The dry-stacked stone walls have severe shifting at corner locations.

System Condition: Poor

RECOMMENDATIONS

Walls

System Recommendations: Replace rusted and damaged hollow metal doors and frames with aluminum to match newer doors and windows.

Doors

Stoops

System Recommendations: Replace stoops or adjacent sidewalks to comply with accessible entrance requirements at door sills.

Windows

System Recommendations: Clean discolored stone sills; replace damaged glass block units.

Roof

System Recommendations: Replace adhered rubber roof system including roof insulation, metal flashing, damaged glass block units and stone cap; replace ballasted rubber roof in 2018 as scheduled.

Mechanical Building

System Recommendations: Repair brick cracking and failed joints.

Retaining Wall

System Recommendations: Repair or replace retaining wall system.



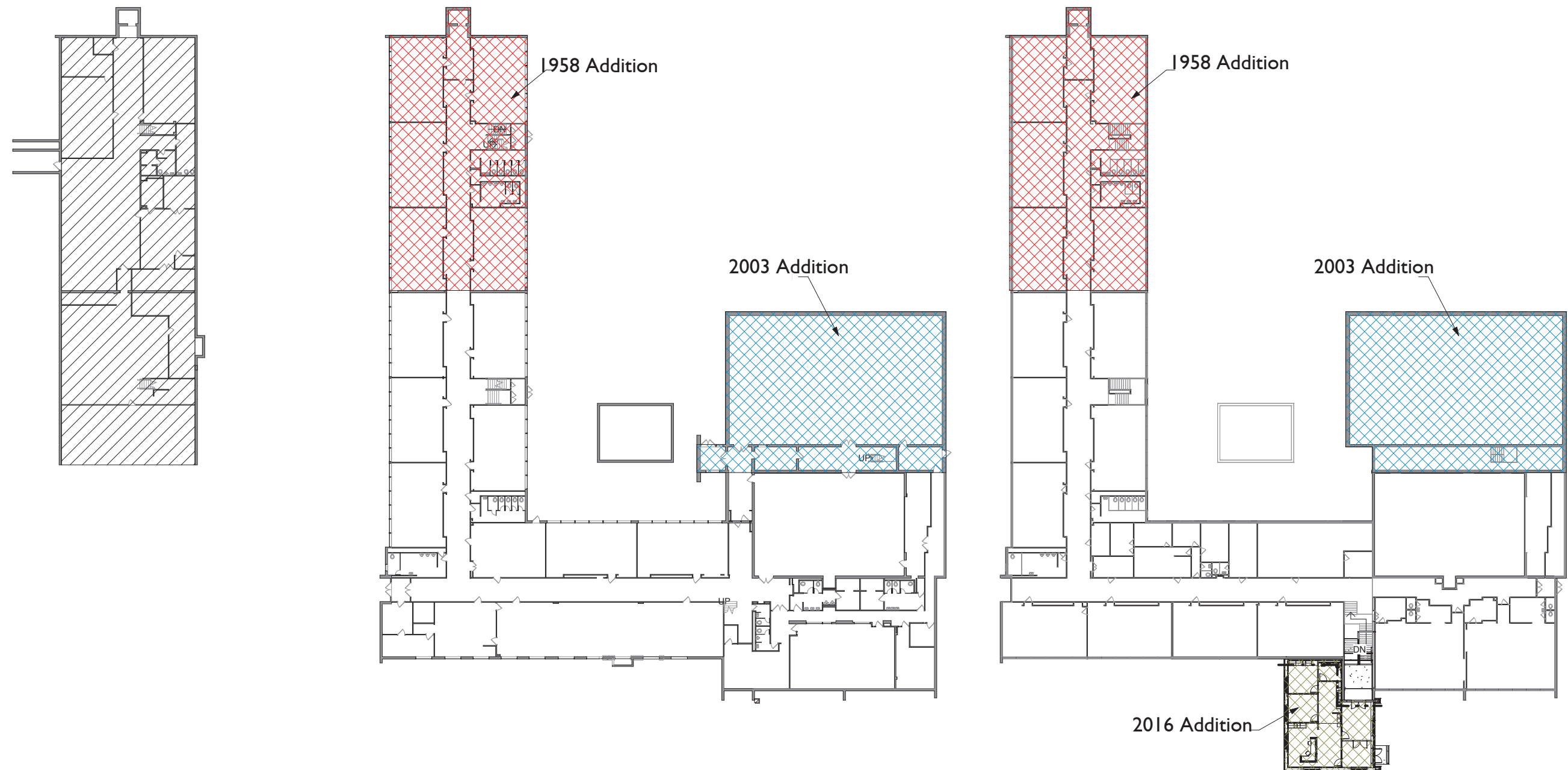
EXTERIOR CONDITIONS SYSTEM PRIORITY TABLE

	1	2	3	4	COST
Retaining walls – repair or replace retaining wall system	●				\$18,000
Windows – clean discolored stone sills; replace damaged glass block units	●				\$4,120
Walls – repair brick and stone cracking and failed joints and clean discolored brick and stone at grade; paint stucco panels		●			\$10,250
Doors – replace rusted and damaged hollow metal doors and frames with aluminum to match newer doors and windows			●		\$9,375
Stoops – replace stoops or adjacent sidewalks to comply with accessible entrance requirements at door sills			●		\$16,800
Mechanical building – repair brick cracking and failed joints				●	\$1,200



PHYSICAL CONDITIONS INTERIOR BUILDING CONDITIONS

Examination of the finishes, equipment, and other conditions found in classrooms, offices, hallways, gymnasiums, locker rooms, stairwells, kitchen, and cafeteria areas.



OBSERVATIONS: CORRIDORS

Floors

System Description: Includes terrazzo floor and stairs; 12" x 12" vinyl composition tile installed in 2003 in new and renovated areas; luxury vinyl tile adjacent to school office; and carpet tile in entry vestibule.

System Observations: The terrazzo floor is well maintained with minor damaged locations; and the vinyl composition tile and luxury vinyl tile is in excellent condition.

System Condition: Good

System Recommendations: Repair the localized damaged terrazzo.

Walls

System Description: Includes glazed concrete block with painted plaster above; glass transoms to ceiling height; ceramic tile with vinyl base and painted gypsum board above in 2003 new and renovated areas; and hollow metal framed windows in 2003 new and renovated areas.

System Observations: Includes glazed concrete block walls have minor visible damage and plaster above has localized cracking; ceramic tile and gypsum board in excellent condition.

System Condition: Good

System Recommendations: Repair the damaged block and plaster.

Ceilings

System Description: Comprised of 2'0" x 4'0" acoustical ceiling tile.

System Observations: The acoustical ceiling tile is in very good condition with a few stained tiles.

System Condition: Good

System Recommendations: Replace stained acoustical ceiling tiles.

Doors

System Description: A variety of door types include wood doors with wired glass in wood frames; rated hollow metal doors and frames installed in 2003 in new and renovated areas; and aluminum doors with glazing in entry vestibule.

System Observations: The wood doors and frames have considerable damage; while the hollow metal and aluminum door systems are in excellent condition.

System Condition: Wood doors: Poor; hollow metal and aluminum doors: Good

System Recommendations: Replace damaged wood doors and frames with new wood doors and hollow metal frames; replace noncompliant knob hardware with handle locksets; and replace wired glass with safety glass.

Lockers

System Description: Recessed single tier metal lockers.

System Observations: They are in very good condition with minimal damage and rusting.

System Condition: Good

System Recommendations: No recommendations.



Corridor floor



Glazed concrete block with painted plaster walls



Corridor walls



Wood doors with wired glass in wood frames



Recessed folding metal scissor gates



Damaged locations in terrazzo floor



Damage in glazed concrete block walls, cracking in plaster above



Stained ceiling tiles

Other Elements

System Description: Elevator, recessed folding metal scissor gates; recessed walk-off mats.

System Observations: Elevator cab in good condition; scissor gates appear to be functional; walk-off mats do not fit well into recessed terrazzo areas.

System Condition: Good

System Recommendations: Replace walk-off mats with mats which fit properly into recessed terrazzo area.

OBSERVATIONS: SCHOOL OFFICE

Floors

System Description: Various floor coverings including carpet in office areas and ceramic tile in restroom.

System Observations: The luxury vinyl tile, and carpet and ceramic tile are in excellent condition.

System Condition: Good

System Recommendations: No recommendations.

Walls

System Description: There are painted gypsum board walls with a vinyl base in office areas; and ceramic tile with ceramic tile base and painted gypsum board above in the restroom.

System Observations: Painted gypsum board walls, vinyl base, and ceramic tile walls are in excellent condition.

System Condition: Good

System Recommendations: No recommendations.

Ceilings

System Description: Comprised of 2'-0" x 2'-0" acoustical ceiling tile.

System Observations: Acoustical ceiling tile is in excellent condition.

System Condition: Good

System Recommendations: No recommendations.

Doors

System Description: Comprised of hollow metal door and window systems, and wood doors in hollow metal frames.

System Observations: Hollow metal doors and frames, and wood doors are in excellent condition.

System Condition: Good

System Recommendations: No recommendations.

Casework

System Description: Includes plastic laminate base and upper cabinets.

System Observations: The plastic laminate cabinets are in excellent condition.

System Condition: Good

System Recommendations: No recommendations.

OBSERVATIONS: CLASSROOMS + MEDIA CENTER

Floors

System Description: Floor coverings include 9" x 9" vinyl composition tile in classrooms; carpet in one classroom; and 12" x 12" vinyl composition tile in the media center.

System Observations: The vinyl composition tile floor is well maintained, with minor cracking and some replaced tiles; and carpet is stained and bubbling.

System Condition: Good

System Recommendations: Replace cracked vinyl composition tiles.

Walls

System Description: Comprised of painted plaster with vinyl base; and glazed concrete block in the basement.

System Observations: The painted plaster has localized cracking; glazed concrete block walls have minor visible damage and some joint staining.

System Condition: Good

System Recommendations: Repair cracked plaster and damaged block.

Ceilings

System Description: Comprised of 12" x 12" perforated acoustical ceiling tile

System Observations: The perforated acoustical ceiling tile has significant staining, punctures, cracking and uneven tiles

System Condition: Fair

System Recommendations: Repair damaged acoustical ceiling tile; consider replacing perforated acoustical ceiling tile with a suspended acoustical ceiling tile system if lighting replacement is performed.

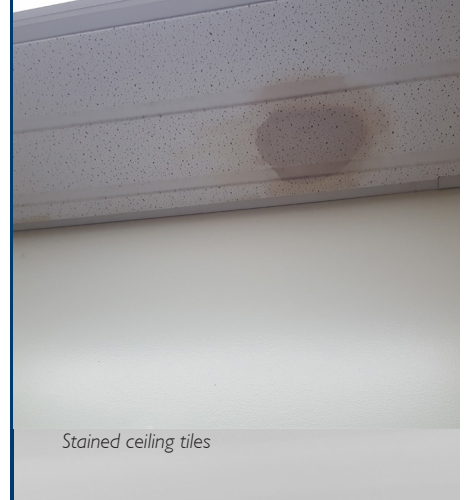
Doors

System Description: Comprised of wood doors with glazing in wood frames.

System Observations: Wood doors and frames have significant damage; most classroom doors have noncompliant knob hardware.

System Condition: Poor

System Recommendations: Replace damaged wood doors and frames; and replace noncompliant knob hardware with handle locksets.



Stained ceiling tiles



Non fitting walk-off mats in recessed terrazzo areas



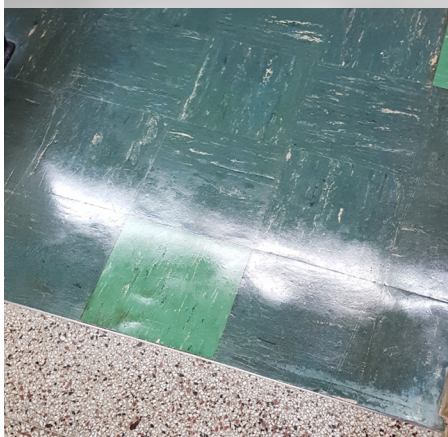
Stained ceiling tiles



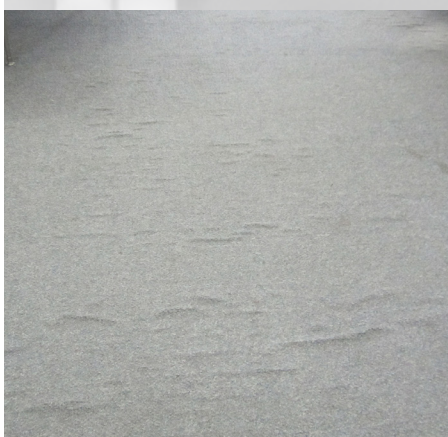
Wood doors with glazing in wood frames



Aluminum mini blinds with tack panels above windows



Minor cracking and some replaced tiles in floor



Stained and bubbling carpet



Damaged ceiling tiles

Casework

System Description: Consists of wood closets, cabinets, drawers and shelves; and wood cabinets with sinks and ceramic tile countertops.

System Observations: The wood casework is in fair condition, while the cabinets with sinks have extensive damage.

System Condition: Fair

System Recommendations: replace damaged cabinets

Other Elements

System Description: chalkboards and tack boards with wood trim; whiteboards and smartboards; tack panels above windows; aluminum mini blinds

System Observations: chalkboards and tack boards are typically covered with paper or with new whiteboards and smartboards; tack panels and mini blinds are in good condition

System Condition: Good

System Recommendations: No recommendations.

OBSERVATIONS: GYMNASIUMS

Floors

System Description: Comprised of 12" x 12" vinyl composition tile (older gym); and wood (newer gym).

System Observations: The vinyl composition tile floor is well maintained; and the wood floor is in very good condition.

System Condition: Good

System Recommendations: No recommendations.

Walls

System Description: Comprised of glazed concrete block with vinyl base and painted plaster above (older gym); and painted concrete masonry units (newer gym).

System Observations: The glazed concrete block walls are in fair condition, with joint staining and damage where items were previously attached; concrete masonry unit walls are in very good condition.

System Condition: Fair (older gym); Good (new gym)

System Recommendations: Repair damaged glazed concrete block walls.

Ceilings

System Description: Comprised of 12" x 12" acoustical ceiling tile (older gym); and exposed steel joists (newer gym).

System Observations: The acoustical ceiling tile is in good condition.

System Condition: Good

System Recommendations: No recommendations.

Doors

System Description: Comprised of wood doors in wood frames (older gym); and wood doors in hollow metal frames (newer gym).

System Observations: Wood doors and frames have significant damage; wood doors and metal frames in very good condition.

System Condition: Poor (older gym); Good (new gym)

System Recommendations: Replace damaged wood doors and frames.

Other Elements

System Description: Basketball hoops.

System Observations: Basketball hoops are mounted to walls, ceilings and steel joists.

System Condition: Good

System Recommendations: No recommendations.

OBSERVATIONS: KITCHEN + CAFETERIA

Floors

System Description: 12" x 12" vinyl composition tile.

System Observations: Vinyl composition tile floor is well maintained

System Condition: Good

System Recommendations: No recommendations.

Walls

System Description: Painted plaster with vinyl base

System Observations: Plaster walls are in very good condition, with minor localized cracking.

System Condition: Good

System Recommendations: Repair cracked plaster.

Ceilings

System Description: A painted gypsum board ceiling is in kitchen, while a 12" x 12" perforated acoustical ceiling tile is in the cafeteria.

System Observations: The gypsum board and ceiling tile ceilings are in good condition.

System Condition: Good

System Recommendations: No recommendations.

Doors

System Description: Wood doors are in wood frames.

System Observations: Wood doors and frames have significant damage; some doors have noncompliant knob hardware.

System Condition: Fair

System Recommendations: Replace damaged wood doors and frames.



Stained, punctured, cracking and uneven ceiling tiles



Damage and noncompliant knob hardware in wood doors



Damage in cabinet and sink casework



Damage and joint stain in glazed concrete block walls



Damage in wood door



Damage and noncompliant knob hardware on cafeteria doors



Steel shutter



Glazed concrete block wall in basement

Equipment

System Description: Comprised of stainless steel.

System Observations: Well maintained and in very good condition.

System Condition: Good

System Recommendations: No recommendations.

Other Elements

System Description: There is a full height rolling steel shutter.

System Observations: The steel shutter in good condition.

System Condition: Good

System Recommendations: No recommendations.

OBSERVATIONS: RESTROOMS

Floors

System Description: A combination of 1" x 1" and 2" x 2" ceramic mosaic tile, 2" x 2" ceramic tile are located in 2003 new and renovated areas; while 12" x 12" vinyl composition tile is located in the basement.

System Observations: The older ceramic mosaic tile is stained with some missing tile; the newer ceramic tile is in very good condition; and the vinyl composition tile is well maintained.

System Condition: Fair

System Recommendations: Replace older ceramic mosaic tile floor.

Walls

System Description: Consists of 4" x 4" ceramic tile with painted plaster above; 6" x 6" ceramic tile with painted gypsum board above in 2003 new and renovated areas; and glazed concrete block in the basement.

System Observations: The older ceramic tile has severe cracking in some areas, with damage to plaster walls above; the newer ceramic tile in very good condition; the glazed concrete block is in fair condition with joint staining and damage where items were previously attached.

System Condition: Fair

System Recommendations: Replace cracked ceramic tile and plaster walls above; repair damaged glazed concrete block walls.

Ceilings

System Description: Consists of 12" x 12" perforated acoustical ceiling tile, painted plaster, and painted gypsum board.

System Observations: The acoustical ceiling tile and painted plaster is in good condition; the painted gypsum board in very good condition.

System Condition: Good

System Recommendations: Replace damaged acoustical ceiling tile; repair damaged plaster and gypsum board ceiling areas.

Doors

System Description: Consists of wood doors in wood frames; and wood doors in hollow metal frames were added in 2003 in the new and renovated areas.

System Observations: Wood doors and frames are functional, with moderate damage; single use restroom doors have noncompliant knob hardware; and newer doors and frames in very good condition.

System Condition: Fair

System Recommendations: Replace damaged wood doors and frames; and replace noncompliant knob hardware with handle locksets.

Toilet Partitions

System Description: Metal, plastic laminate, solid surface in 2003 new and renovated areas.

System Observations: Metal partitions are chipped and rusting at seams; plastic laminate and solid surface partitions are in good condition; and there are no urinal partitions in older restrooms.

System Condition: Fair

System Recommendations: Replace damaged metal partitions and install urinal partitions.

Other Elements

System Description: Plumbing fixtures, restroom accessories, metal lockers, solid surface lavatory counters are located in 2003 new and renovated areas.

System Observations: Plumbing fixtures and restroom accessories are generally in fair condition; lockers and counters are in good condition.

System Condition: Fair

System Recommendations: Replace damaged plumbing fixtures and accessories; and verify sink heights for accessibility.

OBSERVATIONS: COUNSELOR'S OFFICE, CUSTODIAN'S ROOMS, BASEMENT KITCHEN, AND STORAGE ROOMS

Floors

System Description: Luxury vinyl tile and carpet are installed in counselor's office; sealed concrete and 12" x 12" vinyl composition tile are installed in custodian's rooms, basement kitchen, and storage rooms.

System Observations: Luxury vinyl tile and carpet are in good condition; sealed concrete is in fair condition; and vinyl composition tile is in good condition.

System Condition: Good

System Recommendations: Reseal concrete floor, and replace cracked vinyl composition tiles.



Metal lockers in restroom



Stained, missing tile in restroom floor



Cracking in ceramic tile with damage above in plaster wall



Joint stain, damage where items previously attached in glazed concrete block wall



Damage to plaster restroom walls



Chipped and rusting at seams in metal partitions



Metal cabinets and plastic laminate counter tops in basement kitchen



Sealed concrete floor

Walls

System Description: Consist of painted plaster with vinyl base, and glazed concrete block in the basement.

System Observations: Painted plaster has localized damage; glazed concrete block walls have minor visible damage and some joint staining.

System Condition: Good

System Recommendations: Repair cracked plaster and damaged block.

Ceilings

System Description: Consists of 12" x 12" perforated acoustical ceiling tile; 2'-0" x 2'-0" acoustical ceiling tile; and exposed concrete waffle slab.

System Observations: Perforated acoustical ceiling tile has staining and uneven tiles, while the newer ceiling tile is in good condition.

System Condition: Fair

System Recommendations: Repair damaged acoustical ceiling tile.

Doors

System Description: Wood doors are in wood frames.

System Observations: Wood doors and frames have significant damage, and doors have noncompliant knob hardware.

System Condition: Poor

System Recommendations: Replace damaged wood doors and frames; replace noncompliant knob hardware with handle locksets.

Casework

System Description: Consists of metal cabinets and plastic laminate countertops in the basement kitchen.

System Observations: Basement kitchen cabinetry and appliances are in poor condition.

System Condition: Poor

System Recommendations: Replace damaged cabinetry and appliances.



Localized damage in plaster wall



Poor conditions in kitchen cabinetry and appliances



Noncompliant wired glass in doors and sidelights

INTERIOR CONDITIONS SYSTEM PRIORITY TABLE

	1	2	3	4	COST
Doors – replace damaged wood doors and frames; replace noncompliant knob hardware with handle locksets	●				\$25,000
Doors - replace noncompliant knob hardware with handle locksets	●				\$12,500
Doors - replace wired glass with safety glass	●				\$1,350
Other elements – replace walk-off mats with mats which fit properly into recessed terrazzo areas	●				\$5,300
Doors – replace damaged wood doors and frames; replace noncompliant knob hardware with handle locksets	●				\$8,000
Ceilings – repair damaged acoustical ceiling tile; consider replacing perforated acoustical ceiling tile with a suspended acoustical ceiling tile system if lighting replacement is performed		●			\$6,000
Casework – replace damaged cabinets		●			\$81,000
Ceilings – repair damaged acoustical ceiling tile		●			\$1,000
Casework – replace damaged cabinetry and appliances		●			\$4,800
Floors – replace older ceramic mosaic tile floor		●			\$4,250
Ceilings – replace damaged acoustical ceiling tile; repair damaged plaster and gypsum board ceiling areas		●			\$2,100
Doors – replace damaged wood doors and frames; replace noncompliant knob hardware with handle locksets		●			\$8,400
Toilet partitions – replace damaged metal partitions; install urinal partitions		●			\$4,125
Ceilings - replace stained acoustical ceiling tiles			●		\$1,250
Doors – replace damaged wood doors and frames with new wood doors and hollow metal frames			●		\$11,800
Floors – reseal concrete floor; replace cracked vinyl composition tiles			●		\$2,000
Doors – replace damaged wood doors and frames			●		\$8,000
Doors – replace damaged wood doors and frames			●		\$8,000
Floors – repair localized damaged terrazzo				●	\$4,000
Walls – repair minor damaged block and plaster				●	\$1,500
Walls – repair damaged glazed concrete block				●	\$1,000
Walls – repair cracked plaster				●	\$21,000

PHYSICAL CONDITIONS

STRUCTURAL SYSTEM CONDITIONS



Review of structural integrity of existing buildings with analysis of columns, walls, and the roof.

OVERVIEW

Riverside Elementary School is a two-story structure with a partial basement and crawlspace. The building's primary structure was constructed in the 1950s using a combination of reinforced concrete joists, beams, and columns, the majority of which are covered with ceiling and wall finishes. A 1958 addition to the original building was constructed using similar materials, while an addition was designed in 2002, and another in 2016. The 2002 addition included a gymnasium, which is constructed of steel bar joists and concrete masonry unit (CMU) walls. The majority of the building's primary structural elements are covered with a brick and stone façade at the exterior. It appears upon visual inspection that a majority of the building has adequate structural systems that are performing as required, except for select structural items noted throughout this section that may need attention to improve or maintain the building's usable life and function.

SITE OBSERVATIONS

Roof + Floor Framing

System Description: The original building and first addition structures have a primary roof framing construction type that consists of reinforced concrete joists commonly constructed using clay tile forms that remained a part of the roof framing system after construction. This method was common in the 1950s, and it allows for ceiling finishes to be secured to the clay tile forms and concrete joists to create a flat ceiling plane. As such, many of these roof and floor framing systems are commonly only visible in mechanical and storage rooms. Riverside Elementary is no exception.

The 2002 building addition is constructed of a different combination of materials, predominately steel bar joists to support the roof, and CMU walls. This building addition is in great structural condition and has a long usable life if properly maintained.

System Observations: The only areas where the original building and first addition's floor and roof framing elements were visible was in the basement and some mechanical and storage rooms. The visible floor and roof framing elements all appeared to be in acceptable condition and free from excess deflection (downward sag) and cracking, with one exception: one concrete joist on the second floor framing system that is visible from a mechanical room on the lower floor showed signs of excessive deterioration. As a result, a portion of the reinforcing steel is exposed, which can cause deterioration and rusting of the steel, and would result in a weakening of the concrete joist. As such, this exposed rebar should be repaired.

System Condition: Fair

Exterior Walls

System Description: The exterior walls are generally constructed of reinforced concrete, steel columns, and CMU. The majority of the walls are covered with a non-load-bearing stone and brick façade.



Riverside Elementary School



Exposed Rebar in Joint



Missing Mortar in Stone at Joint



Missing Mortar in Stone at Joint



Missing mortar in stone at joint



Missing mortar in stone at joint



Crack in floor of boys' restroom



Cracks in wall of upper level

System Observations: The structural steel columns and concrete load-bearing walls supporting the façade, roof framing, and floor framing appear to be performing adequately as evidenced by the lack of excessive cracks and bowed walls. However, some damage is visible at the north wall where a planned expansion joint exists between the original building and the first addition. The damage includes missing mortar between the stone and brick façade, primarily near the top of this wall. The roof eave also appears slightly disjointed above the missing mortar. The combination of these issues has apparently allowed for excessive moisture to collect inside the wall at this location, as evidenced by the water stains visible from the classrooms on the top floor at this location. It does not appear the existing water damage to the wall is cause for short-term structural concern, but damage will worsen and could cause long-term structural issues if the façade and eave are not repaired and moisture continues to collect within the wall.

System Condition: Fair

Interior Walls

System Description: The load-bearing interior walls appear to be located primarily along the corridor walls and constructed of reinforced concrete and/or masonry.

System Observations: A majority of the interior load-bearing walls appear to be performing adequately as evidenced by the lack of major cracks or bowing sections of wall. However, some of the walls on the upper floor of the 1958 building addition are visibly cracking. Not all of these walls are load-bearing, but the largest cracks are seen in the boys' restroom and staff offices on the upper floor of the northwest corner of the building. The cracks are typically diagonal and no more than 1/16" to 1/4" wide in most locations. The cracks are accentuated where tile covers the floors or walls. However, based on the size, location, and shape of the cracks, no major short-term structural issues are evident. It appears the cracks have resulted from either normal temperature changes in the walls through the years or from subtle long-term settlement (referred to as creep) of the concrete floor framing system. The cracks should be repaired and monitored as listed in the recommendations.

Additionally, sealant is missing from the planned expansion joints in the interior walls between the original building and first addition.

System Condition: Poor

Exterior Retaining Walls

System Description: The building is placed on a slope, which allowed for the original design to include entrances from exterior grade into different levels of the building. In addition, this required the soil around some of the entrances to be retained with segmental block retaining wall.

System Observations: The retaining wall construction dates are unknown, but it appears multiple retaining walls are beginning to fail and will require repairs, reinforcements, or replacement in the near future. Segmental retaining walls do not typically have a long lifespan, with some lasting only 10-20 years before showing signs of disrepair. However, if properly designed for the retained soil properties, segmental retaining walls can last much longer.

System Condition: Poor

Foundation

System Description: The building is supported on a shallow foundation system constructed of cast-in-place reinforced concrete. The foundation system includes a concrete foundation wall that rests on a continuous concrete strip footing, the bottom of which is likely 4 to 5 feet below the lowest finished floor elevation.

System Observations: The foundation appears to be performing adequately, as there is no visible evidence of excessive or differential settlement.

System Condition: Good

RECOMMENDATIONS

Roof + Floor Framing

Patch the exposed reinforcing steel with grout.

Exterior Walls

The damaged brick and stone façade at the expansion joint between the original building and 1958 addition should be repaired to prevent future moisture intrusion and water damage in the exterior walls on the upper level. The missing sealant in the expansion joint at the interior corridor walls at this location should also be replaced.

Interior Walls

The cracks in the walls of the upper level shall be repaired and monitored on a quarterly basis. Photo documentation by school maintenance staff should be recorded to determine if cracks return. If cracks return, an in-depth structural investigation may be required.

Exterior Retaining Walls

The exterior foundation walls that are showing signs of failure should be repaired or replaced in the near future, likely within 2 to 4 years.

Foundation

No repairs or reinforcements needed at this time.



Missing sealant in joint



Damaged retaining wall



Damaged retaining wall

STRUCTURAL SYSTEM CONDITIONS PRIORITY TABLE

	1	2	3	4	COST
Repair missing sealants and damaged mortar joints in the north exterior wall and interior corridor walls at the expansion joint between the original building and 1958 addition	●				\$1,000
Patch and repair cracks in the walls of the upper level; monitor cracks quarterly	●				\$10,000
Repair or replace failing retaining walls.		●			\$30,000



Partially blocked path to exterior exit door



Wired glass in corridor door systems and sidelights



Noncompliant handrails and guards on stairways



Fire alarm control panels

PHYSICAL CONDITIONS

LIFE SAFETY CONDITIONS

Review of life safety, egress, and potential code deficiencies as discovered during field observation. Also includes conditions of the fire alarm system.

OBSERVATIONS

General

Some areas of the building are protected by an automatic sprinkler system. These areas include the basement, the 1958 classroom addition, the 2003 gymnasium addition and the 2016 entrance and school office addition. There are 1-hour rated fire doors separating the 2003 addition, the 2016 addition and the elevator lobby from the rest of the building. Current building codes require an automatic sprinkler system throughout all Educational Group E occupancies with fire areas greater than 12,000 square feet.

The building appears to have adequate egress width, number of exits, and paths of egress travel. The south exit from the new gymnasium passes through a vestibule to an exterior exit door. At the time of observation, the vestibule was used as a storage room and the path to the exterior exit door was partially blocked.

Current building codes do not permit traditional wired glass in hazardous locations such as doors and sidelights. Existing corridor door systems have wired glass in doors and sidelights.

The two older stairways do not have guards and handrails at compliant heights. Guards do not comply with the opening limitation of four inches.

Fire Alarm System

System Description: The school is currently utilizing two separate fire alarm panels. The first panel appears to have been installed to monitor the original building. It is an older fire alarm panel composed of an EST LSS4/36 conventional control panel with a Radionics panel added on. Another panel was added with the building addition and consists of an EST3 panel. The systems monitor the water flow of the fire sprinkler systems, and in the event that one of the sprinkler heads is activated, the fire alarm system then initiates notification devices to alert occupants. The system is also activated by manual pull stations located near exits and smoke/heat detectors placed in corridors and selected rooms. Notification devices, such as horn strobes, are located in corridors and the gymnasium.

System Observations: The systems appear to be in good condition and are tested annually by Trans Alarm, Inc. It was unclear if the two systems are able to interface with each other.

System Condition: Good

Emergency Egress Lighting

System Description: The facility relies on emergency ballasts in its light fixtures for egress lighting in corridors, as well as wall-mounted stand-alone emergency lights in the gymnasium.

System Observations: The emergency lighting appears to be adequate for the facility.

System Condition: Good

RECOMMENDATIONS

General

Expand the automatic sprinkler system throughout the building, or construct two hour rated fire barriers which separate the building into fire areas of less than 12,000 square feet.

Clear stored items from the gymnasium exit vestibule and install signage instructing building users to keep the path of egress travel clear at all times.

Replace wired glass with safety glass in doors and sidelights.

Modify or replace handrails and guards at all stairways to meet code requirements.

Fire Alarm System

The systems were in good working order but having two separate fire alarms systems can cause issues. The entire building should be notified in the event of a fire and this may not be possible with the two systems. It is recommended that the two fire alarm systems be replaced by a single fire alarm system.

Emergency Egress Lighting

The emergency lighting should be tested periodically to ensure that the fixtures and batteries are still working. Emergency ballasts and emergency lights should then be replaced or repaired as needed.



Typical fire alarm notification device

LIFE SAFETY CONDITIONS PRIORITY TABLE

	1	2	3	4	COST
Expand the automatic sprinkler system throughout the building, or construct two hour rated fire barriers which separate the building into fire areas of less than 12,000 square feet.	●				\$190,825
Combine two existing fire alarm systems into one		●			\$15,000



3" elevation difference in door stoop



Cracking and a handrail in the center rather than on the sides on concrete stairway



Cracking on concrete stairway



Non accessible play area

PHYSICAL CONDITIONS

ACCESSIBILITY CONDITIONS

Review of the existing structure for conformance with the 2015 Minnesota Accessibility Code and the 2010 Americans with Disabilities Act (ADA) Standards for Accessible Design. Site parking, access into the building and entrances, accessibility routes inside of building, and restroom accessibility were considered.

SITE OBSERVATIONS

Site, Parking, Entrances and Play Areas

The building has three entrances which are equipped with automatic doors with control switches. The north side entrance connects with the staff parking lot and has one designated accessible parking space with an access aisle and signage. The path of travel from the parking space to the door stoop appears to be compliant, but there is an elevation difference of approximately one inch at the stoop. This prevents the entrance from complying with the 2010 Americans with Disabilities Act (ADA) Standards for Accessible Design and the 2015 Minnesota Accessibility Code.

The two south side entrances connect with the visitor parking lot which has one designated accessible parking space with an access aisle and signage. The striping is very faded and the curb cut at the sidewalk is not compliant. There is an elevation difference of approximately three inches at the door stoop. Other locations along the path of travel to the office entrance have elevation differences which make them noncompliant.

The stoops at the doors which connect with the bituminous play area on the east side of the building have noncompliant elevation differences.

The concrete stairway leading from the bituminous play area to the visitor parking lot has severe cracking and a handrail in the center rather than on the sides.

Currently the existing play areas on site are not fully accessible. If alterations are made in the future, ADA guidelines for accessible play areas would apply. Depending on the scope of the modifications, the altered areas may need to meet requirements for ground surface conditions, accessible routes to and within play areas, accessible ground level and elevated play components, and accessible routes connecting play components. Normal maintenance activities are not considered alterations.

Classrooms

Accessibility codes require that operable parts on accessible doors have a shape that is easy to grasp with one hand and does not require tight grasping, pinching or twisting of the wrist to operate. Most classroom doors currently have noncompliant locksets with knob hardware.

Accessible sinks are required to have a clear floor space of 30" x 48" positioned for forward approach to the sink. The clear floor space includes knee and toe clearance under the sink. Exposed pipes must be insulated or otherwise configured to protect against contact. Classrooms currently have sinks with cabinets below, rather than clear floor space.

Accessibility codes require that doors have 18 inches of maneuvering clearance on the pull side. The two classrooms on the south side have entrance doors and restroom doors which do not meet this requirement.

Restrooms

The entrance vestibules and doors at the older multiuse restrooms do not have the required maneuvering clearances. Some single use restroom doors do not have the required clear width or maneuvering clearances.

The doors at the older single use restrooms have noncompliant locksets with knob hardware.

The older single use restrooms do not comply with clearance requirements and do not have grab bars and other compliant accessories.

The older multiuse restrooms do not have wheelchair accessible or ambulatory accessible compartments. The larger compartments have grab bars and other accessories which do not comply with size, mounting height and location requirements. Some compartments have adjacent equipment which does not allow the proper use of the compartment door.

Some restroom accessories do not appear to comply with mounting height and location requirements.

Other Elements

Older office and storage room doors currently have noncompliant locksets with knob hardware.

None of the existing lockers in the corridors appear to comply with requirements for coat hook and shelf mounting heights.

RECOMMENDATIONS

Site, Parking, Entrances and Play Areas

Restripe the accessible parking spaces in both parking lots.

Reconfigure the paths of travel which have noncompliant elevation differences, including concrete stoops and sidewalks, as required to meet accessibility standards.

Replace the concrete stairway on the south side.

Classrooms

Replace noncompliant knob hardware with handle locksets on classroom doors.

Replace sinks and casework in classrooms as required to provide clear floor space and knee and toe clearance under the sinks. Install insulation on exposed pipes.

Reconfigure areas around doors to provide 18 inches of maneuvering clearance on the pull side of the doors.

Restrooms

Reconfigure the entrance vestibules and doors at the older restrooms as required to meet requirements for maneuvering clearances.

Replace noncompliant knob hardware with handle locksets at the older single use restrooms.

Reconfigure the older single use restrooms as required for clearances and accessories.

Reconfigure the older multiuse restrooms to include one wheelchair accessible toilet compartment and one ambulatory accessible toilet compartment in each restroom.



Non accessible classroom sink



Limited maneuvering clearance on the pull side on the south side classroom doors



Limited maneuvering clearance on the pull side on the restroom doors



Limited maneuvering clearance in restroom entrance vestibules



No wheelchair or ambulatory accessible compartments in restroom



Noncompliant accessories, mounting heights and locations

Verify mounting heights and locations of all restroom accessories and make adjustments as required to meet accessibility standards.

Other Elements

Replace all noncompliant knob hardware with handle locksets.

Install accessible lockers or customize existing lockers such that at least five percent of all lockers are accessible.

ACCESSIBILITY CONDITIONS PRIORITY TABLE

Reconstruct the southern concrete stairs leading to the bituminous playground with an ADA accessible ramp and provide Provide ADA compliant access to southern door slab connecting to southern parking lot

1	2	3	4	COST
	●			\$15,450

PHYSICAL CONDITIONS

PLUMBING CONDITIONS

Review of the existing building plumbing systems including water service, water fountains, sinks, toilets, and showers.

OBSERVATIONS

Domestic Water

System Description: A 3" domestic water service is provided by the City of Jackson and enters the building in the water room 190C. All water appears to pass through the water softening system prior to distribution. Domestic water is primarily heated by one 197 MBH indirect gas fired hot water heaters located in the mechanical maintenance room. Supplementary heat is provided by an 80 MBH direct gas fired hot water heater located in the basement of area A which was installed on 11/11/2014.

System Observations:

Domestic cold water, domestic hot water, and domestic hot water recirculation lines have fiber glass insulation on the pipe. Typically closed cell insulation is recommended on the cold water lines.

Area B: All of the eyewash stations should be brought up to code. Each eyewash station should have a thermostatic mixing valve right next to the eyewash by code. The current design only have cold water going to the eyewash station.

Area A and B: The sinks located in the classrooms were in rough condition. The fixtures has stains and rust in the bowls as well as faucets. The faucets leaked, didn't work, or had very low flow due to blockage. Replacing the sinks and faucets is recommended to ensure proper flow through each fixture.

Area A, B, and C: The fixtures in the restrooms were in poor condition. The fixtures have stains and some are even cracked. The chrome finish on the flush valves were wore off. Various urinals and lavatories weren't secure to the wall. One flush valve was broken and a different type of flush valve was installed in its place. Exposed wire for the flush valve runs down the wall behind the fixture. Replacing the fixtures with high efficiency low water flush valves in the restrooms and verifying they are secure to the wall is recommended.

The electric water coolers should be fixed and secured to the wall. They are currently loose from the wall and move when lifted. It is recommended to make sure the screws are tightened and the water cooler is secured to the wall. Also fix the broken handles to make sure the electric water cooler operates as design intended.

Area C and D: The 2016 addition has an overflow scupper for roof drainage as well as the overflow scupper location off of the vestibule in the 2003 addition is missing a splash block. The location on the ground where this water comes off the roof has begun to erode. It is recommended to place a splash block below where the water would hit to help eliminate the soil erosion.

General: The faucets are missing aerators. Reinstalling the aerators on the faucets help ensure a proper flow of water coming out of the faucet while reduces the water usage.

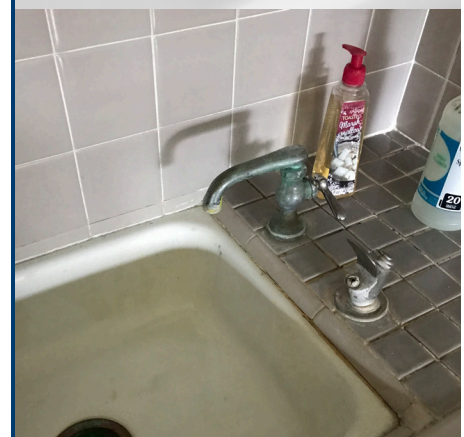
The lavatories in the building are missing pipe wrap. Pipe wrap should be used below the lavatories to meet ADA needs.



Uninsulated domestic water lines



Eyewash station with no thermostatic mixing valve



Poor condition of sinks in classrooms



Stained fixture due to leaking flush valve



Fixtures Loose from Wall



Replaced flush valve with exposed wire



Broken electric water cooler



Splash block missing on roof drainage

System Condition: Overall the plumbing conditions in the building was fair. There are some changes that is recommended to improve the systems efficiency. Verifying all domestic water piping is insulated is recommended. There are various areas where the insulation is missing or damaged from the pipe. Insulating the pipe helps decreases the amount of losses in the system. There are various locations throughout the building that are lacking insulation as it may have been damaged and never replaced.

Storm Water/Roof Drains

System Description: The building has a variety of roof drainage systems for different areas of the building. For the original portion of the building, 1958 addition, and 2003 addition, a primary roof drain system with overflow scuppers is present. The primary roof drainage is collected internally and then piped out below grade to the nearest storm sewer for all of the areas with the flat roof. The 2016 addition doesn't have any internal roof drainage but rather an overflow scupper that is piped down the side of the building and spilled out on grade.

System Observations: During the site visit, there were large amounts of standing water on the roof that wasn't getting directed to the primary or secondary draining system.

System Condition: Fair

Natural Gas Piping

System Description: There is a 4" interruptible gas and 1" firm gas service that is located outside of the boiler room. The backup fuel system for the boilers is fuel oil. The fuel oil storage tank is located right next to the natural gas meters.

System Observations: All natural gas piping appeared in good condition.

System Condition: Good

RECOMMENDATIONS

Add pipe wrap to lavatories.

Add thermostatic mixing valve to all eyewash stations.

Replace sinks in restrooms.

Replace missing/damaged domestic water piping insulation.

Install aerators on all faucets in the building.

Add downspouts and splash blocks to overflow scuppers that are missing.

Replace galvanized domestic water lines.

Replace sinks in classrooms.

Replace urinals in men's restrooms.

Replace water closets in restrooms.



Missing aerators on faucets



Pipe wrap missing below lavatories

PLUMBING CONDITIONS SYSTEM PRIORITY TABLE

	1	2	3	4	COST
Add pipe wrap to lavatories	●				\$7,000
Add thermostatic mixing valve to all eyewash stations	●				\$6,000
Replace sinks in restrooms		●			\$10,000
Replace missing/damaged domestic water piping insulation		●			\$40,000
Install aerators on all faucets in the building		●			\$3,000
Add downspouts and splash blocks to overflow scuppers that are missing		●			\$9,000
Replace galvanized domestic water lines		●			\$200,000
Replace sinks in classrooms			●		\$24,000
Replace urinals in men's restrooms			●		\$12,000
Replace water closets in restrooms			●		\$16,000
Fix broken electric water coolers and secure to wall			●		\$4,000



Dirty and rusted exhaust grilles



Transfer grille in door is covered



Refrigerant piping insulation is missing



Fin tube cover is missing

PHYSICAL CONDITIONS

MECHANICAL CONDITIONS

Review of existing mechanical systems and their components including verification that HVAC systems, as plumbing fixture counts, water piping, and water supply meet current building codes.

OBSERVATIONS

Heating Plant

System Description: Two steam boilers heat the entire building. The main boiler (#1) has a capacity of 3,190 MBH while the secondary boiler (#2) capacity is at 113 MBH. These boilers run at roughly 70% efficiency. Newer hot water condensing boilers run at 90%-94% efficiency. The steam travels to the original building and the 1958 addition. The newer 2003 addition has two heat exchangers located in the boiler room that convert the energy from the steam over to heat the hot water system. There are two inline pumps that send the hot water to various pieces of equipment throughout the 2003 addition. These items include:

AHU – Air Handling Unit

RTU – Roof Top Unit

VAV – Variable Air Volume Units with Reheat Coil

FCU – Fan Coil Unit

UH – Unit Heater

CUH – Cabinet Unit Heater

UV – Unit Ventilator

MAU – Makeup Air Unit

Area D

The 2016 addition for the new front offices is served by a single zone gas fired RTU with a built in condenser for DX cooling. The unit appeared to be in good shape and operating properly.

Area C

The 2003 addition along with some various rooms located right next to the addition gets its air from three RTU's located on the roof of the newer gymnasium. All three of these RTU's have a hot water coil for the heating source and no cooling coil present but there is a spot in the unit directly after the heating coil for a future cooling coil. RTU-1 serves the existing gymnasium, RTU-2 serves the new gymnasium, and RTU-3 serves the various classrooms and offices on the first floor around the two gymnasiums. RTU-1 and RTU-2 are a single zone units with all of the heating done inside the RTU. RTU-3 has a VAV system with hot water reheat coils downstream of the RTU which provides zoning. All three RTU's are able to economize but do not have energy recovery wheels. These three RTU's also have CO2 sensors in the space to help monitor those levels relative to the amount of outside air needed to bring in.

Area A

The 1958 three story addition contains all classrooms. The basement floor is served by one single zone AHU. This unit heats the space from the steam coil and doesn't have any capability of cooling at the unit. This unit has a ducted supply while the return is directly

through the spaces back to the unit. The second and third floors of the addition all have the same layout for the classrooms. Each classroom contains one unit ventilator and fin tub radiation for its heat source. Unit Ventilators do not control the amount of outside air needed relative to the CO2 levels for the space and usually under ventilate the space.

Area A and B

The original portion of the building is made up of unit ventilators that provide the fresh air for each space. Unit Ventilators do not control the amount of outside air needed relative to CO2 levels for the space and usually under ventilate the space. Each of the classrooms in this area of the building have one steam heat unit ventilator and steam fin tube radiation along the exterior wall. Various unit ventilators have been replaced over the years to a new unit ventilator that has a steam coil as well as a DX cooling coil. Condensers for these unit ventilators are located on the roof or ground directly outside the unit.

System Observations: *General:* Verify all exterior louvers seals are in good shape. Any damaged seal should be fixed to help ensure no water sneaks into the walls of the building. Louvers should be free of any debris, rust, and not dented or smashed.

General

No RTU or AHU was found to have any form of vibration isolation present on the units. Being that the units are on the roof or suspended from the ceiling, it is highly recommended to install vibration isolation springs below the unit to ensure no vibration from the unit can transmit into the floor of the building.

The building is a mixture of pneumatic and digital controls. Converting the building over to having digital controls and putting the entire building on a building management system is recommended.

It is recommended to change convert the building over from steam to hot water. A large portion of the building is already hot water and converting the rest of the building would help make the overall efficiency of the building increase. A steam boiler runs at roughly 70% efficiency where a new condensing hot water boiler runs roughly at 93% efficiency.

Area A

The exhaust fan for the bathroom group in the 1958 addition is noisy and rattling. Standing within the restrooms below the fan you can feel the vibration caused from the fan. It is recommended to replace the exhaust fan to prevent the vibration and noise coming back through the ductwork.

The AHU in the basement of the 1958 addition is lacking a proper return system. Each of the three classrooms that it supplies air to, there is no way for the air to return out of the classrooms when the door is shut. The return air once in the hallway has to travel through a set of doors that have louvers in them to get back to the unit. If any door is closed prior to the louvered door, airflow is blocked from returning back to the unit. Each space that has supply should also have a ducted return back to the unit. The insulation is falling off of the AHU as well.

The outside door in the basement of the 1958 addition should have a form of secondary heat by the entrance. The overhead AHU won't keep up during the cold months when the door is used often. Adding a CUH helps keep the space warmer when the door is opened.

Area A and B

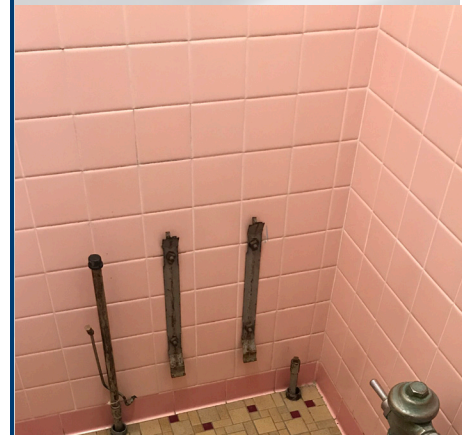
A general note for return/exhaust grilles is that they are dirty and rusted. They should be cleaned if dirty and replaced if rusted to ensure that proper airflow is going through the diffuser.



Dryer vent should be ducted to exterior



Covered relief dampers



Exposed brackets and piping

The insulation on the steam system is lacking. Various spots around the building the insulation is missing and should be replaced especially if the pipe is at elevations where students can accidentally touch the pipe. Not only is adding insulation going to help make the system more efficient but also safer as the pipe can get extremely warm. All steam pipe and fittings should be insulated.

Area A and B

The classrooms that have an original unit ventilator that doesn't have cooling capabilities lack any form of relief air. A large majority of the classrooms have the transfer grille that is located in the doors removed which traps the air in the classroom. The unit ventilator will bring a certain amount of outside air into the space. The air already in the space has to go somewhere when more air is added. The rooms that don't have the louver to relieve the air to the hallway become pressurized which can pose problems. ISG recommends that all classrooms have louvers or transfer grilles to allow for the air to leave the classrooms. Once in the hallway a relief damper should be installed to allow for the air to leave the building. This air flow issue has been resolved in the classrooms with the newer unit ventilator as the relief dampers were placed directly in each classroom.

There were a few pneumatic thermostats that were leaking air and should be replaced.

Area B

The insulation on the exterior refrigerant piping from the unit ventilator to the condenser is in poor condition. There are rips and the insulation is sagging or completely deteriorated from the pipe. It is recommended to replace the insulation with new insulation to help with efficiencies of the system.

Girl's restroom B109 is missing the fin tube radiation cover on the wall. This cover should be fixed and installed to make sure no exposed coils are on the wall as these can get warm when operating.

The dryer vent located in mechanical/maintenance B110 should be properly vented out the exterior of the building.

The indirect fire water heater located in the mechanical/maintenance room B110 doesn't have any form of fresh air dedicated to the space. Not only should every room have a dedicated outside air source, it is especially critical when you have the indirect fire water heater in the space. This is because the air that is exhausted from the combustion cycle of the water heater has to be made up from the air in the space and that portion is lacking.

The sidewall exhaust for the kitchen hood is too close to the inlet of the makeup air unit. By code any fresh air intake needs to be 10ft away from any exhaust source.

The cafeteria has no source of fresh air to the space. The only source of heat for the space is from fin tube radiation on the exterior wall. Only source of air movement is in the kitchen for the hood and makeup air unit. The actual cafeteria has no air dedicated to the space. Code requires a fresh air source to space. ISG recommends adding air movement to the space to ensure CO2 levels are in check.

The office in the kitchen has no source of air movement. Code require a certain amount of outside air dedicated to an occupied space. Adding air to the space is recommended to allow the space to be used as an office.

Area C: The RTU's that had both heating and future cooling capabilities had the coil setup of a hot water coil followed by a chilled water coil. It would be recommended to reverse the coil order to a chilled water coil then a hot water coil when cooling is added to the unit. This would allow for better dehumidification in the system.

Adding energy recovery to the roof top units would be recommended. Instead of

exhaust the tempered air from the space directly out of the building, adding energy recovery to help precondition the outside air would help make the system very efficient.

The kindergarten rooms have the gravity relief dampers that are closed off to the space. The film should be removed from the ductwork to make sure the damper can work properly. Verify the backdraft damper is working properly to keep the outside air from coming down into the space.

Toilet room C211 has some old fin tube radiation that was removed but the brackets were left on the wall. Remove the brackets to make sure no student will be hurt from the sharp metal.

The roof top units aren't separated far enough apart. The inlet of the outside air intake is too close to the exhaust of another unit. Code requires them to be 10ft apart to help make sure the stinky exhaust air doesn't get introduced back into the building.

System Condition: Fair to poor

RECOMMENDATIONS

Add dedicated source of fresh air to Cafeteria.

Relocate kitchen MAU to be 10 feet away from sidewall exhaust

Add dedicated source of fresh air to office in Kitchen.

Add fin tube radiation cover to Girls restroom B109.

Remove brackets/pipe in toilet room C211.

Duct dryer vent to building exterior.

Install fresh air damper for mechanical/maintenance room.

Update controls to eliminate pneumatic..

Convert steam boilers over to hot water boilers.

Replace exhaust fans in Area A restrooms.

Reinsulate all exposed steam lines in building.

Install relief dampers and transfer grilles in Area A and B classrooms.

Replace leaking pneumatic thermostats.

Replace missing exterior refrigerant piping insulation.

Change heating coil and cooling coil order in existing RTU's to allow for dehumidification.

Replace unit ventilators, update HVAC equipment to hot water with dehumidification (also meeting ASHRAE 62.1).

Install energy recovery to roof top units.

Remove film on relief dampers and verify backdraft dampers are working properly.

Install a new cabinet unit heater in basement of Area A.

Clean return/exhaust grilles and replace rusted/damaged grilles.

MECHANICAL CONDITIONS SYSTEM PRIORITY TABLE

	1	2	3	4	COST
Add dedicated source of fresh air to Cafeteria	●				\$30,000
Relocate kitchen MAU to be 10 feet away from sidewall exhaust	●				\$2,500
Add dedicated source of fresh air to Office in Kitchen	●				\$2,000
Add fin tube radiation cover to girls restroom B109	●				\$600
Remove brackets/pipe in toilet room C211	●				\$1,500
Duct dryer vent to exterior	●				\$750
Install fresh air damper for mechanical/maintenance room		●			\$4,000
Update controls to eliminate pneumatic		●			\$140,000
Convert steam boilers over to hot water boilers		●			\$400,000
Replace exhaust fans in Area A restrooms		●			\$40,000
New air handling unit in basement of Area A with proper return ductwork		●			\$150,000
Reinsulate all exposed steam lines in building		●			\$20,000
Install relief dampers and transfer grilles in Area A and B classrooms		●			\$45,000
Replace leaking pneumatic thermostats		●			\$3,500
Replace missing exterior refrigerant piping insulation		●			\$8,500
Change heating coil and cooling coil order in existing RTU's to allow for dehumidification		●			\$8,000
Replace unit ventilators, update HVAC equipment to hot water with dehumidification (also meeting ASHRAE 62.1)		●			\$1,600,000
Add energy recovery to roof top units		●			\$250,000
Remove film on relief dampers and verify backdraft dampers are working properly		●			\$2,000
New cabinet unit heater in basement of Area A			●		\$3,000
Clean return/exhaust grilles and replace rusted/damaged grilles				●	\$6,000

PHYSICAL CONDITIONS

ELECTRICAL CONDITIONS

Review of the existing building electrical systems including electrical service, distribution, and lighting. This section also documents technology systems and components including the security system and others as applicable.

OBSERVATIONS

Service

System Description: The building has a 1200-amp, 208Y/120 volt, 3-phase, 4-wire electrical service that is fed from a pad-mounted transformer on the south side of the building.

System Observations: The electrical service seems to be serving the building well, and is sized appropriately for the facility.

System Condition: Good

Energy Usage

System Observations:

Utility data for gas and electricity over the last three years was analyzed to see if the facility's energy consumption has been consistent, and also how the School compares to other schools in the state. Looking at the Monthly Per Square Foot Energy Usage chart, the School has been pretty consistent over the last three years. Using the 2015-2016 data as a baseline, the School saw an increase in energy usage during the month of December, and a large drop in February. The overall year of 2016-2017 shows a slight decrease of 1.07 kBTU/SF, which is a reduction of about 2% compared to 2015-2016. The deviation is quite small and could be attributed to some warmer winter months in 2016-2017, as a few of the schools analyzed in this study showed similar results. A baseline can be established with these numbers to compare future energy usage. If there are large discrepancies with that baseline and future data, it can reveal if equipment is failing or if other issues are occurring.

The utility data was also averaged out over an entire year. Again, 2015-2016 was used as a baseline to compare the 2016-2017 data. The data can be seen in the following table. The data can also be compared to other schools in the state's public B3 Benchmarking data. The data is averaged per square foot so schools can be compared without the total size of the school having a large effect. Only the most recent year's data is compared.

The 54.89 total kBTU per square foot per year shown in the following table would put the facility at the 56th spot on the B3 Benchmarking List of Public Schools ranked by EUI (Energy Use Intensity). It would fall in the category of <100 kBTU/SF/yr, which is the top category. The School could still implement various mechanical and electrical improvements listed in this report to improve the facility's energy efficiency.

Electrical Gear

System Description: The facility's electrical service terminates in a 1200-amp rated main switchboard in the storage room off the gymnasium. The switchboard then feeds equipment and branch panels throughout the facility.



Main electrical gear



Distribution switchboard



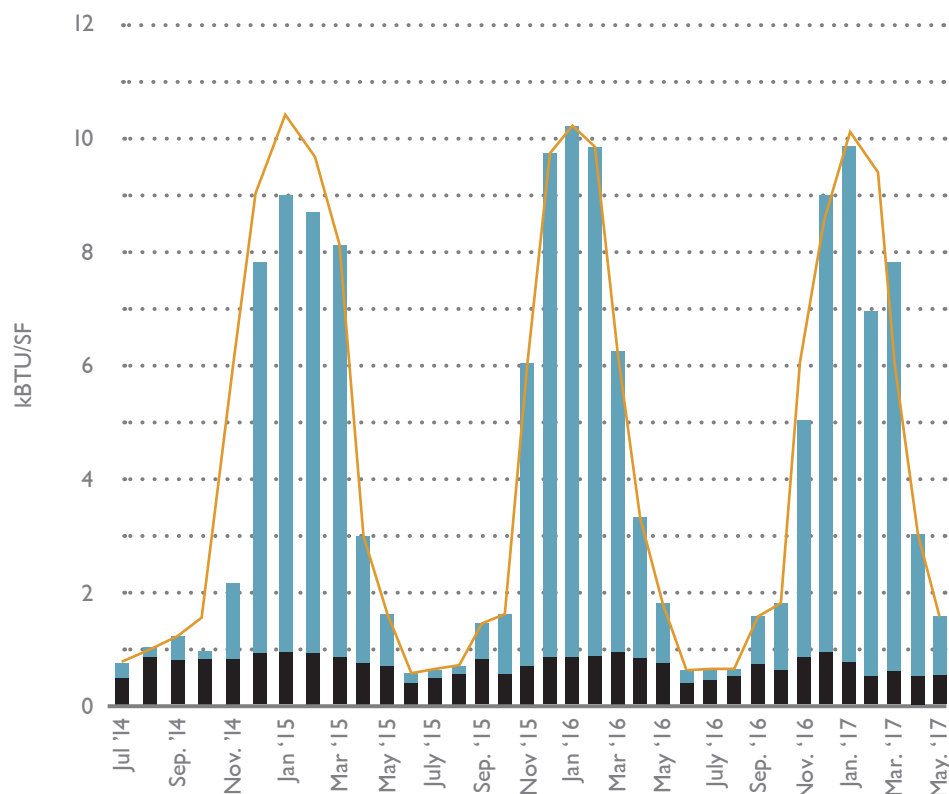
Lighting control panel for gymnasium



Typical corridor lighting



Typical classroom lighting



	KBTU PER SF PER YEAR		
	ACTUAL	BASELINE	CHANGE FROM BASELINE
ELECTRIC	9.88	9.59	-0.29
GAS	38.43	40.65	2.22
TOTAL	48.31	50.24	1.94
% CHANGE	3.85%		

*Based on building square footage of 81,201 SF

System Observations: The main electrical gear was manufactured by Siemens. The electrical service was reconfigured for the 2003 addition, and new electrical gear was installed at that time. The average useful life for this equipment is 40 years, so with proper maintenance, the main gear can potentially last another 25 years at least.

When the equipment was installed, it was also labeled with arc flash hazard warning appropriate for the National Electric Code requirements at the time.

System Condition: Distribution gear (electrical switchboards) - Good
Power + lighting branch panels - Good

Light Fixtures

System Description: The interior lighting for the facility is both recessed and

suspended linear fluorescent T8 fixtures. The lighting is controlled with both manual and automatic means.

The exterior utilizes building-mounted incandescent and LED light fixtures. The exterior lighting appears to be automatically controlled by a photocell to turn on from dusk until dawn.

System Observations: The linear fluorescent fixtures appear to be serving the building well, and light levels are adequate throughout the facility. Classroom lighting is currently only controlled by manual switches. Corridor lighting is controlled through both manual switches and occupancy sensors. A lighting control panel was installed for control of the gym lighting.

The exterior lighting that is currently incandescent should be upgraded to LED. Incandescent bulbs are less efficient and are being phased out by most manufacturers, which will make it more difficult to find replacements.

System Condition Good

Code Compliance

There are no material deficiencies requiring repair or replacement at this time.

RECOMMENDATIONS

Service

The electrical service should continue to serve the facility well. If any building additions or more mechanical cooling is planned, a detailed system analysis should be performed to determine if the existing service has the additional capacity required, or if a larger service will be required.

Electrical Gear

There are no material deficiencies requiring repair or replacement at this time.

Light Fixtures

The existing fluorescent light fixtures are in good condition and should continue to serve the building well, as linear fluorescent T8 lamps are efficient and still widely used and available. The interior lighting controls should be further evaluated to see if the School would benefit from more automatic controls and occupancy sensors to reduce energy consumption and operating costs when spaces are not being used.

If significant modifications are made to the lighting, current energy codes will require that lights automatically turn off when a space is unoccupied, and automatic dimming fixtures be used near windows to adjust based on the natural sunlight coming into a space.



Typical entrance with video door station

PHYSICAL CONDITIONS

SECURITY CONSIDERATIONS

Assessment of existing security equipment installed throughout the building. Review of existing primary entryways into the facility including door locations and visitor access.

OBSERVATIONS

Security Camera System

System Description: The building is outfitted with a CCTV camera system that is part of the security system platform, which includes access control. The main video recording hardware is made up of Intevo components by Kantech. The cameras are analog type manufactured by Bosch.

System Observations: Cameras have been placed in the main corridors and office (see camera coverage map). No cameras have been utilized in the gymnasium or around the exterior of the building.

System Condition: Fair

Access Control System

System Description: The building's access control system is part of an integrated security platform system that combines surveillance cameras with access control. The access control is a Kantech KT-400 platform that utilizes electronic card readers and door position sensors at required entrances. Electronic card readers allow staff members to gain entry when the building is locked without having to use an actual key. Card readers give the administration more flexibility in how they control access to the School by allowing them to place limitations on who can gain access into which area. If a card is lost or stolen, the administration can program the system to remove the lost card's ability to unlock doors, whereas older systems would require them to replace the locks. Door position sensors are also an added benefit of an access control system, as they notify the administration if a door has been propped or forced open.

The School has also implemented the use of a video door station at the main entrance and the kitchen receiving entrance to control access to the building. Anyone attempting to enter the facility must first press a call button to alert staff that someone is at the door. An intercom and camera are incorporated into the door station to allow staff to identify anyone at the door before allowing them access to the building. Visitors at the main entrance are then required to enter the building through the main office before gaining access to the rest of the School. Visitors at the receiving entrance can be identified, then allowed in to make deliveries.

System Observations: All but one building entrance is currently monitored by the access control system.

System Condition: Good

RECOMMENDATIONS

Security Camera System

Additional cameras could be installed on the exterior of the building to provide better security.

Access Control System

Incorporate the remaining entrance into the access control system.



SECURITY CONDITIONS SYSTEM PRIORITY TABLE

	1	2	3	4	COST
Incorporate the remaining entrance (!) into the access control system		●			\$5,000

PROGRAMMING + EDUCATIONAL ADEQUACY



PROGRAMMING + EDUCATIONAL ADEQUACY SPACE UTILIZATION

Review of the existing spaces to determine if area fulfills programming needs and are adequately sized to serve the existing school population per Minnesota Department of Education (MDE) standards.

OBSERVATIONS

Generally speaking, Riverside Elementary is in good condition and adequately sized for the number of students it currently houses. With 430 total students, it offers three sections per grade for Kindergarten through 5th grade. Pre-K programs account for 64 of these students and are spread across the following 3 types of sections:

- Mornings for 3 year olds on Tuesday, Wednesday, and Thursday
- Half day sessions for 4-5 year olds, in both the morning and afternoon Monday through Friday
- Full day sessions for 4-5 year olds, Monday through Friday


Considering the limited time the preschool students occupy the building the current full time equivalent student load is 398 students. As with all schools there are variations in class sizes from year to year. The optimal student capacity for a facility is 90% of its maximum state, in which these fluctuations wouldn't occur. The maximum capacity for Riverside elementary is 471 full time students. Therefore the optimal student capacity for the building is 424 full time students. Currently, with 398 full time equivalent students Riverside proves to be sufficiently sized with a facility efficiency of 94%.

Educational Spaces

Typically, the classrooms in Riverside are slightly undersized per the Minnesota Department of Education standards. Though some of the classrooms have some issues with the existing windows, each is provided with an ample amount of natural lighting. Most classrooms have approximately 20 students which is congruent with what would be expected in rooms their size. Though a respectable amount of technology is present, it varies from classroom to classroom. Within each classroom teacher storage is at a minimum. As a whole, the quantity of classrooms is sufficient. One classroom, currently being used as a flex space, could be repurposed into a general classroom if a spike in enrollment were to occur.

The special educational department is provided with its own space which is beneficial to the 15 students it currently serves. The technology within the space is working well, though some of it (such as the active board) could be better utilized if the room was equipped with better separation between the instructional stations. Currently four stations are shared within one space, resulting in distractions during instruction. As with most building of this vintage, electrical outlets are at a premium.

The current title room is a space that is also shared by up to 7 students at a time. Efforts are made to schedule the room so that only two students at a time are being instructed to minimize distractions. Unfortunately the title room also experiences temperature



swings, and rarely is able to maintain a consistent environment. The lack of natural light adds to the less than ideal space intended for students that need special instruction.

Programmatically, there are some concerns with the Pre-K areas. Due to the various times students are entering and leaving this portion of the building a secure entrance would be beneficial. As with all learning environments daylighting is a beneficial amenity to the students' performance. Unfortunately at this time there is very limited natural light into the space. Generally speaking, the finishes in the Pre-K suite could be updated to meet the needs of the different activities occurring within the space. The restroom are also undersized and make it difficult for staff to monitor and assist students as needed.

The athletic spaces within Riverside are sufficient with a large gymnasium and a smaller multipurpose gymnasium that is also used for adaptive physical education. Storage in both these spaces is needed, however, as instructional space is compromised with an assortment of equipment. Temperature in both spaces is adequate, though ventilation could be improved upon. Due to a roof leak the floor in one spot has experienced some warping which should be addressed.

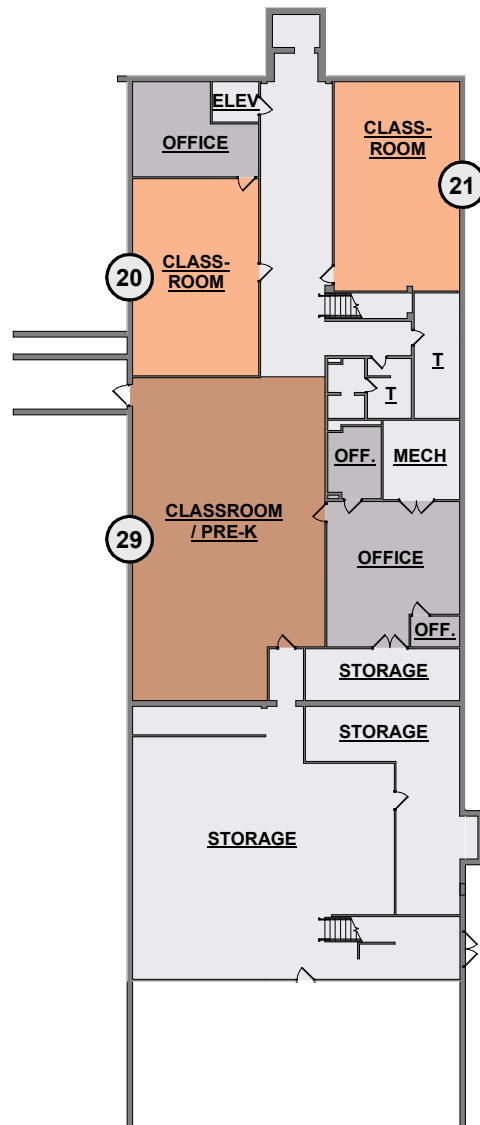
Administrative Spaces

A newer administrative addition provides offices and a secure entrance for the building.

SUMMARY

In conclusion, Riverside Elementary offers the majority of its students adequate spaces and amenities to learn. Interior improvements within the Pre-K space and a secure entrance would enhance the educational potential and security for the younger students. Additional sound separation better temperature controls within the special education classrooms could be addressed to create an environment with less distractions and better suited for the learners being served. For a building of its size and age, Riverside offers the space to nimbly accommodate the ebbs and flows of enrollment and educational programming.

LOWER LEVEL



FIRST FLOOR



SECOND FLOOR



Jackson County Central Public Schools							Project 17-20569				
Riverside Elementary School							January 2, 2018				
Grade Configuration:		Pre-K - 5th Grade									
Total Student Enrollment		430									
Full Day Student Equivalent		398									
Staff		38									
							Recommended				Current Max. Student Capacity
Description	Notes		Room #	Usage	Shared Space	Subtotal	Low Range	High Range	Avg. Student Capacity	Student Capacity Range	
School Learning Spaces											
Classrooms											
Early Childhood	Oversized		A002	Full time	No	1,812	1,000	1,400	20	15-25	29
Kindergarten	Undersized		C201	Full time	No	1,148	1,200	1,500	22	15-25	18
Kindergarten			C208	Full time	No	1,464	1,200	1,500	22	15-25	24
Kindergarten			C214	Full time	No	1,409	1,200	1,500	22	15-25	23
Classroom	Undersized		A005	Full time	No	763	850	950	24	20-28	20
Classroom	Undersized		A006	Full time	No	806	850	950	24	20-28	21
1st Grade Classroom	Undersized		B101	Full time	No	817	850	950	24	20-28	21
1st Grade Classroom	Undersized		B105	Full time	No	817	850	950	24	20-28	21
1st Grade Classroom	Undersized		B107	Full time	No	816	850	950	24	20-28	21
2nd Grade Classroom	Undersized		A102	Full time	No	820	850	950	24	20-28	21
2nd Grade Classroom	Undersized		A103	Full time	No	827	850	950	24	20-28	21
2nd Grade Classroom	Undersized		A106	Full time	No	819	850	950	24	20-28	21
3rd Grade Classroom	Undersized		A202	Full time	No	820	850	950	24	20-28	21
3rd Grade Classroom	Undersized		A203	Full time	No	828	850	950	24	20-28	21
3rd Grade Classroom	Undersized		A209	Full time	No	802	850	950	24	20-28	21
4th Grade Classroom	Undersized		A211	Full time	No	804	850	950	24	20-28	21
4th Grade Classroom	Undersized		B201	Full time	No	817	850	950	24	20-28	21
4th Grade Classroom	Undersized		B202	Full time	No	826	850	950	24	20-28	21
5th Grade Classroom	Undersized		B204	Full time	No	817	850	950	24	20-28	21
5th Grade Classroom	Undersized		B205	Full time	No	825	850	950	24	20-28	21
5th Grade Classroom	Undersized		B208	Full time	No	816	850	950	24	20-28	21
Flex Classroom	Undersized		B106	Full time	No	825	850	950	24	20-28	21
Subtotal (Classrooms)						20,498	19,900	23,000	512		471
Special Education											
Special Education Classroom/Reading	Undersized		B215	Full time	No	111	450	450	6	5-8	1
Special Educatoin Classroom/Lab			A110	Full time	No	802	800	1,200	6	5-8	5
Special Educatoin Classroom/Lab			A112	Full time	No	804	800	1,200	6	5-8	5
Special Educatoin Classroom/Lab			A205	Full time	No	819	800	1,200	6	5-8	5
Special Educatoin Classroom/Lab			B102	Full time	No	826	800	1,200	6	5-8	5
Special Educatoin Classroom/Lab			B121	Full time	No	879	800	1,200	6	5-8	6
Special Educatoin Classroom/Lab	Title 1		C203	Full time	No	830	800	1,200	6	5-8	5
Subtotal (Special Ed.)						5,071	5,250	7,650	45		33
Common Spaces											
Small Group/Conference/Office - Speech	Oversized		B225	Full time	No	276	150	200	4	4	6
Small Group/Conference/Office	Oversized		C111	Full time	No	339	150	200	4	4	7
Small Group/Conference/Office	Undersized		C112	Full time	No	102	150	200	4	4	2
Large Group - Team Learning Areas	Facility Deficient			Full time	No		1,200	1,800	128	150	0
Subtotal (Common Spaces)						102	1,350	2,000	132		2
Library / Media Center											
Entrance / Circ / Distribution			B213			600	600	600	n/a		
Seating / Stacks Comp / Ref (8-10% stud. x 35SF)	Undersized		B213	Full time	No	1,021	1,114	1,393	n/a		
Librarian Office	Facility Deficient			Full time	No		150	150	n/a		
Small Group / Conf / Office - Reading Corps.	Facility Deficient			Full time	No		150	200	n/a		
Multimedia Production	Facility Deficient			Full time	No		100	100	n/a		
Classroom	Facility Deficient			Full time	No		800	800	n/a		
Workroom / Storage	Facility Deficient			Full time	No		400	600	n/a		
Professional Library	Facility Deficient			Full time	No		200	200	n/a		
Subtotal (Library / Media Center)						1,621	3,514	4,043			
Technology											
Computer Lab	Undersized		B212	Full time	No	812	1,000	1,400	25	25	16
Control and Headrooms	Facility Deficient			Full time	No		640	740	n/a		
Copy Center	Facility Deficient			Full time	No		500	800	n/a		
ITV/Distance Learning	Facility Deficient			Full time	No		900	900	n/a		
TV/Video Studio	Facility Deficient			Full time	No		1,250	1,250	25	25	0
Subtotal (Technology)						812	4,290	5,090	50		16
Art/Science											
Multipurpose			C109	Full time	No	1,215	1,000	1,500	22	20-28	21
Science Lab Prep	Facility Deficient			Full time	No		250	250	n/a	20-28	0
Kiln/Glazing/Clay/Damp Rm.	Facility Deficient			Full time	No		250	250	n/a		
Subtotal (Art)						1,215	1,500	2,000	22		21
Music											
Instrumental	Facility Deficient			Full time	No		1,500	2,000	55	60-90	0
Choral	Facility Deficient			Full time	No		1,200	1,700	55	60-90	0
General Music	Undersized		C101	Full time	No	881	1,000	1,500	30	25-35	15
Instrumental Stor. & Circ.	Facility Deficient			Full time	No		600	800	n/a		
Ensemble Keyboard Lab	Facility Deficient			Full time	No		400	500	n/a		
Subtotal (Music)						881	4,700	6,500	139		
Physical Education/Athletics											
Gymnasium (Two Stations)	Undersized		C122	Full time	No	5,054	6,000	8,000	56	52-60	22
Multipurpose / Auxilliary Gymnasium	Facility Deficient			Full time	No		1,700	1,700	28	26-30	0
Adaptive Physical Education	Oversized		C126	Full time	No	2,853	500	500	6	5-8	26
General Storage (300 Per Station)	Oversized		C127	Full time	No	622	300	300	n/a		
Subtotal (Physical Education / Athletics)						8,529	8,500	10,500	90		
Subtotal - School Learning Spaces (NSF)						38,729	49,004	60,783	#REF!		471
Current Max. Student											471
Optimal Student Capacity (90% of Max. Capacity)											424
Current Student Enrollment											398
Facility Efficiency											94%

Jackson County Central Public Schools							Project 17-20569				
Riverside Elementary School							January 2, 2018				
Grade Configuration:		Pre-K - 5th Grade									
Total Student Enrollment		430									
Full Day Student Equivalent		398									
Staff		38									
							Recommended				
					Shared Space	Subtotal	Low Range	High Range	Avg. Student Capacity	Student Capacity Range	Current Max. Student Capacity
Description	Notes		Room #	Usage							
School Support Spaces											
Administration / Health Services											
Reception / Waiting / Secretarial Work Station			102	Full time	No	416	330	500			
Principal			103	Full time	No	153	150	200			
Assistant Principal	Facility Deficient			Full time	No		150	200			
Work Room and Mail Area	Undersized		106	Full time	No	173	300	300			
Small Conference Room	Facility Deficient			Full time	No		150	200			
Large Conference Room	Facility Deficient			Full time	No		250	400			
Other Offices	Facility Deficient			Full time	No		100	150			
Other Offices	Oversized		104	Full time	No	175	100	150			
Restroom	Undersized		105	Full time	No	75	120	180			
Scheduling / Computer Services	Facility Deficient			Full time	No		150	250			
School Nurse / Health Services	Facility Deficient			Full time	No		600	800			
Subtotal (Administration / Health Services)						992	2,400	3,330			
Guidance / Student Services											
Guidance Office	Undersized		B216	Full time	No	138	150	150			
Guidance Office	Oversized		B217	Full time	No	162	150	150			
Guidance Office	Undersized		B220	Full time	No	118	150	150			
Guidance Office	Oversized		B222	Full time	No	197	150	150			
Secretarial Work Station	Oversized		B218	Full time	No	314	80	100			
Conference Room	Facility Deficient			Full time	No		150	200			
Psychologist, Social Worker Office	Facility Deficient			Full time	No		100	150			
Career Center	Facility Deficient			Full time	No		400	1,000			
Testing	Facility Deficient			Full time	No		100	100			
Records / Supplies / Storage	Facility Deficient			Full time	No		200	250			
Student Store / Activities	Facility Deficient			Full time	No		400	700			
Subtotal (Guidance / Student Services)						929	2,030	3,100			
Teachers / Staff											
Planning Work Stations (50 SF per staff)	Facility Deficient			Full time	No		1,900	1,900			
Offices	Undersized		A015A	Full time	No	46	100	150			
Offices	Oversized		A015	Full time	No	543	100	150			
Offices	Oversized		A004	Full time	No	305	100	150			
Offices	Oversized		A013	Full time	No	113	100	150			
Offices	Oversized		C123	Full time	No	178	100	150			
Conference/Kitchenette/Print (10-20 SF per staff)		Lounge	C107	Full time	No	503	380	760			
Toilets	Facility Deficient			Full time	No		120	180			
Subtotal (Teachers / Staff)						1,688	2,900	3,590			
Food Service											
Cafeteria Dining Space (14-16 SF per stud.)	Undersized		B120			2,264	5,572	6,368			
Staff Dining Space (20 SF / staff dining)	Facility Deficient						480	480			
Kitchen			B118	Partial	No	653	500	1,000			
Serving Line	Facility Deficient						800	800			
Dry Food Storage	Undersized		B116		No	154	300	300			
Cooler	Undersized		B114			175	250	250			
Freezer	Undersized		B115			50	350	350			
Dishwasher	Facility Deficient						300	300			
Office	Undersized		B117			78	150	150			
Locker Rooms / Restroom	Facility Deficient						120	120			
Receiving and Holding	Facility Deficient						300	300			
Table Storage	Facility Deficient						800	1,000			
Subtotal (Food Service)						3,374	9,922	11,418			
Auditorium											
Seating - 250 seats	Facility Deficient						2,500	2,500			
Stage	Facility Deficient						2,200	3,000			
Dressing Rooms	Facility Deficient						400	500			
Make-Up Room	Facility Deficient						200	250			
Restrooms with Showers	Facility Deficient						128	128			
Costume Storage	Facility Deficient						150	225			
Scene Shop	Facility Deficient						800	1,000			
Lobby	Facility Deficient						492	1,000			
Restrooms in Lobby Area	Facility Deficient						600	600			
Control Room	Facility Deficient						200	240			
Dimmer Room	Facility Deficient						120	150			
Catwalks	Facility Deficient						600	1,000			
Loading Bridge	Facility Deficient						150	150			
Piano Storage	Facility Deficient						80	80			
Other Options	Facility Deficient										
Subtotal (Auditorium)						0	8,620	10,823			
Subtotal - Net School Support Spaces											
Combined Subtotal - Net		Net School Learning Spaces + Net School Support Spaces					6,983	25,872	32,261		
							45,712	74,876	93,044		
Building Support Spaces											
Building Systems and Maintenance											
Custodial	Oversized		B110	Full time	No	738	400	600			
Custodial Closets	Facility Deficient						40	40			
Restrooms	Oversized	2.5% x NSF	-	Full time	No	2,946	1,143	1,143			
General Storage	Oversized	3% x NSF	Storage	Full time	No	3,190	1,371	1,371			
Mech/Elec Interior Systems	Undersized	7.5-8.5% x NSF	-	Full time	No	1,738	3,428	3,886			
Circulation and Structure		35-45% x NSF	Circ	Full time	No	18,022	15,999	20,570			
Subtotal - School Support Spaces						26,634	22,382	27,610			
TOTAL BUILDING (GSF)											
						72,346	97,258	120,654			

PLEASANTVIEW ELEMENTARY SCHOOL





FACILITY OVERVIEW

PLEASANTVIEW ELEMENTARY SCHOOL

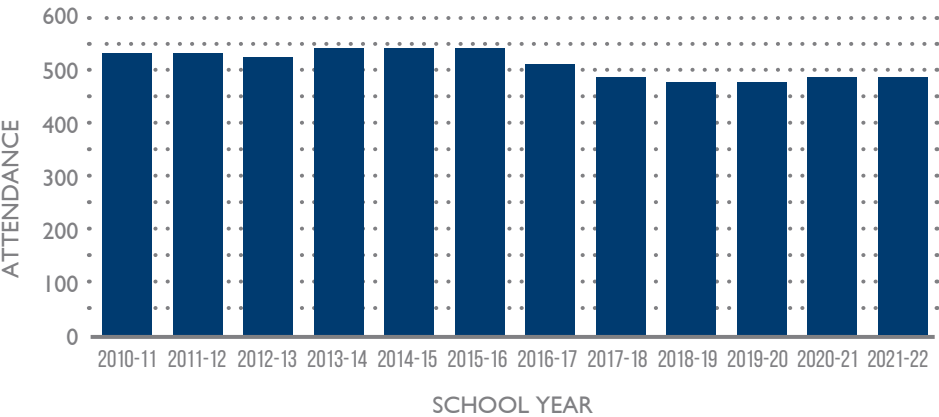
PROPERTY

LAND PARCELS COMPRISING PLEASANTVIEW ELEMENTARY SCHOOL PROPERTY

240331100	10.11 Acres	Elementary School, track, and green space
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ENROLLMENT



SITE INFORMATION

CONSTRUCTED: 1958

ADDITIONS: 1962

SITE ACREAGE: 10.11 Acres

BUILDING AREA: 31,752 sf

USES: K-5th Grade

PHYSICAL CONDITIONS



PHYSICAL CONDITIONS

SITE CONDITIONS

Review of the existing building site including parking spaces, concrete walks, and other horizontal site elements. Site circulation, grading, paving, parking, stormwater, and playground space were also reviewed.

SITE OBSERVATIONS

Ingress + Egress

System Description: Vehicular ingress and egress is provided by the northern parking lot located on Broadway Avenue. Student pickup and drop off is located on Milwaukee Street.

System Observation: With only one main access point to the facility's parking lot congestion may occur during pick-up/drop-off times.

System Condition: Good

System Recommendations: The ingress + egress appears to be properly serving the facility. If there is future growth and capacity increase, it may be advised to provide additional ingress + egress to the facility.

SITE OBSERVATIONS: PARKING + CIRCULATION

Bus Loading Zone

System Description: The bus loading zone is located along Milwaukee Street and provides access to the main school entrance.

System Observation: Bus traffic typically enters from the south and travels north on Milwaukee Street towards Broadway Avenue. The bus loading area provides access to the main entrance on the west and can stack up to approximately ten school buses. Milwaukee Street is approximately 40 feet wide, which allows for two-way traffic to be maintained while buses are parked. The bus loading zones are indicated by "No Parking" signs along Milwaukee Street that restrict parking on Monday through Friday, from 7:00 AM – 8:30 AM and 2:30 PM – 3:30 PM.

System Condition: Good

System Recommendations: The bus loading zone appears to adequately serve the facility's needs. Milwaukee Street is within City Right of Way and this consideration should be kept in mind for future construction.

Staff Parking

System Description: The staff parking lot is located north of the school and is constructed of concrete pavement. Concrete sidewalk is located along the west and south perimeter of the parking lot, providing access to two school doorways.

System Observation: The lot appears to have been recently reconstructed with minimal defects noted. A total of 23 parking stalls are striped, 2 of which are designated as handicap accessible along with 1 "Principal Only", one "15 Minute", and 1 "Cooks



Bus loading zones indicated by "No Parking" signs along Milwaukee Street



Concrete staff parking lot north of school



Concrete sidewalk providing access to two school doorways



Handicap spaces not striped with an access aisle or pavement symbol



Cracking on chamber of reinforced concrete



Concrete pathway leading to school doors along Milwaukee Street



Discoloring, deflection of panels, cracking, and signs of weathering on concrete pavement



Cracks in the gutter line pavement in accessible ramp leading to main school doors

Only" stall. A minimum of 1 parking space per classroom is required by the City of Lakefield City Code, with 16 classrooms for student use, the school is meeting the minimum City parking standards. The handicap stall signage appears to meet height requirements, however the spaces are not striped with an access aisle or pavement symbol. The 2010 Americans with Disabilities Act (ADA) Standards for Accessible Design require 1 accessible space, 1 of which must be van-accessible, for lots containing 1-25 stalls.

The eastern edge of the parking lot is flush with the ground elevation which provides direct access to grass surrounding the nearby playground equipment.

Stormwater drainage in the staff parking lot sheet flows into the two area inlet structures on the west of the parking lot which is then directed to the north into the city's stormwater collection system. The northwestern structure is constructed of reinforced concrete and bricks. The mortar and grout appeared to not fill the voids of the brick properly and the concrete casting was in fair condition. The southwestern area inlets is constructed on reinforced concrete and has a visible edge cracking on one of the chambers, originating at the inlet of the pipe. Sediment appeared to naturally collect around the eastern gutter line of the parking lot and may indicate that the stormwater collection system does not adequately handle runoff from the parking lot.

System Condition: Fair

System Recommendations: If one does not exist, a maintenance schedule should be implemented to experience the full life of the pavement. It is recommended that concrete patching of areas experiencing wear occur every 10 years or as necessary from the initial installation. Prior to the installation of the new pavement, existing utilities in the vicinity should be inspected for integrity so that replacement of deficient utilities may occur without impacting new pavement.

Parent Drop-off/Pick-up Areas

System Description: There are no marked parent pick-up/drop-off locations on site, however student pick-up/drop-off is done on Milwaukee Street.

System Observation: It was inferred that parents can stack seven vehicles within the parking lot either on the east or west sides of the parking lot. This practice would inhibit two-way traffic flow and allow for one way traffic flow through the lot. During high traffic periods, congestion is likely.

There are an additional 20 parallel parking stalls that could be utilized on Broadway Avenue, north of the parking lot. Broadway Avenue is approximately 52 feet wide, which allows for two-way traffic to be maintained while vehicles are parked.

Sidewalk is located along the west edge of the parking lot and is in good condition. The pavement appears to be recently constructed and does not exhibit signs of aging. The sidewalk is a turn-down curb style and the ADA access is located on the north end of the parking lot, leading to a set of double doors at the north face of the building. There is an additional pathway that provides access to a flush door on the east face of the northernmost section of the building. The concrete pad at the door appears older than the connecting concrete pavement and is exhibited discoloring, and exposed aggregate along the edge line of the pavement.

System Condition: Fair

System Recommendations: Provide striping to indicate parent pick-up/drop-off locations. If future additions occur, consider a separate designated location for parent pick-up/drop-off to increase mobility throughout the parking lot.

TRAFFIC PATTERNS + CONCERN AREAS



SITE OBSERVATIONS: WALKWAYS

System Description: Pedestrian walkways are located throughout the site, provide access to four doorways and connecting neighboring city paths. The walkways are primarily constructed of concrete pavement with the exception of one bituminous trail adjacent to Milwaukee Street, located south of the main entrance walkway.

System Observation: The bituminous trail is in good condition with no defects noted. The trail follows Mill Road East before traveling north ending at the city pool located at the corner of Menage Avenue North and North Hunter Street.

There are two concrete pathways that lead to two sets of school doors. The southernmost walkway leads to the main entrance to the school, while the northern walkway leads to an auxiliary entrance. The concrete pavement leading to the northernmost walkway on the west building face appears to be older with discoloring, slight deflection of panels, cracking, and signs of weathering. Both of the concrete stoops in front of the doorways are raised above 1/4" to the adjacent walkways and does not meet ADA accessibility requirements.

The sidewalk that runs parallel with Milwaukee Street has one accessible access point of the five paved indicated accesses. The accessible ramp leads to the main school doors has linear cracks and severe cracks in the gutter line pavement. The southernmost concrete pathway leading from Milwaukee Street to the main school doors is in fair condition. A series of linear cracking has formed in four of the panels. The paneling leads to a concrete stoop that is not flush with the pathway, having a half inch height difference. The stoop then provides access to the school doors, making the pathway not accessible.



Cracking in concrete pathway to main school doors



Cracking and discoloring in eastern sidewalk



Bituminous playground located on the southeast side of the school



Crack filling and sealing of southern bituminous playground



Rusted and leaning northern basketball hoop



Five-lane bituminous track with open grass interior



Concrete long jump and pole vault events



Severe cracking and vegetative growth within the bituminous surfacing

The concrete sidewalk running parallel with Broadway Avenue had a series of linear cracking through the paneling and was discolored.

Additional concrete walk is located on the west and south of the facilities parking lot. The western sidewalk appears to be new and was constructed in conjunction of the parking lot. There were no observed defects within the sidewalk. The concrete walkway at the north of the parking lot was in fair condition with some cracking in the paneling and deflection between the panels.

There is concrete sidewalk connecting the southeast corner of the parking lot and the southern bituminous playground. The pavement had cracking throughout the paneling and some discoloring predominately located at the northern two panels.

System Condition: Fair

System Recommendations: Repair cracked concrete sidewalk, as indicated in the repair map. The accessible ramp leading to the main school entrance should be replaced and brought up to ADA standards. Surrounding city pavement was observed exhibiting similar distresses and may need to be repaired to extend the life of the bituminous roadway pavement and the concrete ramp.

SITE OBSERVATIONS: RECREATIONAL FACILITIES

Bituminous Playground

System Description: A bituminous playground is located on the southeast side of the school which includes three basketball hoops and various game markings.

System Observation: The pavement received a PCI value of 53 out of 100 which is classified as “Fair to Good” condition. The primary defects of the pavement were longitudinal and transverse cracking. Crack filling and sealing has been performed previously, however new cracking has occurred and previous joints are beginning to lose their seal.

The basketball hoop backboards are plastic and do not show signs of cracking. The north hoop has begun to lean and the rim is beginning to rust. The east and south hoop appear to still be vertical.

Stormwater from bituminous playground sheet flows to the surrounding grass. Sediment was observed at the lip of the bituminous surfacing and grass, predominately along the south edge of the playground and may indicate deficient drainage of the stormwater.

System Condition: Fair

System Recommendations: Routine inspection and maintenance is recommended for the entire playground to ensure proper drainage. Crack fill and seal coat maintenance every 5-7 years is typical of bituminous pavement with mill and overlay or reconstruction of the parking lot in 10-20 years. Consider resetting the leaning basketball hoops when scheduling the next mill and overlay or reconstruction.

Track + Field Facilities

System Description: East of the school and playground facilities is a five-lane bituminous track and the interior is an open grass field. A chain-link backstop is located near the southeast corner of the interior grass field and the concrete long jump and pole vault events are located west of the track.

System Observation: There is no ADA accessible route to and from the track or playground areas. The track surfacing is in very poor condition with a PCI rating of 21 out of 100. The pavement had been crack sealed previously, however a significant amount of new cracks have formed with substantial vegetation growth within the pavement. The poor condition of the track is not conducive to use for track meets. The interior field appears to have adequate drainage. The field generally drains outward towards the track edges, however a field tile inlet is located near the center of the field to provide additional drainage capacity. The field tile inlet is not covered and allows debris to enter the drainage system.

The posts of the chain-link baseball backstop are severely rusted and there is a large hole in the chain-link mesh.

The concrete pavement runways leading to the long jump and pole vault are in fair condition, although the landing areas need to be maintained/replaced to bring back to a usable condition.

During discussions with staff, it was noted that the athletic facilities are not used often.

System Condition: Poor

System Recommendations: Because of the high cost for a new track which is rarely used, it is recommended to remove the current track as there are many tripping hazards throughout the running surface. The chain-link backstop should be removed immediately as it is a safety hazard. ADA accessible routes should be installed leading to the playground areas.

SITE OBSERVATIONS: PLAYGROUND EQUIPMENT

System Description: Located between the parking lot and track are six separate playground areas. All of the surfacing is pea gravel and none of the areas have an accessible route to the equipment. The pea gravel safety surfaces does not have edging around the containers, spreading the surfacing throughout the surrounding grass.

The playgrounds were audited on July 29, 2017, by a Certified Playground Safety Inspector. Their finding and general comments on the playgrounds and the equipment can be found in the Appendix.

Playground 1 - Northeast

System Observation: The playground equipment appears relatively new and designed for younger children. The equipment appears to be in good condition with no structural defects noted.

System Condition: Good

System Recommendations: None.

Playground 2 - Northwest

System Observation: The playground equipment appears weathered and intended for use by older students. The composite play structure has exposed concrete footings which poses a tripping hazard.

The northwest play area has a metal climbing structure which is not painted and rusting. The exposed metal creates a burn hazard during the summer months.

The playground also has an overhead loop ladder. The ladder shows signs of age with faded and chipped paint. The equipment is also located near the edge of the safety surface and may not fully protect children from falls.



Unusable track condition



Uncovered field tile inlet



Rust and hole in chain-link baseball backstop fence



Unusable landing area of long jump and pole vault runways pavement



Exposed concrete footings of northwestern playground composite structure



Rusted metal climbing structure in northwest play area and faded paint on overhead loop ladder



Dangerous short distance of play equipment from edge of safety surface



Hazards in piece of playground equipment presenting areas of entrapment and short safety zone

System Condition: Poor

System Recommendations: Construction of safety surfacing edging to help reduce the amount of surface loss and ensure the safety surfacing extends to all equipment use zones. Remove and replace the metal climbing and composite structure.

Playground 3 - South of Playground 2

System Observation: The playground is equipped with one piece of equipment, which allows for children to climb up and across the structure. Certain openings of the playground equipment could present an entrapment hazard if the distance between any interior opposing surfaces is greater than 3.5 inches and less than 9 inches. There are also open metal railings that are not capped, exposing children to sharp edges and rust. The safety zone around the equipment appears limited and may pose a fall risk to children.

System Condition: Fair

System Recommendations: Construction of safety surfacing edging to help reduce the amount of surface loss and ensure the safety surfacing extends to all equipment use zones. Remove playground protrusions and areas of entrapment according to current safety standards.

Playground 4 - South of Playground 3

System Observation: The playground is equipped with four swings which appear to be in good condition. The frame of the swings appears new, constructed of painted metal. The footings of the swings were also observed to be exposed.

The safety surface below the swings has been eroded from excessive use and not providing protection to swingers. The safety surface does not extend the total use zone of the equipment. The front and rear use zones of swings are a minimum distance of two times the distance from the protective surfacing to the pivot point of the swing. Additionally the plastic coatings of the swings were beginning to crack.

System Condition: Fair

System Recommendations: Replacing the surfacing to cover the concrete footings and the restore the surfacing below. Rubber swing mats could be placed below to reduce the amount of surface loss.

Playground 5 - South of Playground 4

System Observation: The playground contains six swings. The seats are in good condition, but do not have rubber chain protection that may cause pinching. The swings are mounted on an unpainted metal frame with visible discoloring and scraping.

The safety surface below the swings has been eroded from excessive use and not providing protection to swingers.

System Condition: Fair

System Recommendations: Replacing the safety surfacing to restore the surfacing below is recommended. Rubber swing mats could be placed below to reduce the amount of surface loss and rubber chain protections could be installed to reduce pinching.

Playground 6 - South of Playground 5

System Observation: Playground 6 contains four individual pieces of unpainted metal equipment: a slide, overhead horizontal ladder, a triple set pull up bar, and parallel bars. All of the equipment has visible signs of rusting, discoloring, faded paint, scraping, missing pieces, and appears old. The exposed metal creates a burn hazard during the summer months.

System Condition: Poor

System Recommendations: It would be recommended to remove and replace the metal equipment.

Funnel Ball and Tether Ball Equipment

System Observation: South of playground 6 there are two funnel ball and two tether ball pieces of equipment. Both of the funnel ball pieces are mounted in the grass and appear to be in good condition.

The tether ball posts are located on individual concrete slabs which are not level with the adjacent ground presenting a tripping hazard. The poles are rusting and discolored.

System Condition: Fair

System Recommendations: Constructing pavement that is flush with the surrounding ground would reduce the tripping hazard of the raised concrete slabs.

Volleyball Court

System Observation: The volleyball court has two posts east of the basketball court. At the time of inspection no net was in place. The posts appeared to be in fair condition, with minor signs of discoloring.

System Condition: Good

System Recommendations: The equipment has no current material deficiencies. The equipment is expected to be replaced within 10-15 years.

A third party Playground Audit Report is located in the Appendix.



Exposed footing of swings



No rubber chain, mounted on discolored scraped metal frame



Rusting, discoloring, faded paint, scraping, missing pieces on playground equipment



Burn hazards on exposed metal playground equipment

SITE CONDITIONS SYSTEM PRIORITY TABLE

	1	2	3	4	COST
Restripe accessible stalls to be ADA compliant, not blocking ADA accessible ramp + one van-accessible plaque	●				\$1,500
Repair safety surfacing and ensure it extends to all equipment use zones	●				\$700
Playground equipment removal - Climbing structure and composite structure	●				\$1,200
Repair safety surfacing and ensure it extends to all equipment use zones and construct edging	●				\$750
Remove playground protrusions and areas of entrapment according to current safety standards	●				\$1,000
Repair safety surfacing and ensure it extends to all equipment use zones, construct safety surface edging and install rubber mats below swings to reduce surface loss	●				\$1,280
Remove all metal equipment - metal slide, horizontal ladder, triple set pull up car, and parallel bars	●				\$20,000
Remove chain link backstop in the track field and install casting on the exposed drain tile	●				\$850
Reconstruct the ADA accessible ramp to the main doors on the western side of the facility	●				\$1,000
Crack fill, seal coat, and restripe bituminous pavement		●			\$12,500
Replace and extend playground surfacing for tether ball to be flush with existing ground elevations		●			\$5,840
Replace northern parking lot storm structure and Re-mortar bricks in southern storm structure		●			\$40,000
Construct safety surface edging		●			\$1,000
Construct safety surface edging, repair safety surfacing and ensure it extends to all equipment use zones, install rubber mats below the swings, and rubber protection on swing chains		●			\$2,220
Replace concrete panel(s) throughout the site		●			\$4,950
Provide surfacing for funnel ball or relocate the equipment			●		\$1,500
Replacement of playground equipment - climbing structure and composite structure			●		\$10,000
Replacement of playground equipment			●		\$3,500
Provide striping to indicate drop-off/pick-up areas in concrete parking lot				●	\$750
Remove track				●	\$21,000

SITE IMPROVEMENT RECOMMENDATIONS





Pleasantview exterior walls



Pleasantview exterior walls



Exposed wood roof framing system



Detached garage

PHYSICAL CONDITIONS

EXTERIOR BUILDING CONDITIONS



Review of the building's exterior shell including an assessment of the structure, foundation, exterior walls, windows and doors, and thermal efficiency, as well as conditions of the existing roof, gutters, and downspouts.

OBSERVATIONS

Walls

System Description: Comprised of brick walls on poured concrete foundation, painted wood siding and trim at added vestibule and physical education office.

System Observations: Brick and mortar system and poured concrete foundation have localized cracking and joint failure.

System Condition: Good

System Recommendations: Repair brick, concrete cracking, and failed joints.

Doors

System Description: Hollow metal doors, aluminum entrance doors with glazing, and an automatic door with control switches at entrance from parking lot.

System Observation: Hollow metal doors and frames have some rusting, peeling paint and minor damage; aluminum doors, frames and glazing are in very good condition.

System Condition: Aluminum doors, frames and glazing: Good
Hollow metal doors and frames: Fair

System Recommendations: Replace hollow metal doors and frames with aluminum to match new doors and windows.

Stoops

System Description: Constructed of concrete slab.

System Observation: Concrete stoops have damaged edges, cracking, uneven surfaces and gaps between panels; and stone door sills are significantly higher than adjacent stoops.

System Condition: Poor

System Recommendations: Replace stoops with concrete to comply with accessible entrance requirements at door sills.

Windows

System Description: Aluminum framed fixed windows with insulated glazing and operable hoppers in classrooms.

System Observation: New aluminum framed windows were installed in summer of 2017.

System Condition: Good

System Recommendations: No recommendations.

Roof Framing

System Description: Exposed wood roof framing system.

System Observation: The exposed wood roof framing system has localized damage at joints and ends of framing members.

System Condition: Good

System Recommendations: Repair damage at joints and ends of wood roof framing members.

Roof

System Description: Mechanically fastened single ply Duro-Last PVC roof membrane on gymnasium roof, adhered rubber roof membrane on remainder of roof.

System Observation: Duro-Last roof was installed within last five years; adhered rubber roof is in good condition.

System Condition: Good

System Recommendations: Replace adhered rubber roof as scheduled in 5-10 years.

Garage

System Description: Detached wood-framed structure on concrete slab, metal siding and trim, and sloped roof with asphalt shingles.

System Observation: Sloped slab at garage doors is cracked; metal door panels and trim have minor denting; and paint is peeling at door and window trim.

System Condition: Good

System Recommendations: Patch crack in sloped slab, and repaint door and window trim.



Cracking and joint failure in brick wall

Rusting, peeling paint and damage to metal door; elevations difference at stoop and door sill

Damaged edges, cracking, uneven surfaces and gaps on concrete panel stoops

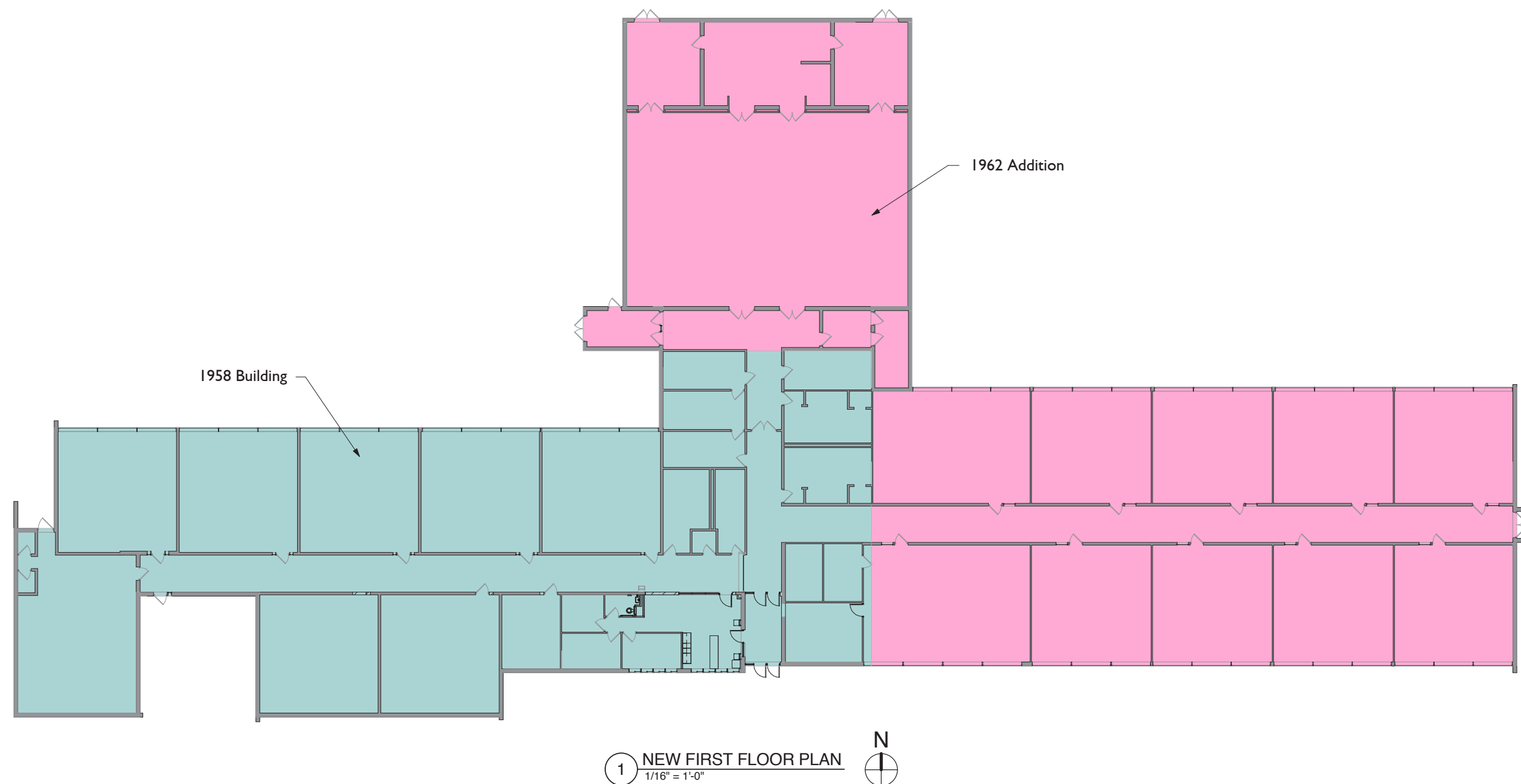
EXTERIOR CONDITIONS SYSTEM PRIORITY TABLE	1	2	3	4	COST
Stoops – replace stoops with concrete to comply with accessible entrance requirements at door sills	●				\$11,000
Walls – repair brick and concrete cracking and failed			●		\$16,000
Doors – replace hollow metal doors and frames with aluminum to match new doors and windows			●		\$12,850
Roof framing – repair damage at joints and ends of wood roof framing members			●		\$750
Garage – patch crack in sloped slab; repaint door and window trim			●		\$450

PHYSICAL CONDITIONS

INTERIOR BUILDING CONDITIONS



Examination of the finishes, equipment, and other conditions found in classrooms, offices, hallways, gymnasiums, locker rooms, stairwells, kitchen, and cafeteria areas.



OBSERVATIONS: CORRIDORS

Floors

System Description: Terrazzo

System Observations: Terrazzo floor is well maintained.

System Condition: Good

System Recommendations: No recommendations.

Walls

System Description: Brick walls with vinyl base, glazed concrete block walls with glazed concrete block base, and wired glass above lockers to ceiling height.

System Observations: Brick walls have minor localized staining; glazed concrete block walls have minor visible damage and some stained grout; physical education office is partial height wall.

System Condition: Good

System Recommendations: No recommendations.

Ceilings

System Description: Consists of 12" x 12" perforated acoustical ceiling tile.

System Observations: Perforated acoustical ceiling tile has staining, punctures, cracking and uneven tiles.

System Condition: Fair

System Recommendations: Replace perforated acoustical ceiling tile with a suspended acoustical ceiling tile system, if/when lighting replacement is performed.

Doors

System Description: Consists of hollow metal door and window system with hollow metal doors and wired glass sidelights.

System Observations: Sidelights have wired glass. The vestibule floor at entrance from parking lot is approximately one and one-half inch lower than corridor floor.

System Condition: Fair

System Recommendations: Replace wired glass with safety glass, and provide walking surface with 1:20 maximum running slope in parking lot entrance vestibule.

Lockers

System Description: Consist of single tier metal lockers with wood trim.

System Observations: Metal lockers have significant damage and rusting.

System Condition: Poor

System Recommendations: Replace lockers.

Other Elements

System Description: Skylights and recessed coiling security grilles.

System Observations: Skylights appear to have minimal water damage; recessed coiling security grilles appear to be functional.

System Condition: Good

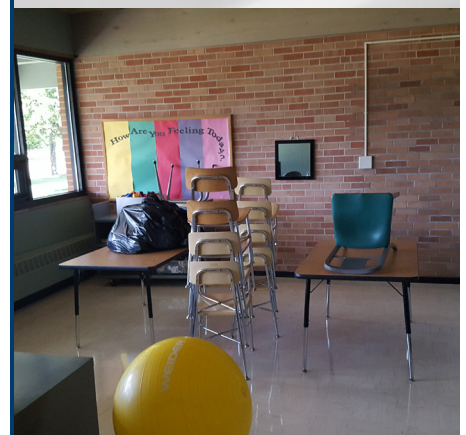
System Recommendations: No recommendations.



Corridor walls



Damaged skylights



Stained brick wall



Partial height wall



Recessed ceiling security grille



Wired glass sidelights



Vestibule floor at entrance is lower than corridor floor



Damage and rusting in metal locker

OBSERVATIONS: SCHOOL OFFICE

Floors

System Description: Luxury vinyl tile and carpet in office areas, ceramic tile in restroom.

System Observations: Luxury vinyl tile, carpet and ceramic tile is in very good condition.

System Condition: Good

System Recommendations: No recommendations.

Walls

System Description: Painted gypsum board walls and vinyl base in office areas; painted gypsum board walls, ceramic tile walls and ceramic tile base in restrooms

System Observations: Painted gypsum board walls, vinyl base and ceramic tile walls are in very good condition.

System Condition: Good

System Recommendations: Touch up paint as needed.

Ceilings

System Description: 2'-0" x 2'-0" acoustical ceiling tile.

System Observations: Acoustical ceiling tile has a minimal amount of staining.

System Condition: Good

System Recommendations: Replace stained acoustical ceiling tiles.

Doors

System Description: Hollow metal door and window system, wood doors in hollow metal frames.

System Observations: Hollow metal doors and frames are in very good condition; wood doors are in good condition with minimal amount of wear; and some wood doors have noncompliant knob hardware.

System Condition: Hollow metal door and window system: Good. Wood doors: Good

System Recommendations: Replace noncompliant knob hardware with handle locksets.

Casework

System Description: Plastic laminate base and upper cabinets.

System Observations: The plastic laminate cabinets are in very good condition.

System Condition: Good

System Recommendations: No recommendations.

OBSERVATIONS: CLASSROOMS + LIBRARY

Floors

System Description: 12" x 12" vinyl composition tile

System Observations: Vinyl composition tile floor is well maintained, with some cracking and missing tile at the doors.

System Condition: Good

System Recommendations: Replace cracked and missing vinyl composition tiles.

Walls

System Description: Brick walls with vinyl base, glazed concrete block walls with glazed concrete block base, painted concrete masonry units with vinyl base, painted plaster walls with vinyl base; and panel walls in library office and storage room.

System Observations: Brick walls have minor staining and localized cracking at wood roof framing members; glazed concrete block walls have minor visible damage and some joint staining; masonry and plaster walls have punctures and marks where items were previously attached; panel walls in library office and storage room are used as permanent walls with cabinets attached.

System Condition: Good

System Recommendations: Repair cracked brick; replace panel walls in library office and storage room with stud walls or relocate cabinets.

Ceilings

System Description: Wood planks.

System Observations: The wood planks have minor discoloration but no indication of extensive rotting or other damage.

System Condition: Good

System Recommendations: Touch up stain on wood planks.

Doors

System Description: Hollow metal door and window system with wood doors and wired glass sidelights, wood doors in hollow metal frames with wood panels and trim.

System Observations: Some wood doors and panels have significant damage; most classroom doors have noncompliant knob hardware; and sidelights have wired glass.

System Condition: Fair

System Recommendations: Replace damaged wood doors and panels; replace noncompliant knob hardware with handle locksets; and replace wired glass with safety glass.

Casework

System Description: plastic laminate shelves and cabinets with sliding doors and sinks; wood closets

System Observations: Plastic laminate cabinets have extensive damage, including cracking, peeling and stained sinks; wood closet doors and trim have extensive damage.

System Condition: Poor

System Recommendations: Replace damaged cabinets, wood closet doors, and trim.



Vinyl tile and carpet floor in office



Metal door and window system



Plastic laminate shelves and cabinets with sliding doors and sinks



Cracking and missing tile floor at door



Damaged door



Damage in plastic laminate cabinets



Damage in wood closet doors and trim



Painted concrete masonry units with vinyl base in gymnasium

Other Elements

System Description: Chalkboards and tack boards with wood trim; whiteboards and smartboards.

System Observations: Chalkboards and tack boards are typically covered with paper or with new whiteboards and smartboards.

System Condition: Good

System Recommendations: No recommendations.

OBSERVATIONS: GYMNASIUM

Floors

System Description: 12" x 12" vinyl composition tile.

System Observations: Vinyl composition tile floor is discolored but well maintained, and has cracking across the width of the gymnasium at each mainframe column line.

System Condition: Fair

System Recommendations: Replace cracked vinyl composition tile floor if cracked tiles are problematic for gymnasium activities; expansion joints will prevent cracking of new floor material.

Walls

System Description: Painted concrete masonry units with vinyl base.

System Observations: Masonry walls are in good condition with some joint staining and punctures where items were previously attached.

System Condition: Good

System Recommendations: No recommendations.

Ceilings

System Description: Comprised of acoustical ceiling tile.

System Observations: Acoustical ceiling tile has minor staining at some roof framing members.

System Condition: Good

System Recommendations: No recommendations.

Doors

System Description: Consist of wood doors in hollow metal frames.

System Observations: Wood doors and hardware are functional, with some minor damage.

System Condition: Good

System Recommendations: No recommendations.

Other Elements

System Description: Cafeteria tables, ceiling hung room divider panel system, and basketball hoops.

System Observations: Cafeteria tables fold up into masonry walls, room divider panels have minor edge chipping and marks where items were previously attached, basketball hoops are mounted to walls and mainframe members.

System Condition: Good

System Recommendations: No recommendations.

OBSERVATIONS: KITCHEN + STORAGE ROOMS

Floors

System Description: Quarry tile in kitchen area and sealed concrete in storage rooms.

System Observations: Quarry tile and sealed concrete are in excellent condition.

System Condition: Good

System Recommendations: No recommendations.

Walls

System Description: Glazed concrete block with vinyl base in kitchen; painted plaster with vinyl base in storage rooms

System Observations: Glazed concrete block walls in very good condition, with minimal joint staining; plaster walls in very good condition

System Condition: Good

System Recommendations: No recommendations.

Ceilings

System Description: painted gypsum board in kitchen, wood planks in storage rooms

System Observations: gypsum board and wood planks in very good condition

System Condition: Good

System Recommendations: No recommendations.

Doors

System Description: Wood doors in hollow metal frames.

System Observations: Wood doors and hardware generally in good condition, with most doors showing signs of water damage to bottom edges.

System Condition: Good

System Recommendations: Replace doors with water damage.

Equipment

System Description: Stainless steel equipment.

System Observations: Equipment is well maintained and in excellent condition.

System Condition: Good

System Recommendations: No recommendations.



Cafeteria tables, ceiling hung room divider panel system, basketball hoops



Cracking and discolored vinyl tile floor



Edge chipping and marks where items were previously attached in room divider panels



Water damage to kitchen door



Stained ceramic tile floor and wall



Cracked pieces in ceramic tile wall



Chipped and rusting at seams in toilet partitions



Missing wall base in restroom

OBSERVATIONS: RESTROOMS

Floors

System Description: Comprised of terrazzo and 1" x 1" ceramic tile in shower stalls and some restrooms.

System Observations: Terrazzo floor is well maintained but stained and patched where plumbing fixtures were previously located; ceramic tile floor generally intact but stained.

System Condition: Fair

System Recommendations: Replace ceramic tile floor

Walls

System Description: Brick walls with vinyl base, glazed concrete block walls with glazed concrete block base, painted concrete masonry units with ceramic tile and base.

System Observations: Brick walls are in good condition but vinyl base has peeled off; glazed concrete block walls have joint staining and punctures where items were previously attached; and ceramic tile has a few cracked pieces.

System Condition: Fair

System Recommendations: Replace cracked ceramic tile.

Ceilings

System Description: 12" x 12" perforated acoustical ceiling tile, 2'-0" x 2'-0" acoustical ceiling tile, painted gypsum board.

System Observations: Perforated acoustical ceiling tile has minimal staining and uneven tiles; 2'-0" x 2'-0" acoustical ceiling tile and gypsum board ceiling are in good condition.

System Condition: Good

System Recommendations: Replace perforated acoustical ceiling tile with a suspended acoustical ceiling tile system if lighting replacement is performed.

Doors

System Description: Wood doors in hollow metal frames with wood panels above; hollow metal frames with doors removed.

System Observations: Wood doors and hardware are functional, with some minor damage; single use restroom doors have noncompliant knob hardware.

System Condition: Fair

System Recommendations: Replace damaged wood doors and panels; replace noncompliant knob hardware with handle locksets.

Toilet Partitions

System Description: Metal, plastic laminate.

System Observations: Metal partitions are chipped and rusting at seams, plastic laminate partitions are in very good condition; and there are no urinal partitions.

System Condition: Fair

System Recommendations: Replace rusted metal partitions; and install urinal partitions.

Other Elements

System Description: Plumbing fixtures and restroom accessories.

System Observations: Plumbing fixtures and restroom accessories are generally in fair condition with some rusting on fixtures and mirrors showing wear and age.

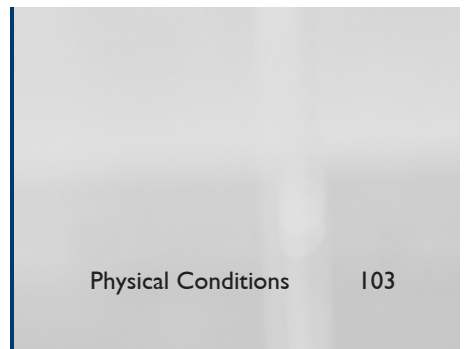
System Condition: Fair

System Recommendations: Replace mirrors and rusted toilets.



INTERIOR CONDITIONS SYSTEM PRIORITY TABLE

	1	2	3	4	COST
Doors – replace damaged wood doors and panels; replace noncompliant knob hardware with handle locksets; replace wired glass with safety glass	●				\$3,100
Doors – replace wired glass with safety glass; provide walking surface with 1:20 maximum running slope in parking lot entrance vestibule	●				\$3,500
Doors – replace noncompliant knob hardware with handle locksets	●				\$1,000
Floors – replace cracked and missing vinyl composition tiles		●			\$50
Walls – repair cracked brick; replace panel walls in library office and storage room with stud walls or relocate cabinets		●			\$2,300
Casework – replace damaged cabinets and wood closet doors and trim		●			\$4,200
Ceilings – replace perforated acoustical ceiling tile with a suspended acoustical ceiling tile system if lighting replacement is performed		●			\$25,924
Lockers – replace lockers		●			\$51,000
Floors – replace cracked vinyl composition tile floor if cracked tiles are problematic for gymnasium activities; expansion joints will prevent cracking of new floor material		●			\$350
Floors – replace ceramic tile floor		●			\$21,000
Walls – replace cracked ceramic tile		●			\$400
Ceilings – replace perforated acoustical ceiling tile with a suspended acoustical ceiling tile system if lighting replacement is performed		●			\$3,600
Doors – replace damaged wood doors and panels; replace noncompliant knob hardware with handle locksets		●			\$4,300
Toilet partitions – replace rusted metal partitions; install urinal partitions		●			\$14,400
Other elements – replace mirrors and rusted toilets; verify sink heights for accessibility		●			\$41,000
Doors – replace doors with water damage			●		\$10,800
Ceilings – replace stained acoustical ceiling tiles			●		\$80
Ceilings – touch up stain				●	\$1,200
Walls – touch up paint				●	\$450





Pleasantview Elementary School



Glue-laminated Beams



Exterior wall view



Moisture damaged glue-laminated beams

PHYSICAL CONDITIONS

STRUCTURAL SYSTEM CONDITIONS



Review of structural integrity of existing buildings with analysis of columns, walls, and the roof.

OVERVIEW

Pleasantview Elementary School is a one-story structure, the classroom areas of which are constructed primarily out of timber beams, steel columns, load-bearing concrete masonry unit (CMU) walls, and an exterior brick façade. A gymnasium constructed primarily of steel beams, steel columns, and CMU walls with a brick façade is located on the east side of the building. All parts of the building are supported on what appears to be a concrete foundation system; no basement exists. It appears upon visual inspection that a majority of the building's primary structural components are in fair to good condition and have not undergone significant repairs during the building's lifespan. In addition, a majority of the building's structural elements are generally constructed of materials with proven durability if properly maintained over time. However, as noted throughout this section, some structural elements may need attention in the future to improve or maintain the building's usable life and function.

SITE OBSERVATIONS

Classroom Roof Framing

System Description: The roof over the classroom areas is a flat, rubber membrane system supported by a 3x6 tongue-and-groove decking that spans between glue-laminated timber beams, which are exposed and visible from the classrooms below. The glue-laminated beams are supported by a combination of (presumably) steel columns and interior CMU walls that surround the classroom spaces.

System Observations: A vast majority of the glulam beams are in great condition, with some minor shrinkage cracks that are expected for wood of similar age. The glulam beams are also exposed along the exterior walls where they support the roof over the window walls that are present along the classrooms. In select locations, notably in classrooms 102, 103, and 104, the glulam beams over the window walls along the building exterior have visible signs of minor water damage, likely caused by seepage of moisture from the window system below. However, the capacity of the structure is not compromised in the beam's current condition. Prevention of moisture damage is important in prolonging the usable life of a structure with timber framing.

System Condition: Good

Classroom Wall Framing

System Description: The classrooms are generally surrounded by interior CMU walls that provide support to the glue-laminated beams supporting the roof.

System Observations: All beam-bearing locations on these walls appeared to be performing adequately, except for the east wall in room 106 where a crack approximately 1/4" in width has formed in the brick façade at the top of the wall. The crack indicates some form of movement has occurred, but since the brick façade is not load-bearing, it does not appear to be caused by any structural issues that affect the performance of the building.

System Condition: Fair

Gymnasium Framing

System Description: The gymnasium is covered with a gable roof that is supported by a combination of steel beams, steel columns, and CMU exterior walls with a brick façade. Near the gymnasium is an on-grade storage area, the roof of which is supported by hollow core plank (HCP) that sits on CMU walls. This framing system is very durable and will have the longest usable life of any other structural system in this particular building.

System Observations: The gymnasium's structural elements appear to be in good condition, and assuming proper maintenance of the roofing material and patching of leaks, has a long usable life.

System Condition: Good

Foundation

System Description: The building is supported on a shallow foundation system constructed of cast-in-place reinforced concrete. The foundation system presumably consists of a concrete foundation wall that rests on a continuous concrete strip footing, the bottom of which is likely 4 to 5 feet below the finished floor elevation.

System Observations: The foundation appears to be performing adequately as there is no visible evidence of excessive or differential settlement as evidenced by the lack of cracks, bowing, or leaning in the walls above.

System Condition: Good

RECOMMENDATIONS

Classroom Roof Framing

No recommendations.

Classroom Wall Framing

The crack in the brick wall in room 106 should be patched and tuckpointed. After repair, quarterly observations should be recorded to monitor any movement in the repaired crack over time. Future movement of this crack would require a complete structural investigation into this area to determine if long-term issues could develop.

Gymnasium Framing

No recommendations.

Foundation

No recommendations.



Crack in brick



Exterior gymnasium



STRUCTURAL SYSTEM CONDITIONS PRIORITY TABLE

Patch crack in brick wall in room 106; maintenance staff shall monitor on a monthly basis after completion of repair.

1	2	3	4	COST
●				\$300



Egress from gymnasium through kitchen storage rooms



Door stoop height difference at exit doors



Noncompliant wired glass in classroom sidelights



Fire alarm control panel with limited clearance

PHYSICAL CONDITIONS

LIFE SAFETY CONDITIONS

Review of life safety, egress, and potential code deficiencies as discovered during field observation. Also includes conditions of the fire alarm system.

OBSERVATIONS

General

The building does not have an automatic sprinkler system and does not appear to have rated fire partitions in the corridors or other fire rated assemblies separating the building into smaller fire areas. Current building codes require an automatic sprinkler system throughout all Educational Group E occupancies with fire areas greater than 12,000 square feet.

The building appears to have adequate egress width, number of exits, and paths of egress travel. Two secondary means of egress from the gymnasium pass through rooms used for kitchen storage, which is not permitted by current building codes.

Egress doors require landings at the same elevation on each side of the door. Existing stoops and sidewalks at exterior exit doors currently have level changes varying from approximately one inch to six inches.

Current building codes do not permit traditional wired glass in hazardous locations such as doors and sidelights. Existing classroom door systems have wired glass sidelights. Some exterior exit doors have wired glass.

Fire Alarm System

System Description: The fire alarm system is composed of a Notifier SFP-400 conventional alarm panel combined with a Radionics control panel. The system is activated by manual pull stations located near exits and smoke/heat detectors placed in corridors and selected rooms. Notification devices, such as horn strobes, are located in corridors and the gymnasium.

System Observations: The fire alarm panels appear to be original to the building but are still functioning and showing no signs of any issues. The system is tested annually by Trans-Alarm, Inc. and devices have been replaced as they fail. A walk-in cooler has been installed in front of the fire alarm and accessing the panel can be difficult as there is only 2 foot of clearance in front of the panel instead of the 3 feet required by the National Electric Code.

System Condition: Good

Emergency Egress Lighting

System Description: The facility is using wall- and ceiling-mounted battery-powered lights for emergency lighting in corridors and assembly areas.

System Observations: The emergency lights in the corridor did not appear to provide the necessary egress lighting as required by NFPA 101: Life Safety Code. The fixtures themselves appeared to be in good working condition.

System Condition: Poor

Emergency Egress Lighting

System Description: The facility utilizes wall mounted and ceiling mounted stand-alone emergency lights throughout the facility.

System Observations: The light fixtures appeared older but still functioned when tested.

System Condition: Good

RECOMMENDATIONS

General

Install an automatic sprinkler system throughout the building, or construct two hour rated fire barriers which separate the building into fire areas of less than 12,000 square feet.

Install a new egress door in the gymnasium which discharges directly to the exterior of the building.

Install new stoops at exterior egress doors as required to provide landings at the same elevation as the interior side of the doors.

Replace wired glass with safety glass in sidelights.

Fire Alarm System

The fire alarm panel appears to be in good working condition and should continue to serve the facility. If the panels are replaced, the fire alarm controls may need to be relocated to meet the proper clearance requirements unless special permission is given by the authority having jurisdiction (AHJ).

Emergency Egress Lighting

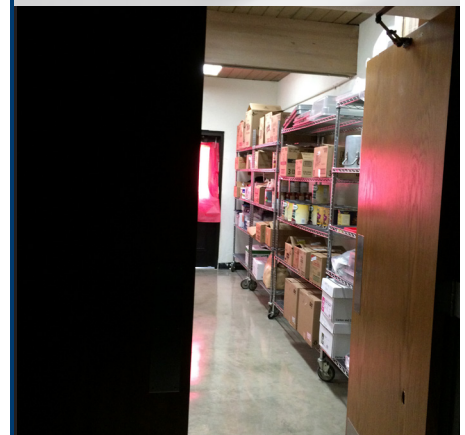
The current emergency lighting layout should be further evaluated to ensure that proper light levels are achieved in all paths of egress. Additional units should be added if required for proper egress.



Typical fire alarm detection + notification devices



Typical emergency light in corridor



Egress from gymnasium through kitchen storage rooms

LIFE SAFETY CONDITIONS SYSTEM PRIORITY TABLE

	1	2	3	4	COST
Install an automatic sprinkler system throughout the building, or construct two hour rated fire barriers which separate the building into fire areas of less than 12,000 square feet.	●				\$131,000
Install a new egress door in the gymnasium which discharges directly to the exterior of the building	●				\$7,000
Add emergency lighting fixtures			●		\$1,000



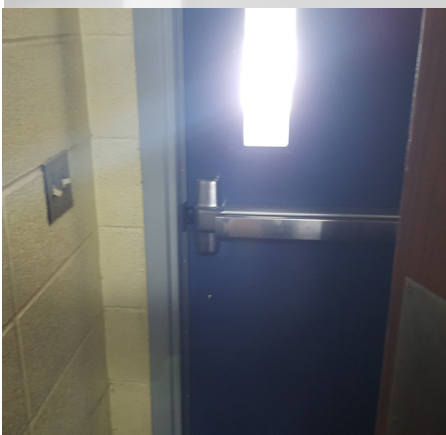
Door stoop height difference at main school entrance



Automatic door with control switch



Noncompliant accessible route and entrance to the building



Noncompliant turning space and maneuvering clearances at northwest classroom door

PHYSICAL CONDITIONS

ACCESSIBILITY CONDITIONS

Review of the existing structure for conformance with the 2015 Minnesota Accessibility Code and the 2010 Americans with Disabilities Act (ADA) Standards for Accessible Design. Site parking, access into the building and entrances, accessibility routes inside of building, and restroom accessibility were considered.

SITE OBSERVATIONS

Site, Parking, Entrances and Play Areas

The main entrance to the school is from the bus drop-off area on Milwaukee Street. A curb cut provides access to a sidewalk with significant cracking. The sidewalk leads to a concrete stoop, with a change in level of approximately one-half inch. The top of the stone door sill is approximately three inches above the stoop. These elements do not provide an accessible route or an accessible entrance in compliance with the 2010 Americans with Disabilities Act (ADA) Standards for Accessible Design or the 2015 Minnesota Accessibility Code.

The school's parking lot has two designated accessible parking spaces which are not striped with an access aisle. From the parking spaces a sidewalk leads to an automatic door with control switches. Inside the door is a vestibule with a concrete floor. The interior vestibule doors have a stone sill which is approximately one and one-half inch above the concrete floor. Although this building entrance is more accessible than the main entrance, these elements do not provide a fully compliant accessible route and entrance to the building.

The egress vestibule on the northeast side of the building appears to have a compliant sill, stoop and sidewalk, but does not comply with requirements for turning space and maneuvering clearances at the doors. The egress doors on the south side of the building lead to a concrete stoop which is approximately six inches below the door sill. The egress door in the courtyard has a concrete stoop which is approximately one and one-half inch above the adjacent sidewalk. The sills at the two pairs of egress doors at the kitchen storage rooms are approximately one inch above the adjacent sidewalk. None of these conditions are fully compliant with applicable accessibility codes.

Currently the existing play areas on site are not fully accessible. If alterations are made in the future, ADA guidelines for accessible play areas would apply. Depending on the scope of the modifications, the altered areas may need to meet requirements for ground surface conditions, accessible routes to and within play areas, accessible ground level and elevated play components, and accessible routes connecting play components. Normal maintenance activities are not considered alterations.

Classrooms

Accessibility codes require that operable parts on accessible doors have a shape that is easy to grasp with one hand and does not require tight grasping, pinching or twisting of the wrist to operate. Most classroom doors currently have noncompliant locksets with knob hardware.

Accessible sinks are required to have a clear floor space of 30" x 48" positioned for forward approach to the sink. The clear floor space includes knee and toe clearance

under the sink. Exposed pipes must be insulated or otherwise configured to protect against contact. Classrooms currently have sinks with cabinets below, rather than clear floor space.

Restrooms

The entrance vestibules and doors at the four multiuse restrooms do not have the required maneuvering clearances. The doors at the two single use restrooms in the northwest classroom have noncompliant locksets with knob hardware.

The smaller girls' restroom has four toilet compartments, none of which are wheelchair accessible or ambulatory accessible. The larger girls' restroom has one wider toilet compartment, but it does not meet the depth requirement for a wheelchair accessible compartment, and its door does not appear to be self-closing. None of the compartments are ambulatory accessible.

The smaller boys' restroom has two toilet compartments, one of which appears to be wheelchair accessible with a self-closing door. The larger boys' restroom has one wider toilet compartment, but it does not meet the depth requirement for a wheelchair accessible compartment, and its door does not appear to be self-closing. None of the compartments are ambulatory accessible.

The larger girls' restroom and the larger boys' restroom each have one shower compartment which is not accessible. Lavatories in all restrooms appear to meet height requirements, but the exposed pipes do not have insulation to protect against contact.

Some restroom accessories do not appear to comply with mounting height and location requirements.

Other Elements

Most office and storage room doors currently have noncompliant locksets with knob hardware.

None of the existing lockers appear to comply with requirements for coat hook and shelf mounting heights.

RECOMMENDATIONS

Site, Parking, Entrances and Play Areas

Replace the existing noncompliant curb cut, sidewalk, stoop and door sill at the building's main entrance as required to meet accessibility standards.

Restripe the accessible parking spaces to include an access aisle. Reconfigure the building entrance adjacent to the parking lot as required to meet accessibility standards.

Remove the interior vestibule door in the northwest classroom or reconfigure the vestibule to provide 48 inches between the two doors in the open position, 12 inches of maneuvering clearance on the push side of the exterior door and 18 inches of maneuvering clearance on the pull side of the interior door.

Replace the concrete stoop at the egress doors on the south side of the building.

Replace the concrete stoop and sidewalk in the courtyard as required to meet accessibility standards.

Reconfigure the concrete sills at the kitchen storage room doors as required to meet accessibility standards.



Height difference in stoop and door sill in courtyard entrance



Noncompliant play area site



Noncompliant locksets with knob hardware in classroom doors



Noncompliant classroom sinks



Limited maneuvering clearances at restroom vestibule



Noncompliant girls toilet compartments



Noncompliant boys toilet compartments



Noncompliant shower compartment

Classrooms

Replace noncompliant knob hardware with handle locksets on classroom doors.

Replace sinks and casework in classrooms as required to provide clear floor space and knee and toe space under the sinks. Install insulation on exposed pipes.

Restrooms

Reconfigure the entrance vestibules and doors at the four multiuse restrooms as required to meet requirements for maneuvering clearances.

Replace noncompliant knob hardware with handle locksets at the two single use restrooms.

Reconfigure the four multiuse restrooms to include one wheelchair accessible toilet compartment and one ambulatory accessible compartment in each restroom.

Reconfigure the larger girls' and boys' restrooms to accommodate one accessible shower compartment in each restroom.

Verify lavatory heights in all restrooms and install insulation on exposed pipes.

Verify mounting heights and locations of all restroom accessories and make adjustments as required to meet accessibility standards.

Other Elements

Replace all noncompliant knob hardware with handle locksets.

Install accessible lockers or customize existing lockers such that at least five percent of all lockers are accessible.



ACCESSIBILITY CONDITIONS PRIORITY TABLE

	1	2	3	4	COST
Replace noncompliant knob hardware with handle locksets on classroom doors.	•				\$6,000
Replace the existing noncompliant curb cut, sidewalk, stoop and door sill at the building's main entrance as required to meet accessibility standards.	•				\$4,100
Remove the interior vestibule door in the northwest classroom or reconfigure the vestibule to provide 48 inches between the two doors in the open position, 12 inches of maneuvering clearance on the push side of the exterior door and 18 inches of maneuvering clearance on the pull side of the interior door.	•				\$6,875
Reconfigure the entrance vestibules and doors at the four multiuse restrooms as required to meet requirements for maneuvering clearances.		•			\$13,500
Reconfigure the larger girls' and boys' restrooms to accommodate one accessible shower compartment in each restroom.		•			\$23,500
ADA accessible accesses on both western facing doors		•			\$3,000





Sinks in classrooms not working properly



Pipe wrap missing below lavatories



Lavatories stained



Broken electric water cooler

PHYSICAL CONDITIONS

PLUMBING CONDITIONS

Review of the existing building plumbing systems including water service, water fountains, sinks, toilets, and showers.

OBSERVATIONS

Domestic Water

System Description: A 2" domestic water service enters the building in the boiler room metered by Lakefield Public Utilities. Cold water is distributed throughout the building by municipal water pressure through piping wrapped fiberglass insulation. Hot water is piped through two water softeners located in the boiler room. Following softening treatment, the domestic hot water is heated by a 199 MBH AO Smith (2014) direct gas fired hot water heater also located in the boiler room. Hot water is distributed throughout the building within a piped water loop with recirculation pumps. Hot water loops are also insulation with fiberglass insulation.

System Observations: *General Facility:* Various locations throughout the building are lacking insulation on the domestic water system.

Current eyewash stations are served by cold water only and there is no eyewash station in the kitchen.

Classroom sinks are in poor condition. All are experiencing hard water stains, rust in the bowls and rust on the fixtures. Furthermore, faucets either leak, do not work, or have very low flow due to blockage within the supply pipe.

Faucets are missing aerators.

Lavatories within the building are missing pipe wrap to meet ADA needs.

1958 Building: Fixtures in the restrooms are in rough condition. Fixtures are stained and some are cracked. In addition the chrome finish on the flush valves is wore off.

Faucets in the restrooms are in poor shape. Many have bad or no water flow.

The mop sink faucet is leaking.

1962 Addition: The electric water cooler is loose and not mounted securely. In addition, the unit has broken handles.

The kitchen sink has a loose faucet.

The faucet on the sink in the food storage / office space is leaking.

Shower fixtures are leaking and leaving water stains behind.

System Condition: Fair

Storm Water/Roof Drains

System Description: The building has a primary roof with overflow scuppers. The primary roof drainage is collected internally and then piped out below grade to the nearest storm sewer for all of the areas of the building.

System Observations: Storm water and roof drains appear to be working.

System Condition: Good

Natural Gas Piping

System Description: There is a 3" interruptible gas and 1 1/2" firm gas service that is located outside of the boiler room.

System Observations: Gas lines appear intact with no concerns observed.

System Condition: Good

RECOMMENDATIONS

Domestic Water

Add thermostatic mixing valve to all eyewash stations.

Add pipe wrap to lavatories.

Replace faucet in kitchen sink, and food storage/office.

Replace leaking valve in showers.

Replace missing/damaged domestic water piping insulation.

Install aerators on all faucets in the building.

Repair broken faucet on mop sink.

Replace galvanized domestic water lines.

Repair broken electric water coolers and secure to wall.

Replace sinks in restrooms and classrooms.

Replace urinals in men's restrooms.

Replace water closets in restrooms.



Leaking shower valve



PLUMBING CONDITIONS SYSTEM PRIORITY TABLE

	1	2	3	4	COST
Add thermostatic mixing valve to all eyewash stations	●				\$6,000
Add pipe wrap to lavatories	●				\$7,000
Replace faucet in kitchen sink		●			\$200
Replace faucet in food storage/office		●			\$200
Replace leaking valve in showers		●			\$2,000
Replace missing/damaged domestic water piping insulation		●			\$8,000
Install aerators on all faucets in the building		●			\$2,000
Fix broken faucet on Mop Sink		●			\$400
Replace galvanized domestic water lines		●			\$150,000
Fix broken electric water coolers and secure to wall		●			\$800
Replace sinks in restrooms		●			\$6,000
Replace sinks in classrooms			●		\$16,000
Replace urinals in men's restrooms			●		\$4,000
Replace water closets in restrooms			●		\$6,500



Mini split for cooling in computer lab



Unit ventilators to heat classrooms



Office off of Kitchen with no air movement



Office in hallway with no air movement

PHYSICAL CONDITIONS

MECHANICAL CONDITIONS

Review of existing mechanical systems and their components including verification that HVAC systems, as plumbing fixture counts, water piping, and water supply meet current building codes.

OBSERVATIONS

The American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE), founded in 1894, is a global society advancing human well-being through sustainable technology for the built environment. The society, and its members, focus on building systems, energy efficiency, indoor air quality (IAQ), refrigeration, and sustainability within the industry.

ASHRAE Standard 55 was first published in 1966 and outlines conditions in which 80% of building occupants will find the environment thermally acceptable. There are six factors that impact thermal comfort:

- Metabolic Rate
- Clothing Insulation
- Air Temperature
- Radiant Temperature
- Air Speed
- Humidity

All six of these factors vary with time. In addition, it is important to note the effect of prior exposure or activity may affect comfort perceptions for approximately one hour.

First published in 1973, the purpose of ASHRAE Standard 62.1 is to specify minimum ventilation rates and other measures intended to provide indoor air quality that is acceptable to human occupants and minimizes adverse health effects.

Additionally, the U.S. Environmental Protection Agency (EPA) defines good indoor air quality management to include:

- Control of airborne pollutants;
- Introduction and distribution of adequate outdoor air, and
- Maintenance of acceptable temperature and relative humidity.

Facility assessments are focused on the physical conditions of current equipment and we are reporting conditions in need of maintenance and/or repair. However, our recommendations reflect system modifications necessary to achieve good indoor air quality as defined by ASHRAE and the EPA.

Heating Plant

System Description: Two hot water boilers heat the entire building. The backup fuel system for the boilers is fuel oil. The fuel oil storage tank is located right next to the natural gas meters. The main boiler #1 has an unknown capacity while the secondary boiler #2 has a capacity of 1,440 MBH. These boilers run at roughly 80% efficiency. Newer hot water condensing boilers run at 90%-94% efficiency. The hot water travels throughout the building to various pieces of equipment throughout the building. These items include:

- UH – Unit Heater
- CUH – Cabinet Unit Heater
- UV – Unit Ventilator

System Observations: The Heating Plant is operating at low efficiency. There is a lack of controls and alarms to support efficient operation.

System Condition: Fair

Air Handling and Ventilation

System Description: *Classrooms:* The classrooms utilize in-room heat only unit ventilators along with fin tube radiation along the exterior wall to provide heat and outside air for each space. Unit Ventilators do not control the amount of outside air needed relative to carbon dioxide levels for the space and usually under ventilate the space. As outside air is introduced into the classroom, stale air passes through transfer grilles located within classroom doors into the hallway and eventually makes its way outside through pressure relief vents.

The computer lab has a mini-split installed on the exterior wall to allow for cooling needed due to the heat gain of the computers. The condenser for this unit is located on the ground directly outside the unit.

Gymnasium

The gymnasium consists of heat only unit ventilators to provide the fresh air for the space. Unit Ventilators do not control the amount of outside air needed relative to carbon dioxide levels for the space and usually under ventilate the space. Each of the unit ventilators have one hot water heat coil and is mounted up on the wall along the exterior wall.

System Observations: *General:* Louvers seals appeared to be damaged and could allow water sneak into the walls of the building. Louvers contained debris, were rusted, dented, or smashed.

The HVAC systems are controlled by a pneumatic system.

Restrooms

A general note for return/exhaust grilles is that they are dirty and rusted which can reduce airflow.

Classrooms

A large majority of the classrooms have the transfer grille located in the doors removed which traps the air in the classroom. The unit ventilator will bring a certain amount of outside air into the space. The air already in the space has to go somewhere when more air is added. The rooms that don't have the louver to relieve the air to the hallway become pressurized which can pose problems.

Kitchen

The office in the kitchen has no source of air movement or heat. Code requires a certain amount of outside air dedicated to an occupied space.

The room that has the cooler and freezer was warm. This is due to the large heat gain from the compressors of the coolers that was located in the space.

The kitchen is lacking a dedicated source of makeup air for when the exhaust hood is on.

Vestibules

The two vestibules located off of the hallway near the gymnasium are lacking any sort of heat. The vestibules looked like they were added after initial construction and no heat source was added to the vestibule.

Hallway Office

There was an office placed in the hallway which doesn't meet code. There is no form of outside air dedicated to the office space. Code requires a certain amount of outside air dedicated to an occupied space.



No air movement in offices

IT/Chemical Closet

There is no air movement in the room.

Offices

The front offices lack any form of fresh air. The exterior rooms in this area have fin tube radiation to handle the envelope loss but no source of outside air. The internal rooms in this area don't have fin tube radiation or fresh air movement. Code require a certain amount of outside air dedicated to an occupied space. Adding air to the space as well as some fin tube or unit heater is recommended to allow the space to be used as an office.

System Condition: Poor

RECOMMENDATIONS

Heating Plant

Replace heating plant with hot water condensing boilers with operating efficiencies of 90%-94%.

Air Handling and Ventilation

Converting the building over to having digital controls and putting the entire building on a building management system is recommended to help manage the building and run efficiently.

Installation of an exhaust fan to help get rid of the chemical smells, as well as keep the IT equipment cool is recommended.

Clean dirty and replaced if rusted restroom return/exhaust grilles.

At a minimum, it is recommended that all classrooms have louvers or transfer grilles to allow for the air to leave the classrooms. Once in the hallway a relief damper should be installed to allow for the air to leave the building.

Current design can't monitor or guarantee that ASHRAE Standard 90.1 can be obtained. ASHRAE 90.1 is an international standard that provides minimum requirements for energy efficient designs for buildings. The best long-term solution is to install new HVAC systems throughout the building.

Adding air to the kitchen office space, as well as some fin tube or unit heater is recommended.

Add cooling or exhaust air is recommended to help keep the cooler and freezer space cooler.

A dedicated source of outside air from a makeup air unit is recommended to be installed to compliment the kitchen exhaust.

Add a cabinet unit heater in each of the vestibules near the gym to help keep the spaces warm in winter months.

Add outside air to the office of the hallway space as well as some fin tube or unit heater is recommended.



MECHANICAL CONDITIONS SYSTEM PRIORITY TABLE

	1	2	3	4	COST
Add air movement to the office located in the hallway	•				\$2,000
Add exhaust to the IT closet/chemical storage room	•				\$2,500
Add air movement to kitchen office/food storage	•				\$8,000
Add makeup air unit for the kitchen hood	•				\$16,000
Add air movement to the offices and internal rooms	•				\$8,000
Upgrade ventilation system to meet ASHRAE 62.1		•			\$1,250,000
Update controls to eliminate pneumatic		•			\$120,000
Install relief dampers and transfer grilles in classrooms		•			\$12,000
Add a cabinet unit heater to the vestibules		•			\$6,000
Replace boilers			•		\$350,000
Clean return/exhaust grilles and replace rusted/damaged grilles				•	\$4,500
Relocate refrigerator/freezer compressor to outside the building				•	\$3,000





Utility transformer



Main switchboard without proper working clearance



Corridor with a combination of fluorescent and incandescent lighting



Exterior LED light

PHYSICAL CONDITIONS

ELECTRICAL CONDITIONS

Review of the existing building electrical systems including electrical service, distribution, and lighting. This section also documents technology systems and components including the security system and others as applicable.

OBSERVATIONS

Service

System Description: The main building has a 600-amp, 120/240 volt, 1-phase, 3-wire electrical service that is fed by a pad-mounted transformer on the east side of the building.

System Observations: The electrical service seems to be serving the building well, and is sized appropriately.

System Condition: Good

Energy Usage

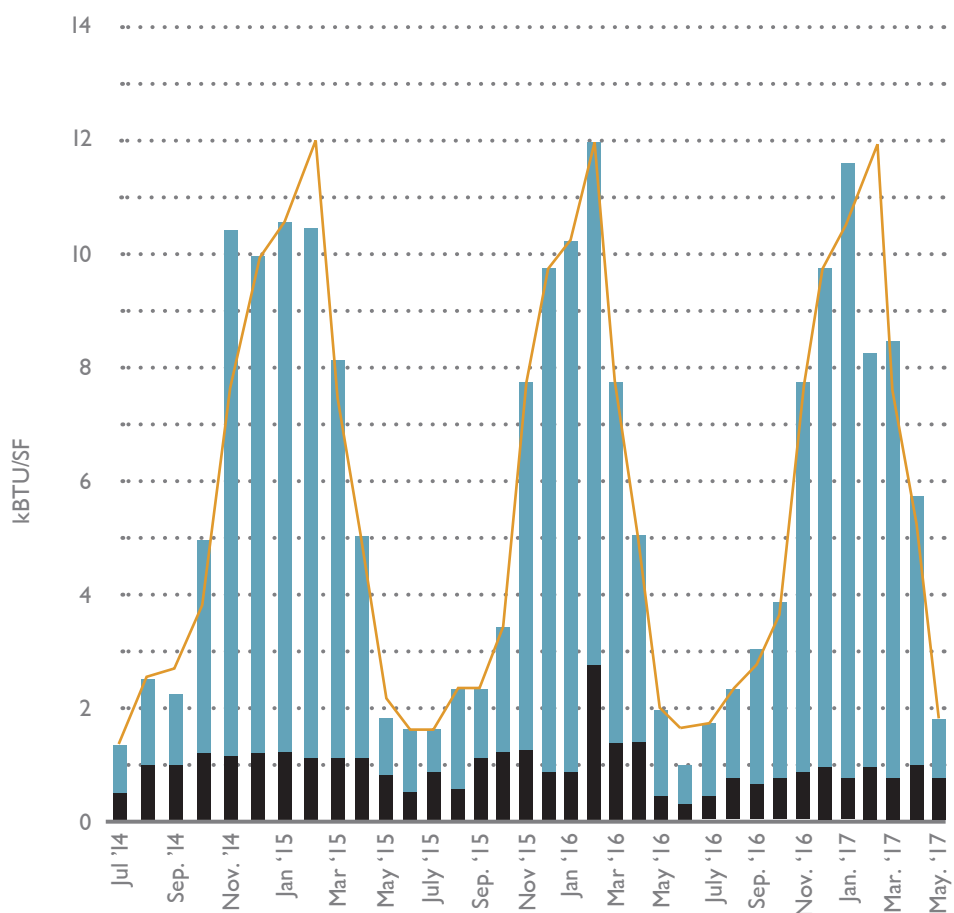
Utility data for gas and electricity over the last three years was analyzed to see if the facility's energy consumption has been consistent, and also how the School compares to other schools in the state. Looking at the Monthly Per Square Foot Energy Usage chart, the School has been pretty consistent over the last three years. Using the 2015-2016 data as a baseline, the School saw an increase in energy usage during the month of January, and a large drop in February. The overall year of 2016-2017 shows a slight decrease of 0.39 kBTU/SF, which is a reduction of less than 1% compared to 2015-2016. The deviation is quite small, and could be attributed to some warmer winter months in 2016-2017, as a few of the schools analyzed in this study showed similar results. A baseline can be established with these numbers to compare future energy usage. If there are large discrepancies with that baseline and future data, it can reveal if equipment is failing or if other issues are occurring.

The utility data was also averaged out over an entire year. Again, 2015-2016 was used as a baseline to compare the 2016-2017 data. The data can be seen in the following table. The data can also be compared to other schools in the state's public B3 Benchmarking data. The data is averaged per square foot so schools can be compared without the total size of the school having a large effect. Only the most recent year's data is compared.

The 64.01 total kBTU per square foot per year shown in the table on the next page would put the facility at the 102nd spot on the B3 Benchmarking List of Public Schools ranked by EUI (Energy Use Intensity). It would fall in the category of <100 kBTU/SF/yr, which is the top category. The School could still implement various mechanical and electrical improvements listed in this report to improve the facility's energy efficiency.

Electrical Gear

System Description: The facility's electrical service terminates in a 600-amp rated main switchboard in the receiving area. The switchboard then feeds equipment and branch panels throughout the facility.



	KBTU PER SF PER YEAR		
	ACTUAL	BASLINE	CHANGE FROM BASELINE
ELECTRIC	12.20	14.65	2.45
GAS	51.81	49.75	-2.06
TOTAL	64.01	64.40	0.39
% CHANGE	0.61%		

*Based on building square footage of 31,572 SF

System Observations: The main electrical gear was manufactured by General Electric, and appears to be original to the building. It is likely past or approaching the end of its estimated useful life of 30 years. The main issue with the electrical gear is that a walk-in cooler was installed directly in front of the main switchboard and is only providing 2 feet of clearance in front of the equipment, while the National Electric Safety Code requires a minimum clearance of 3 feet in front of all electrical gear.

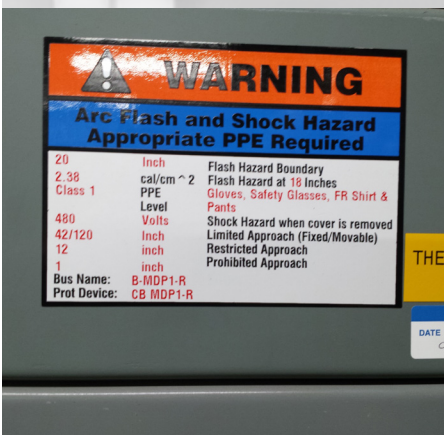
It does not appear that any of the existing equipment is properly labeled for arc flash hazards. If any equipment is added, an arc flash study should be performed and proper labeling applied to ensure all equipment is rated for the available short circuit current.



Receptacle near sink without GFCI protection



Branch panel with sagging cover



Example of proper labeling for electrical equipment

System Condition: Main electrical gear - Fair

Power + lighting branch panels - Fair

Light Fixtures

System Description: The interior lighting for the facility is mostly linear fluorescent T8 fixtures with some older incandescent fixtures still in the corridors. All the interior lighting is manually switched with no automatic controls.

The exterior utilizes building-mounted LED light fixtures. The exterior lighting appears to be automatically controlled by a photocell to turn on from dusk until dawn.

System Observations: The majority of the interior lighting has been upgraded to T8 linear fluorescent fixtures from the facility's original incandescent fixtures. There are still some older recessed incandescent fixtures in the corridors. Light levels are adequate, except in those corridors still using incandescent fixtures.

The exterior lighting has been upgraded to LED fixtures.

System Condition: Fair

Code Compliance

System Observations: Receptacles located within 6 foot of a sink require GFCI protection. It appears that some receptacles did not meet this requirement.

The cover for one of the branch panels located in the kitchen receiving area has sagged down the panel, exposing wires and busing. The cover should be repositioned to ensure that all live parts are covered.

RECOMMENDATIONS

Service

The electrical service should continue to serve the facility well. If any building additions or more mechanical cooling is planned, a detailed system analysis should be performed to determine if the existing service has the additional capacity required, or if a larger service will be required.

Electrical Gear

While the electrical panels and switchboard are past their estimated useful life, they appear in good working order, and will likely continue to serve the building. With older electrical equipment, it can be difficult to find replacement parts. If any modifications or repairs are required, the electrical gear should be evaluated to see if it can be utilized or will need to be replaced.

The walk-in cooler that is located in front of the main switchboard and electrical panels should be relocated so that the required 3 feet of clearance is provided in front of the main switchboard and branch panels currently located behind the unit. The intent of the clearance requirement is to provide space for working on the unit without endangering workers.

Light Fixtures

The existing fluorescent light fixtures are in good condition and should continue to serve the building well, as linear fluorescent T8 lamps are efficient and still widely used and available. The remaining incandescent fixtures should be replaced, as these fixtures are not nearly as efficient, and bulbs for them are becoming more difficult to acquire. The

interior lighting controls should be further evaluated to see if the School would benefit from automatic controls and occupancy sensors to reduce energy consumption and operating costs when spaces are not being used.

If significant modifications are made to the lighting, current energy codes will require that lights automatically turn off when a space is unoccupied, and automatic dimming fixtures be used near windows to adjust based on the natural sunlight coming into a space.

Code Compliance

The walk-in cooler currently located in front of the main switchboard should be relocated to provide the necessary 3 feet of clearance in front of the electrical panels. It should be verified that all receptacles near sinks are provided with GFCI protection. The sagging branch panel cover, located in the kitchen, should be replaced if it is damaged and will no longer provide the necessary coverage.

An arc flash study should be performed on the facilities electrical systems, and labels added to electrical equipment with updated information that is required by the most



ELECTRICAL CONDITIONS SYSTEM PRIORITY TABLE

	1	2	3	4	COST
Perform arc flash study and label electrical equipment			●		\$10,000



Typical security camera



Entrance with video door station

PHYSICAL CONDITIONS

SECURITY CONSIDERATIONS

Assessment of existing security equipment installed throughout the building. Review of existing primary entryways into the facility including door locations and visitor access.

OBSERVATIONS

Security Camera System

System Description: The building is outfitted with a CCTV camera system that is part of the security system platform, which also includes access control. The main video recording hardware is made up of Intevo components by Kantech. The cameras are analog type manufactured by Bosch.

System Observations: Cameras have been placed in the main corridors. No cameras are utilized in the gymnasium or around the exterior of the building.

System Condition: Fair

Access Control System

System Description: The building's access control system is part of an integrated security platform system that combines surveillance cameras with access control. The access control is a Kantech KT-400 platform that utilizes electronic card readers and door position sensors at required entrances. Electronic card readers allow staff members to gain entry when the building is locked without having to use an actual key. Card readers give the administration more flexibility in how they control access to the School by allowing them to place limitations on who can gain access into which area. If a card is lost or stolen, the administration can program the system to remove the lost card's ability to unlock doors, whereas older systems would require them to replace the locks. Door position sensors are also an added benefit of an access control system, as they notify the administration if a door has been propped open or forced open.

The School also has implemented the use of a video door station at the main entrance and the kitchen receiving entrance to control access to the building. Anyone attempting to enter the facility must first press a call button to alert staff that someone is at the door. An intercom and camera are incorporated into the door station to allow staff to identify anyone at the door before allowing them access to the building. Visitors at the main entrance are then required to enter the building through the main office before gaining access to the rest of the School. Visitors at the receiving entrance can be identified and then allowed in to make deliveries.

System Observations: Only two of the building's entrances appeared to be monitored or use access control technology.

System Condition: Good

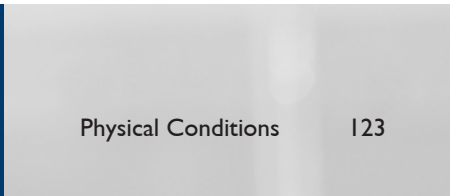
RECOMMENDATIONS

Add exterior cameras. Add remaining exterior entries into access control system.



SECURITY CONDITIONS SYSTEM PRIORITY TABLE

	1	2	3	4	COST
Add exterior cameras		●			\$22,000
Add remaining exterior entries into access control system			●		\$30,000



PROGRAMMING + EDUCATIONAL ADEQUACY



PROGRAMMING + EDUCATIONAL ADEQUACY SPACE UTILIZATION

Review of the existing spaces to determine if area fulfills programming needs and are adequately sized to serve the existing school population per Minnesota Department of Education (MDE) standards.

OBSERVATIONS

Overall, the classrooms serving grades 1st - 5th Grades are adequately sized. The two Pre-K spaces, and one of the Kindergarten rooms are undersized, however. With 163 total students, it offers one section per grade for 1st through 5th grade. Two sections are dedicated to kindergarten and one to Pre-K programs that account for students. The breakdown of Pre-K students and their schedules are as follows:

- Mornings for 3 year olds on Tuesday, Wednesday, and Thursday
- Afternoons sessions for 4-5 year olds, Monday through Friday

Considering the limited time the preschool students occupy the building the current full day equivalent student load is 149 students. As with all districts there are variations in class sizes from year to year. The optimal student capacity for an elementary school is 90% of its maximum capacity, in which these fluctuations wouldn't occur. The maximum capacity for Pleasantview Elementary is 171 full time students. Therefore the optimal student capacity for the building is 154 full time students. Currently, with 149 full day equivalent students Pleasantview proves to have a sufficient number of classrooms as the facility efficiency is at 97%.


Educational Spaces

The classrooms serving grades 1 – 5 are sized appropriately per the Minnesota Department of Education standards. Furnishing throughout the school seem to be working for all grades. Kindergarten room 101 is adequately sized and works very well for differentiated instruction utilizing a portion of the space with tile floors and a portion with carpet tiles. This room is equipped with direct egress, locker areas within the room, as well as a sink and restrooms within the space (though they are not compliant with ADA standards).

Unfortunately the other kindergarten and Pre-K spaces aren't as sufficiently equipped. Each is well under MDE recommendations for square footage. Consistency of temperature and the need for more electrical outlets was also noted as needs in these rooms.

The special educational department is provided with its own space which serves roughly 29 students throughout the day. Providing instruction for a plethora of students, the flexible seating within the space offers great options for learners. There are some glare issues on the east side during morning hours and more electrical outlets would go a long way in aiding the teaching process.

The Title I room typically serves 2-3 students at a time. As reading instruction is performed here, enhancements to acoustical treatments would create a better experience for the students. Ideally this activity would have physical delineations and have a dedicated space as to limit distractions. About 10-11 Special Education students currently share this space



Art is provided for students on Mondays at Pleasantview. Music programming is also provided for the students. As this is naturally a louder activity, a need for acoustical treatment was communicated to enhance the space. The gymnasium at Pleasantview is roughly half the size of what would be desirable per MDE standards. The space doubles as cafeteria space during the two lunch periods which creates a conflict during set-up and take-down times. The flooring is currently tile and too slippery for much of the curriculum being taught within the space. Unfortunately, due to the limited space, adaptive physical education is pushed out and administered in the hallways. The lack of dehumidification in addition to the gymnasium's adjacency to the kitchen create a less than optimal climate control and student comfort. Finally, the low ceiling height and lack of technology and sound equipment limit the types of curriculum that can be taught in the space. The exterior amenities offer a variety of outdoor physical activities for the students and is an asset during warmer months.

Administrative Spaces

The main office offers a secure entrance to building visitors. It accommodates general reception, the principal and nurse. A conference room dedicated to student and parent interaction is needed within the suite.

SUMMARY

For a facility of its age, the instructional spaces inside Pleasantview have been maintained well to serve students. Additional storage would benefit teachers, building staff, and student programming alike.

FIRST FLOOR



Educational Adequacy Assessment

Jackson County Central Public Schools

Pleasantview Elementary School

ISG

Project 17-20569

December 13, 2017

Grade Configuration:		Pre-K - 5th Grade									
Total Student Enrollment		163									
Full Day Student Equivalent		149									
Staff		20									
							Recommended				
Description	Notes		Room #	Usage	Shared Space	Subtotal	Low Range	High Range	Avg. Student Capacity	Student Capacity Range	Current Max. Student Capacity
School Learning Spaces											
Classrooms											
Pre-K	Undersized		106	Full time	No	880	1,000	1,400	20	15-25	14
Kindergarten	Undersized		105	Full time	No	880	1,200	1,500	22	15-25	14
Kindergarten			101	Full time	No	1,202	1,200	1,500	22	15-25	19
Classroom - 1st Grade			102	Full time	No	875	850	950	24	20-28	23
Classroom - 2nd Grade			107	Full time	No	860	850	950	24	20-28	22
Classroom - 3rd Grade			132	Full time	No	860	850	950	24	20-28	22
Classroom - 4th Grade	Undersized		124	Full time	No	826	850	950	24	20-28	21
Classroom - 5th Grade			133	Full time	No	851	850	950	24	20-28	22
Subtotal (Classrooms)						7,234	7,650	9,150	182		157
Special Education											
Reading Intervention	Oversized		131	Full time	No	860	450	450	6	5-8	8
Boost Up Room			123	Full time	No	826	800	1,200	6	5-8	5
Speech/Title 1 Classroom			104	Full time	No	880	800	1,200	6	5-8	6
Special Educatoin Classroom/Lab			112	Full time	No	1,086	800	1,200	6	5-8	7
Subtotal (Special Ed.)						3,652	2,850	4,050	25		26
Common Spaces											
Small Group/Conference/Office - Speech	Facility Deficient			Full time	No		150	200	4	4	0
Large Group - Team Learning Areas	Facility Deficient			Full time	No		1,200	1,800	128	150	0
Subtotal (Common Spaces)						0	1,350	2,000	132		0
Library / Media Center											
Entrance / Circ / Distribution			129	Full time	No	600	600	600	n/a		
Seating / Stacks Comp / Ref (8-10% stud. x 35SF)	Oversized		129	Full time	No	599	417	522	n/a		
Librarian Office	Facility Deficient			Full time	No		150	150	n/a		
Small Group / Conf / Office - Reading Corps.	Facility Deficient			Full time	No		150	200	n/a		
Multimedia Production	Facility Deficient			Full time	No		100	100	n/a		
Classroom	Facility Deficient			Full time	No		800	800	n/a		
Workroom / Storage	Facility Deficient			Full time	No		400	600	n/a		
Professional Library	Facility Deficient			Full time	No		200	200	n/a		
Subtotal (Library / Media Center)						1,199	2,817	3,172			
Technology											
Computer Lab	Undersized		130	Full time	No	860	1,000	1,400	25	25	17
Control and Headrooms	Facility Deficient			Full time	No		640	740	n/a		
Copy Center	Facility Deficient			Full time	No		500	800	n/a		
ITV/Distance Learning	Facility Deficient			Full time	No		900	900	n/a		
TV/Video Studio	Facility Deficient			Full time	No		1,250	1,250	25	25	0
Subtotal (Technology)						860	4,290	5,090	50		17
Art/Science											
Multipurpose	Undersized		125	Full time	No	826	1,000	1,500	22	20-28	14
Science Lab Prep	Facility Deficient			Full time	No		250	250	n/a	20-28	0
Kiln/Glazing/Clay/Damp Rm.	Facility Deficient			Full time	No		250	250	n/a		
Subtotal (Art)						826	1,500	2,000	22		14
Music											
Instrumental	Facility Deficient			Full time	No		1,500	2,000	55	60-90	0
Choral	Facility Deficient			Full time	No		1,200	1,700	55	60-90	0
General Music	Undersized		126	Full time	No	816	1,000	1,500	30	25-35	14
Instrumental Stor. & Circ.	Facility Deficient			Full time	No		600	800	n/a		
Ensemble Keyboarding Lab	Facility Deficient			Full time	No		400	500	n/a		
Subtotal (Music)						816	4,700	6,500	139		
Physical Education/Athletics											
Gymnasium (Two Stations)	Undersized		120	Partial	Yes	3,350	6,000	8,000	56	52-60	14
Multipurpose / Auxiliary Gymnasium	Facility Deficient			Full time	No		1,700	1,700	28	26-30	0
Adaptive Physical Education	Facility Deficient			Full time	No		500	500	6	5-8	0
General Storage (300 Per Station)	Facility Deficient			Full time	No		300	300	n/a		
Subtotal (Physical Education / Athletics)						3,350	8,500	10,500	90		
Subtotal - School Learning Spaces (NSF)							17,937	33,657	42,462	642	157
Current Max. Student											157
Optimal Student Capacity (90% of Max. Capacity)											141
Current Full Day Student Equivalent Enrollment											149
Facility Efficiency											105%

Description	Notes		Room #	Usage	Shared Space	Subtotal	Low Range	High Range	Avg. Student Capacity	Student Capacity Range	Current Max. Student Capacity
School Support Spaces											
Administration / Health Services											
Reception / Waiting			Reception	Full time	No	308	250	400			
Principal	Undersized		113	Full time	No	128	150	200			
Assistant Principal	Facility Deficient			Full time	No		150	200			
Secretarial Work Station			Part of Rec.	Full time	No	80	80	100			
Work Room and Mail Area	Undersized		Part of 108	Full time	No	260	300	300			
Small Conference Room	Facility Deficient			Full time	No		150	200			
Large Conference Room	Facility Deficient			Full time	No		250	400			
Other Offices	Facility Deficient			Full time	No		100	150			
Restroom	Undersized		110	Full time	No	42	120	180			
Scheduling / Computer Services	Facility Deficient			Full time	No		150	250			
School Nurse / Health Services	Undersized		112	Full time	No	128	600	800			
Subtotal (Administration / Health Services)						946	2,300	3,180			
Guidance / Student Services											
Guidance Office	Oversized		109	Full time	No	266	150	150			
Secretarial Work Station	Facility Deficient			Full time	No		80	100			
Conference Room	Facility Deficient			Full time	No		150	200			
Phychologist, Social Worker Office	Oversized		127	Full time	No	279	100	150			
Career Center	Facility Deficient			Full time	No		400	1,000			
Testing	Facility Deficient			Full time	No		100	100			
Records / Supplies / Storage	Oversized		111/128	Full time	No	368	200	250			
Student Store / Activities	Facility Deficient			Full time	No		400	700			
Subtotal (Guidance / Student Services)						913	1,580	2,650			
Teachers / Staff											
Planning Work Stations (50 SF per staff)	Facility Deficient			Full time	No		1,000	1,000			
Offices	Facility Deficient			Full time	No		100	150			
Conference/Kitchenette/Print (10-20 SF per staff)			Part of 108	Full time	No	200	200	400			
Toilets	Facility Deficient			Full time	No		120	180			
Subtotal (Teachers / Staff)						200	1,420	1,730			
Food Service											
Cafeteria Dining Space (14-16 SF per stud.)	Oversized		120	Partial	Yes	3,350	2,086	2,384			
Staff Dining Space (20 SF / staff dining)			Part of 108			400	400	400			
Kitchen			118	Partial	No	659	500	1,000			
Serving Line	Facility Deficient						800	800			
Dry Food Storage / Receiving	Undersized		117	Partial	No	384	600	300			
Cooler/Freezer	Undersized		119			384	600	600			
Freezer	Facility Deficient						0	0			
Dishwasher	Facility Deficient						300	300			
Office	Undersized		121			109	150	150			
Locker Rooms / Restroom	Facility Deficient						120	120			
Receiving and Holding	Facility Deficient						0	0			
Table Storage	Facility Deficient						800	1,000			
Subtotal (Food Service)						5,286	6,356	7,054			
Auditorium											
Seating - 250 seats	Facility Deficient						2,500	2,500			
Stage	Facility Deficient						2,200	3,000			
Dressing Rooms	Facility Deficient						400	500			
Make-Up Room	Facility Deficient						200	250			
Restrooms with Showers	Facility Deficient						128	128			
Costume Storage	Facility Deficient						150	225			
Scene Shop	Facility Deficient						800	1,000			
Lobby	Facility Deficient						492	1,000			
Restrooms in Lobby Area	Facility Deficient						600	600			
Control Room	Facility Deficient						200	240			
Dimmer Room	Facility Deficient						120	150			
Catwalks	Facility Deficient						600	1,000			
Loading Bridge	Facility Deficient						150	150			
Piano Storage	Facility Deficient						80	80			
Other Options	Facility Deficient										
Subtotal (Auditorium)						0	8,620	10,823			
Subtotal - Net School Support Spaces						7,345	20,276	25,437			
Combined Subtotal - Net	Net School Learning Spaces + Net School Support Spaces					25,282	53,933	67,899			
Building Support Spaces											
Building Systems and Maintenance											
Custodial	Undersized		122	Full time	No	209	400	600			
Custodial Closets	Facility Deficient						40	40			
Restrooms	Oversized	2.5% x NSF	T	Full time	No	969	632	632			
General Storage	Oversized	3% x NSF	103	Full time	No	1,040	758	758			
Mech/Elec Interior Systems	Undersized	7.5-8.5% x NSF	116	Full time	No	606	1,896	2,149			
Circulation and Structure	Undersized	35-45% x NSF	100	Full time	No	3,226	8,849	11,377			
Subtotal - School Support Spaces						6,050	12,575	15,556			
TOTAL BUILDING (GSF)						31,332	66,509	83,455			

Educational Adequacy Assessment

ISG

Jackson County Central Public Schools

Project 17-20569

Pleasantview Elementary School

December 13, 2017

Grade Configuration:	Pre-K - 5th Grade
Total Student Enrollment	163
Full Day Student Equivalent	149
Staff	20

							Recommended				
Description	Notes		Room #	Usage	Shared Space	Subtotal	Low Range	High Range	Avg. Student Capacity	Student Capacity Range	Current Max. Student Capacity
Outdoor Activity Spaces											
							Square Feet	Acres			
Multipurpose	100' x 120'						12,000	0.28			
Track and Field	320' x 600'						192,000	4.41			
Shot Put	60' x 80'						4,800	0.11			
Discuss	100' x 180'						18,000	0.41			
Football	160' x 360'						57,600	1.32			
Soccer	225' x 360'						81,000	1.86			
Softball	320' x 320'						102,400	2.35			
Baseball	360' x 360'						129,600	2.98			
Archery	90' x 225'						20,250	0.46			
Driving Range	80' x 750'						60,000	1.38			
Tennis	48' x 120'						5,760	0.13			
General Purpose	100' x 200'						20,000	0.46			
Competitive Field	400' x 650'						260,000	5.97			
Parking	350 SF x 1,000 stalls						350,000	8.03			
Concessions / Restrooms	40' x 60'						2,400	0.06			
Subtotal								30.21			
Transition Spaces	30% x NSF (subtotal)						9	0.00			
TOTAL OUTDOOR ACTIVITY SPACE (GSF)								30.21			

JACKSON COUNTY CENTRAL MIDDLE SCHOOL





FACILITY OVERVIEW

JCC MIDDLE SCHOOL

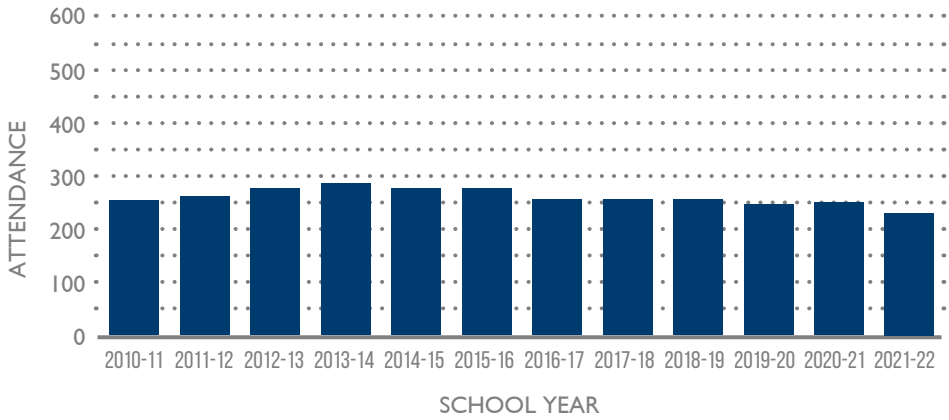
PROPERTY

LAND PARCELS COMPRISING JCC MIDDLE SCHOOL PROPERTY

243211390	1.71 Acres	Middle School
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ENROLLMENT



SITE INFORMATION

CONSTRUCTED: 1920

ADDITIONS: 1953, 1958, 1964, 1984

SITE ACREAGE: 1.71 Acres

BUILDING AREA: 73,432 sf

USES: 6th-8th Grade

PHYSICAL CONDITIONS



PHYSICAL CONDITIONS

SITE CONDITIONS

Review of the existing building site including parking spaces, concrete walks, and other horizontal site elements. Site circulation, grading, paving, parking, stormwater, and playground space were also reviewed.

SITE OBSERVATIONS

Ingress + Egress

System Description: Ingress and Egress is provided by surrounding four streets; 5th Avenue North, Cherry Street, 4th Avenue North, and North Griffin Street. The bus drop-off location along 4th Avenue North.

System Observation: There is no designated staff parking or pick-up/drop-off locations on site which may cause congestion at times of pick-up/drop-off.

System Condition: Fair

System Recommendations: The surrounding roadways are within the city's right-of-way (ROW) and would require coordination with the City. There is no room within the property to allow for better access. If dedicated parking areas were desired, an adjacent lot would need to be purchased.

SITE OBSERVATIONS: PARKING + CIRCULATION

Bus Loading Zone

System Description: The bus loading zone is located along 4th Avenue North on the south side of the school, with bus traffic typically entering from the east and traveling west on 4th Avenue North.

System Observation: The bus loading area provides access to the main entrance (door 1) and can stack approximately four school buses. 4th Avenue North is approximately 40 feet wide, which allows for two-way traffic to be maintained while buses are parked. There is no designated signing or striping on 4th Avenue North to clearly delineate the bus loading zone from pick-up/drop off locations.

System Condition: Fair

System Recommendations: Construct bus loading zone signage and striping along 4th Avenue North to clearly designate the space's use. The surrounding roadways are within the city ROW and would require coordination with the city.

Truck Loading Zones

System Description: Along 5th Avenue North there is access to two garage doors on the north face of the school. The two garage doors are accessible via two concrete driveways.

System Observation: The driveways are in poor condition with longitudinal / transverse cracks, exposed aggregate, vegetation growing through the joints and cracks, and signs of weathering. The two concrete accesses are separated by bituminous pavement, which is also in poor condition.



Bus loading zone along 4th Avenue North on the south side of the school



No designated signing or striping on 4th Avenue North



Cracking, exposed aggregate, vegetation, and signs of weathering on driveway



Damaged bituminous pavement separating concrete accesses



Lack of pavement markings/stripping and designating parking spaces.



Unmounted handicap sign



Sediment collection at the junction of the sidewalk panels and curb line



Cracking in concrete walkways

The bituminous pavement was evaluated and given a Pavement Condition Rating (PCI) of 7/100. The deficiencies observed included significant alligator, transverse, and longitudinal cracks and needs to be reconstructed.

The pavement drainage consists of sheet flows from south to north, collecting in curb style catch basins in the concrete curb and gutter. However, significant sediment buildup within the gutter line was observed, indicating adequate drainage may not be currently obtained along the roadways.

System Condition: Poor

System Recommendations: Reconstruct the bituminous and concrete driveways. Routine inspection and maintenance is recommended for the pavement to ensure the full design life is achieved.

Staff Parking Location

System Description: Due to site constraints there is no parking available on site, however, street parking is provided along Cherry Street and 5th Avenue. A city-owned parking lot is also available at the southwest corner of 4th Avenue and Main Street.

System Observation: At the time of inspection, no pavement markings/stripping designating parking spaces. The available space allows for approximately 10 vehicles to park on either side of the street. The lack of signage and available parking spots may lead to congestion during pick-up / drop-off periods. The city-owned parking lot is in very poor condition and will require full reconstruction.

According to the City of Lakefield's City Code, a minimum of one parking space per classroom is required. With 20 classrooms, the minimum required parking stalls provided is 20.

System Condition: Poor

System Recommendations: The surrounding roadways are within the city ROW and any adjustments would require coordination with the city. Stripe parking spaces along adjacent streets to maximize parking stalls. Because no parking can be constructed onsite, the school is reliant on the city-owned lot at the southwest corner of 4th Avenue and Main Street.

Accessible Parking Spaces and Access

System Description: Two handicap-accessible parking spaces are provided, one along Cherry Street and one along North Griffin Street.

System Observation: The handicap-accessible parking sign along Cherry Street does not meet current Americans with Disabilities Act (ADA) requirements as it is not mounted and does not meeting height requirements. The current location of the sign is near a non-ADA accessible sidewalk with no ADA accessible route nearby.

The second ADA accessible sign is mounted along North Griffin Street, near an accessible ramp located at the intersection with 4th Avenue North. The ramp has visible sediment collecting at the junction of the sidewalk panels and the curb line, indicating inadequate stormwater drainage.

No Parking signs are located along North Griffin Street, prohibiting parking on Monday through Friday from 7:30 AM to 3:30 PM. Safe Zone and Children at Play signs are located on North Griffin Street and 5th Street Avenue, on the wooden electrical posts. The 2010 ADA standards for Accessible Design required the access to the school from the accessible parking stalls to have a grade requirement of 2 percent maximum cross-slope and 5 percent maximum running slope.

System Condition: Poor

System Recommendations: The surrounding roadways are within the city ROW and any alterations would require coordination with the City. The handicap accessible signage on Cherry Street should be replaced and remounted to meet ADA standards, and accompanied by an ADA accessible ramp. The ADA accessible ramp on Griffin needs to be reconstructed and be ADA compliant.

TRAFFIC PATTERNS + CONCERN AREAS



Door with lack of ground access



Discolored padlocked ground level door



Cracking and discoloration of panels

SITE OBSERVATIONS: WALKWAYS

System Description: Concrete sidewalks are located around the perimeter of the site, with connections providing access to 16 different doorways, 6 of which are ADA accessible. An additional door without an access from the ground was observed above the western interior green space walkway. On the east side of the same building, a padlocked ground level door was observed with severe discoloring.

System Observation: Overall the concrete is in fair condition. Large linear cracking and discoloration of panels was observed along the interior green space walkway between the east and west buildings. The interior green space sidewalk also has a gutter line on the north side and exhibited sediment collection.



Sediment collection along gutter line on the north side of the pavement



Exposed and rusted rotting wood on bolts and dowel bar



Cracked concrete sidewalk along north Griffin Street



No advance detectable warning tiles on walkway accessible ramps and sediment collection



Exposed conduit piping around eastern building and by basketball courts

South of the basketball court, there is a set of wooden stairs that connect to a floating concrete slab for an unmarked blue door. The concrete slab shows signs of aging and weathering. There is a piece of wood on the front face of the concrete slab that is bolted into the concrete. The bolts and dowel bar was exposed and rusted, with the wood rotting.

The concrete sidewalk along North Griffin Street has “D” and linear cracks, and some of these panels have deflected which has led to tripping hazards. There was also significant cracking observed at the ADA access points of the north and south intersection ramps of North Griffin Street and are no longer ADA compliant. 2. Sediment was observed collecting primarily near western edge of the basketball courts and onto the abutting western sidewalk along North Griffin Street.

The concrete sidewalk along Cherry Street and 4th Avenue North exhibited intermediate levels cracking and weathering. It was also observed that the concrete stoops were not flush with the door frames of doors 3 and 6.

None of the walkway accessible ramps are equipped with advance detectable warning tiles. ADA standards for public transportation facilities issued by the Department of Transportation (DOT) require detectable warning tiles on curb ramp.

System Condition: Poor

System Recommendations: Areas with a difference in panel height greater than 1/4” or severe cracking need to be corrected. Install ADA compliant detectable warning tiles at each accessible ramp on the site. The surrounding roadways and perimeter sidewalks are within the city Right of Way (ROW) and would require coordination with the City.

The remaining concrete on site will likely need replacement in the next 15 to 25 years due to the concrete reaching the 50 year life expectancy.

SITE OBSERVATIONS: UTILITIES

System Description: The following utility services are provided to the site by the associated entity:

UTILITY SERVICE	PROVIDER + CONNECTION INFORMATION
STORM SEWER	Lakefield Public Utilities via connection at 5th Avenue North
SANITARY SEWER	Lakefield Public Utilities via connection at 5th Avenue North
WATERMAIN	Lakefield Public Utilities via connection at 4th Avenue North
GAS SERVICE	Minnesota Energy Resources via connection at 5th Avenue North
ELECTRIC SERVICE	Lakefield Public Utilities via connection at 5th Avenue North
TELECOMMUNICATIONS	Southwest Minnesota Broadband Services via connection at 5th Avenue North

System Observation: Utilities lines and conduit piping was observed to be exposed around the eastern building and by the basketball courts. Two electrical pedestals have covers that are worn out and no longer lying flat. One of the pedestals is located at the northeast corner of the basketball court, while the secondary pedestal is facing east against a wooden electrical post within the basketball court. There are cables,

behind the northeastern pedestal that has lost their protective coating and the cables are beginning to fray.

The building's roof drains are directed through concrete or rubber channels which flow into the surrounding grass, across the sidewalk and into the street collection system. One of the roof drains on the south face of the building has been damaged, reducing the water flow from the pipe.

On the west building face there are railings that have been previously cut to make room for the duct and ventilation structures. The railings are old, rusted, and have exposed sharp edges. The structures no longer have a proper barrier and are accessible.

System Condition: Poor

System Recommendations: Replace any broken and exposed utilities. Install barriers to all readily accessible utilities near the basketball court, interior grassy area, and on the west face of the building.

SITE OBSERVATIONS: RECREATION FACILITIES

Playground + Basketball Court

System Description: Located at the northwest corner of the site there is a bituminous basketball court/playground.

System Observation: The bituminous pavement in the play area has major signs of weathering, alligator, block, and transverse / longitudinal cracks. Distresses such as alligator and block cracking typically indicate that the base beneath the pavement has failed. The pavement was evaluated and received a PCI rating of 21 out of 100 which is classified as "poor" to "very poor".

The pavement game markings have faded but are still visible. There are three basketball hoops, two of which have Plexiglas backboards and appear relatively new, while the third hoop has an aluminum backboard. All of the hoops appeared to still be in working condition without exhibiting signs of leaning. A chain link fence extends along North Griffin Street and is in fair condition with exposed concrete footings, missing bottom rail and the mesh is warped.

Stormwater drainage in the basketball court sheet flows northwest into the street where it is then collected in the city's storm sewer. Drainage in the area appeared to be adequate, with no signs of significant ponding noted at the time of the site inspection.

Adjacent to the basketball court, a concrete slab is located north of the previously constructed boiler/coal room. The slab is in poor condition due to the cracking and pitting observed. The pavement is not flush with the surrounding ground with a two-foot drop along the western side of the pavement. It appears that a series of construction work has been completed and is visible along the western edge of the slab, with noticeable layers of brick work and concrete pours. There is additional utility cables that were cemented into the concrete edge. The concrete adjacent to the bituminous basketball court is in poor condition and presents safety hazards. The concrete is an integral roof for a former coal room.

System Condition: Poor



Worn and warped electrical pedestals covers



Lack of protective coating and fraying on cables



Damaged roof drains on the south face of the building



Cut rails to make room for duct and ventilation structures



Rusted and sharp edges on railings



Bituminous basketball court/playground at northwest corner of site



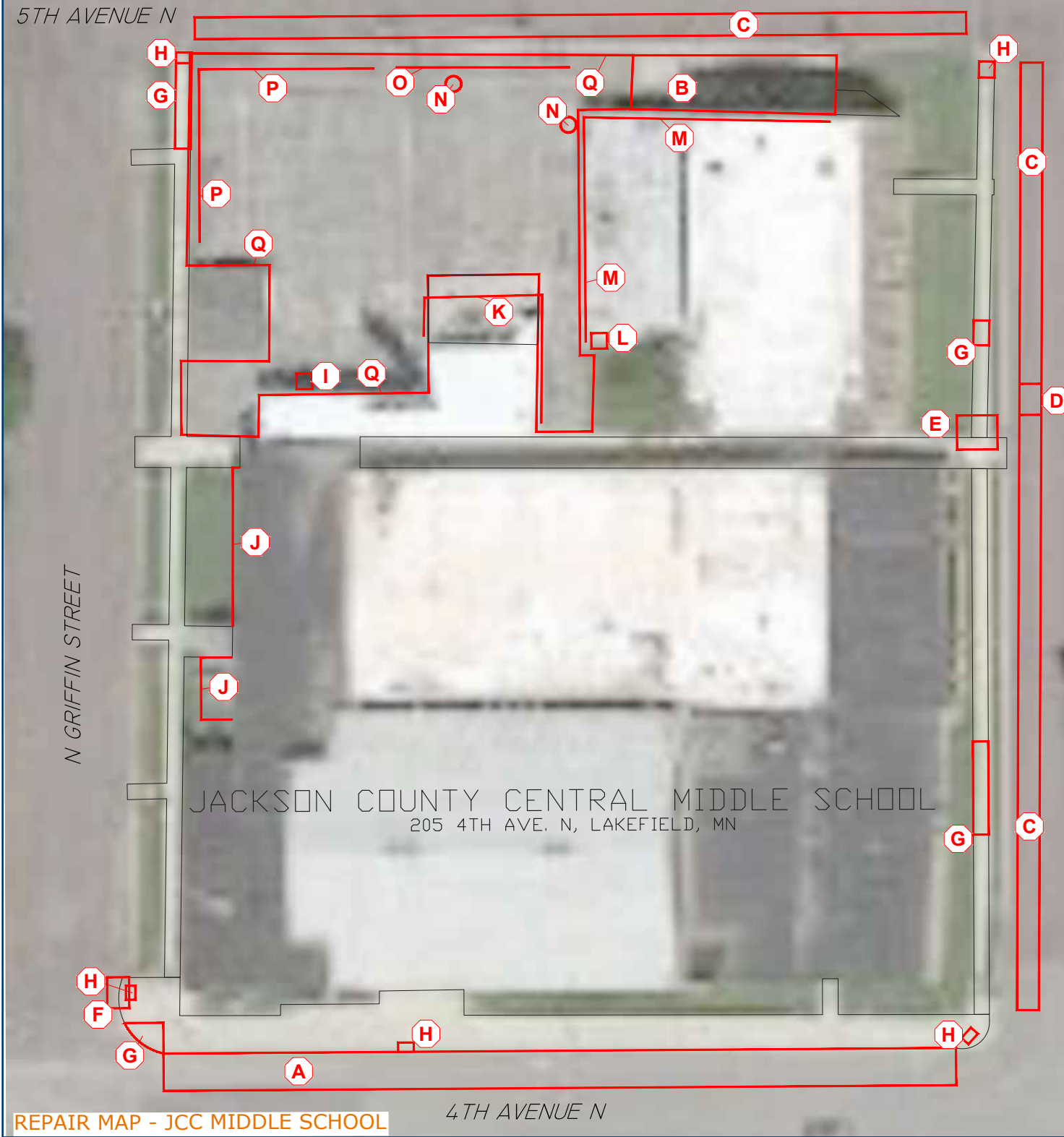
Cracking, pitting and two-foot drop along the western side of the pavement



Utility cables cemented into the concrete edge.

System Recommendations: It is recommended to fully reconstruct the bituminous basketball court and the adjacent concrete slab. Regrading would remove the elevation change between the bituminous and concrete pavement.

SITE IMPROVEMENT RECOMMENDATIONS



IDENTIFIER	PRIORITY LEVEL	CONSTRUCTION ITEM
A	2	Install signage for bus loading zone - city ROW
A	2	Striping indicating bus loading zone - city ROW
BUS LOADING ZONE		
B	1	Remove the bituminous and concrete pavement on the north of the site and replace with bituminous pavement
TRUCK LOADING ZONE		
C	3	Stripe parking stalls on Cherry and 5th Avenue - city ROW
STAFF PARKING LOCATION		
D	1	ADA compliant signage & striping for accessible parking stalls - city ROW
E	1	Remove concrete sidewalk and construct an ADA accessible access on Cherry Street - city ROW
F	1	Replace ADA accessible access at the corner of N Griffin Street and 4th Avenue North -city ROW
ACCESSIBLE PARKING SPACES AND ACCESS		
G	2	Replace broken sidewalk panels around the facility - city ROW
H	2	Install detectable warning tiles at all ADA accessible accesses, including reconstructed access along Cherry Street - city ROW
I	1	Remove Rotting Wood / Rusted Bolts off of floating slab on the north face of building
WALKWAYS		
J	2	Remove and Replace Rusted Iron Fencing - west face of building
K	2	Provide barrier from exposed utilities on north side of building, from interior green space to around boiler room
L	1	Repair and cover exposed / deficient conduit piping within the interior green space
M	1	Remove broken wiring and remove excess wiring on north building face
N	1	Replace old electrical pedestals - northwestern corner of basketball court and by electrical post
O	2	Install fencing from electrical posts in basketball court
UTILITIES		
P	3	Replace fencing around bituminous basketball court
Q	1	Reconstruct Bituminous Basketball Court - grading + striping
ON-SITE RECREATIONAL FACILITIES - PLAYGROUND + BASKETBALL COURT		

CHERRY STREET





Exposed concrete footings, missing bottom rail and warped mesh on chain link fence

SITE CONDITIONS SYSTEM PRIORITY TABLE

	1	2	3	4	COST
Reconstruct Bituminous Basketball Court - grading + striping	●				\$53,000
Remove the bituminous and concrete pavement on the north of the site and replace with bituminous pavement	●				\$14,200
Repair and cover exposed / deficient conduit piping within the interior green space, remove broken wiring and remove excess wiring on north building face, and replace old electrical pedestals	●				\$5,750
Remove Rotting Wood / Rusted Bolts off of floating slab on the north face of building	●				\$500
Install signage and striping for bus loading zone - city ROW		●			\$1,250
Remove and Replace Rusted Iron Fencing - west face of building		●			\$2,200
Provide barrier from exposed utilities on north side of building, from interior green space to around boiler room		●			\$6,570
Install fencing from electrical posts in basketball court		●			\$11,000
Replace broken sidewalk panels around the facility - city ROW		●			\$3,000
Replace fencing around bituminous basketball court			●		\$9,900
Stripe parking stalls on Cherry and 5th Avenue - city ROW			●		\$2,500



PHYSICAL CONDITIONS

EXTERIOR BUILDING CONDITIONS

Review of the building's exterior shell including an assessment of the structure, foundation, exterior walls, windows and doors, and thermal efficiency, as well as conditions of the existing roof, gutters, and downspouts.

OBSERVATIONS

Walls

System Description: Walls were comprised of brick, stone panels, concrete panels, concrete masonry units, and metal panels.

System Observations: The different types of brick have various degrees of deterioration and damage depending on age, including cracking, joint and lintel damage, foundation damage and sections of infilled and patched brick; concrete cap has widespread breakage, with some pieces hanging from the building; stone panels at main entrance have staining and damage where items were previously attached; concrete masonry units have cracking and joint damage; metal panels appear to be surface applied to original metal framed window system; metal louvers have severe rusting and peeling.

System Condition: Poor

System Recommendations: Repairs are needed for damaged brick and failed joints, lintels and foundation; replace concrete cap with metal coping and fascia system; repair damaged stone panels; repair failing concrete masonry units and joints; and replace metal louvers.

Doors

System Description: A variety of hollow metal doors and frames included hollow metal entrance doors with glazing, automatic doors with control switches at main entrance, metal sectional overhead doors; and hollow metal exit door with wired glass.

System Observation: Metal doors have moderate to severe rust and damage; entrance doors are generally in good condition; overhead doors are in good condition; and hollow metal exit door has wired glass.

System Condition: Poor (older doors); Good (newer doors).

System Recommendations: Replace rusted and damaged hollow metal doors and frames.

Stoops

System Description: Constructed of concrete slab.

System Observation: Door sills at most doors are significantly higher than adjacent stoops and sidewalks; and concrete stairway has severe decay.

System Condition: Poor

System Recommendations: Replace stoops or adjacent sidewalks to comply with accessible entrance requirements at door sills.



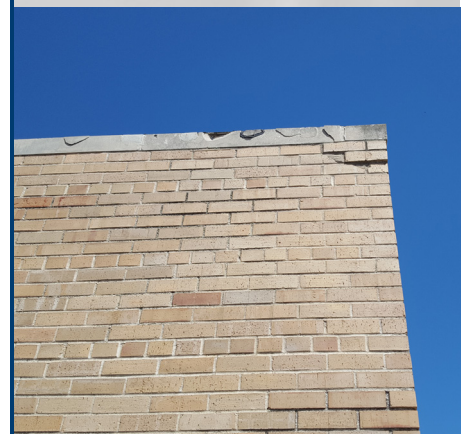
Middle school exterior



Brick damage



Concrete cap breakage



Concrete cap breakage and damaged brick



Rust and joint failure on metal framed window systems



Bent frames on window system



Damaged window system



Rusting and peeling on soffits and trim

Windows

System Description: Metal framed window system; some newer aluminum framed windows; glass block units; brick, stone and concrete sills.

System Observation: Metal framed window system has severe rusting and joint failure; some newer windows have bent frames, broken seals and damaged screens; glass block units have rusted lintels and degraded joints; window sills have joint damage, discoloration and settling; and soffits and trim have severe rusting and peeling.

System Condition: Poor

System Recommendations: Replace metal framed window system with new aluminum framed window system with insulated glazing; replace glass block units with new glass block units or translucent wall system; replace window sills; and repair or replace soffits and trim.

Roof

System Description: Consists of various systems including mechanically fastened single ply Duro-Last PVC roof membrane, adhered rubber roof membrane, sprayed foam with granular coating, and sloped corrugated metal.

System Observation: Duro-Last roof is in very good condition; adhered roof in good condition with some evidence of standing water; sprayed foam on gym roof is 25 years old; and the metal roof is in good condition.

System Condition: Fair (older roof); Good (newer roof)

System Recommendations: Replace sprayed foam roof.

Garage

System Description: A detached building on concrete slab, with lap board siding, wood and metal trim, and a sloped roof with asphalt shingles.

System Observation: Metal door panels are dented; siding and trim are chipping and peeling.

System Condition: Poor

System Recommendations: Replace doors, siding and trim.



EXTERIOR CONDITIONS SYSTEM PRIORITY TABLE

	1	2	3	4	COST
Roof – replace sprayed foam roof	●				\$262,000
Stoops – replace stoops or adjacent sidewalks to comply with accessible entrance requirements at door sills	●				\$42,000
Walls – repair damaged brick and failed joints, lintels and foundation; replace concrete cap with metal coping and fascia system; repair damaged stone panels; repair failing concrete masonry units and joints; replace metal louvers	●				\$375,000
Windows – replace metal framed window system with new aluminum framed window system with insulated glazing; replace glass block units with new glass block units or translucent wall system; replace window sills; repair or replace soffits and trim	●				\$201,000
Doors – replace rusted and damaged hollow metal doors		●			\$38,000
Garage – replace doors, siding and trim			●		\$3,000

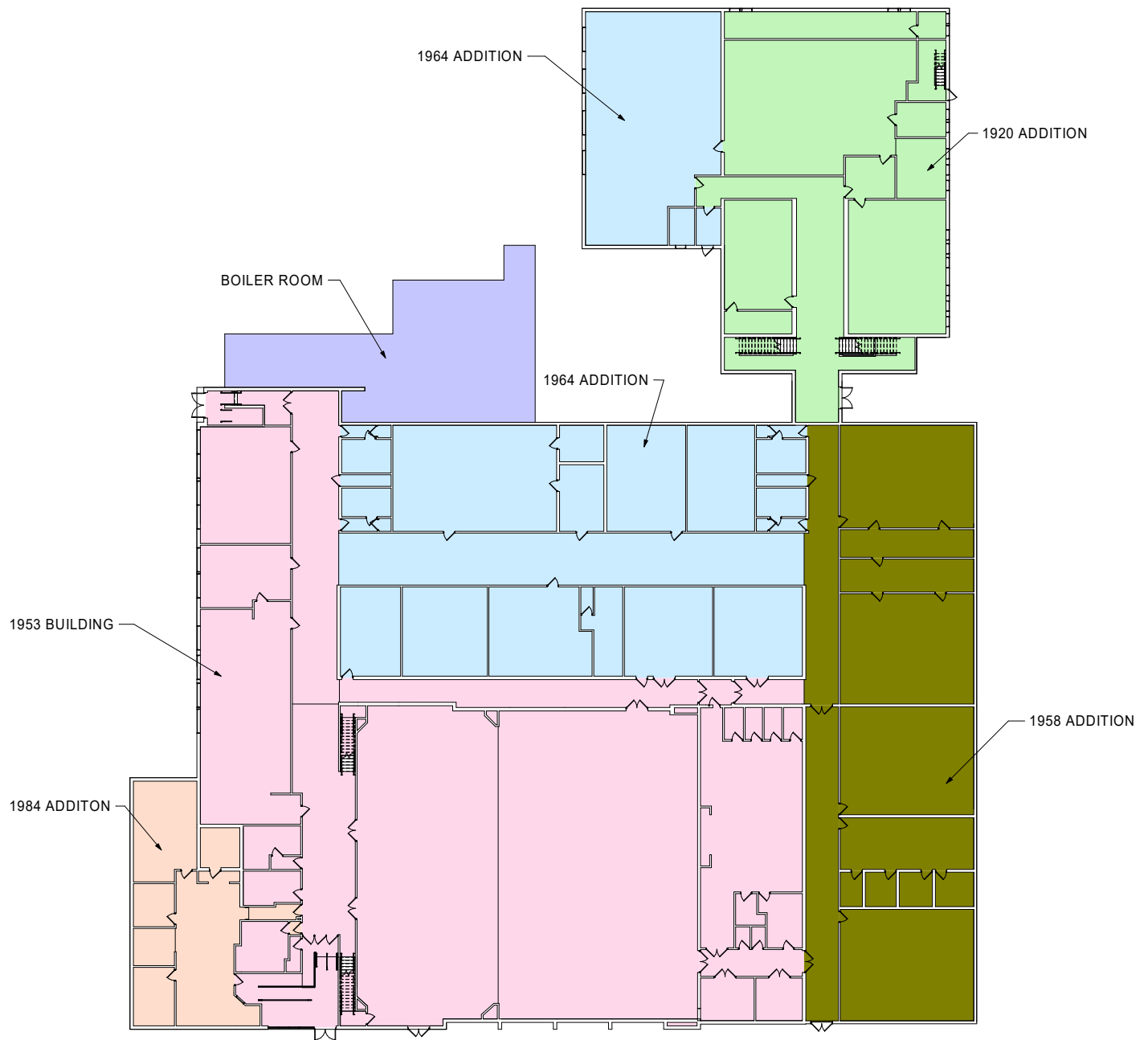


PHYSICAL CONDITIONS

INTERIOR BUILDING CONDITIONS



Examination of the finishes, equipment, and other conditions found in classrooms, offices, hallways, gymnasiums, locker rooms, stairwells, kitchen, and cafeteria areas.



OBSERVATIONS: CORRIDORS

Floors

System Description: Comprised of a variety of surfaces including vinyl composition tile, ceramic tile, painted concrete stairs, and carpeted ramp.

System Observation: Vinyl composition tile is well maintained but shows its age; ceramic tile has minor damage and some uneven tiles; concrete stairs have various materials applied for slip resistance, with some materials damaged; floors are sloped in some locations but have no markings or handrails.

System Condition: Fair

System Recommendations: repair damaged and worn vinyl composition tile and ceramic tile; repair all stair materials and apply nonslip nosings or strips to concrete stair treads.

Walls

System Description: painted concrete masonry units with vinyl base, painted plaster with vinyl base, glazed concrete block.

System Observation: concrete masonry units and glazed concrete block generally in good condition, painted plaster walls have localized damage.

System Condition: Good

System Recommendations: Repair localized damaged masonry and plaster.

Ceilings

System Description: 12"x 2" perforated acoustical ceiling tile, 2'-0" x 2'-0" acoustical ceiling tile, painted plaster.

System Observation: Perforated acoustical ceiling tile has minor staining, punctures, cracking and uneven tiles; 2'-0" x 2'-0" acoustical ceiling tile generally in good condition; plaster ceiling has localized damage.

System Condition: Good

System Recommendations: Replace perforated acoustical ceiling tile with a suspended acoustical ceiling tile system if lighting replacement is performed; replace stained acoustical ceiling tiles.

Doors

System Description: Hollow metal doors and frames with glazing, hollow metal doors with wired glass, rated hollow metal doors and frames; wood doors with wired glass in hollow metal frames.

System Observation: High-traffic door systems have moderate damage, with astragals (molding) in held-open door conditions which impede traffic flow.

System Condition: Fair

System Recommendations: Replace damaged doors and frames; replace wired glass with safety glass; replace door systems to eliminate astragals.

Lockers

System Description: Recessed and freestanding single tier metal lockers.

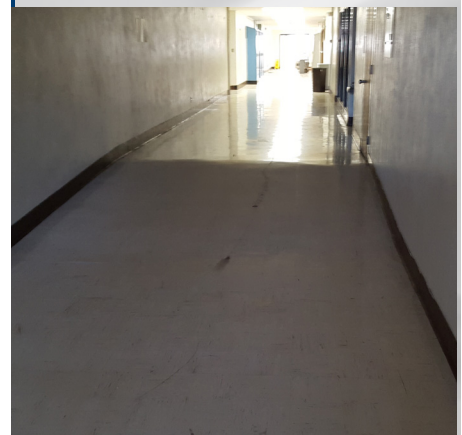
System Observation: Generally in good condition, with some banks having most doors open.



Uneven and noncompliant guards at entrance



Damaged slip resistance materials; no stairway landing



No handrails/markings on sloped floors



Astragals in held-open door conditions



Limited maneuvering clearances in elevator cab



Service counter and stairway in school office



Stained, punctured, and cracked ceiling tiles



Uneven and missing ceiling tiles

System Condition: Good

System Recommendations: Replace damaged and nonfunctioning lockers.

Other Elements

System Description: Elevator, coiling security grilles; and recessed walk-off mats.

System Observation: Elevator cab does not appear to accommodate required maneuvering clearances for accessibility; walk-off mats and adjacent flooring damaged.

System Condition: Fair

System Recommendations: Install a larger elevator.

OBSERVATIONS: SCHOOL OFFICE

Floors

System Description: Vinyl composition tile and carpet.

System Observation: Newer vinyl composition tile and carpet in good condition; older carpet in fair condition; level change of approximately two inches in middle of office area; two risers with no handrails near reception counter.

System Condition: Fair

System Recommendations: Replace older carpet; install ramp at level change location; install handrails on both sides of stairways.

Walls

System Description: Painted gypsum board with vinyl base, brick.

System Observation: Walls are in good condition.

System Condition: Good

System Recommendations: No recommendations.

Ceilings

System Description: 2'-0"x2'-0" acoustical ceiling tile, 12" x 12" perforated acoustical ceiling tile.

System Observation: Generally good condition with some damage at tile edges.

System Condition: Good

System Recommendations: Replace damaged acoustical ceiling tiles.

Doors

System Description: Wood doors in hollow metal frames.

System Observation: Generally fair condition; all doors have noncompliant knob hardware.

System Condition: Fair

System Recommendations: Replace damaged doors; replace noncompliant knob hardware with handle locksets.

Casework

System Description: Wood and plastic laminate cabinets and countertops

System Observation: Generally casework is in fair condition; although there is no accessible reception counter.

System Condition: Fair

System Recommendations: Install an accessible reception counter.

OBSERVATIONS: CLASSROOMS + MEDIA CENTER

Floors

System Description: Vinyl composition tile, carpet in a few older classrooms.

System Observation: Vinyl composition tile is well maintained, but older tile in music classrooms and storage rooms is no longer smooth; carpet is in fair condition.

System Condition: Fair to Poor

System Recommendations: Replace older vinyl composition tile floors; and replace carpet.

Walls

System Description: Painted concrete masonry units with vinyl base; painted plaster with vinyl base.

System Observation: Concrete masonry unit walls generally in good condition; plaster walls have cracking and peeling.

System Condition: Fair

System Recommendations: Repair damaged plaster walls.

Ceilings

System Description: 2'-0" x 2'-0" acoustical ceiling tile, 12" x 12" perforated acoustical ceiling tile, exposed structure in music rooms and storage rooms.

System Observation: Perforated acoustical ceiling tile has staining, punctures, cracking, uneven tiles and missing tiles; 2'-0" x 2'-0" acoustical ceiling tile generally in good condition.

System Condition: Fair to Poor

System Recommendations: Repair or replace damaged and missing perforated acoustical ceiling tile; replace perforated acoustical ceiling tile with a suspended acoustical ceiling tile system if lighting replacement is performed; replace damaged acoustical ceiling tiles

Doors

System Description: Wood doors in hollow metal frames, wood doors with wired glass in hollow metal frames.

System Observation: Most doors have significant damage and noncompliant knob hardware; some doors have wired glass.

System Condition: Poor

System Recommendations: Replace damaged doors; replace noncompliant knob hardware with handle locksets; and replace wired glass with safety glass.



Damage and deterioration on casework



Damage and deterioration on casework



Rusting on metal framed window



Rusting on metal framed window



Wood floor with sloping at stairway



Nonslip striping and slopes in all directions on floor tile



Damaged plaster wall



Damaged hollow metal door with wired glass

Casework

System Description: Wood and plastic laminate cabinets and countertops in most classrooms; phenolic or epoxy resin countertops in science labs; and metal cabinets in Family and Consumer Science classroom.

System Observation: Most wood, plastic laminate and metal casework has moderate to severe damage; some casework in science labs has severe damage and deterioration; media center does not appear to have an accessible service counter.

System Condition: Poor

System Recommendations: Replace damaged casework and countertops and install an accessible service counter.

Other Elements

System Description: Whiteboards and smartboards.

System Observation: Whiteboards and smartboards are generally in good condition; old metal framed window system has severe rusting.

System Condition: Poor

System Recommendations: Replace metal framed window system with new aluminum framed window system and insulated glazing.

OBSERVATIONS: GYMNASIUMS + AUDITORIUM

Floors

System Description: Wood (older gym and gym/stage); rubber and vinyl composition tile (older gym weight room and storage room); vinyl composition tile and sealed concrete (auditorium).

System Observation: Wood floors are well maintained but in fair condition due to age with sloping at stairways in older gym; vinyl composition tile in older gym storage room is severely damaged; vinyl composition tile in auditorium has nonslip striping and slopes in all directions; sealed concrete has cracking.

System Condition: Poor

System Recommendations: Reconfigure wood floors to eliminate sloping or mark sloped areas; replace vinyl composition tile in older gym areas; reconfigure auditorium floor and seating to comply with accessibility requirements.

Walls

System Description: Painted concrete masonry units with vinyl base; painted plaster with vinyl base, and glazed concrete block with glass block units above.

System Observation: Concrete masonry units and plaster have widespread cracking and peeling with damaged or missing base; and glass block has some damaged units.

System Condition: Poor

System Recommendations: Repair damaged concrete masonry units, plaster and glass block.

Ceilings

System Description: Exposed structure, painted plaster, plywood in older gym weight room.

System Observation: Plaster has significant cracking and peeling.

System Condition: Poor

System Recommendations: Repair plaster ceilings.

Doors

System Description: Hollow metal doors and frames; hollow metal doors with wired glass; and wood doors in hollow metal frames.

System Observation: Hollow metal doors and frames are heavily damaged; some doors have wired glass; older gym has a damaged wood door with glazing and a saloon-style door; and some door sills have noncompliant elevation differences.

System Condition: Poor

System Recommendations: Replace damaged doors; replace wired glass with safety glass; and reconfigure floors to eliminate elevation differences at sills.

Other Elements

System Description: Basketball hoops, stage equipment, and wood auditorium seating.

System Observation: Basketball hoops are mounted to walls; stage equipment is suspended from structure above; auditorium seats are heavily damaged with no accessible seating areas; gym floor serves as stage with no guards at drop down to auditorium floor level; stairways in older gym and auditorium have noncompliant materials, risers and treads, landings, handrails and guards; single unit drinking fountain in older gym is damaged; elevated storage space in older gym is wood framed with wire mesh.

System Condition: Poor

System Recommendations: Replace auditorium seating; install removable guard system at edge of gym floor; reconfigure space or replace stairways to meet code requirements for materials, risers and treads, landings, handrails and guards; install drinking fountains to meet requirements for spout outlet height for wheelchair users and standing people; and install noncombustible wall and door to enclose elevated storage space.

OBSERVATIONS: KITCHEN, CAFETERIA + MAINTENANCE ROOMS

Floors

System Description: Vinyl composition tile (kitchen and cafeteria); sealed concrete (maintenance).

System Observation: Vinyl composition tile is well maintained, with some cracking, staining and gaps.

System Condition: Fair

System Recommendations Replace damaged vinyl composition tile.

Walls

System Description: Painted concrete masonry units with vinyl base, and painted plaster with vinyl base.



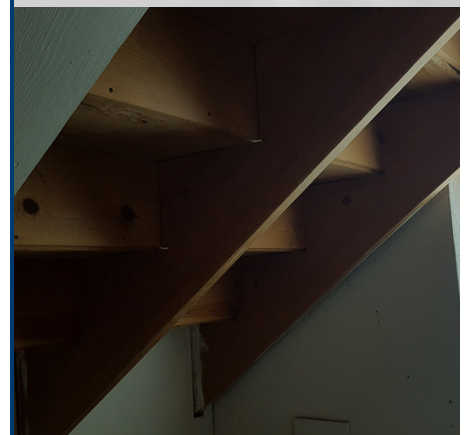
Damaged auditorium seats



No accessible seating areas in balcony



No guards at drop down to auditorium floor



Noncompliant materials on stairs



Noncompliant risers and treads on stairs



Noncompliant handrails and guards on stairs



Unmarked elevation differences on concrete locker room floors



Staining on tiles under urinals.

System Observation: Masonry and plaster walls have moderate cracking and peeling.

System Condition: Fair

System Recommendations: Replace damaged concrete masonry units and plaster.

Ceilings

System Description: Acoustical ceiling tile (kitchen and cafeteria); exposed structure (maintenance).

System Observation: Acoustical ceiling tile has stained and warped tiles; acoustical ceiling tile in kitchen does not meet Minnesota Department of Health requirements for smooth, durable, and easily cleanable surface; painted exposed structure has severe chipping and peeling.

System Condition: Poor

System Recommendations: Replace damaged acoustical ceiling tile; replace acoustical ceiling tile in kitchen with code compliant surface.

Doors

System Description: Wood doors in wood frames; some wood doors and hollow metal doors in hollow metal frames.

System Observation: Most doors have moderate damage and noncompliant knob hardware.

System Condition: Fair

System Recommendations: Replace damaged doors; replace noncompliant knob hardware with handle locksets.

Equipment

System Description: Stainless steel.

System Observation: Good

System Condition: Cooking equipment appears to be in very good condition.

System Recommendations: No recommendations.

Other Elements

System Description: Full height rolling steel shutter.

System Observation: Steel shutter is in very good condition.

System Condition: Good

System Recommendations: No recommendations.

OBSERVATIONS: RESTROOMS + LOCKER ROOMS

Floors

System Description: Painted concrete, terrazzo, 1" x 1" ceramic tile, 6" x 6" ceramic tile, vinyl composition tile, sealed concrete.

System Observation: Concrete locker room floors at older gym have unmarked elevation differences ranging from approximately 3 inches to 6 inches; terrazzo and 1" x 1" ceramic tile have staining under sinks and around toilets and urinals; 6" x 6" ceramic

tile generally in fair condition with joint staining; vinyl composition tile has discoloration, cracks and gaps; sealed concrete is severely stained.

System Condition: Poor

System Recommendations: Reconfigure floors to eliminate elevation differences or mark locations; replace older ceramic tile; replace vinyl composition tile or install ceramic tile; install ceramic tile in areas with sealed concrete.

Walls

System Description: Painted plaster with vinyl base, glazed concrete block, ceramic tile, painted concrete masonry units with vinyl base.

System Observation: Plaster, masonry and tile have significant cracking and peeling, and damage where items were previously attached.

System Condition: Poor

System Recommendations: Repair damaged plaster, masonry and tile.

Ceilings

System Description: 2'-0" x 2'-0" acoustical ceiling tile, painted plaster, exposed structure.

System Observation: Acoustical ceiling tile has staining and warped tiles plaster is peeling in some locations.

System Condition: Poor

System Recommendations: Replace damaged acoustical ceiling tile; repair plaster ceilings.

Doors

System Description: Wood doors in hollow metal frames, hollow metal frames with doors removed.

System Observation: Most doors have moderate damage and noncompliant knob hardware.

System Condition: Poor

System Recommendations: Replace damaged doors; replace noncompliant knob hardware with handle locksets.

Toilet Partitions

System Description: Metal, plastic laminate.

System Observation: Older metal partitions have damage, rusting and protruding screws; newer partitions in good condition; men's restrooms do not have urinal partitions.

System Condition: Poor

System Recommendations: Replace damaged partitions; install urinal partitions.

Other Elements

System Description: Plumbing fixtures, restroom accessories, metal lockers, wood benches.

System Observation: Plumbing fixtures and restroom accessories in fair to poor condition; lockers and benches in fair to poor condition; no accessible toilet compartments, shower compartments, benches or drinking fountains.



Stained sealed concrete floor around sink and toilet



Stained sealed concrete floor around toilet



Cracking wall tiles



Stained and warped ceiling tiles



System Condition: Poor

System Recommendations: Replace damaged plumbing fixtures and accessories; replace damaged lockers and benches; verify sink heights for accessibility.

INTERIOR CONDITIONS SYSTEM PRIORITY TABLE

	1	2	3	4	COST
Floors – repair all stair materials and apply nonslip nosings or strips to concrete stair treads	●				\$7,800
Doors – replace wired glass with safety glass	●				\$3,000
Other elements – install larger elevator	●				\$210,000
Floors – reconfigure wood floors to eliminate sloping or mark sloped areas; replace vinyl composition tile in older gym areas; reconfigure auditorium floor and seating to comply with accessibility requirements	●				\$220,000
Floors – reconfigure floors to eliminate elevation differences or mark locations; replace older ceramic tile; replace vinyl composition tile or install ceramic tile; install ceramic tile in areas with sealed concrete	●				\$117,000
Walls – repair damaged plaster, masonry and tile	●				\$25,000
Floors – replace older carpet; install ramp at level change location; install handrails on both sides of stairway	●				\$11,100
Doors – replace damaged doors; replace noncompliant knob hardware with handle locksets	●				\$45,000
Casework – install an accessible reception counter	●				\$6,000
Floors – replace older vinyl composition tile floors; replace carpet		●			\$67,000
Doors – replace damaged doors and frames		●			\$108,000
Lockers – replace damaged and nonfunctioning lockers		●			\$16,500
Ceilings – replace damaged acoustical ceiling tile; repair plaster ceilings		●			\$12,000
Doors – replace damaged doors; replace noncompliant knob hardware with handle locksets		●			\$15,000
Toilet partitions – replace damaged partitions; install urinal partitions		●			\$14,800
Other elements – replace damaged plumbing fixtures and accessories; replace damaged lockers and benches; verify sink heights for accessibility		●			\$21,000
Floors – repair damaged and worn vinyl composition tile and ceramic tile			●		\$60,000
Walls – repair localized damaged masonry and plaster			●		\$2,000
Ceilings – replace perforated acoustical ceiling tile with a suspended acoustical ceiling tile system if lighting replacement is performed; replace stained acoustical ceiling tiles			●		\$80,000
Floors – replace damaged vinyl composition tile			●		\$31,400
Ceilings – replace damaged acoustical ceiling tiles				●	\$33,000

PHYSICAL CONDITIONS

STRUCTURAL SYSTEM CONDITIONS

Review of structural integrity of existing buildings with analysis of columns, walls, and roof.

OVERVIEW

The JCC Middle School has undergone a significant structural transformation throughout the past century as evidenced by the numerous building demolitions, additions, and renovations. The exact history and lifespan of some of the original buildings and additions is not immediately apparent upon review of available building plans and visual inspection of the in-place facilities. However, it appears the original school building, a square building centrally located on the site, was reportedly constructed circa 1897 and acted as Lakefield's High School, but plans of the construction do not exist. It is also unclear when the two classroom wings, labeled as the East Wing and West Wing on a set of plans dated 1934, were constructed. It appears these wings were possible additions to the original square building, and likely constructed between 1900 and 1930. The only remaining building of these three is the East Wing, which is a three-story structure complete with a gymnasium on the second floor. The square original building and the West Wing appear to have been completely demolished. Portions of the original foundation may still remain, but the lack of original construction documents makes this uncertain.

The foundation of the boiler room addition (circa 1934) that was constructed on the northwest corner of the original building appears to still be in existence, while portions of the walls and roof framing system above the original boiler room foundation appear to be newer renovations. Other known major structural additions to the original school building include the gymnasium addition (circa 1951), shop addition (circa 1958), and classroom addition (circa 1962).

The remaining buildings are constructed of numerous material types, including reinforced concrete beams and columns, masonry walls, brick façade, and steel bar joists. Considering their age, the structural condition of these buildings is generally acceptable. Based on visual inspection of the in-place buildings, no major structural flaws or failures appear imminent that would threaten the short-term usability of the structure. However, as is the case with buildings of similar construction type, age, use, and history, potentially significant care and maintenance could be required to use the building as a long-term facility. In particular, repairs and maintenance similar to the structural items described below will be required in the coming years to increase the usable lifespan of portions of the remaining buildings.

SITE OBSERVATIONS

East Wing Framing + Foundations

System Description: As previously described, the presumed oldest remaining structure is the East Wing, which is constructed out of many materials, predominately reinforced concrete, masonry, and (presumably) steel, with brick at the exterior walls. Age considered, the framing and foundation appear acceptable. However, the long-term



Front of the School



Gymnasium in east wing



Unsupported beam by gym



Exposed rebar at stairs



Concrete stair cracks



Plaster cracks in east wing



Plaster Cracks in east wing



Main gym + auditorium

use of this building will potentially require repairs, reinforcements, or replacements of structural elements that will continue to show signs of wear and deterioration in the coming years. Within this section are some structural items that need attention in the short-term.

System Observations: Many of the structural beams, columns, and walls are covered in plaster and similar ceiling and wall coverings that limit how much visual inspection can be completed. Plaster – a brittle material – tends to crack easily when subject to changes in temperature over many years. Therefore, many cracks are visible in the plaster wall coverings near window and door openings in the East Wing building. However, due to the size, location, and likely cause of these plaster cracks, it does not appear there are any major structural issues with the load-bearing steel, masonry, and concrete the plaster covers. Some wood framing is also present within the East Wing building, primarily at the mezzanine levels around the 2nd floor gymnasium. The wood framing appears in OK condition, except for a hole in the floor sheathing of the mezzanine room north of the gymnasium. Below this mezzanine room is a weight room that leads directly into the gymnasium. Within this weight room is a cantilevered wood beam that appears to be supporting the wood floor above, but the support and load-carrying capacity of this beam is questionable given the loads and construction type of the beam.

The final remaining short-term structural issue at the East Wing is the exit stair on the northeast corner of the building. The exit stair is a reinforced concrete stair that appears to have performed well during its lifespan, but is now showing signs of deterioration as evidenced by exposed rebar and stress cracks at critical locations.

The reinforced concrete foundation supporting the East Wing appear to be performing adequately as a lack of major cracks or sloped floors provide evidence that settlement is not an issue.

System Condition: Poor

Gymnasium + Auditorium Framing

System Description: The gymnasium addition (circa 1951) includes a large gymnasium complete with auditorium seating, all of which is covered with a gable roof supported by glulam wood mainframes, wood tongue-and-groove decking, and wood glue-laminated purlins. The gymnasium space is surrounded with CMU walls that enclose the space and support a brick façade.

System Observations: Considering its age, the gymnasium shows very little signs of structural disrepair, if any. No visible structural issues were apparent that would limit the short- and long-term use of the gymnasium and auditorium space. All walls, beams, and columns appear plumb and free from excessive deflection (vertical sag), with the exception of slight stair step cracking in the CMU walls along the balcony of the auditorium that could be tuckpointed if aesthetics are a high priority in this location. The foundation and basement framing supporting this area also appear to be performing adequately.

System Condition: Good

Typical Classroom Framing + Foundations

System Description: The roof and wall framing above and around the typical classroom areas (excluding those within the East Wing) are generally framed using a metal deck that is supported by a system of steel bar joists, steel beams, steel columns, and masonry walls. The exterior walls in these areas are also covered with a brick façade that is non-load-bearing.

System Observations: Most structural elements of this classroom framing system are performing well, with the exception of one location where an interior CMU wall that separates the corridor from room 103 is improperly supported on a steel beam below.

The foundations supporting this area appear to be performing well and do not require any repairs or reinforcements; no settlement issues are apparent.

System Condition: Fair

Basement Walls

System Description: A basement, constructed primarily of CMU and reinforced concrete, exists below portions of the Middle School.

System Observations: Notably the basement includes a lunchroom and kitchen area on the west end of the building. Near the kitchen is a collection of mechanical rooms, one of which has evidence of excess moisture collecting on the floor and CMU walls enclosing the space. As a result, the bottom two courses of CMU have begun to deteriorate, particularly along the mortar joints.

System Condition: Fair

Exterior Walls

System Description: The Middle School's exterior load-bearing walls are generally constructed of a combination of CMU and reinforced concrete.

System Observations: A detailed assessment of the condition of the exterior materials of the Middle School are found elsewhere in this report, but, generally speaking, no major structural issues are visible on the building exterior. Refer to other sections of this report for comments regarding tuckpointing, patching, or repair of the exterior materials, including the brick façade. From a structural perspective, all walls and openings appear to be properly supported and functioning well. The only exception is one or two locations where slight stair-step cracks are visible in the brick façade, which indicates slight settlement of the wall at some point during its lifetime. However, this level of settlement is minor and not cause for structural concern.

System Condition: Fair

RECOMMENDATIONS

East Wing Framing + Foundations

Repairs of the plaster cracks could be completed to improve occupant comfort and aesthetics, but are not considered necessary for structural reasons.

The cantilevered beam supporting the floor framing above the second floor weight room in the East Wing should be reinforced with an additional column, or analyzed to determine if it is adequate for supporting the given loads considering the span and construction type.

The hole in the mezzanine floor north of the gymnasium in the East Wing should be patched to eliminate the tripping hazard.

Replacement or repair of the stairs on the northeast corner of the East Wing is recommended to reduce the potential for failure as the exposed rebar continues to rust and weaken the concrete stairs.



Stairstep cracks in auditorium



Missing CMU above steel beam



Deteriorating CMU wall in basement



Stair step crack in brick façade

Gymnasium + Auditorium Framing

Tuckpoint the stair-step cracks in the CMU walls to improve facility aesthetics, if desired. It is not considered a structural issue in its current condition.

Typical Classroom Framing + Foundations

The interior CMU wall section is supporting steel bar joists above, so a continuous load path is required to transfer roof loads from the steel bar joists down into the load-bearing steel beam. As such, the gaps in the CMU wall shall be infilled with new CMU to provide an adequate path of load transfer.

Basement Walls

Tuckpoint or construct a concrete curb over the bottom two courses of damaged CMU in the basement mechanical rooms.

Exterior Walls

Future settlement or movement of the brick façade does not appear likely, but it is good practice to monitor walls to ensure cracks do not significantly widen over time. Note that tuckpointing and repair of non-structural exterior façade elements is discussed elsewhere in this report.

STRUCTURAL CONDITIONS SYSTEM PRIORITY TABLE

	1	2	3	4	COST
Tuckpoint or cover the bottom two course of damaged CMU in the basement mechanical rooms with a concrete curb.	•				\$500
The hole in the mezzanine floor north of the gymnasium in the East Wing shall be patched to eliminate the tripping hazard.	•				\$200
Replace the exit stair on the northeast corner of the East Wing.	•				\$4,000
Infll missing CMU of wall between the corridor and room 103 with new CMU to provide full support down to the steel beam.	•				\$1,000
The cantilevered beam supporting the floor framing above the 2nd floor weight room in the East Wing shall be reinforced with an additional column, or analyzed to determine if it is adequate for supporting the given loads considering the span and construction type.	•				\$400

PHYSICAL CONDITIONS

LIFE SAFETY CONDITIONS

Review of life safety, egress, and potential code deficiencies as discovered during field observation. Also includes conditions of the fire alarm system.

OBSERVATIONS

General

It appears that the only areas of the building which are protected by an automatic sprinkler system are the kitchen and the newer gymnasium. The building does not appear to have rated fire partitions in the corridors or other fire rated assemblies separating the building into smaller fire areas. Current building codes require an automatic sprinkler system throughout all Educational Group E occupancies with fire areas greater than 12,000 square feet.

The building appears to have adequate width, number of exits, and paths of egress travel, with the exception of the older gymnasium spaces and the rooms below, and the balcony in the auditorium.

There does not appear to be a second means of egress from the shop spaces, and the exit access stairways from the gymnasium and locker rooms do not meet requirements for width, materials, risers and treads, landings, handrails and guards.

The occupant load of the balcony requires a second means of egress. There are two exit access stairways from the space, but both stairways lead to the same location on the first floor, rather than two exits remote from each other as required by code. At the time of observation, the first floor landing at one of the stairways was partially blocked. Guards do not comply with the opening limitation of four inches at all locations. A few other doors were partially blocked at the time of observation. Many doors throughout the building do not have proper maneuvering clearances as required by code.

Egress doors require landings at the same elevation on each side of the door. Existing stoops and sidewalks at most exterior exit doors currently have elevation differences varying from approximately one inch to three inches.

Stairways and ramps do not have compliant landings, handrails, guards and edge protection. Handrails do not have proper extensions at the bottoms and tops of the stairways and some do not meet graspability requirements. Guards do not comply with height requirements and the opening limitation of four inches.

Current building codes do not permit traditional wired glass in hazardous locations such as doors and sidelights. Some existing doors have wired glass.

The newer gymnasium floor also serves as a stage, but has no guards for fall protection when in use as a gymnasium.



Noncompliant landings in exit stairways



Noncompliant exit stairwell



Noncompliant landings in exit stairways



Noncompliant exit stairwell



Noncompliant exit stairwell



Noncompliant handrail in exit stairwell



Noncompliant riser in exit stairs



Non existing second means of egress from balcony

Fire Alarm System

System Description: The existing conventional fire alarm system is composed of a FCI FC-72 series fire alarm control panel and a Radionics fire alarm control panel. The system monitors the water flow of the fire sprinkler system, and in the event that one of the sprinkler heads is activated, the fire alarm system then initiates notification devices to alert occupants. The system is also activated by manual pull stations, smoke detectors, and heat detectors at selected locations throughout the building. Notification devices, such as horns and strobes, are located throughout the facility including corridors and assembly areas.

System Observations: The existing fire alarm system is past its useful life expectancy of 15 years. The fire alarm system is a conventional system, which is an older technology that only allow the building to be monitored in zones, and does not give a precise location for any device that is activated. Initiation and notification devices are located throughout the facility and appeared to provide adequate coverage of the facility.

System Condition: Fair

Emergency Egress Lighting

System Description: The facility is using wall mounted stand-alone battery-powered lights for emergency lighting in corridors and assembly areas.

System Observations: The emergency lights in the facility looked to be somewhat sporadically spaced and might not provide the necessary egress lighting as required by NFPA 101: Life Safety Code. Some areas that typically require emergency lighting were not equipped such as the stairwells in the auxiliary gymnasium. It also does not appear that the existing units are regularly tested. Emergency lights with battery back-up should be periodically tested to ensure that the fixtures are still functioning properly.

System Condition: Fair

RECOMMENDATIONS

General

Expand the automatic sprinkler system throughout the building, or construct two hour rated fire barriers which separate the building into fire areas of less than 12,000 square feet.

Provide a second means of egress from the shop spaces and reconfigure the stairways adjacent to the gymnasium and locker rooms to meet code requirements.

Provide a second remote means of egress from the balcony and clear items from the egress path at the first floor stairway landing. Modify or replace handrails and guards to meet code requirements.

Clear items from the egress path at all doors and reconfigure spaces as required to meet requirements for maneuvering clearances.

Install new stoops at exterior egress doors as required to provide landings at the same elevation as the interior side of the doors.

Modify or replace handrails and guards at all stairways and ramps to meet code requirements.

Replace wired glass with safety glass in doors and other hazardous locations as required by code.

Install a removable guard system at the edge of the gym floor.

Fire Alarm System

While the system has past the average useful life for fire alarm systems and uses an older technology, the system has been tested annually and is still performing well. With proper maintenance and testing, the system could potentially last must longer.

Emergency Egress Lighting

The current emergency lighting layout should be further evaluated to ensure that proper light levels are achieved in all paths of egress. Additional units should be added if required for proper egress. A schedule should be developed to test the emergency lights to identify when units need to be replaced.



Elevation differences in stoops and sidewalks in exterior doors



Elevation differences in stoops and sidewalks in exterior doors



Elevation differences in stoops and sidewalks in exterior doors

LIFE SAFETY CONDITIONS SYSTEM PRIORITY TABLE

	1	2	3	4	COST
Expand the automatic sprinkler system throughout the building, or construct two hour rated fire barriers which separate the building into fire areas of less than 12,000 square feet.	●				\$165,000
Provide a second means of egress from the shop spaces and reconfigure the stairways adjacent to the gymnasium and locker rooms to meet code requirements.	●				\$27,000
Provide a second remote means of egress from the balcony and clear items from the egress path at the first floor stairway landing. Modify or replace handrails and guards to meet code requirements.	●				\$26,000
Additional emergency lighting fixtures			●		\$2,000



Noncompliant main entrance



Lack of handrail on music room ramp



Sink with cabinets below, rather than clear floor space



Noncompliant maneuvering clearance

PHYSICAL CONDITIONS

ACCESSIBILITY CONDITIONS

Review of the existing structure for conformance with the 2015 Minnesota Accessibility Code and the 2010 Americans with Disabilities Act (ADA) Standards for Accessible Design, site parking, access into the building and entrances, accessibility routes inside of building, and restroom accessibility were considered.

SITE OBSERVATIONS

Site, Parking, Entrances and Play Areas

The main entrance to the school is from the bus drop-off area on 4th Avenue North. A curb ramp provides access from the street to the sidewalk adjacent to the building. An accessible parking space sign is located around the corner on North Griffin Street, adjacent to a parallel parking space. A nearby curb ramp has significant cracking and sediment buildup. The main entrance doors are equipped with automatic doors with control switches, but there is an elevation difference of approximately one inch at the door sill. An additional accessible parking space sign is located on Cherry Street. It is also adjacent to a parallel parking space and there is no curb ramp to provide access to the adjacent sidewalk. These elements do not provide an accessible route or an accessible entrance in compliance with the 2010 Americans with Disabilities Act (ADA) Standards for Accessible Design or the 2015 Minnesota Accessibility Code.

The building's elevator is accessed through a side entrance on North Griffin Street. It provides access into the building through the cafeteria on the lower level and through a meeting room on the upper level.

An additional entrance on North Griffin Street features a ramp leading up to the entrance door. The ramp does not have compliant handrails, guards and edge protection. There is an elevation difference of approximately two inches at the door sill.

Most other building entrances have noncompliant surfaces, elevation differences, or ramps and stairways with noncompliant handrails and guards.

The bituminous and concrete play area on the north side of the building is in poor condition and does not provide compliant ground surface conditions or accessible routes to and within play areas. The stoops at the doors which connect the play area with the building have noncompliant elevation differences.

Classrooms

Accessibility codes require that operable parts on accessible doors have a shape that is easy to grasp with one hand and does not require tight grasping, pinching or twisting of the wrist to operate. Most classroom doors currently have noncompliant locksets with knob hardware.

Vision panels in doors and sidelights adjacent to doors are required to have at least one panel with the bottom no more than 43 inches above the floor. Some doors with vision panels do not meet this requirement.

Accessible sinks are required to have a clear floor space of 30" x 48" positioned for forward approach to the sink. The clear floor space includes knee and toe clearance under the sink. Exposed pipes must be insulated or otherwise configured to protect

against contact. Some classrooms currently have sinks with cabinets below, rather than clear floor space.

The music room ramp does not have handrails.

Restrooms

The entrance vestibules and doors at the four multiuse restrooms do not have the The entrance vestibules and doors at the multiuse restrooms and locker rooms do not have the required maneuvering clearances.

The multiuse restrooms and locker rooms do not have wheelchair accessible or ambulatory accessible compartments. Some compartments have no grab bars and some have grab bars and other accessories which do not comply with size, mounting height and location requirements.

The single use restrooms do not comply with clearance requirements and do not have grab bars and other compliant accessories.

The doors at the single use restrooms have noncompliant locksets with knob hardware.

The locker rooms do not have accessible showers.

The locker rooms do not have accessible benches with proper back support.

Most lavatories have exposed pipes which do not have insulation to protect against contact.

Some restroom accessories do not appear to comply with mounting height and location requirements.

Single unit drinking fountains do not meet spout outlet height requirements for wheelchair users and standing people.

Other Elements

Most office and storage room doors currently have noncompliant locksets with knob hardware.

None of the existing lockers in the corridors appear to comply with requirements for coat hook and shelf mounting heights.

Accessibility codes require that doors have 18 inches of maneuvering clearance on the pull side at the latch and 12 inches of clearance on the push side at the latch. Some doors do not meet these requirements.

Stairways and ramps throughout the building do not have compliant landings, handrails, guards and edge protection. Handrails do not have proper extensions at the bottoms and tops of the stairways and some do not meet graspability requirements. Guards do not comply with height requirements and the opening limitation of four inches.

The auditorium and balcony floors and seating do not comply with accessibility requirements for means of egress, floor slope, stairways and ramps, handrails and guards, wheelchair seating and companion seating.

The school office and the media center do not have accessible service counters.



Noncompliant clearance and accessories



Noncompliant mounting heights in restroom



Noncompliant landings, handrails, guards and edge protection on ramps/stairs



Noncompliant landings, and handrails on stairs



Noncompliant elevation change



Noncompliant floor slope



Noncompliant egress, stairways, handrails and guards; no accessible seating.

RECOMMENDATIONS

Site, Parking, Entrances and Play Areas

Replace the existing noncompliant accessible parking spaces, curb ramps, sidewalk, stoop and door sill at the building's main entrance as required to meet accessibility standards.

Reconfigure the paths of travel which have noncompliant elevation differences, including concrete stoops and sidewalks, as required to meet accessibility standards.

Provide handrails and guards at ramps and stairways as required to meet accessibility standards.

Repair or replace the play area surface as required to meet accessibility standards.

Classrooms

Replace noncompliant knob hardware with handle locksets on classroom doors.

Replace doors with noncompliant vision panels and sidelights.

Replace sinks and casework in classrooms as required to provide clear floor space and knee and toe clearance under the sinks. Install insulation on exposed pipes.

Install handrails on both sides of the music room ramp.

Restrooms

Reconfigure the entrance vestibules and doors at the multiuse restrooms and locker rooms as required to meet requirements for maneuvering clearances.

Reconfigure the multiuse restrooms and locker rooms to include one wheelchair accessible toilet compartment and one ambulatory accessible toilet compartment in each restroom.

Reconfigure the single use restrooms as required for clearances and accessories.

Replace noncompliant knob hardware with handle locksets at the single use restrooms.

Reconfigure the locker rooms to include accessible showers.

Install accessible benches with proper back support in all locker rooms.

Verify lavatory heights in all restrooms and install insulation on exposed pipes.

Verify mounting heights and locations of all restroom accessories and make adjustments as required to meet accessibility standards.

Install drinking fountains to meet requirements for spout outlet height for wheelchair users and standing people.

Other Elements

Replace all noncompliant knob hardware with handle locksets.

Install accessible lockers or customize existing lockers such that at least five percent of all lockers are accessible.

Reconfigure the areas around doors to provide the required maneuvering clearances.

Modify or replace stairways and ramps to meet code requirements.

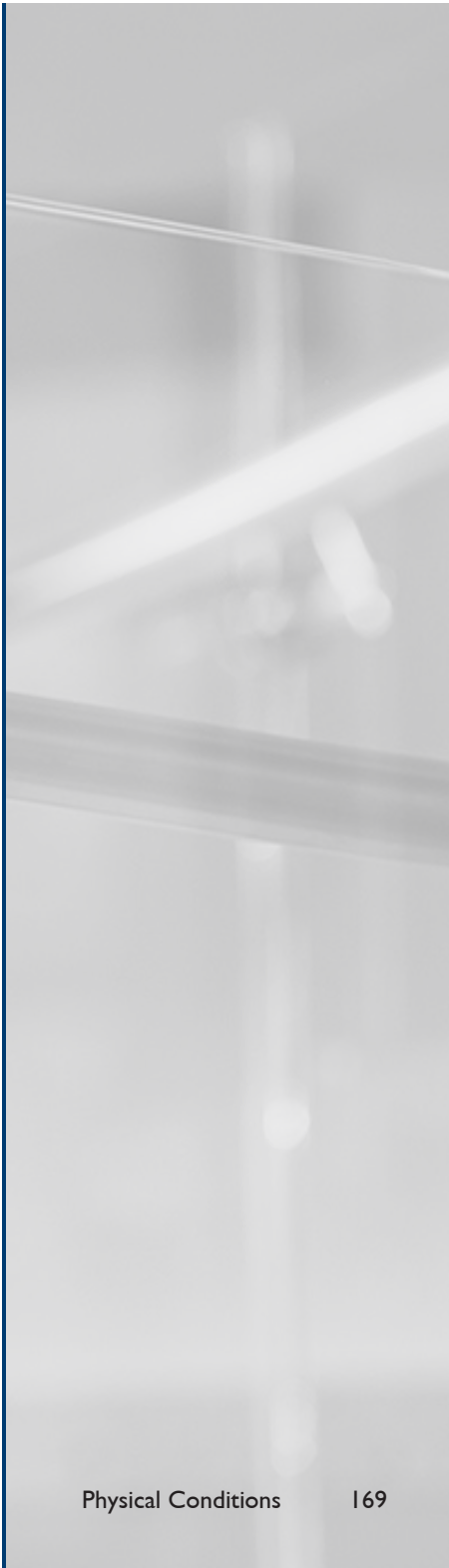
Reconfigure auditorium and balcony floor and replace seating to comply with accessibility requirements.

Provide lower sections at service counters as required to comply with accessibility requirements.



ACCESSIBILITY CONDITIONS PRIORITY TABLE

	1	2	3	4	COST
ADA compliant signage and striping for accessible parking stalls - city ROW	•				\$600
Remove concrete sidewalk and construct an ADA accessible access on Cherry Street and at the corner of N Griffin Street and 4th Avenue North - city ROW	•				\$1,470
Install detectable warning tiles at all ADA accessible accesses, including reconstructed access along Cherry Street - city ROW		•			\$1,500





Electrical utility transformer



Main electrical gear without proper clearances



Electrical services distribution equipment



Branch panels without proper clearances

PHYSICAL CONDITIONS

PLUMBING CONDITIONS

Review of the existing building plumbing systems including water service, water fountains, sinks, toilets, and showers.

OBSERVATIONS

Domestic Water

System Description: Domestic water is provided by Lakefield Public Utilities through a 3" water service line that enters the building in the hallway across from the kitchen. All water from this service line passes through the softening system. Domestic water is heated by one AO Smith 365 MBH indirect natural gas fired hot water heater located in the boiler room. Hot water is distributed throughout the facility through galvanized and copper pipe hot water loops with recirculation pump insulated with fiberglass insulation. Cold water is distributed throughout the facility by the municipal water pressure through galvanized and copper piping also wrapped with fiberglass insulation. Branch piping with fiberglass insulation provides hot and cold water to the various fixtures within the building.

System Observations: Domestic water piping is lacking insulation at various locations throughout the building.

Eyewash / drench shower stations do not have a thermostatic mixing valve near them to deliver tempered water and not all are compliant with ADA. In addition, not all eyewash /drench shower stations have a corresponding floor drain.

Faucets are missing aerators.

Lavatories are missing pipe wrap and therefore not compliant with ADA standards.

At the time of the site visit, the indirect vent hot water heater was leaking.

The domestic water piping to a large majority of the building is galvanized pipe in excess of 50 years of age. Galvanized pipe of this age tends have mineral build up on the interior walls restricting flow and causing leaks.

The drinking fountain in the 1920 addition gymnasium is broken.

The shower room fixtures in the 1920 addition men's and women's locker rooms leak and have broken heads and handles.

The washing machine on the second floor of the 1920 addition lacks a backflow preventer on the water supply lines.

The basin type sinks located back to back on the first floor of the 1920 and 1964 additions are rusted, stained, and don't have working water or flows are extremely poor. In addition, the water lines beneath lack insulation.

The water softeners do not appear to be operating properly. Throughout the school, there are hard water stains on the sinks and faucets.

Room 125 in the 1953 building, directly off the music room, has a 'do not use' sign on it.

The sinks in the home education room are worn and in poor condition.

The kitchen does not have an eyewash station per MN Plumbing Code, Chapter 4, Section 416.

The sinks in the chemistry room are in poor condition with leaking fixtures and deteriorating wooden box that the faucets come up in.

Biology room sinks are in poor condition with leaking faucets, stained bowls and rusted drains.

The natural gas supply for the chemistry and biology rooms do not have a code compliant emergency shut off buttons. A ball valve on the gas line does not meet the requirements of an Emergency shut off button.

The faucet leaks in the larger room of the 1964 addition with basin type sinks.

The art room does not have clay traps on the sinks.

The electric water cooler in the 1964 addition hall is loose.

System Condition: Poor

Storm Water/Roof Drains

System Description: The building has a variety of types of roof drainage systems for different areas of the building.

Boiler Room

The boiler room has a slopped metal roof. No primary roof drainage or gutter system is present on this portion of the building.

1920 Building

The 1920 building has a primary roof drain system with overflow scuppers. The primary roof drainage is collected internally and then piped out below grade to the nearest municipal storm water drainage system.

1964 Addition

The 1964 addition has a primary roof drain system with no overflow or secondary system.

1953 Building

The 1953 building has a variety of roof drain systems. The flat roof areas have a primary roof drain system with an overflow scupper that runs down the building via a gutter and spills onto grade. The slopped roof over the gymnasium has a gutter system that spills onto the 1964 addition roof on the north side and is piped down the side of the building via gutters on the south side of the roof.

1958 Addition

The 1958 addition has primary roof drainage as well as a secondary roof drainage system that is day lighted out the side of the building.

1984 Addition

The 1984 addition doesn't have any internal roof drainage but rather the slopped roof goes to a gutter system and is piped down the side of the building to spill on grade.

System Observations: Storm water flows cause ice conditions on sidewalks. The system lacks of overflow.

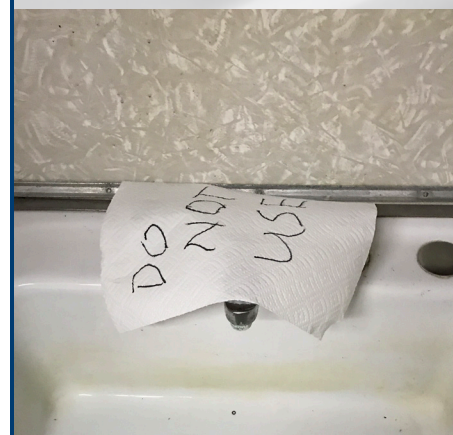
System Condition: Poor



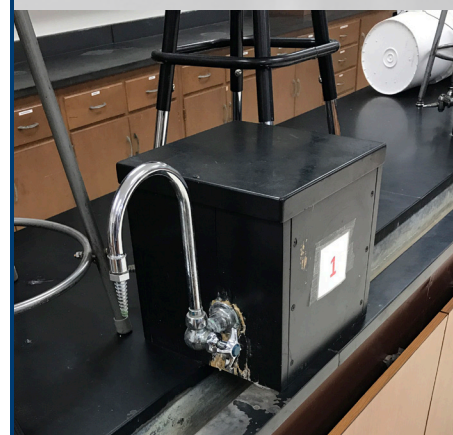
Electrical utility transformer



Main electrical gear without proper clearances



Electrical services distribution equipment



Branch panels without proper clearances

Natural Gas Piping

System Description: There are two different gas service locations that come to the building. The main gas service comes in on the east wall of the boiler room. Here there is a 3 1/2" interruptible gas service and a 1 1/4" firm gas service. The backup fuel system for the boilers is fuel oil. The fuel oil storage tank is located on the north side of the boiler room. A second firm 1 1/4" gas service is brought to the building on the north side of the 1920 building next to the garage.

System Observations: All natural gas piping appeared to be in good condition.

System Condition: Good

System Recommendations: An underground storm water drainage system would reduce ice conditions on sidewalks.

RECOMMENDATIONS

Install natural gas shut off button for chemistry/biology rooms per code

Install clay traps on sinks in art room.

Install emergency eyewash station in kitchen.

Add thermostatic mixing valve to all eyewash stations.

Update all domestic water piping to eliminate galvanized pipe.

Add pipe wrap to lavatories.

Fix broken sink in room 125.

Secure electric water cooler to wall in hallway.

Replace broken drinking fountain in gymnasium.

Replace missing/damaged domestic water piping insulation.

Install aerators on all faucets in the building.

Install washing machine box for washing machine.

Replace water softeners.

Replace sinks in the following areas: chemistry lab, biology lab, and home education classroom, as well as all basin type sinks, and all sinks located in the 1964 addition.



PLUMBING CONDITIONS SYSTEM PRIORITY TABLE

	1	2	3	4	COST
Install natural gas shut off button for chemistry/biology rooms per code	●				\$25,000
Install clay traps on sinks in art room	●				\$3,500
Install emergency eyewash station in kitchen	●				\$3,000
Add thermostatic mixing valve to all eyewash stations	●				\$8,000
Update all domestic water piping to eliminate galvanized pipe	●				\$300,000
Add pipe wrap to lavatories	●				\$10,000
Fix broken sink in room 125		●			\$1,000
Secure electric water cooler to wall in hallway.		●			\$1,200
Replace broken drinking fountain in gymnasium		●			\$4,000
Replace broken shower fixtures in men's and women's locker rooms		●			\$7,000
Replace missing/damaged domestic water piping insulation		●			\$60,000
Install aerators on all faucets in the building		●			\$4,000
Replace water heater with new direct vent water heater		●			\$24,000
Install washing machine box for washing machine		●			\$800
Replace water softeners		●			\$10,000
Replace chemistry lab sinks			●		\$10,000
Replace biology lab sinks			●		\$10,000
Replace basin type sinks			●		\$4,500
Replace sink in 1964 addition			●		\$800
Update sinks in home education classroom				●	\$3,500





Dirty return and exhaust grilles



Exhaust fan located in locker room



Furnace for the Music Room



Loud air handling units in gymnasium

PHYSICAL CONDITIONS

MECHANICAL CONDITIONS

Review of existing mechanical systems and their components including verification that HVAC systems, as plumbing fixture counts, water piping, and water supply meet current building codes.

OBSERVATIONS

The American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE), founded in 1894, is a global society advancing human well-being through sustainable technology for the built environment. The society, and its members, focus on building systems, energy efficiency, indoor air quality (IAQ), refrigeration, and sustainability within the industry.

ASHRAE Standard 55 was first published in 1966 and outlines conditions in which 80% of building occupants will find the environment thermally acceptable. There are six factors that impact thermal comfort:

- Metabolic Rate
- Clothing Insulation
- Air Temperature
- Radiant Temperature
- Air Speed
- Humidity

All six of these factors vary with time. In addition, it is important to note the effect of prior exposure or activity may affect comfort perceptions for approximately one hour.

First published in 1973, the purpose of ASHRAE Standard 62.1 is to specify minimum ventilation rates and other measures intended to provide indoor air quality that is acceptable to human occupants and minimizes adverse health effects.

Additionally, the U.S. Environmental Protection Agency (EPA) defines good indoor air quality management to include:

- Control of airborne pollutants;
- Introduction and distribution of adequate outdoor air, and
- Maintenance of acceptable temperature and relative humidity.

Facility assessments are focused on the physical conditions of current equipment and we are reporting conditions in need of maintenance and/or repair. However, our recommendations reflect system modifications necessary to achieve good indoor air quality as defined by ASHRAE and the EPA.

Heating Plant

System Description: Two low pressure steam boilers provide heat for the entire building. These boilers run at roughly 70% efficiency. Newer hot water condensing boilers run at 90%-94% efficiency. The steam travels throughout the building to various pieces of equipment. These items include:

AHU – Air Handling Unit

RTU – Roof Top Unit

VAV – Variable Air Volume Units with Reheat Coil

FCU – Fan Coil Unit
UH – Unit Heater
CUH – Cabinet Unit Heater
UV – Unit Ventilator
MAU – Makeup Air Unit

System Observations: The outside air intake louver is damaged. The structure around the boiler stack is deteriorating and falling apart. The large chemical storage room located just outside of the boiler room has a strong chemical odor and does not appear to have exhaust ventilation.

System Condition: Poor

Air Handling and Ventilation

System Description: 1920 Building: The building systems consists of an air handling unit located beneath the northeast stair of the building that serves the gymnasium and original stage area. There are also fan coil units located in the ceiling space serving the back larger classroom as well as the shop on first floor. The classrooms on the south side of first floor of the 1920 building are being heated by the unit ventilators that are located on the exterior wall. Unit Ventilators do not control the amount of outside air needed relative to carbon dioxide levels for the space and usually under ventilate the space. At various locations around the 1920 building, fin tube radiation helps provide heat to the space.

1953 Building

This area is composed of a variety of systems for the space. The music room contains a furnace that supplies heating and cooling for the space. The condensing unit is located on the roof above. The large gymnasium is broken down into two different systems. On the basketball court side, two air handling units are located on the wall. There is no ductwork attached to the units located on the wall. Below the gymnasium is where an air handler is located. This unit serves the auditorium side of the gymnasium. This unit supplies high along the side of the gymnasium and the return ductwork runs below the basketball court. All three units are heating only units and don't have the capacity to add cooling. The remaining spaces have unit ventilators to supply the fresh air to the space. Unit Ventilators do not control the amount of outside air needed relative to carbon dioxide levels for the space and usually under ventilate the space.

1958 Addition

This classroom addition consists of unit ventilators as the heating source for the space and are located on the exterior walls. Unit Ventilators do not control the amount of outside air needed relative to carbon dioxide levels for the space and usually under ventilate the space. Fin tube radiation is also along the exterior to help out with the heating load.

1964 Addition

This addition is broken down into two different areas. The first area is the addition directly to the west of the 1920 building. This addition consists of a fan coil unit that serves the space as a single zone. This unit has a steam heating coil and no capability for cooling. The other portion of the addition is to the south connection onto the 1953 building. This addition has two different types of mechanical systems. The rooms located along the exterior wall consist of steam unit ventilators while mini splits are installed to add cooling to the space. The condensing units are located on the ground directly outside the unit. The interior rooms of this addition are being fed from a roof top unit located on the roof. This gas heat, dx cooling unit serves the spaces.

1984 Addition

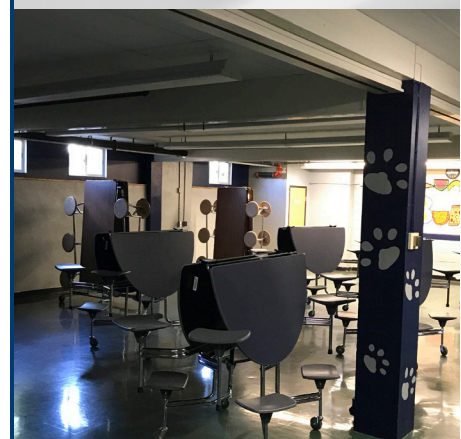
The front offices addition consists of one gas fired RTU with a dx cooling coil to heat and



Office space lacking air movement



Dishwasher missing hood



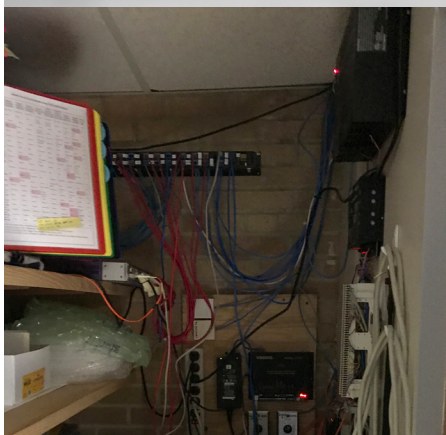
Cafeteria lacks fresh air



Leaking radiator



Window unit in need of replacement



Warm room due to IT equipment



Structure around boiler flue

cool the space. The overhead system is a single zone unit that serves the space. Various rooms have exterior fin tube radiation to help with some zoning in the heating season.

System Observations: *General:* Verify all exterior louvers seals are in good shape. Any damaged seal should be fixed to help ensure no water sneaks into the walls of the building. Louvers should be free of any debris, rust, and not dented or smashed.

No RTU or AHU was found to have any form of vibration isolation present on the units. Being that the units are on the roof or suspended from the ceiling, it is highly recommended to install vibration isolation springs below the unit to ensure no vibration from the unit can transmit into the floor of the building.

The building is a mixture of pneumatic and digital controls. Converting the building over to having digital controls and putting the entire building on a building management system is recommended.

It is recommended to change convert the building over from steam to hot water. A steam boiler runs at roughly 70% efficiency where a new condensing hot water boiler runs roughly at 93% efficiency.

The building has numerous pneumatic thermostats that are leaking or missing thermostat covers. Replacing the thermostats or thermostat covers to ensure that they aren't leaking or exposed thermostats is recommended.

A general note for return/exhaust grilles is that they are dirty and rusted. They should be cleaned if dirty and replaced if rusted to ensure that proper airflow is going through the diffuser.

The exhaust fans in the building are not on a building management system or timer but rather controlled by a switch. Updating the controls to get the exhaust fans on a schedule is recommended to ensure they are always on when the building is occupied as well as off when it isn't occupied.

The insulation on the steam system is lacking. Various spots around the building the insulation is missing and should be replaced especially if the pipe is at elevations where students can accidentally touch the pipe. Not only is adding insulation going to help make the system more efficient but also safer as the pipe can get extremely warm. All steam pipe and fittings should be insulated.

The existing systems throughout the building do not have any outside air monitoring going on. Adding CO2 detection can help monitor how much outside air is brought into the building. Adding these controls to new mechanical equipment will increase how efficient the building will operate.

1920 Building

There is no dedicated cooling or exhaust for the IT room. Due to the heat gain from the equipment, it is recommended to have a dedicated cooling or exhaust fan for the space to help make sure the temperature doesn't get too warm.

The boys and girls locker rooms don't have any dedicated source of fresh air to the space. There is an exhaust fan located on the exterior wall that will exhaust air from the space but it is controlled by a switch on the wall. Updating controls to have the fan turn on based on a temperature or during occupied hours is recommended not only for energy savings but also for better managing the system.

The air handling unit located below the stair well is in need of updating. The ductwork sizes appear to be small for the spaces that it serves. The unit is not able to economize,

there is no energy recovery. The current air handler has a steam coil that only heats the air. There is no vibration isolation to keep the unit quieter for the unit as it is vibrating through the structure and is noisy.

The back stairwell doesn't have any form of a heat source in it. The stair well is along an exterior wall and also has an exterior door located off of the stair well. It is recommended to add a heat source to the space to help keep it warm during winter, especially for when the exterior door is used.

1953 Building

The music room is being served from a furnace that is located in one of the individual practice rooms. This furnace serves the large music room as well as the individual practice rooms. Due to the amount of outside air required for this type of space, the furnace that is installed will not meet code for the required amount of outside air. ISG recommends changing the system type in this area to make sure outside air requirements are met.

The two air handling units located in the gymnasium are extremely loud. The steam heat only units have a loud rattling noise and is dirty. ISG recommends replacing the air handling unit with a new unit with energy recovery, economizing, and ducted supply/return for better air distribution.

The air handling unit located beneath the gymnasium that is serving the auditorium side is in need of replacement. The steam heat only unit is in need of cleaning and is noisy. Replacing the unit with a new unit that has energy recovery, economizing, and a ducted supply/return system that is more spread out above the auditorium for better air distribution is recommended.

The office space directly off of the hallway is lacking any sort of air movement. For this space to be occupied code requires a source of fresh air being introduced directly into the space.

The kitchen in the lower level of the building is missing a dishwasher hood. Code requires a type II dishwasher hood to eliminate any steam being directly introduced to the space. It is recommended to either replace the dishwasher to have a direct connection to an exhaust fan or to add a hood over the top of the current dishwashing hood.

The janitor's closet located near the kitchen in the lower level is missing any sort of exhaust air. This janitor's closet has a strong odor and it would be recommended to have exhaust to the space to help keep the air fresh

The cafeteria is lacking any sort of fresh air to the space or air movement. Original plans show unit ventilators along the exterior wall but those have been removed from the space and never replaced. There is not even a source of secondary heat. Adding fresh air directly to the space is recommended and required by current code.

There is a leaking radiator located in the locker room. Replacing the radiator with a new one is recommended.

1958 Addition

The current design for the science classrooms do not meet code. Current code requires a constant exhaust rate from the classroom as well as the chemical storage/prep areas. The only exhaust currently is from the chemical lab hood. This is a constant volume hood controlled by a switch on the wall. To add exhaust to the classrooms and prep areas as code requires, the unit ventilators on the exterior wall won't work with the system. The amount of fresh air intake will not keep up with the exhaust rate. ISG recommends updating the mechanical system in this addition to be able to meet code.

The three smaller rooms located north of the music room lack any sort of air movement. To be able to use the space other than a storage room code requires fresh air introduced to the space. Adding fresh air is recommended to heat the space as well as provide it with fresh air.

1964 Addition

The classroom directly to the west of the 1920 building has two window units that are installed on the wall. This unit is in poor condition and should be demolished. These units are very loud for a classroom setting. If cooling is desired for the space, a mini split unit or a cooling coil added to the fan coil unit would get cooling in the space and be a much quieter option.

The office directly to the west of the 1920 building doesn't have any fresh air to the space. Code requires a certain amount of fresh air introduced to the space to ensure the air doesn't get stagnant and bad. ISG recommends adding supply air to the space to meet this code requirement.

The IT room right next to the library was warm. The IT equipment was producing heat and there was no exhaust or dedicated cooling unit for the room to eliminate the heat. Adding a dedicated exhaust fan or a mini split would be recommended to keep the space at a desired temperature.

Directly to the south of the men's restroom there is a cleaning storage closet. This closet doesn't have any exhaust in the closet. Due to the large amount of chemicals and smell from the chemicals it is recommended to add exhaust to the space to make sure the strong smell doesn't get spread throughout the area.

The interior classrooms apart of this addition get supply air from a roof top unit on the roof. The air movement in this area was loud which could be a variety of different factors which could include improper duct sizing, overloading diffusers, no balancing dampers, or a combination of them all. It was also noted walls were added from original design. HVAC wasn't changed to show the added walls. This left some new rooms without any airflow to the space. Code requires fresh air to the spaces that are lacking any air at all. To improve airflow and control, ISG recommends re-ducting the area to ensure proper air flow distribution to all rooms as well as a quieter system.

1984 Addition

There is a small IT closet directly behind the front desk that doesn't have any air movement in it. The IT equipment produces some heat and being that there is no dedicated air or exhaust system the room gets warm.

System Conditions: Poor

RECOMMENDATIONS

General

Add exhaust to chemical storage closet directly outside boiler room.

Add air movement to the cafeteria, three small rooms north of the music room, office space, janitors closet next to the kitchen, office space in the 1920 building,

Replace furnace for music room with a new system.

Update science classrooms to meet current exhaust rate codes.

Add dedicated fresh air to locker rooms in 1920 building.

Add a dishwasher hood above the dishwasher.

Replace damaged/broken air intake louver in boiler room

Reduct roof top unit on interior classrooms in 1964 addition.

Replace the two air handlers located in the gymnasiums, and the one below the gymnasium.

Provide dedicated cooling for IT rooms.

Replace leaking radiator in locker room.

Convert steam boilers over to hot water boilers

Update controls to eliminate pneumatic

Reinsulate all exposed steam lines in building

Replace air handling unit and two window units in 1920 building.

Add vibration isolation to air handling units and roof top units

Heating Plant

Replace outside air intake louver and associated controls.

Repair structure around the boiler stack.

Install exhaust ventilation in chemical storage room with associated controls.

MECHANICAL CONDITIONS SYSTEM PRIORITY TABLE

	1	2	3	4	COST
Add exhaust to chemical storage closet directly outside boiler room	●				\$5,000
Add air movement to the cafeteria	●				\$60,000
Replace furnace for music room with a new system	●				\$60,000
Update science classrooms to meet current exhaust rate codes	●				\$20,000
Add fresh air movement to the three small rooms just north of the music room	●				\$8,000
Add air movement to office space off of hallway	●				\$10,000
Add dedicated fresh air to locker rooms in 1920 building	●				\$42,000
Add a dishwasher hood above the dishwasher	●				\$7,500
Add air movement to the janitors closet next to the kitchen	●				\$3,000
Add air movement to the office space in the 1920 building	●				\$15,000
Upgrade HVAC system to meet ASHRAE62.1		●			\$3,304,440
Replace damaged/broken air intake louver in boiler room		●			\$4,000
Reduct roof top unit on interior classrooms in 1964 addition		●			\$20,000
Replace the two air handlers located in the gymnasium		●			\$80,000
Replace air handler located below the gymnasium		●			\$45,000
Dedicated cooling for IT room in 1920 building		●			\$14,000
Dedicated cooling for IT room in 1964 addition next to library		●			\$6,000
Dedicated cooling for IT closet in 1984 addition behind front office desk		●			\$6,000
Replace leaking radiator in locker room		●			\$900
Convert steam boilers over to hot water boilers		●			\$420,000
Update controls to eliminate pneumatic		●			\$280,000
Reinsulate all exposed steam lines in building		●			\$65,000
Replace air handling unit located in 1920 building		●			\$50,000
Replace two window units with minisplit in the 1920 building		●			\$12,000
Add vibration isolation to air handling units and roof top units		●			\$35,000
Add heat source to stairwell in 1920 building		●			\$6,000
Clean return/exhaust grilles and replace rusted/damaged grilles				●	\$16,000

PHYSICAL CONDITIONS

ELECTRICAL CONDITIONS

Review of the existing building electrical systems including electrical service, distribution, and lighting. This section also documents technology systems and components including the security system and others as applicable.

OBSERVATIONS

Service

System Description: The main building has two separate electrical services that are all served by a pad mounted transformer on North side of the building. The original 1920 portion of the building was served by a 600 amp, 120/240 volt, 3-phase, 4-wire service. A second 600 amp, 120/240 volt, 1-phase, 3-wire service was then added for the 1964 addition.

A third service was added to serve the shop equipment in 1980. The service is fed overhead from a pole mounted transformer on the North side of the building. The service is a 400 amp, 120/240 volt, 3-phase, 4-wire service.

System Observations: The electrical services seem to be serving the building well and are sized appropriately for the size of the facility. One concerning item was that PVC conduit was used to protect the secondary conductors coming out of the pad mounted transformer. The PVC has deteriorated over time and one set appears to have snapped in the middle (possibly from people using it as a step to climb on the roof).

System Condition: Fair

Energy Usage

Utility data for gas and electricity over the last three years was analyzed to see if the facility's energy consumption has been consistent, and also how the school compares to other schools in the state. Looking at Monthly Per Square Foot Energy usage chart, the schools has been pretty consistent over the last three years. Using the 2015-2016 data as a baseline, the school saw an increase in energy usage during the month of December and a large drop in February. The overall year of 2016-2017 shows a slight decrease of 1.07 kBTU/SF, which is a reduction of about 2% compared to 2015-2016. The deviation is quite small and could be attributed to some warmer winter months in 2016-2017 as a few of the schools analyzed in this study showed similar results. A baseline can be established with these numbers to compare future energy usage. If there are large discrepancies with that baseline and future data, it can reveal if equipment is failing or if other issues are occurring.

The utility data was also averaged out over an entire year. Again, 2015-2016 was used as a baseline to compare the 2016-2017 data. The data can be seen in the following table. The data can also be compared to other school in the state's public B3 Benchmarking data. The data is averaged per square foot so schools can be compared without the total size of the school having a large affect. Only the most recent year's data is compared.

The 54.89 total kBTU per square foot per year shown in the following table would put the facility at the 56th spot on the B3 Benchmarking List of Public Schools ranked by EUI (Energy Use Intensity). It would fall in the category of <100 kBTU/SF/yr category, which is the top category. The school could still implement various mechanical and electrical improvements listed in this report to improve the



Main utility transformer



Shop service utility transformer



Original service main electrical gear



1964 addition main electrical gear



Shop service main electrical gear



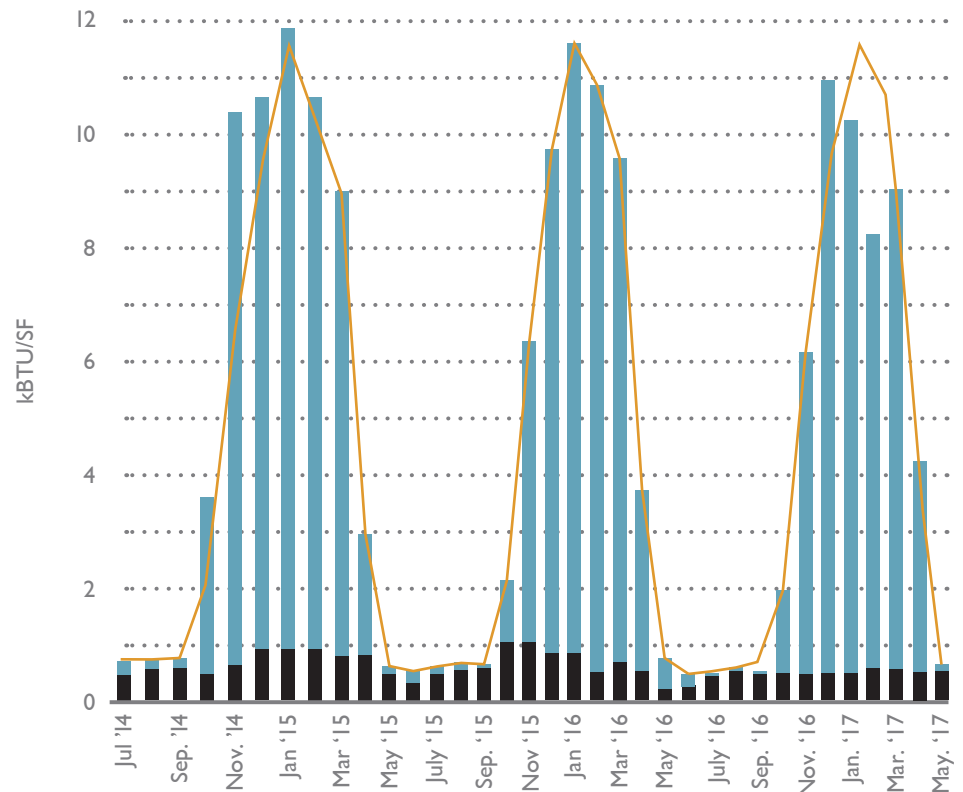
Receptacle with burn marks



Branch panel missing blank space covers



Non-GFCI receptacle near sink



	KBTU PER SF PER YEAR		
	ACTUAL	BASELINE	CHANGE FROM BASELINE
ELECTRIC	29.53	30.43	0.90
GAS	45.94	46.37	0.43
TOTAL	75.47	76.81	1.33
% CHANGE	1.74%		

*Based on building square footage of 206,689 SF

Electrical Gear

System Description: The two 600 amp services terminate in main gear located in the lower level boiler room. The original service terminates in a Square D 600 amp rated main disconnect. The main disconnect is then used to feed several other disconnects for equipment and branch panels.

The second electrical service that was added for the 1964 addition terminates in a General Electric 600 amp switchboard. The switchboard is equipped with a 600 amp main breaker and six feeder breakers. It is assumed that these breakers feed branch panels and equipment, but it could not be verified as there were no labels.

The third electrical service that feeds the shop terminates in a 400 amp main disconnect

that then feeds a large switchboard. The switchboard then feeds mechanical equipment and branch panels.

System Observations: The main electrical gear for the original building service and the 1964 addition appear to still be the original gear. The average useful life of this type of equipment is 40 years. The gear is well past its estimated useful life but appears to still be functioning.

The electrical service in the shop also appears to be the original gear from when the service was added around 1980. While the gear is approaching the end of its estimated useful life, it still appears to be functioning well.

For the different distribution panels and branch panels throughout the facility, a variety of manufacturers were used including Square D, Frank Adams, General Electric, and Siemens (formerly Gould ITE). A lot of these manufacturers are no longer producing replacement parts for this equipment, and Frank Adams has been out of production for several years. Finding any replacement parts for this equipment can be very difficult and expensive if anything were to fail.

It does not appear that any of the existing equipment is properly labeled for arc flash hazards. If any equipment is added, an arc flash study should be performed and proper labeling applied to ensure all equipment is rated for the available short circuit current.

System Condition: Original 600 amp service distribution gear (Main electrical disconnects): Fair

Original 600 amp service power and lighting branch panels: Fair

Addition 600 amp service distribution gear (Main electrical switchboard): Fair

Addition 600 amp service power and lighting branch panels: Fair

Shop 400 amp service distribution gear (Main electrical disconnect and switchboard): Fair

Shop 400 amp service power and lighting branch panels: Fair

Light Fixtures

System Description: The majority of interior light fixtures are various styles of T8 linear fluorescent fixtures, except fixtures in the shop which use T12 fluorescent lamps. The lighting throughout the facility is all manually switched, no automatic controls are utilized for the interior lighting.

The exterior utilizes building mounted HID fixtures and pole mounted LED lighting. The exterior lighting appears to be automatically controlled by a photocell to turn on from dusk until dawn.

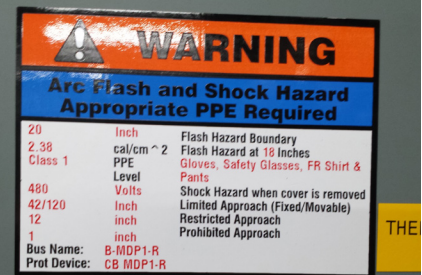
System Observations: The interior lighting was upgraded from T12 linear fluorescent fixtures to T8 linear fluorescent fixtures as they are more efficient and lamps are readily available. Light levels seemed adequate throughout the facility.

System Condition: Good

Code Compliance

One concerning item was a receptacle in a class room with what appears to be burn marks around the plug. The burn marks can be caused by many reasons including an overloaded circuit, loose wiring, or an old outlet. The outlet should be replaced and further investigation done into what is caused the burn marks.

It was observed that some of the branch panels in the hallway was missing blank space



Example of proper label for electrical equipment

covers and had exposed busing. New blank covers should be added to ensure the live busing is not accessible.

Receptacles located within 6 foot of a sink require GFCI protection. It appears that some receptacles did not meet this requirement. It should be verified that all receptacles near sinks are provided with GFCI protection.

An arc flash study should be performed on the facilities electrical systems, and labels added to electrical equipment with updated information that is required by the most recent edition of the national electric code.

RECOMMENDATIONS

Service

The PVC conduit coming out of the pad mounted transformer should be replaced with rigid steel conduit to provide proper protection for the secondary conductors from the transformer to the main disconnect switches.

The electrical services will continue to serve the building provided minimal alterations are made to the building's electrical systems. If any additions or larger modifications occur, a detailed study should be performed on the electrical system.

Electrical Gear

While the equipment for the electrical services is approaching or past the end of its estimated useful life, these systems can potentially last much longer. The equipment should be examined periodically to ensure everything is still operational, but many times electrical gear can be kept in service until a major building renovation or addition occurs.

Light Fixtures

The existing light fixtures are in good condition and should continue to serve the building well as linear fluorescent T8 lamps are efficient and still widely used and available. The interior lighting controls should be further evaluated to see if the school would benefit from automatic controls and occupancy sensors to reduce energy consumption and operating costs when spaces are not being used.

If significant modifications are made to the lighting, current energy codes will require that lights automatically turn off when a space is unoccupied as well as automatically dimming fixtures near windows based on the natural sunlight coming into a space.

If significant modifications are made to the building lighting, current energy codes require that lights automatically turn off when a space is unoccupied, as well as automatic dimming fixtures near windows based on the natural sunlight coming into a space.

ELECTRICAL CONDITIONS SYSTEM PRIORITY TABLE

	1	2	3	4	COST
Perform arc flash study and label electrical equipment			●		\$10,000

PHYSICAL CONDITIONS SECURITY CONSIDERATIONS



Assessment of existing security equipment installed throughout the building. Review of existing primary entryways into the facility including door locations and visitor access. .

OBSERVATIONS

Security Camera System

System Description: The building is outfitted with a CCTV camera system that is part of the security system platform, which also includes access control. The main video recording hardware is made up of Intevo components by Kantech. The cameras are analog type manufactured by Bosch. Cameras have been placed in the main corridors, assembly areas (gymnasium, cafeteria, etc.) and the School exterior to observe the courtyard (see camera coverage map).

System Observations: The building has good camera coverage in the corridors and assembly areas. The exterior is only utilizing a single camera. Two of the exterior doors are equipped with door stations that utilize a camera, but these only capture images of people when they enter that specific door.

System Condition: Good

Access Control System

System Description: The building's access control system is part of an integrated security platform system that combines surveillance cameras with access control. The access control is a Kantech KT-400 platform that utilizes electronic card readers and door position sensors at required entrances. Electronic card readers allow staff members to gain entry when the building is locked without having to use an actual key. Card readers give the administration more flexibility in how they control access to the School by allowing them to place limitations on who can gain access into which area. If a card is lost or stolen, the administration can program the system to remove the lost card's ability to unlock doors, whereas older systems would require them to replace the locks. Door position sensors are also an added benefit of an access control system, as they notify the administration if a door has been propped or forced open.

The School has also implemented the use of a video door station at the two entrances to control access to the building. Anyone attempting to enter the facility must first press a call button to alert staff that someone is at the door. An intercom and camera are incorporated into the door station to allow staff to identify anyone at the door before allowing them access to the building. Personnel will then be directed to report to the office.

System Observations: Only two of the buildings entrances appeared to be monitored and have access control technology.

System Condition: Good



Typical Security Camera



Entrance with Video Door Station



SECURITY CONDITIONS SYSTEM PRIORITY TABLE

	1	2	3	4	COST
Additional exterior cameras		●			\$11,000
Add remaining exterior entries into access control system			●		\$20,000

PROGRAMMING + EDUCATIONAL ADEQUACY



PROGRAMMING + EDUCATIONAL ADEQUACY SPACE UTILIZATION

Review of the exiting spaces to determine if area fulfills programming needs and are adequately sized to serve the existing school population per Minnesota Department of Education (MDE) standards.

OBSERVATIONS

The Jackson County Central Middle School serves 6th, 7th, and 8th grades. With the help of the administration team, twenty-one teachers and staff and seven paraprofessionals serve 265 students throughout the 89,105 square foot building. While the facility efficiency calculation may indicate the building is sufficient, the individual spaces communicate a different story.

Educational Spaces


Approximately half the standard classrooms serving the students provide adequate space for the noted activities. Rooms equipped with voice assist aid in the instructor's ability to delivery teaching material.

Active boards are used as teaching aids and students are one-to-one basis with technology. With that said, internet access could be improved to enhance the ability for student to easily complete assignments. While the quantity of furnishings is adequate within the rooms, the variety spaces and furnishings is not sufficient to meet the interdisciplinary, project based curriculum that could improve the student's education. The environment of the classrooms provide plentiful natural light, though the east side classrooms can get warm as there isn't dehumidification throughout the building.

The science rooms are slightly undersized per MDE standards. The 7th and 8th grade classrooms have adequate storage, but the 6th grade science room falls short in this area. There is a need to improve the plumbing offerings within the science classrooms, especially 6th grade science room. As expected in a facility of this age, electrical offerings are up to speed with the demands of current instructional needs. There is a fume hood in the 8th grade science room, but it isn't working properly. As with many of the other classrooms, the temperature regulation isn't ideal which causes distractions to students as they try to learn.

The special educational department's space are spread throughout the building without the appropriate educational equity between each. Approximately 50 students are served throughout the day in these classrooms. Currently, some space is shared with a social studies room as it is air conditioned. There is a dedicated room equipped with one-on-one intervention spaces across the hall from the band room. The sound from the band and choir rooms often become a distraction. The complete room provides curriculum for the Read 180 program. This room consistently has students circulating through it, receiving leveled instruction. While intervention rooms are plentiful, vision glass would is recommended for supervision. The sensory room is small, and unfortunately doesn't offer a swing to the students requiring that sensory integration.

The music curriculum at the Middle School is served with a choral room and band room. Instruction of each alternate every other day. The choir room is appropriately



sized, but would benefit from additional acoustic treatments. Additionally, there isn't any dehumidification in the area and students and staff suffer from the space being warm, especially when it is fully occupied. The band room is a tight space particularly considering the class sizes can get up to 60 students. The risers within the room helps organize the band and instrument storage appears is working. Unfortunately, the band room has a hard surface floor and limited acoustic treatments. It is conveniently located near the gym (where the students perform) which makes it easy to move instruments. Utilizing the gym space for performances creates scheduling conflict between athletic and band practices. Despite the student enthusiasm, the program can't logistically grow due to the limited space.

Fine art is delivered to 6th, 7th, and 8th graders in the afternoons at the Middle School. There is only one undersized room serving both 2-dimensional and 3-dimensional instruction. The typical class size is approximately 28 students while the space is sized for only 19. Though the space is provided with dehumidification, it isn't well equipped with the lockable storage, appropriate sinks with clay traps or conveniently located kiln. Pottery wheels would enhance curriculum if space and electrical infrastructure were available.

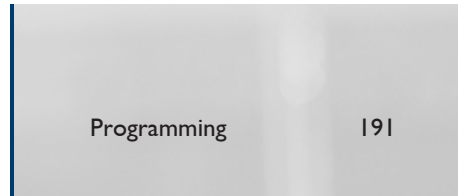
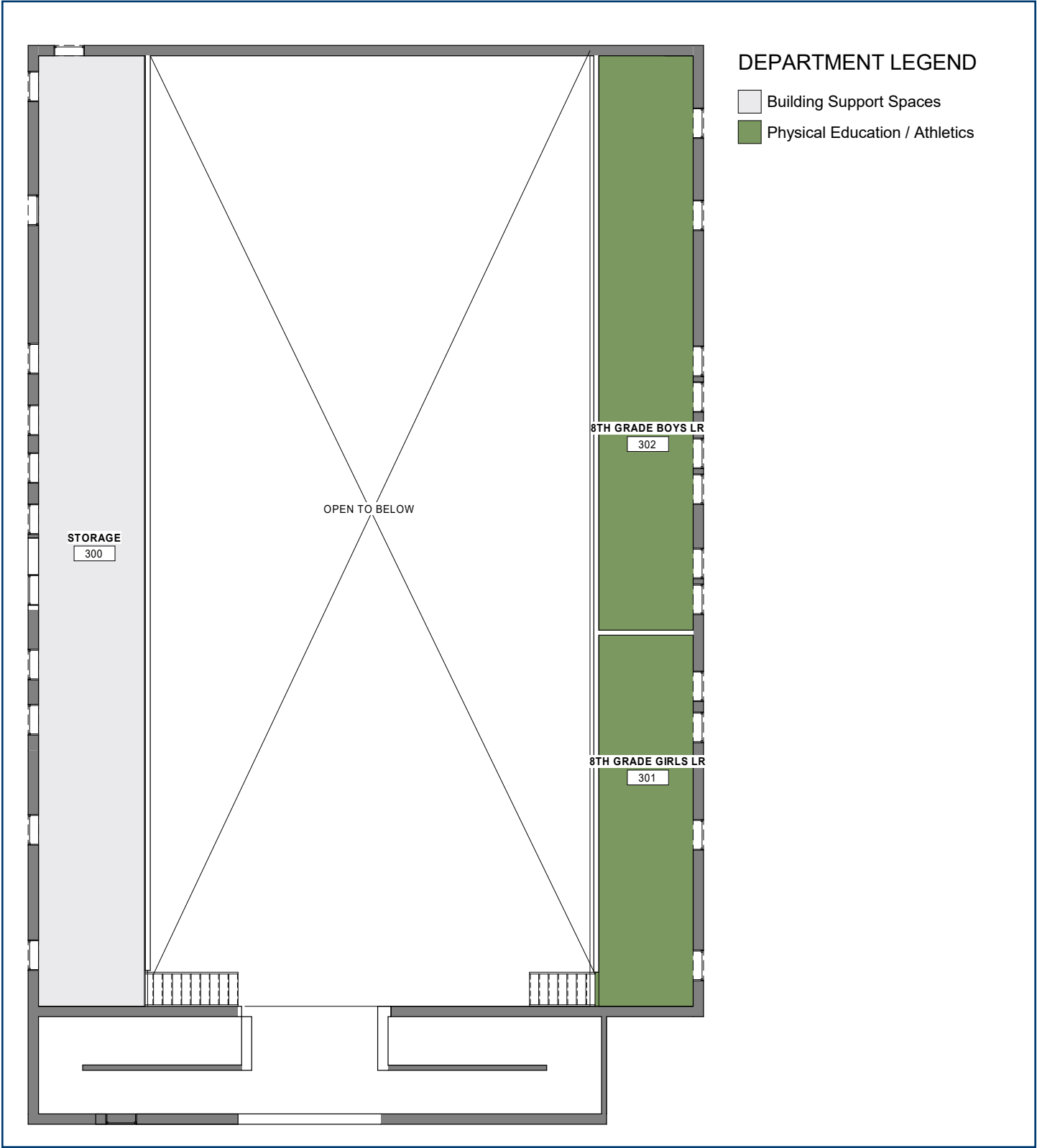
The gymnasium offers one teaching stations and typically has a student load of 15-30 students at a time. One wall of the space is a curtain which causes some difficulty during physical education activities. The flooring of the main gymnasium could be replaced as it's beginning to show wear. The roof over the space leaks and needs attention. Additionally, the adaptive physical education space is extremely limited. Locker rooms are scattered around the facility and aren't beneficially consolidated around the activity spaces.

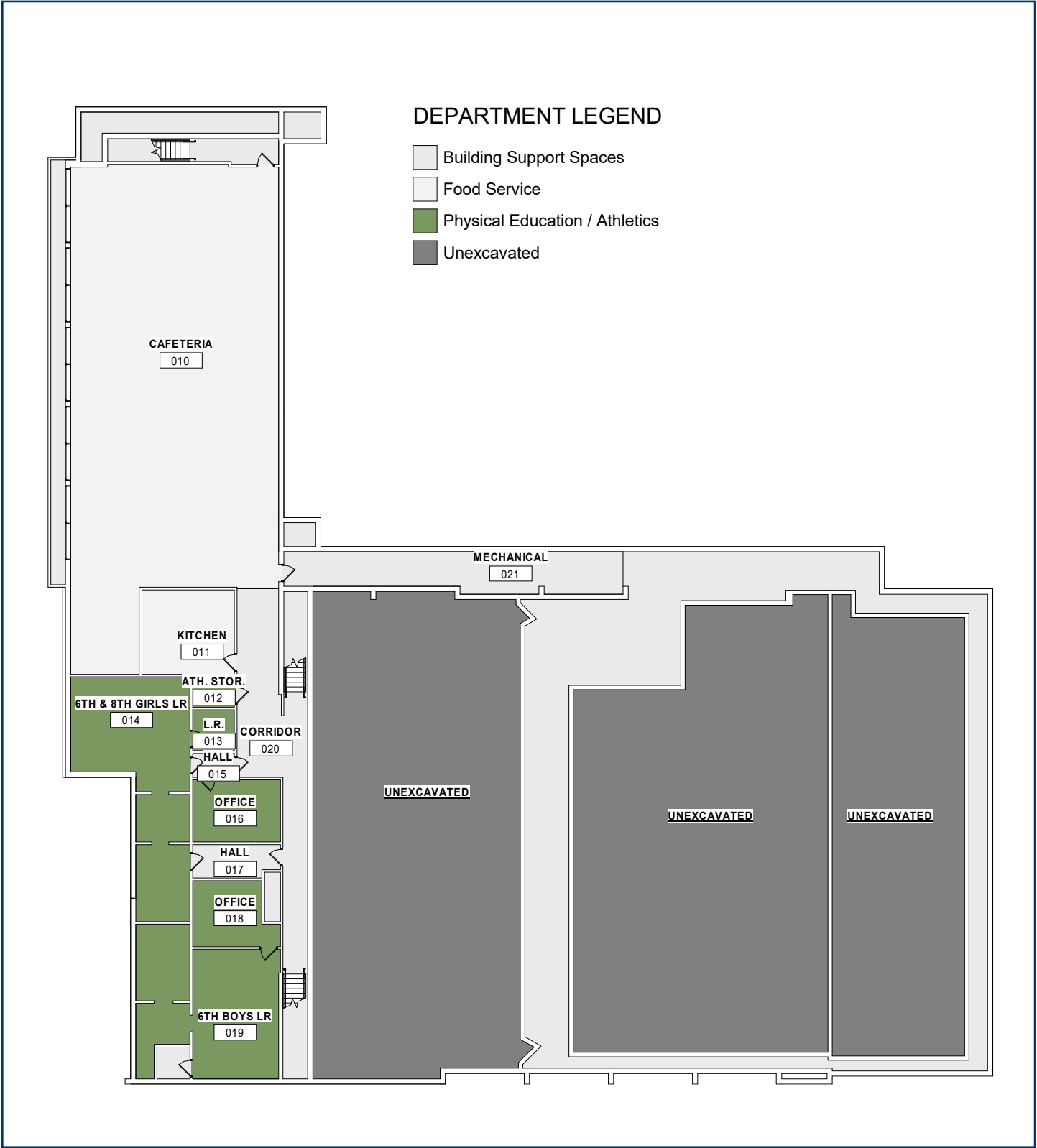
Administrative Spaces

The administrative office is in close proximity to the front entrance of the school. Building reception, principal, counselor and nurse are within the office suite. The Nurse's office and staff workroom are undersized. Currently there is no dedicated space for students who are removed from the classroom, creating a less than ideal working environment for staff. Additionally there are no dedicated conference rooms within the office area to meet with parents or outside visitors.

SUMMARY

Though the overall size of the middle school may be appropriate for the student load, the individual spaces do not lend themselves to the flexibility and collaboration needed with current methods of teaching. Proper adjacencies between classes for interdisciplinary instruction is not present. Additionally, the lack of thermal comfort throughout the building further compromises the learning environment for both students and staff.





DEPARTMENT LEGEND

- Administration / Health Services
- Art / Science
- Auditorium
- Building Support Spaces
- Classroom
- Library / Media Center
- Music
- Physical Education / Athletics
- Science Classroom / Lab
- Special Education
- Technical Education





Educational Adequacy Assessment

ISG

Jackson County Central Public Schools

Project 17-20569

Middle School

January 2, 2018

Grade Configuration:	6th Grade - 8th Grade
Total Student Enrollment	265
Full Day Student Equivalent	265
Staff	21

							Recommended				Current Max. Student Capacity
Description	Notes		Room #	Usage	Shared Space	Subtotal	Low Range	High Range	Avg. Student Capacity	Student Capacity Range	
School Learning Spaces											
Classrooms											
6th Grade Math Classroom	Oversized		185	Full time	No	2,385	850	950	24	20-28	62
English Classroom	Undersized		112	Full time	No	447	850	950	24	20-29	11
English Classroom	Undersized		113	Full time	No	632	850	950	24	20-28	16
English Classroom	Undersized		114	Full time	No	718	850	950	24	20-28	18
English Classroom	Undersized		182	Full time	No	614	850	950	24	20-28	16
Health Classroom	Undersized		116B	Full time	No	656	850	950	24	20-29	17
Health Classroom			162	Full time	No	874	850	950	24	20-29	23
History / Social Studies Classroom	Undersized		107	Full time	No	694	850	950	24	20-28	18
Social Studies Classroom	Oversized		121	Full time	No	1,197	850	950	24	20-28	31
Earth & 8th Grade Science Classroom/Lab	Undersized		117	Full time	No	1,139	1,200	1,400	23	24	20
Life & 7th Grade Science Classroom/Lab			120	Full time	No	1,222	1,200	1,400	23	24	21
Physical Science Classroom/Lab	Undersized		192	Full time	No	1,084	1,200	1,400	23	24	19
Science Lab Prep/Storage	Oversized		118	Full time	No	308	300	300	n/a		
Science Lab Prep/Storage	Oversized		119	Full time	No	365	300	300	n/a		
Subtotal (Classrooms)						12,335	11,850	13,350	283		272
Special Education											
Special Education Classroom (Interview)	Undersized		123	Full time	No	63	100	150	2	5-8	1
Special Education Classroom (Interview)	Undersized		124	Full time	No	88	100	150	2	5-9	1
Special Education Classroom (Interview)	Undersized		125	Full time	No	95	100	150	2	5-10	1
Special Education Classroom (Interview)			126	Full time	No	109	100	150	2	5-11	1
Special Education Classroom (Interview)			189	Full time	No	141	100	150	2	5-12	2
Special Education Classroom (Interview)	Oversized		190	Full time	No	247	100	150	2	5-13	3
Special Education Classroom (Sensory)	Undersized		115	Full time	No	280	450	450	6	5-14	4
Special Education Classroom	Oversized		115	Full time	No	574	450	450	6	5-15	8
Special Education Classroom	Undersized		161	Full time	No	443	450	450	6	5-16	6
Special Education Classroom (Speech)	Undersized		181	Full time	No	127	450	450	6	5-17	2
Special Educatoin Classroom/Lab (Read 180)	Oversized		186	Full time	No	2,375	800	1,200	13	5-18	8
Special Education Classroom/Lab (A.P.A.)	Undersized		107A	Full time	No	596	800	1,200	13	5-19	8
Special Education Office - Cognitive Coach	Undersized		184	Full time	No	78	100	150	2	5-20	1
Special Education Storage	Undersized		187	Full time	No	62	100	150	2	5-21	1
Subtotal (Special Ed.)						5,278	4,200	5,400	64		47
Technical Education											
Tech Lab (Ag Room)	Undersized		160	Full time	No	1,654	1,800	2,400	22	25	17
General Shop	Facility Deficient			Full time	No		2,000	3,000	22	25	0
CADD / Graphics	Facility Deficient			Full time	No		1,400	2,000	22	25	0
Principals of Technology	Facility Deficient			Full time	No		1,200	1,400	22	25	0
Storage / Lab Prep	Facility Deficient			Full time	No		150	250	n/a		
Subtotal (Technical Education)						1,654	6,550	9,050	87		17
Common Spaces											
Small Group/Conference/Office	Facility Deficient			Full time	No		150	200	4	4	0
Large Group - Team Learning Areas	Facility Deficient			Full time	No		1,500	2,000	150	125-175	0
Subtotal (Common Spaces)						0	1,650	2,200	154		0
Library / Media Center											
Seating / Stacks Comp / Ref (8-10% stud. x 35SF)	Oversized		106	Full time	No	1,445	742	928	n/a		
Librarian Office	Undersized		104	Full time	No	135	150	150	n/a		
Small Group / Conf / Office - Reading Corps.	Facility Deficient			Full time	No		150	200	n/a		
Multimedia Production	Facility Deficient			Full time	No		200	200	n/a		
Classroom	Facility Deficient			Full time	No		800	800	n/a		
Workroom / Storage	Undersized	IT Closet	105	Full time	No	246	400	600	n/a		
Professional Library	Facility Deficient			Full time	No		200	200	n/a		
Subtotal (Library / Media Center)						1,826	2,642	3,078			
Family and Consumer Sciences											
Classroom	Facility Deficient			Full time	Yes		900	1,000	22	20-24	0
Classroom/Lab	Facility Deficient			Full time	Yes		1,200	1,500	22	20-24	0
Subtotal (Family and Consumer Sciences)						0	2,100	2,500	43		0
Technology											
Computer Lab	Facility Deficient			Full time	No		1,000	1,300	25	25	0
Control and Headrooms	Facility Deficient			Full time	No		540	640	n/a		
Copy Center	Facility Deficient			Full time	No		500	800	n/a		
Subtotal (Technology)						0	2,040	2,740	25		0
Art/Science											
Multipurpose	Undersized		116	Full time	No	655	1,200	1,500	24	20-28	11
Drawing and Painting	Facility Deficient			Full time	No		1,200	1,500	24	20-28	0
Ceramics	Facility Deficient			Full time	No		1,500	1,500	24	20-28	0
Kiln/Glazing/Clay/Damp Rm.	Facility Deficient			Full time	No		400	400	n/a		
Storage (per area)	Facility Deficient			Full time	No		300	300	n/a		
Photography	Facility Deficient			Full time	No		1,000	1,200	24	20-28	0
Darkroom	Facility Deficient			Full time	No		400	800	n/a		
Office	Facility Deficient			Full time	No		120	120	n/a		
Subtotal (Art)						655	6,120	7,320	97		11

Educational Adequacy Assessment

ISG

Jackson County Central Public Schools

Project 17-20569

Middle School

January 2, 2018

Grade Configuration: 6th Grade - 8th Grade
Total Student Enrollment 265
Full Day Student Equivalent 265
Staff 21

							Recommended				Current
Description	Notes		Room #	Usage	Shared Space	Subtotal	Low Range	High Range	Avg. Student Capacity	Student Capacity Range	Max. Student Capacity
Music											
Instrumental	Undersized		136	Full time	No	1,486	1,500	2,700	63	60-90	26
Choral			127	Full time	No	1,237	1,200	2,000	48	60-90	22
General Music	Facility Deficient			Full time	No		1,000	1,200	28	25-30	0
Instrumental Stor. & Circ.	Undersized		Within 136	Full time	No		600	800	n/a		
Small Practice	Undersized		133	Full time	No	24	100	150	n/a		
Small Practice	Undersized		134	Full time	No	25	100	150	n/a		
Small Practice	Undersized		135	Full time	No	63	100	150	n/a		
Small Practice	Undersized		137	Full time	No	51	100	150	n/a		
Small Practice	Undersized		138	Full time	No	46	100	150	n/a		
Small Practice	Undersized		139	Full time	No	47	100	150	n/a		
Small Practice	Undersized		140	Full time	No	50	100	150	n/a		
Group Practice	Facility Deficient			Full time	No		350	450	n/a		
Ensemble Keyboarding Lab	Facility Deficient			Full time	No		750	750	n/a		
Music Library	Facility Deficient			Full time	No		150	200	n/a		
Office / Lesson Studio	Facility Deficient			Full time	No		100	200	n/a		
Instrument Repair	Facility Deficient			Full time	No		75	75	n/a		
Performance Equipment Storage	Facility Deficient			Full time	No		200	300	n/a		
Subtotal (Music)						3,029	6,625	9,725	138		48
Physical Education/Athletics											
Gymnasium (Two Stations)	Undersized		200	Full time	No	4,786	12,000	14,000	58	52-60	21
Multipurpose / Auxilliary Gymnasium	Oversized		144	Full time	No	5,092	1,700	1,700	9	26-30	26
Weights / Fitness	Facility Deficient			Full time	No		2,000	2,000	19	26-30	0
Adaptive Phy. Ed.	Facility Deficient			Full time	No		500	500	1	26-30	0
Diving Well	Facility Deficient			Full time	No		1,500	2,500	n/a		
Physical Education Locker Rms (1 SF / Stud Cap.)	Facility Deficient			Full time	No	3,458	977	977	n/a		
Athletic Locker Rooms	Facility Deficient			Full time	No		1,000	1,500	n/a		
General Storage (300 Per Station)	Undersized		12	Full time	No	46	300	300	n/a		
Athletic Storage	Undersized		130	Full time	No	189	600	800	n/a		
Spectator Seating (8 SF / Person - Bleachers)	Facility Deficient			Full time	No		0	0	n/a		
Pool	Facility Deficient			Full time	No		10,000	12,000	n/a		
Diving Well	Facility Deficient			Full time	No		1,500	2,500	n/a		
Other Offices (Physical Education / Coaches)	Oversized		16	Full time	No	195	100	150	n/a		
Other Offices (Physical Education / Coaches)	Oversized		17	Full time	No	195	100	150	n/a		
Subtotal (Physical Education / Athletics)						13,961	32,277	39,077	86		47
Subtotal - School Learning Spaces (NSF)											
						37,084	67,404	82,890	977		395
				Current Max. Student							395
				Optimal Student Capacity (80% of Max. Capacity)							316
				Current Student Enrollment							265
				Facility Efficiency							84%

Educational Adequacy Assessment

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							Recommended				
Description	Notes		Room #	Usage	Shared Space	Subtotal	Low Range	High Range	Avg. Student Capacity	Student Capacity Range	Current Max. Student Capacity
School Support Spaces											
Administration / Health Services											
Reception / Waiting	Oversized		151	Full time	No	793	250	300			
Principal			152	Full time	No	199	150	200			
Assistant Principal	Facility Deficient			Full time	No		150	200			
Secretarial Work Station			151	Full time	No	100	100	125			
Work Room and Mail Area	Undersized		153	Full time	No	129	350	350			
Small Conference Room	Facility Deficient			Full time	No		150	200			
Large Conference Room	Facility Deficient			Full time	No		250	400			
In School Suspension	Facility Deficient			Full time	No		200	200			
Other Offices	Facility Deficient			Full time	No		100	150			
Restroom	Facility Deficient			Full time	No		120	180			
Scheduling / Computer Services	Facility Deficient			Full time	No		150	250			
School Nurse / Health Services	Undersized		154	Full time	No	147	500	700			
Subtotal (Administration / Health Services)						1,368	2,470	3,255			
Guidance / Student Services											
Reception	Facility Deficient			Full time	No		150	200			
Guidance Office	Oversized		157	Full time	No	157	150	150			
Secretarial Work Station	Facility Deficient			Full time	No		80	100			
Conference Room	Facility Deficient			Full time	No		150	200			
Psychologist, Social Worker Office	Facility Deficient			Full time	No		100	150			
Career Center	Facility Deficient			Full time	No		300	1,000			
Testing	Facility Deficient			Full time	No		100	100			
Records / Supplies / Storage	Undersized		156	Full time	No	130	200	250			
Student Store / Activities	Facility Deficient			Full time	No		250	400			
Subtotal (Guidance / Student Services)						287	1,480	2,550			
Teachers / Staff											
Planning Work Stations (50 SF per staff)	Facility Deficient			Full time	No		1,050	1,050			
Offices	Facility Deficient			Full time	No		100	150			
Conference/Kitchenette/Print (10-20 SF per staff)	Facility Deficient			Full time	No		210	420			
Toilets	Facility Deficient			Full time	No		120	180			
Subtotal (Teachers / Staff)						0	1,480	1,800			
Food Service											
Cafeteria Dining Space (13-15 SF per stud.)	Undersized		10			3,361	3,445	3,975			
Staff Dining Space (20 SF / staff dining)	Oversized		155			508	480	480			
Kitchen (Serving)	Undersized		11			279	750	1,225			
Serving Line	Facility Deficient						1,000	1,500			
Dry Food Storage	Facility Deficient			Partial	No		350	350			
Cooler	Facility Deficient						300	300			
Freezer	Facility Deficient						350	350			
Dishwasher	Facility Deficient						350	400			
Office	Facility Deficient						150	150			
Locker Rooms / Restroom	Facility Deficient						150	150			
Receiving and Holding	Facility Deficient						300	400			
Table Storage	Facility Deficient						800	1,000			
Subtotal (Food Service)						4,148	8,425	10,280			
Auditorium											
Seating - 250 seats	Facility Deficient						2,500	2,500			
Stage	Oversized		145			3,630	2,200	3,000			
Dressing Rooms	Facility Deficient						400	500			
Make-Up Room	Facility Deficient						200	250			
Restrooms with Showers	Facility Deficient						128	128			
Costume Storage	Facility Deficient						150	225			
Scene Shop	Facility Deficient						800	1,000			
Lobby	Facility Deficient						492	1,000			
Restrooms in Lobby Area	Facility Deficient						600	600			
Control Room	Facility Deficient						200	240			
Dimmer Room	Facility Deficient						120	150			
Catwalks	Facility Deficient						600	1,000			
Loading Bridge	Facility Deficient						150	150			
Piano Storage	Facility Deficient						80	80			
Other Options	Facility Deficient										
Subtotal (Auditorium)						3,630	8,620	10,823			
Subtotal - Net School Support Spaces											
Combined Subtotal - Net											
Net School Learning Spaces + Net School Support Spaces						46,517	89,879	111,598			

Educational Adequacy Assessment

ISG

Jackson County Central Public Schools

Project 17-20569

Middle School

January 2, 2018

Grade Configuration:	6th Grade - 8th Grade
Total Student Enrollment	265
Full Day Student Equivalent	265
Staff	21

							Recommended				
Description	Notes		Room #	Usage	Shared Space	Subtotal	Low Range	High Range	Avg. Student Capacity	Student Capacity Range	Current Max. Student Capacity
Building Support Spaces											
Building Systems and Maintenance											
Custodial	Facility Deficient			Full time	No		500	700			
Custodial Closets	Facility Deficient						40	40			
Restrooms	Undersized	2.5% x NSF	Various locations	Full time	No	883	1,163	1,163			
General Storage	Oversized	3% x NSF	Various locations	Full time	No	1,857	1,396	1,396			
Mech/Elec Interior Systems	Undersized	7.5-8.5% x NSF	Throughout	Full time	No	3,063	3,489	3,954			
Circulation and Structure	Oversized	35-45% x NSF	Throughout	Full time	No	36,785	16,281	20,933			
Subtotal - School Support Spaces						42,588	22,868	28,185			
TOTAL BUILDING (GSF)						89,105	112,747	139,783			

JACKSON COUNTY CENTRAL HIGH SCHOOL





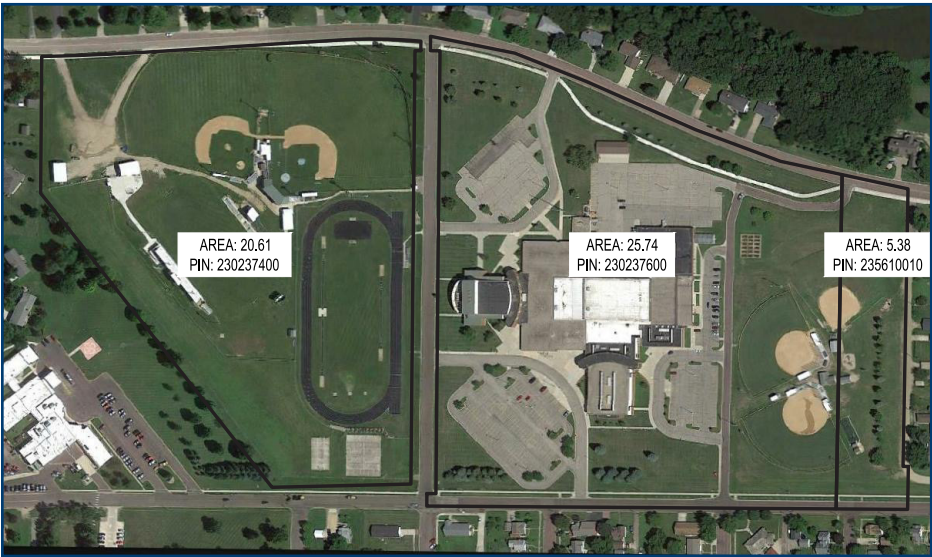
FACILITY OVERVIEW

JCC HIGH SCHOOL

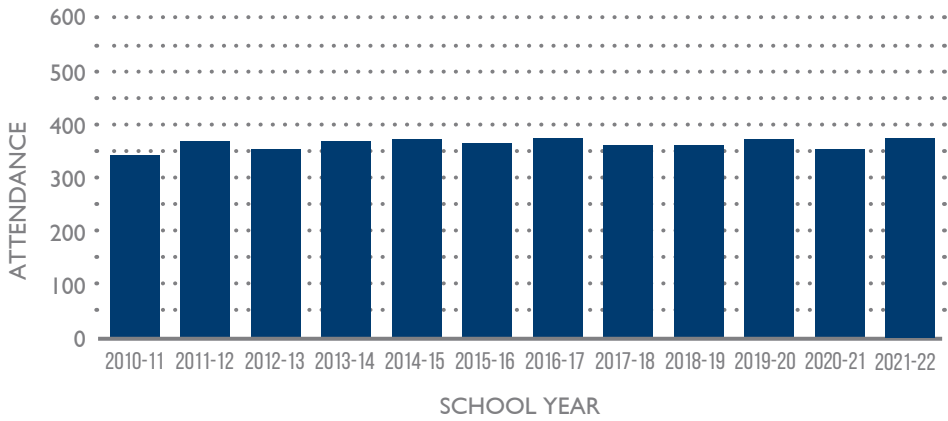
PROPERTY

LAND PARCELS COMPRISING JCC HIGH SCHOOL PROPERTY

230237400	20.61 Acres	Athletic spaces
230237600	25.74 Acres	School building, parking, and ball fields
235610010	5.38 Acres	Ball fields and green space



ENROLLMENT



SITE INFORMATION

CONSTRUCTED: 1981

ADDITIONS: 2004

SITE ACREAGE: 51.73 Acres

BUILDING AREA: 206,689 sf

USES: 9th-12th Grade

PHYSICAL CONDITIONS



PHYSICAL CONDITIONS

SITE CONDITIONS

Review of the existing building site including parking spaces, concrete walks, and other horizontal site elements. Site circulation, grading, paving, parking, stormwater, and playground space were also reviewed.

SITE OBSERVATIONS

Ingress + Egress

System Description: Ingress and egress is provided by six accesses to the school facility; two to the eastern parking lots of the site from Butler Avenue, one to a parking lot from Springfield Parkway, two from Dewey Street to a parking lot, and one to a parking lot from North Highway on the south of the facility.

System Observation: There are five parking lots on site, four of which have looped access roads. Accesses are appropriate widths and are located in suitable locations to serve the site.

System Condition: Good

System Recommendations: There are no material deficiencies.

SITE OBSERVATIONS: PARKING + CIRCULATION

There are five parking lots constructed of bituminous pavement with concrete curb and gutter. All of the lots have been signed with a letter designation (A-D). Three of the parking lots have a separate bituminous circulation drop-off / pick-up aisles which are separate from the parking areas. According to the City of Jackson's City Code, there is a minimum requirement of 1 parking space per each school employee and 1 space per every 4 students. With a total of 357 students and 48 full-time employees, the minimum requirement is 137 stalls on-site.

Parking Lot A + Circulation Access

System Description: Parking Lot A is located on the southwest corner of the facility and provides a total of 172 parking stalls with six van-accessible handicap stalls. Four stalls are dedicated to visitors, along with 3 designated staff spaces.

System Observation:

The pavement is currently in very good to excellent condition, receiving a PCI rating of 88 out of 100.

Crack filling and sealcoating has been performed previously, however new cracking has occurred and previous joints are beginning to lose their seal.

The concrete curbing was in good condition with only minor cracking and separation at the joints. Both the bituminous and concrete pavement had exposed aggregate that appeared to be from scraping. Vegetation was growing in pavement joints and through cracking around the parking lot and the pavement markings were faded. Patching was observed during the site inspection throughout the parking lot and circulation loop.



Faded pavement markings in parking lot A



Minor scraping in curb



Exposed bituminous aggregate in parking lot A



Cracks and potholes have formed and previous joints beginning to lose their seal in parking lot B



Exposed aggregate on bituminous pavement of parking lot B



Faded crosswalk pavement markings in parking lot B's circulation areas



Alligator and block cracking along the northern portion parking lot B's circulation drive



Patching of pavement being performed in circulation access of parking lot B

Parking lot A meets the 2010 ADA standards for Accessible Design, which requires six handicap accessible spaces for a total stall count of 151 to 200, with 1 of the stalls being van accessible. The curb ramps leading from the parking lot towards the school entrance are not directly across from each other and do not have detectable warning tiles. During the site visit, the crosswalk markings were also notably faded.

Stormwater in Parking Lot A sheet flows towards the center of the lot and collected by two storm intakes. The structures convey stormwater to the east, connecting to the storm system in Parking Lot D.

A separate circulation access, connects to North Highway and Dewey Street. The access appears to have received the same maintenance as the parking lot and received a PCI rating of 92 out of 100, which falls into the "excellent" category.

The stormwater drainage in the circulation access flows towards the south through concrete curb and gutter, where three catch basins collect and connect to the storm network in Parking Lot A. At the center of the access loop, the catch basin is missing blocks and the mortar is not present.

System Condition: Good

System Recommendations: Repair catch basin blocks at the circulation access near the main entrance. Restripe the crosswalk markings to designate walkway paths. Install railings on the connecting stairway.

Crack seal and seal coat maintenance is expected to be completed throughout the site for the lower severity cracking to extend the pavement life.

Routine inspection and maintenance is recommended for all bituminous parking lots and circulation accesses. Crack sealing, patching and seal coat maintenance every 5-7 years is typical of bituminous pavement with mill and overlay or reconstruction of the pavement every 20 years.

Parking Lot B + Circulation Access

System Description: Parking Lot B is located on the northwest corner of the facility and provides 125 parking stalls, two van accessible stalls, and three standard handicap accessible stalls.

System Observation: The lot has received maintenance in previous years including crack fill, seal coat, and full-depth patching, however new cracks and potholes have formed and previous joints are beginning to lose their seal. The pavement received a PCI rating of 67 out of 100 which falls into the "good" category. The pavement markings throughout the parking lot and the circulation access are faded.

The concrete curb and gutter throughout the parking lot is in good condition. Sections of curb have minor cracking and separation at the joints. Both the bituminous and concrete pavement had exposed aggregate.

Parking lot B meets the ADA standards, which requires six accessible spaces for a total stall count of 101 to 150, with one of the stalls being van accessible. The parking lot has one accessible path leading to the school doors. The pavement markings across the circulation access have faded.

Stormwater drainage in the lot consists sheet flows toward the center of the lot to an area inlet connected to the southeast collection system. The southwest portion of the parking lot consists of sheet flows that drain to the curb cut and the grass. The storm system appears to be adequately serving the area.

TRAFFIC PATTERNS + CONCERN AREAS

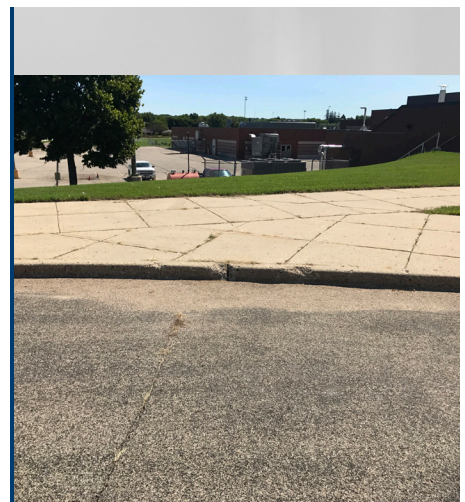


Parking Lot B has a separated one-way circulation access. Traffic enters from the west on Dewey Street and exits north onto Springfield Parkway. The access appears to receive the same maintenance as the parking lot but exhibits major distresses. The access received a PCI rating of 44 out of 100 with severe alligator and block cracking along the northern pavement, indicating base failure. The access would be able to accommodate parked vehicle while maintaining continuous one-way traffic flow through.

System Observation: There are five parking lots on site, four of which have looped access roads. Accesses are appropriate widths and are located in suitable locations to serve the site.

System Condition: Good

System Recommendations: There are no material deficiencies.



Sediment collection in circulation access of parking lot B



Previous joints losing seal in parking lot C



Patching in parking lot C



Faded pavement markings in parking lot C



Chain-link fence surrounding generator with barbed wire

Parking Lot B has a separated one-way circulation access. Traffic enters from the west on Dewey Street and exits north onto Springfield Parkway. The access appears to receive the same maintenance as the parking lot but exhibits major distresses. The access received a PCI rating of 44 out of 100 with severe alligator and block cracking along the northern pavement, indicating base failure. The access would be able to accommodate parked vehicle while maintaining continuous one-way traffic flow through the 23-foot wide access. There is signage at the entrance of the access clearly indicating the one-way traffic pattern.

Stormwater in the circulation access flows to the south and is collected by two area inlets flowing to the storm system in Parking Lot C. Pavement damage and sediment collection were observed around the inlet structure.

System Condition: Fair

System Recommendations: The circulation access is expected to receive the same maintenance as the other bituminous pavement on site, except for the northern driveway pavement. Because the large amount of base failure, the northern access should be reconstructed.

Restripe the crosswalk pavement markings to designate walkway paths.

Parking Lot C

System Description: Parking Lot C is located on the northeastern corner of the facility and provides 123 parking stalls, three accessible stalls, and two van accessible stalls. The parking lot is accessed from Butler Avenue and appears to be where a majority of the maintenance equipment is stored. There is also a six-door garage located off of the northwest corner of the parking lot.

System Observation: The lot has received maintenance in previous years like crack fills, seal coats, and full-depth patch replacement at locations of severe cracking / potholes, however new cracks and potholes have occurred and previous joints are beginning to lose their seal. The pavement received a PCI rating of 64 out of 100, which falls into the "good" category.

The concrete curb and gutter throughout the parking lot was in good condition. Some of the curb sections had minor cracking and separation at the joints. Both the bituminous and concrete pavement had exposed aggregate and vegetation was growing through the pavement joints and cracks. At time the of the site inspection, patching was being performed throughout the parking lot.

Parking lot C meets ADA standards, which require five accessible spaces for a total stall count of 101 to 150, with one of the stalls being van accessible. The parking lot has two accessible ramps from the driveway pavement to concrete walkways, providing access to the school doors.

Stormwater drainage in the parking lot consists of sheet flows to the east where it is collected by the storm system in Parking Lot D. Sediment was observed collecting in the parking lot, indicating areas of inadequate drainage. The ring of the western area inlet was observed to be offset.

West of the parking lot, there is a chain-link fence surrounding a generator. The mesh of the chain-link fencing has a gap between the top of the mesh and the top rail. Barbed wire was also noted around the fence creating a safety hazard.

System Condition: Fair

System Recommendations: Reset the storm structure with an offset ring. Replace

the chain-linked fence mesh. Remove the barbed-wire that is around the generator. Remove and replace the concrete sidewalk that has settled below the top of curb. Perform pavement maintenance activities including patching, crack sealing and seal coating.

Parking Lot D

There are two parking lots labeled parking lot D on the south side of the facility. One of the parking lots provides direct access to the high school's pool facilities, while the second eastern lot provides access to the school and has a separate circulation access. Both of the lots are accessible off of Butler Avenue and the circulation access.

Parking Lot D (Pool Entrance Area)

System Description: Parking lot D is located on the east side of the facility and provides access to the pool. The parking lot is equipped with 29 stalls and two van accessible stalls.

System Observation: The lot has received maintenance in previous years like crack filling, seal coats, and full-depth patch repair at locations of severe cracking / potholes, however new cracks have occurred and previous joints are beginning to lose their seal. The pavement received a PCI rating of 78 out of 100 which falls into the "very good" category.

There is turn-down style curb located on the western edge with a tapered curb and gutter on the eastern edge of the parking lot. The concrete curb along the western edge is in fair condition with some severe cracking and loss of aggregate. The eastern curb is in good condition.

The parking lot meets ADA guidelines, which requires two accessible spaces for a total stall count of 26 to 50, with one of the stalls being van accessible. The pavement markings for the accessible stalls are faded and there is no van accessible plaque at the van-accessible stall. The parking lot has one accessible ramp that is located further away from the main doorway ramp than other parking stalls, but has direct access to the additional southern entrance.

Stormwater drainage in the parking lot sheet flows to the east collected by area inlets located on the north or to a curb cut on the south. The area inlets are in fair condition with some minor structural cracks and a deteriorating adjusting ring. The curb cut conveys stormwater to Butler Avenue and is collected by the city's storm collection system.

System Condition: Fair

System Recommendations: Replace the storm structure that has structural cracks and a deteriorating ring. Install a van accessible plaque. Additionally, the curb along the western edge of the parking lot should be removed and replaced.

Parking Lot D + Circulation Access

System Description: Parking lot and circulation access D is located on the southeast of the facility and contains 69 parking stalls with two van accessible parking spaces.

System Observation: The lot has received maintenance in previous years like crack fills, seal coats, and full-depth patch replacement at locations of severe cracking / potholes, however new cracks have occurred and previous joints are beginning to lose their seal. The pavement received a PCI rating of 74 out of 100 which falls into the "very good" category. The pavement markings throughout the parking lot were faded. Bituminous patching was being performed at the time of the site visit.



Sidewalk settling below curb



Faded pavement markings, no van accessible plaque at the van-accessible stall



Previous joints losing seal and loss of aggregate in parking lot D



Cracking and scraping of the curb and gutter



Sign not properly mounted within the adjacent concrete sidewalk pavement



Stairway on the south side of school without railings



Minor cracking and vegetation growing through the panel joints of sidewalk



Softball fields, dugouts and batting cage

Concrete curb and gutter is located at the perimeter of the parking lot and around parking islands. The curb and gutter was in fair condition with some cracking and large scraping, exposing the aggregate of the pavement.

Parking lot D, SE does not meet ADA guidelines, which require three accessible parking spaces for a total stall count of 51 to 75, with one of the stalls being van accessible. The parking lot has one accessible pathway from the parking lot with faded crosswalk striping.

Stormwater drainage in the parking lot sheet flows from the south to the north. There are two area inlets located in the parking lot which are in fair condition, needing minor adjustments. The parking lot's storm collection system connects to the northern parking lot and then to the city's collection system on Springfield Parkway. Sediment was observed collecting in areas of slight depression in the parking lot and around the parking lot islands, indicating that the storm collection system may not be properly serving the lot.

The circulation access has received the same maintenance as the other bituminous pavement. The bituminous pavement received a PCI rating of 77 out of 100 and is in "very good" condition.

A faded "No Parking Fire Lane" sign was not properly mounted within the adjacent concrete sidewalk. The access is 30 feet wide and a parked vehicle would impede in two-way traffic flow within the access.

Stormwater drainage in the circulation access towards the curb style catch basins located on the south and center of the access. The catch basins did not exhibit any signs of defect and are in good condition. Sediment was not observed in the access, indicating that the storm collection system properly serves the access.

System Condition: Good

System Recommendations: Stripe an additional handicap accessible parking stall with corresponding signage. The two parking lot area inlets need minor adjusting to realign the adjusting rings. Restripe compliant crosswalk pavement markings.

Remove the movable fire lane signage and install signage compliant signage with corresponding no parking striping.

SITE OBSERVATIONS: WALKWAYS

Concrete sidewalk is provided throughout the facility site, connecting multiple parking lots and recreational facilities.

Parking Lot A + Circulation Access

System Description: Sidewalk is located around the northern and eastern perimeter of the circulation access, however no direct access is provided through the parking lot itself, forcing pedestrian traffic between vehicles or along drive aisles.

System Observation: The sidewalks provide access to the southern side of the school via five door entrances. Two of the stoops are not flush with the concrete pavement, leaving a 1/2" to a 1" of height difference. Overall the concrete of the sidewalk is in good condition, with minor cracking. An accessible ramp near the west entrance of the parking ramp has edge cracking.

The sidewalk around the perimeter of the access leads to a stairway on the south side of the school. The stairs connect to Parking Lot D on the southeast corner of the building. The concrete stairs are in good condition with only minor edge cracking observed, however no railing is present.

System Condition: Good

System Recommendations: Install railing along the stairway to aid in pedestrian traffic. Routine maintenance and inspection should be maintained. If concrete panels develop a height difference above 1/4", the panels should be replaced to meet ADA standards.

Parking Lot B + Circulation Access

System Description: Sidewalk located around the southern perimeter of the circulation access provides access to the southern side of the school and five doorways.

System Observation: Overall the concrete of the sidewalk is in good condition, with minor cracking in some of the panels. The sidewalk around the perimeter of the access connects to a newly constructed sidewalk that runs parallel to Springfield Parkway. The sidewalk also connects to stairs that lead to Parking Lot C. The stairs are in good condition and have railings.

System Condition: Good

System Recommendations: Routine maintenance and inspection should be maintained. If concrete panels develop a height difference above 1/4", the panels should be replaced to meet ADA standards.

Parking Lot C

System Observation: The concrete sidewalk is in fair condition with some cracks and a difference in pavement height with the top of curb.

System Condition: Fair

System Recommendations: The concrete sidewalk that has settled below the top of curb should be replaced in the southwest corner of the lot.

Parking Lot D

System Description: Concrete sidewalk along the western parking lot edge.

System Observation: The pavement is in fair condition with some minor cracking and vegetation growing through the panel joints. The sidewalk provides access to four doorways leading to and from the "pool-side" of the building. All doorways are accessible via a ramp runs adjacent to the building. An additional entrance to the building is located south of the main pool doors and is accessible.

System Condition: Fair

System Recommendations: Routine maintenance and inspection should be maintained. The concrete sidewalk is beginning to show signs of age and is expected to need replacement in the next 10 years as crack severity increases and if deflection occurs.

Parking Lot D + Circulation Access

System Description: Sidewalk is located around the west edge of the circulation access and provides access to three sets of school doors.

System Observation: The concrete pavement is in fair condition with minor cracking in the pavement. The concrete stoops are flush with the door frames at all doorways.

System Condition: Fair

System Recommendations: Routine maintenance and inspection should be maintained. The concrete sidewalk is beginning to show signs of age and is expected to need replacement in the next 10 years as crack severity increases and if deflection occurs.



Community garden



Rusted fasteners, warped platforms, faded paint, missing hardware in southernmost play unit



Rusted connections points in geodesic dome climber



Weeds and loss of surfacing in landing pit



Cracks in pole vault concrete pad



Rusting and missing end caps in bleachers



Southeast corner of track and field chain-link fencing



Holes in netting of adjacent batting cages

SITE OBSERVATIONS: UTILITIES

System Description: Utility locations are based on information from ISG's production drawings of the high school in conjunction with site observations during the site inspection.

The following utility services are provided to the site by the associated entity:

UTILITY SERVICE	PROVIDER + CONNECTION INFORMATION
STORM SEWER	City of Jackson via connection at Springfield Parkway
SANITARY SEWER	City of Jackson via connection at Springfield Parkway
WATERMAIN	City of Jackson via connection at North Highway
GAS SERVICE	Minnesota Energy Resources via connection at North Highway
ELECTRIC SERVICE	City of Jackson and Federated Rural Electric Association via connection at North highway
TELECOMMUNICATIONS	CenturyLink or Southwest Minnesota Broadband Services via connection at North Highway

System Observation: Because a majority of utility lines are buried, they were not observed during the site visit. Overall, the visible utility services appear to be in good condition, and the sanitary and water utilities appear to be functional and adequately serve the site. The only noted deficiency is a broken water valve cover south of Lot B, NW.

System Condition: Fair

System Recommendations: Replace the broken water valve cover south of Lot B.

SITE OBSERVATIONS: RECREATIONAL FACILITIES

System Description: The site is equipped with three softball fields, two baseball fields, one track and field, a football field, tennis court, playground, and community garden. The softball fields are located on the east of the property (off Butler Avenue) along with the community garden and playground. The football and baseball fields, tennis court, and track and field facilities are located on the west of the site (off Dewey Street). No accesses is provided off of Butler Avenue to the softball fields, community garden, and playground area. The drinking fountain is also not ADA compliant.

Softball Fields

System Observation: The softball fields, dugouts and batting cage are all in very good condition.

The fields appear to drain well, with only minor ponding observed near the entrance gates. The two southern fields have lighting and scoreboards which appeared to be in very good condition as well. The north field does not have lights or a scoreboard, but is still in good condition. The bleachers were noted to have faded paint and sections of bent seating.

There is no paved walkway to the softball fields and game parking is assumed to be provided by a combination of Parking Lot D and the grassed area east of the fields.

System Condition: Good

System Recommendations: Repaint the bleachers, add an accessible walkway to the

softball field, and pave the area east of the fields to add parking areas.

Community Gardens

System Observation: The community garden is located northwest of the softball fields and is well maintained. The fencing, shed and planter boxes all appeared to be in good condition.

System Condition: Good

System Recommendations: There are no current material deficiencies and is expected that the fencing will need to be replaced within the next 15-20 years.

Playground Equipment

System Observation: The playground area, located east of the softball fields, has two play units and one climbing structure with a pea gravel surfacing. Vegetation is growing through the pea gravel safety surface and the liner of the safety surfacing is showing.

The equipment is aged and does not have an ADA accessible route. The southernmost play unit has rusted fasteners, warped platforms, faded paint, missing hardware, and a portion of the structure and guardrail are missing, decreasing the overall safety of the playground. The northernmost play structure has warped and rusted platforms. The geodesic dome climber is rusting at connection points.

System Condition: Poor

System Recommendations: Based on current observations, the playground area and equipment do not meet current ADA standards, and several safety concerns were observed. The playground, including equipment, safety zones, materials, and accesses, should meet the standards and guidelines as outlined in the Playground Public Safety Standards and Guidelines. It is recommended that the southernmost play unit be removed and replaced with new compliant equipment. A new ADA compliant access should also be provided both to and within the playground area. All rusted and defective components and fasteners should be replaced.

The playground was audited on July 19, 2017 by a Certified Playground Safety Inspector. Their findings and general comments on the playground can be found in the Appendix under the JCC Softball Fields section.

Track + Field Equipment

System Observation: The track and D-zone surfacing is in overall good condition, although areas of delamination and transverse cracking is beginning to show. The track markings are visible but starting to fade.

Field events including long jump, triple jump, pole vault, discus and D-zone are located inside of the track. Because the track season was not underway during the time of inspection, some general maintenance and weeding had not occurred in the sand pits. The runway take-off boards are cracked and there is transverse cracking in the runway. Cracks within the surfacing of the pole vault concrete pad were observed. The throwing circles are in fair condition. The concrete of the circles has minor discoloring of the concrete and one of the toe boards is showing signs of wearing.

The bleachers are in fair condition with visible rusting and missing end caps. The concrete slab that the bleachers are placed is discolored and has medium severity cracks throughout the pavement.

Fencing along the perimeter of the track facilities is in good condition, with only one section in the southeast corner needing replacement.

A modular block retaining wall south of the track separates the area from the tennis and basketball courts. The wall was in fair condition with weathered blocks and some noted dislodging.



Western baseball field



Discoloration and pitting throughout two tennis courts



Rusted net posts and connections



Discoloration and cracking throughout the pavement panels in basketball court

System Condition: Fair

System Recommendations: Replacement of the track surfacing is anticipated within the next seven years. Prior to resurfacing, the track should be reevaluated to determine if resurfacing is adequate, or if areas of full replacement are necessary.

The retaining wall blocks on the south side of the track are weathered, but in fair condition. Some blocks are beginning to dislodge.

Repair the fencing around the perimeter of the recreation areas that is either in poor condition or not properly connected.

Baseball Fields

System Observation: The baseball fields have an aglime and grass infield with a grass outfield. The infields are in good condition and appear to have adequate drainage.

The eastern field “Wacker Field” has wood dugouts with wood benches and bat racks, with a chain link front wall. On both dugouts, the paint is peeling and wood is beginning to rot. The first base dugout has a bullpen that is in poor condition. The fencing is severely warped and does not provide players enough room to warm up. A mesh net is used as the backstop and has multiple tears creating large openings. The first base bleachers also have a metal railing protruding into the field creating a play hazard. The east field has tower-style lighting that appeared to be in working condition.

Within the eastern baseball outfield there is a hole for irrigation that poses a tripping hazard for players. Holes were observed in the netting of the adjacent batting cages, and the bull pen is in poor condition. The perimeter fencing, at the center of the outfield is leaning, but the remainder is in good condition.

The western baseball field appears to be used by the football team for practice. The dugouts are constructed of wood and showing signs of wear. The fencing along the western perimeter is in poor condition.

A batting cage is located next to the visitor’s side bleachers of the football field. The cage appeared to be in fair condition with some tears creating openings.

System Condition: Fair

System Recommendations: Replace east field backstop netting. Fix protruding bleacher railing in east field. Repaint all dugouts. Replace the leaning fence and the batting cage netting to improve the site. The hole within the eastern baseball outfield should be filled with soil or the missing irrigation needs to be replaced to remove the tripping hazard. Construct new bullpen areas. The western baseball field should be aerated. The western dugouts are functional but are anticipated to be updated within the next five years.

Football Field

System Observation: The football field has well maintained turf and no apparent drainage issues. The field has tower-style lighting around it that appear to be in working condition. The scoreboard for the field appeared functional. Both home and visitor bleachers appeared to be in good condition, with no noted defects.

The concrete entry plaza at the northwest corner of the football field had many cracks beginning to form. There are no paved handicap parking stalls near the football field. A small gravel area northwest of the field provides some parking, however most visitors must park along Dewey Street or in Parking Lot B and walk to the field.

System Condition: Good

System Recommendations: The football facilities appeared to be in good condition, with only maintenance activities anticipated. The field should be aerated yearly to both help grass growth and reduce soil compaction, especially in high-use areas.

The field needs to have handicap accessible parking spaces and route to the field. A new parking lot should be paved to provide to provide direct access to the field.

Basketball + Tennis Courts

System Observation: The tennis courts, located south of the track, are constructed of concrete pavement and chain link nets. The pavement is discolored and has pitting throughout the two courts. Cracks span the length and width of the courts and have vegetation growing throughout the joints. The net posts are rusted and pavement markings are faded. The fencing on the ends of the tennis courts is in fair condition with sections of the mesh pulling away from the top rail and rusting posts.

The courts are not in suitable condition for competitive play. Should competition courts be desired, a typical high school tennis program installs eight courts with construction costs of approximately \$80,000-\$100,000 per court depending upon site conditions.

The concrete basketball court, located directly west of the tennis courts, has minor discoloring and linear cracking throughout the pavement panels. No pavement markings were observed on the court. The basketball court has two hoops and one intact net.

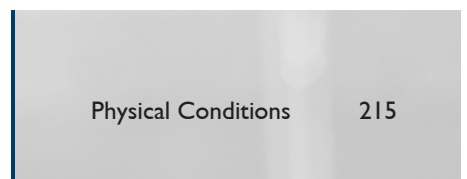
System Condition: Poor

System Recommendations: If competitive tennis is desired, remove the existing concrete tennis and basketball courts and replace with new bituminous tennis courts.



SITE CONDITIONS SYSTEM PRIORITY TABLE

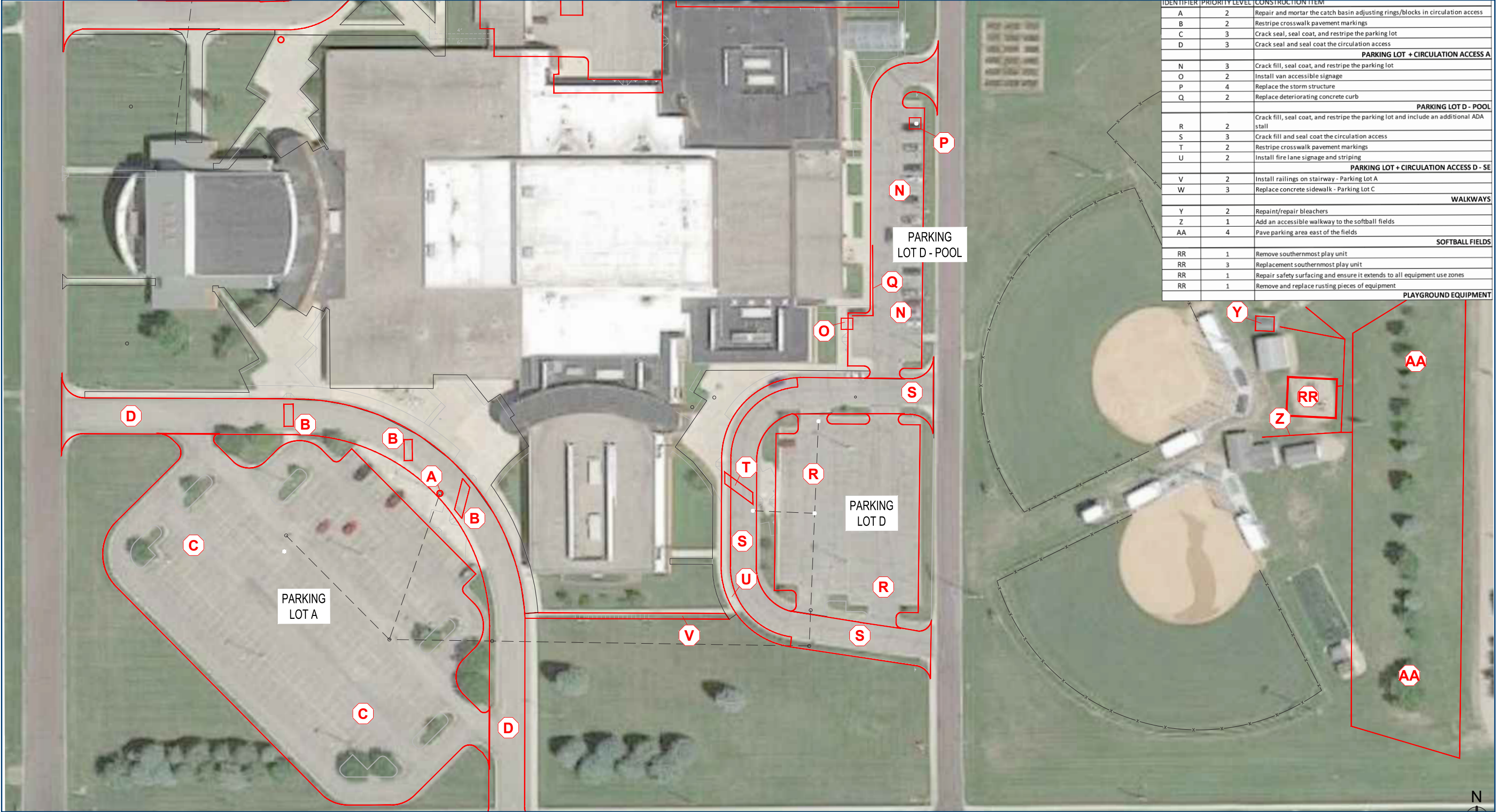
	1	2	3	4	COST
Replace backstop netting	●				\$10,000
Fix protruding railing in first base bleachers	●				\$2,500
Repaint dugouts	●				\$1,000
Reconstruct north circulation access	●				\$50,000
Remove and replace southernmost play unit + rusting pieces of equipment and repair safety surfacing and ensure it extends to all equipment use zones	●				\$14,500
Construct new bullpen areas		●			\$5,500
Replace batting cage netting		●			\$5,000
Repair and mortar the catch basin adjusting rings/blocks in circulation access		●			\$600
Restripe crosswalk pavement markings		●			\$1,500
Full depth patching of potholes		●			\$500
Crack fill, seal coat, and restripe the parking lot		●			\$25,000
Crack fill and seal coat the circulation access		●			\$5,500
Reset storm structure		●			\$1,000
Replace mesh of chain-linked fencing around generator and remove barbed wire		●			\$3,150
Restripe crosswalk pavement markings		●			\$1,500



SITE CONDITIONS SYSTEM PRIORITY TABLE

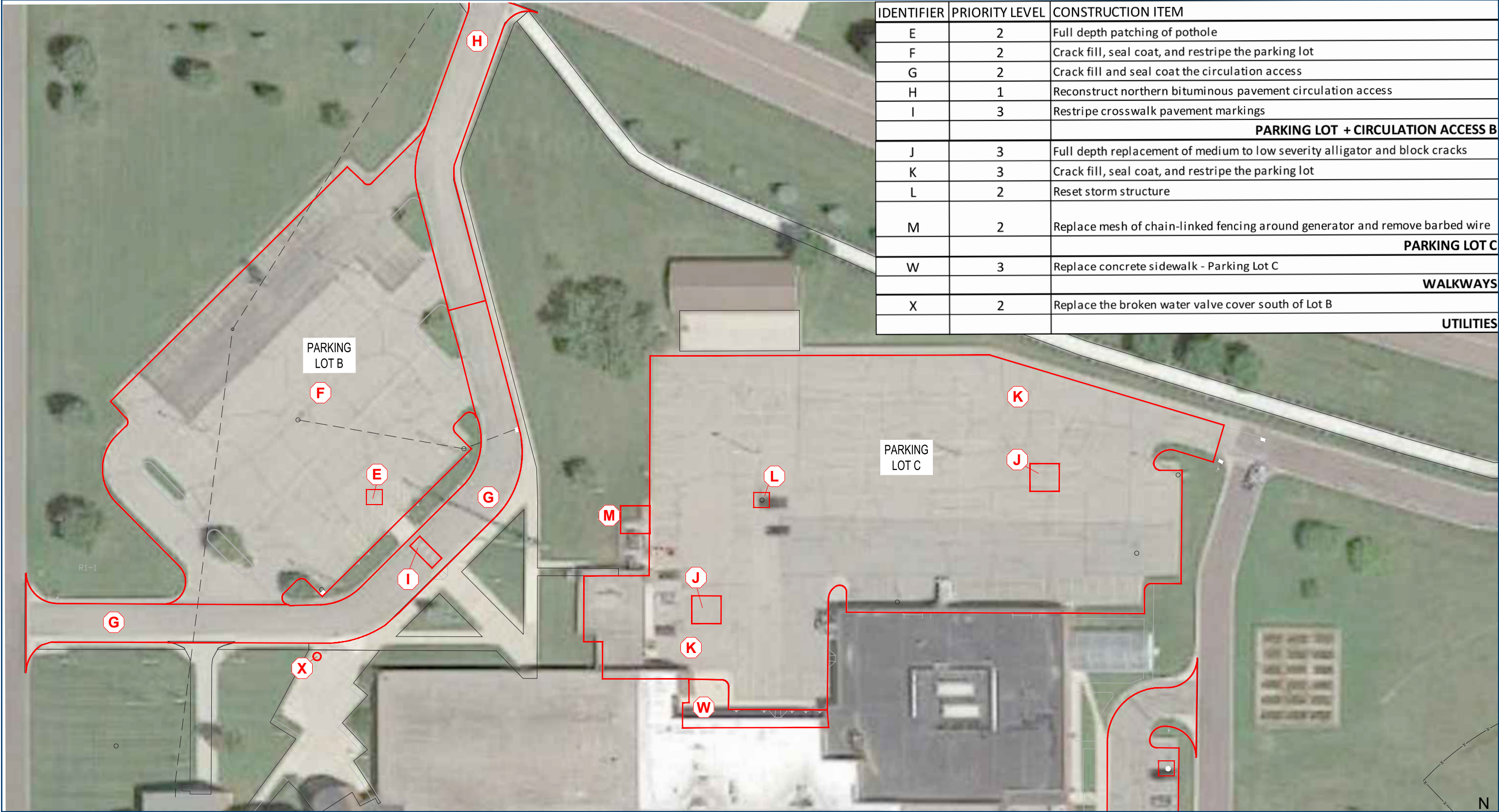
	1	2	3	4	COST
Install fire lane signage and striping		●			\$1,500
Crack fill, seal coat, and restripe the parking lot and include an additional ADA stall		●			\$15,000
Replace deteriorating concrete curb		●			\$450
Repaint/repair bleachers		●			\$3,500
Replace track take off boards		●			\$2,500
Replace concrete pole vault pad		●			\$5,000
Repair dislodged blocks in south retaining wall		●			\$750
Replace the broken water valve cover south of Lot B		●			\$1,250
Install railings on stairway		●			\$20,000
Replace leaning fencing of eastern outfield			●		\$3,900
Crack seal, seal coat, and restripe the parking lot			●		\$35,000
Crack seal and seal coat the circulation access			●		\$8,000
Restripe crosswalk pavement markings			●		\$500
Full depth replacement of medium to low severity alligator and block cracks			●		\$15,000
Crack fill, seal coat, and restripe the parking lot			●		\$27,000
Crack fill and seal coat the circulation access			●		\$8,000
Crack fill, seal coat, and restripe the parking lot			●		\$8,000
Restripe track (2-5 years)			●		\$15,000
Remove and replace fencing at southeast corner of track			●		\$6,500
Replace concrete sidewalk			●		\$7,500
Pave gravel lot northwest of football field to provide closer spectator access				●	\$120,000
Replace the storm structure				●	\$5,000
Pave parking area east of the fields				●	\$35,000
Construct new tennis courts				●	\$800,000
Resurface track in next 7 years				●	\$150,000

SITE IMPROVEMENT RECOMMENDATIONS SOUTHEAST



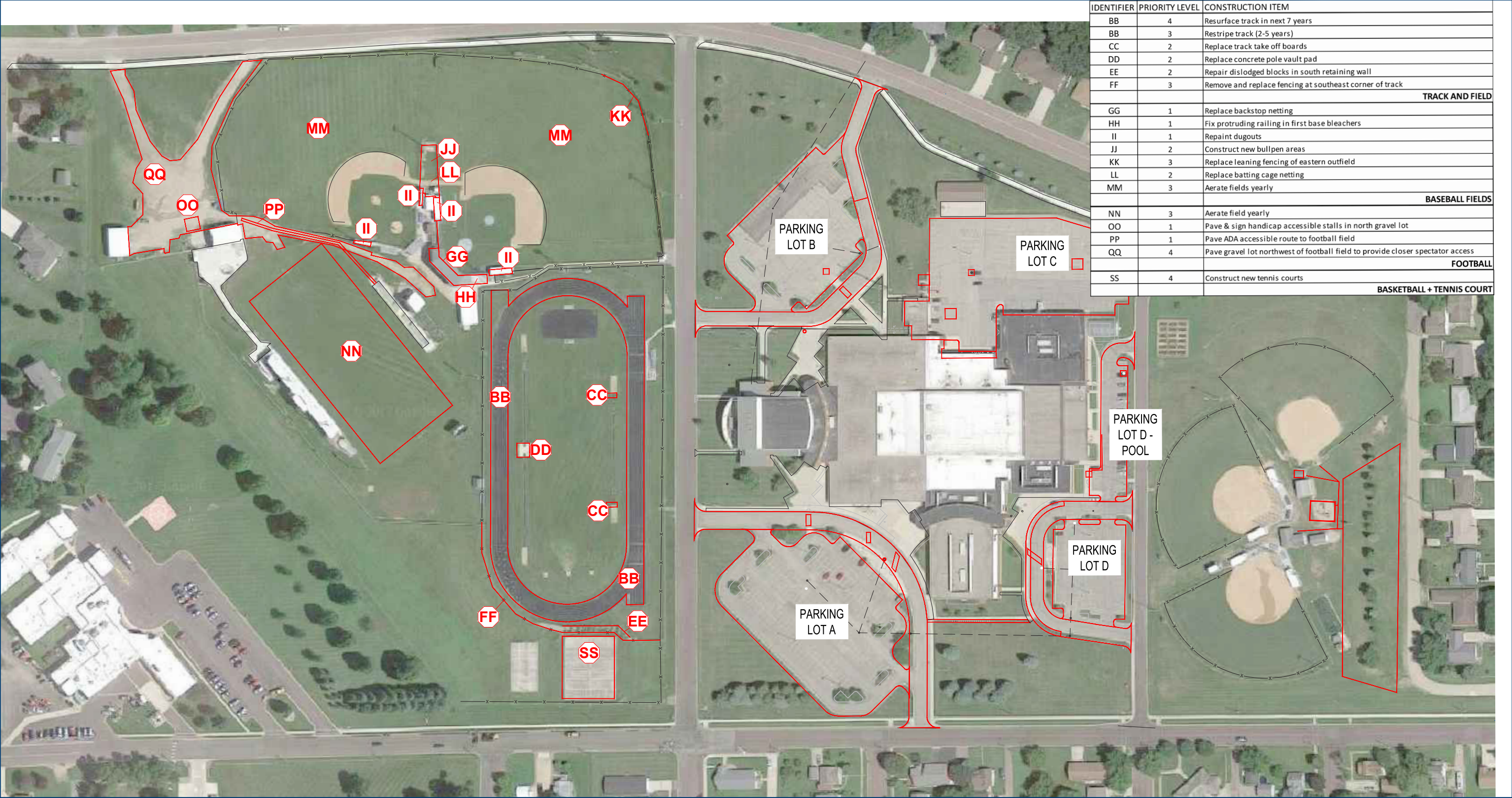


SITE IMPROVEMENT RECOMMENDATIONS NORTH



IDENTIFIER	PRIORITY LEVEL	CONSTRUCTION ITEM
E	2	Full depth patching of pothole
F	2	Crack fill, seal coat, and restripe the parking lot
G	2	Crack fill and seal coat the circulation access
H	1	Reconstruct northern bituminous pavement circulation access
I	3	Restripe crosswalk pavement markings
PARKING LOT + CIRCULATION ACCESS B		
J	3	Full depth replacement of medium to low severity alligator and block cracks
K	3	Crack fill, seal coat, and restripe the parking lot
L	2	Reset storm structure
M	2	Replace mesh of chain-linked fencing around generator and remove barbed wire
PARKING LOT C		
W	3	Replace concrete sidewalk - Parking Lot C
WALKWAYS		
X	2	Replace the broken water valve cover south of Lot B
UTILITIES		

SITE IMPROVEMENT RECOMMENDATIONS WEST





Exterior High School



Brick column with damaged units



Brick wall with significant efflorescence



Stucco wall with severe staining and mold

PHYSICAL CONDITIONS

EXTERIOR BUILDING CONDITIONS

Review of the building's exterior shell including an assessment of the structure, foundation, exterior walls, windows and doors, and thermal efficiency, as well as conditions of the existing roof, gutters, and downspouts.

OBSERVATIONS

Walls

System Description: Brick, concrete masonry units, metal panels, stucco, aluminum curtain wall and storefront systems, fiberglass greenhouse wall and roof system.

System Observations: Older brick and concrete masonry units have moderate spalling and cracking at corners, and a few damaged units; soffits have some rust staining; newer brick has significant efflorescence; metal panels in good condition; visible stucco in good condition with some joint cracking; severe staining and mold on stucco adjacent to rooftop mechanical units; newer aluminum curtain wall system is in good condition, with some minor damage at older storefront system; greenhouse system has moderate discoloration.

System Condition: Fair

System Recommendations: Repair damaged brick and concrete masonry units; repair failed masonry joints and expansion joints; resolve source of water intrusion causing efflorescence and repair affected brick; resolve source of water intrusion causing staining and mold and repair affected stucco; repair damaged storefront; clean or replace greenhouse system.

Doors

System Description: Hollow metal doors and frames, hollow metal entrance doors with glazing, aluminum entrance doors with glazing, and metal sectional overhead doors.

System Observation: Older metal doors have moderate damage, including rust, staining and damaged weatherstripping; aluminum entrance doors are generally in good condition; overhead doors in good condition.

System Condition: Good

System Recommendations: Replace rusted and damaged hollow metal doors and frames; repair damaged bollards.

Stoops

System Description: Constructed of concrete slab.

System Observation: Concrete stoops have some damaged edges, cracking, uneven surfaces and gaps; some stoops are significantly higher than adjacent sidewalks.

System Condition: Fair

System Recommendations: Repair or replace damaged stoops; replace stoops or adjacent sidewalks to comply with accessible entrance requirements at door sills.

Windows

System Description: aluminum framed fixed windows with insulated glazing; glass block units

System Observation: aluminum framed windows generally in good condition, with some damaged screens and joint staining at failing steel lintels; glass block units in very good condition

System Condition: Good

System Recommendations: repair damaged screens, failing lintels and window joints

Roof

System Description: mechanically fastened single ply Duro-Last PVC roof membrane on original structure, adhered rubber roof membrane on auditorium and northeast classroom addition; ballasted rubber roof membrane on gymnasium addition and pool

System Observation: Duro-Last roof installed in 2017; adhered and ballasted roofs in very good condition.

System Condition: Good

System Recommendations: No recommendations.

Garage

System Description: Detached building on concrete slab, metal siding, sloped metal roof.

System Observation: Garage is in good condition.

System Condition: Good

System Recommendations: No recommendations.



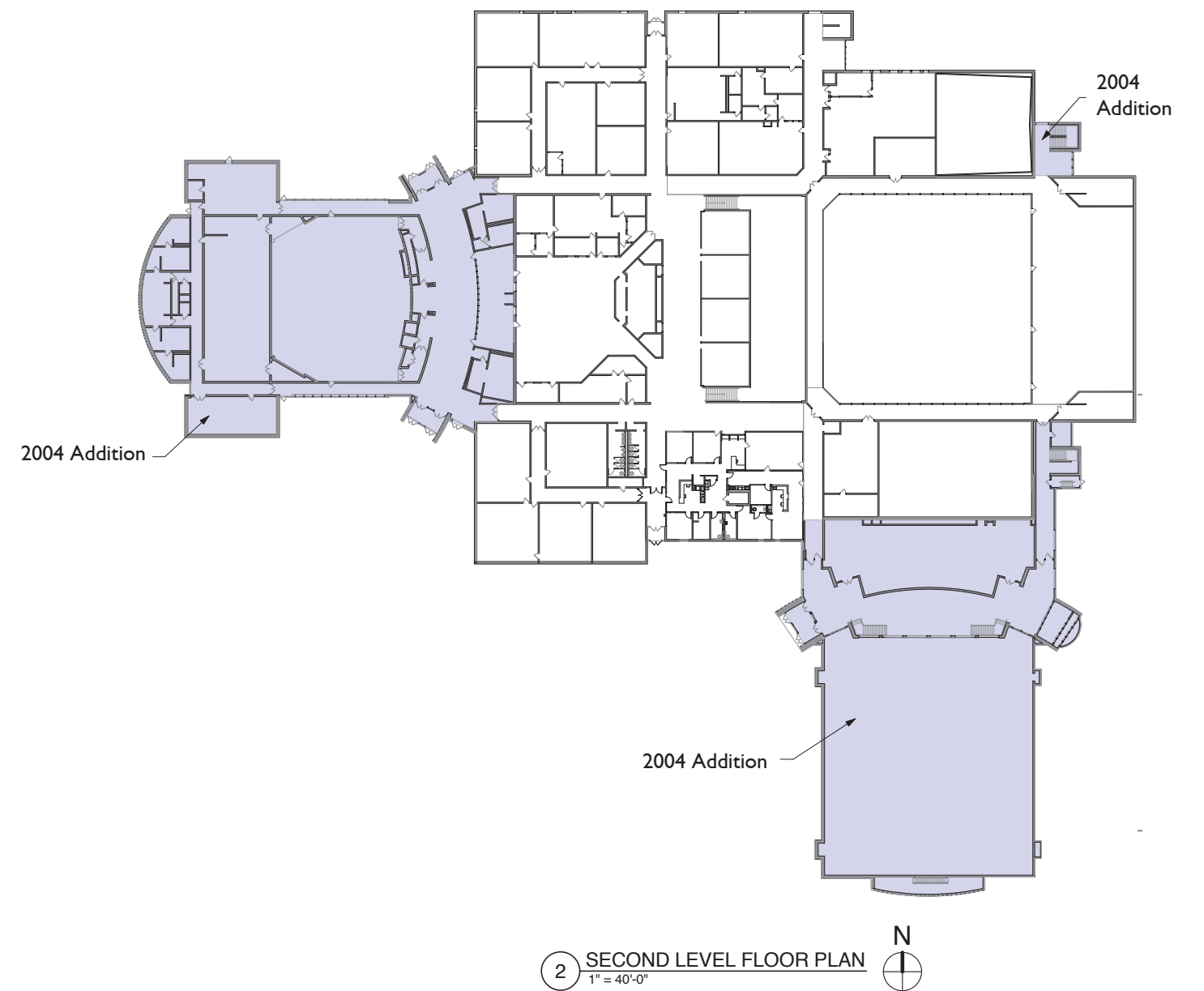
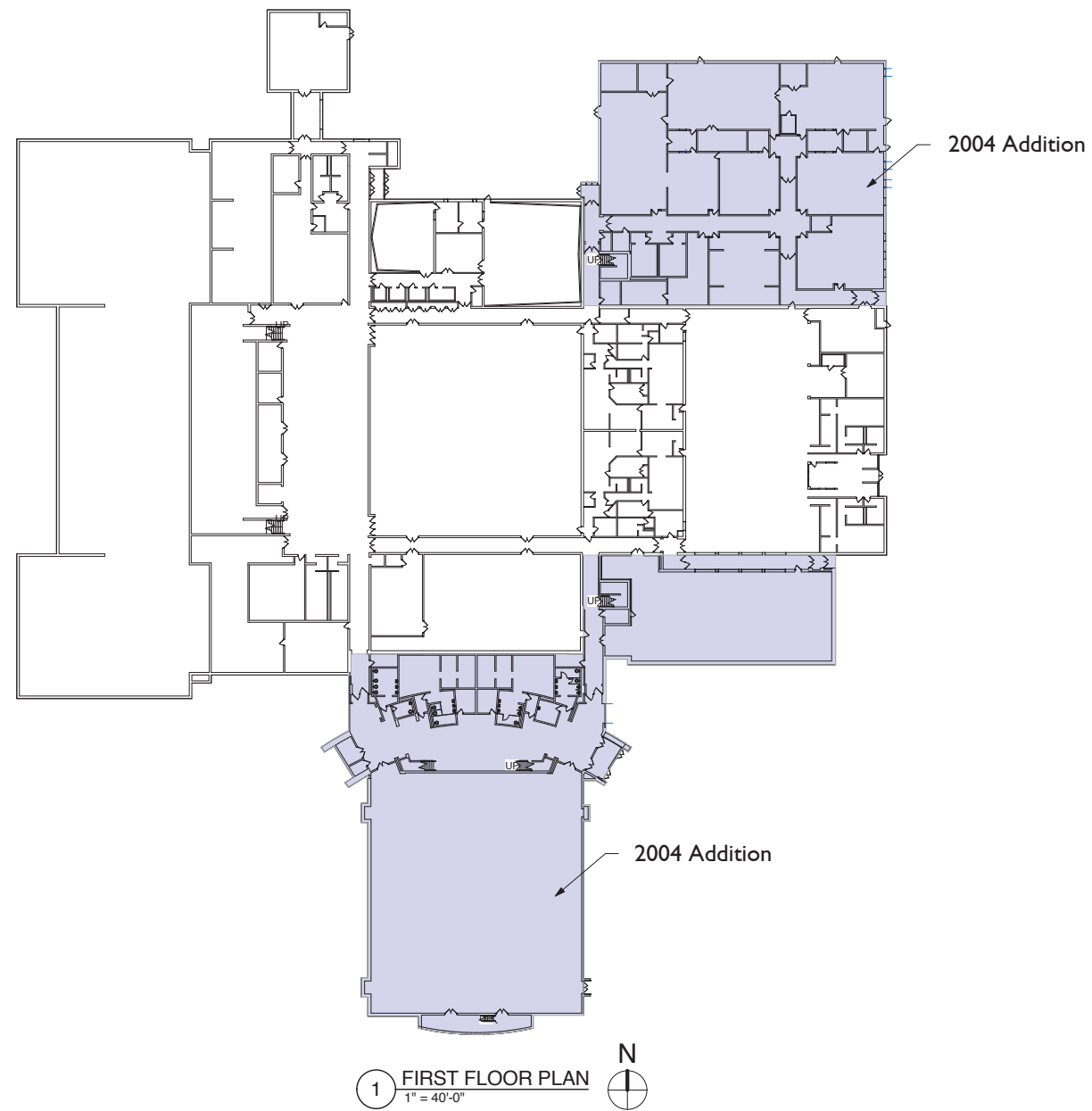
EXTERIOR CONDITIONS SYSTEM PRIORITY TABLE	1	2	3	4	COST
Walls - repair damaged brick and concrete masonry units; repair failed masonry joints and expansion joints; resolve source of water intrusion causing efflorescence and repair affected brick; resolve source of water intrusion causing staining and mold and repair affected stucco; repair damaged storefront; clean or replace greenhouse system	●				\$86,600
Windows – repair damaged screens, failing lintels and window		●			\$13,000
Doors – replace rusted and damaged hollow metal doors and frames; repair damaged bollards			●		\$10,000

PHYSICAL CONDITIONS

INTERIOR BUILDING CONDITIONS



Examination of the finishes, equipment, and other conditions found in classrooms, offices, hallways, gymnasiums, locker rooms, stairwells, kitchen, and cafeteria areas.



OBSERVATIONS: CORRIDORS + COMMONS

Floors

System Description: Terrazzo floor and stairs; sealed concrete stairs; 12" x 12" vinyl composition tile.

System Observation: Terrazzo floor is well maintained; vinyl composition tile is well maintained but has localized cracking and evidence of typical wear.

System Condition: Good

System Recommendations: Repair damaged and worn vinyl composition tile.

Walls

System Description: Painted concrete masonry units with vinyl base, burnished concrete masonry units with vinyl base; aluminum door and window system; and wood panels.

System Observation: Concrete masonry unit walls are generally in very good condition; wood panels are in good condition with a few areas showing dryness and cracking.

System Condition: Good

System Recommendations: Repair localized damaged masonry and wood panels.

Ceilings

System Description: 2'-0" x 2'-0" acoustical ceiling tile.

System Observation: Acoustical ceiling tile has widespread staining due to moisture.

System Condition: Fair

System Recommendations: Resolve sources of moisture causing staining and replace affected acoustical ceiling tile.

Doors

System Description: Hollow metal doors and frames with glazing, hollow metal doors and wired glass sidelights; rated hollow metal doors and frames.

System Observation: Older doors have vision panels and sidelights with wired glass; some doors have noncompliant knob hardware.

System Condition: Good

System Recommendations: Replace noncompliant knob hardware with handle locksets; replace wired glass with safety glass.

Lockers

System Description: Single tier metal lockers.

System Observation: Good condition with minimal damage and rusting.

System Condition: Good

System Recommendations: Repair damaged lockers.



Corridor



Commons



Vinyl composition tile with localized cracking and evidence of wear



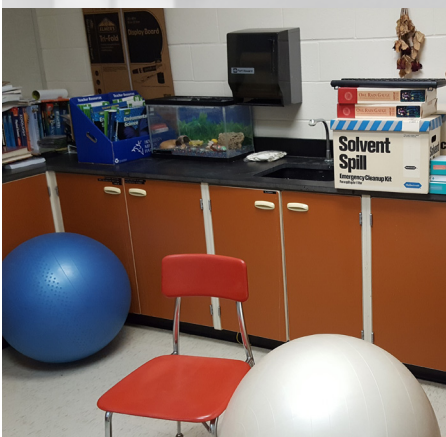
Ceiling with moisture damage



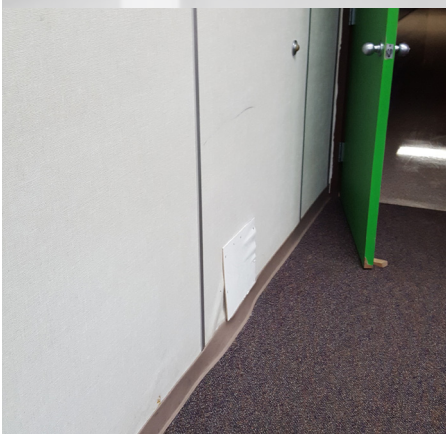
Doors and sidelights with wired glass



Media Center



Plastic laminate cabinets



Damaged vinyl covered wall panels

Other Elements

System Description: Two elevators, coiling security grilles and shutters; and recessed walk-off mats.

System Observation: Elevator cabs in good condition, grilles and shutters in very good condition.

System Condition: Good

System Recommendations: No recommendations.

OBSERVATIONS: SCHOOL OFFICE

Floors

System Description: Luxury vinyl tile and carpet in office areas, ceramic tile in restrooms.

System Observation: Luxury vinyl tile, carpet and ceramic tile in excellent condition.

System Condition: Good

System Recommendations: No recommendations.

Walls

System Description: Painted gypsum board walls and vinyl base in office areas; ceramic tile with ceramic tile base and painted gypsum board above in restrooms.

System Observation: Painted gypsum board walls, vinyl base and ceramic tile walls in excellent condition.

System Condition: Good

System Recommendations: No recommendations.

Ceilings

System Description: 2' x 2' acoustical ceiling tile.

System Observation: Acoustical ceiling tile is in excellent condition.

System Condition: Good

System Recommendations: No recommendations.

Doors

System Description: Hollow metal door and window system, wood doors in hollow metal frames.

System Observation: Hollow metal doors and frames and wood doors in excellent condition.

System Condition: Good

System Recommendations: No recommendations.

Casework

System Description: Plastic laminate base and upper cabinets.

System Observation: Plastic laminate cabinets are in excellent condition.

System Condition: Good

System Recommendations: No recommendations.

OBSERVATIONS: CLASSROOMS, MEDIA CENTER, AND COMMUNITY ROOMS

Floors

System Description: Vinyl composition tile and carpet; rubber flooring in fitness center.

System Observation: Vinyl composition tile is well maintained with minor cracking and some replaced tiles. Most carpet is in good condition with some areas showing signs of wear.

System Condition: Good

System Recommendations: Replace cracked vinyl composition tiles, and replace older carpet as other updates occur.

Walls

System Description: Painted concrete masonry units with vinyl base, burnished concrete masonry units with vinyl base; painted gypsum board with vinyl base, and vinyl covered wall panels.

System Observation: Concrete masonry unit walls are generally in very good condition; vinyl covered wall panels have areas of damage, bubbling and broken trim, and holes where items were previously installed; some panel walls are used as permanent walls with cabinets attached.

System Condition: Good

System Recommendations: Repair or replace damaged vinyl covered wall panels or replace with gypsum board wall system; and replace panel walls with stud walls or relocate cabinets.

Ceilings

System Description: 2' x 2' and 2' x 4' acoustical ceiling tile; exposed structure in shop rooms and wrestling room.

System Observation: Acoustical ceiling tile has significant discoloring and warping and staining due to moisture.

System Condition: Fair

System Recommendations: Resolve sources of moisture causing staining and replace affected acoustical ceiling tile.

Doors

System Description: Hollow metal doors and frames; and wood doors with sidelights in hollow metal frames.

System Observation: Some older doors have vision panels and sidelights with wired glass; some doors have noncompliant knob hardware.

System Condition: Good

System Recommendations: Replace noncompliant knob hardware with handle locksets; replace wired glass with safety glass.

Casework

System Description: Plastic laminate cabinets and countertops, some with sinks; wood cabinets in shop rooms.



Damaged panel and trim



Door with wired glass



Casework with chipping and fading



Ceiling tile with moisture staining



Door with dents and damaged kick plate

System Observation: Older casework is in fair condition but very dated, with chipping and fading in some areas.

System Condition: Fair

System Recommendations: Replace older damaged cabinets.

Other Elements

System Description: Tack boards, whiteboards and smartboards; and aluminum mini blinds.

System Observation: Tack boards, whiteboards and smartboards are in good condition; mini blinds are generally in good condition, with moderate bending in some locations.

System Condition: Good

System Recommendations: No recommendations.



Telescopic seating system

OBSERVATIONS: GYMNASIUMS

Floors

System Description: Wood gym floor with vinyl running track and exercise area above (older gym); and wood gym floor (newer gym).

System Observation: Vinyl flooring is well maintained; wood floor in very good condition.

System Condition: Good

System Recommendations: No recommendations.



Stainless steel equipment in kitchen

Walls

System Description: Painted concrete masonry units (older gym); painted concrete, painted concrete masonry units and burnished concrete masonry units (newer gym).

System Observation: Concrete and masonry walls in very good condition.

System Condition: Good

System Recommendations: No recommendations.

Ceilings

System Description: Exposed structure, acoustical ceiling tile (older gym); and exposed structure (newer gym).

System Observation: Acoustical ceiling tile has staining due to moisture.

System Condition: Fair

System Recommendations: Resolve sources of moisture causing staining and replace affected acoustical ceiling tile.

Doors

System Description: Hollow metal doors and frames (older gym); and hollow metal doors and frames with glazing (newer gym).

System Observation: Older doors have dents and damaged kick plates; newer doors are in very good condition.



Noncompliant kitchen ceiling tile

System Condition: Fair (older gym); Good (newer gym)

System Recommendations: Replace damaged hollow metal doors.

Other Elements

System Description: Telescopic seating system, basketball hoops, drinking fountains (older gym); basketball hoops (newer gym).

System Observation: Telescopic seating system appears to be in very good condition; basketball hoops are mounted to structure above; drinking fountains are not accessible.

System Condition: Good

System Recommendations: Replace drinking fountains with accessible units or provide directional signage indicating location of nearest accessible drinking fountains.

OBSERVATIONS: KITCHEN, CAFETERIA, AND MAINTENANCE ROOMS

Floors

System Description: Vinyl composition tile (kitchen and cafeteria); sealed concrete (maintenance).

System Observation: Vinyl composition tile is well maintained with some linear cracking.

System Condition: Good

System Recommendations: Replace cracked vinyl composition tile.

Walls

System Description: Painted concrete masonry units.

System Observation: Masonry walls are in good condition.

System Condition: Good

System Recommendations: No recommendations.

Ceilings

System Description: 2'-0" x 2'-0" acoustical ceiling tile (kitchen); exposed structure (maintenance).

System Observation: Acoustical ceiling tile in kitchen does not meet Minnesota Department of Health requirements for smooth, durable and easily cleanable surface.

System Condition: Poor

System Recommendations: Replace acoustical ceiling tile with code compliant surface.

Doors

System Description: Hollow metal doors and frames.

System Observation: Doors are generally in good condition; vision panels do not appear to meet accessibility requirements.

System Condition: Good



Stove units



Damaged casework



Damaged casework



Auditorium



Pool



Chemically damaged carpet and tile



Degraded sealant joints in pool area



Broken seal in pool area window

System Recommendations: Scheduled door replacement should accommodate compliant vision panels.

Equipment

System Description: Stainless steel.

System Observation: Cooking equipment appears to be in good condition with the exception of stove units.

System Condition: Good

System Recommendations: Replace stove units.

Other Elements

System Description: Plastic laminate casework.

System Observation: Casework has significant damage.

System Condition: Poor

System Recommendations: Replace casework.

OBSERVATIONS: AUDITORIUM

Floors

System Description: Carpeted aisles.

System Observation: Carpet is in very good condition.

System Condition: Good

System Recommendations: No recommendations.

Walls

System Description: Painted concrete masonry units, burnished concrete masonry units, acoustical wall panels, wood panels and trim.

System Observation: All surfaces are in excellent condition.

System Condition: Good

System Recommendations: No recommendations.

Ceilings

System Description: Acoustical panels.

System Observation: Acoustical panels are in excellent condition.

System Condition: Good

System Recommendations: No recommendations.

Doors

System Description: Wood doors in hollow metal frames.

System Observation: Excellent condition.

System Condition: Good

System Recommendations: No recommendations.

Equipment

System Description: Lighting and stage equipment.

System Observation: Appears to be well maintained and in excellent condition.

System Condition: Good

System Recommendations: No recommendations.

Other Elements

System Description: Stage, seating, production booth, catwalks, and back-of-house spaces.

System Observation: Very good condition.

System Condition: Good

System Recommendations: No recommendations.

OBSERVATIONS: POOL

Floors

System Description: Ceramic tile, and carpet in office.

System Observation: Ceramic tile has scaling and discolored areas, and the carpet was damaged by chemicals.

System Condition: Poor

System Recommendations: Clean or replace ceramic tile and replace carpet.

Walls

System Description: Ceramic tile, painted concrete masonry units, and metal framed window system.

System Observation: Ceramic tile generally in good condition; masonry has some peeling paint; window system has degraded sealant joints and one window has a broken seal.

System Condition: Fair

System Recommendations: Strip and repaint peeling masonry; reseal window system and replace damaged window.

Ceilings

System Description: Exposed structure and liner panel, and acoustical ceiling tile in office.

System Observation: Stained and damaged acoustical ceiling tile; and severely rusted diffusers.

System Condition: Fair

System Recommendations: Replace damaged acoustical ceiling tile and rusted diffusers.



Rusted diffuser in pool area



Rusted, damaged door in pool area



Surface corrosion around wading pool



Corrosion on diving board attachment to concrete base



Stained ceramic tile floor



Restroom tile floors stained and cracking



Damaged restroom floor and wall



Cracked tile in restroom

Doors

System Description: Hollow metal doors and frames.

System Observation: Doors have damaged hardware and discoloration, corrosion and rusting.

System Condition: Poor

System Recommendations: Replace damaged doors and hardware.

Other Elements

System Description: Wading pool, whirlpool, sauna, diving board, and slide.

System Observation: There is surface corrosion around wading pool and whirlpool; corrosion on diving board attachment to concrete base.

System Condition: Poor

System Recommendations: Clean deck areas around wading pool and whirlpool; repair diving board attachment.

OBSERVATIONS: RESTROOMS + LOCKER ROOMS

Floors

System Description: 1" x 1" ceramic tile and sealed concrete (pool restrooms and locker rooms); vinyl composition tile (older staff restrooms); ceramic tile (older and newer restrooms).

System Observation: 1" x 1" ceramic tile floors are stained and have localized damage; vinyl composition tile floors are stained and cracking; older ceramic tile has some staining and joint discoloration; newer ceramic tile is in very good condition.

System Condition: Poor (older); Good (newer)

System Recommendations: Clean or replace 1" x 1" ceramic tile and vinyl composition tile; install ceramic tile in areas with sealed concrete.

Walls

System Description: Painted concrete masonry units with vinyl base (older restrooms and locker rooms); ceramic tile with ceramic tile base (newer restrooms and locker rooms).

System Observation: Painted masonry is in good condition; ceramic tile and base is in good condition with some cracked tile in men's rooms,

System Condition: Good

System Recommendations: Repair cracked ceramic tile.

Ceilings

System Description: Acoustical ceiling tile.

System Observation: Acoustical ceiling tile has some staining.

System Condition: Fair

System Recommendations: Replace damaged acoustical ceiling tile.

Doors

System Description: Hollow metal doors and frames (older restrooms and locker rooms); wood doors in hollow metal frames (newer restrooms and locker rooms).

System Observation: Hollow metal doors are generally in good condition; wood doors are in very good condition.

System Condition: Good

System Recommendations: No recommendations.

Toilet Partitions

System Description: Metal; plastic laminate and solid surface in newer restrooms.

System Observation: older metal partitions have damage and rusting, especially in men's rooms; newer partitions in very good condition; some men's restrooms do not have urinal partitions

System Condition: Poor (older); Good (newer)

System Recommendations: replace damaged partitions; install urinal partitions

Other Elements

System Description: plumbing fixtures, restroom accessories, metal lockers, plastic laminate countertops in newer restrooms

System Observation: older plumbing fixtures and restroom accessories generally in fair condition, newer plumbing fixtures in very good condition; older lockers, countertops and benches in poor condition; newer lockers and countertops in good condition

System Condition: Fair (older); Good (newer)

System Recommendations: replace damaged plumbing fixtures and accessories; replace damaged lockers, countertops and benches; verify sink heights for accessibility



Restroom toilet partitions with damage and rusting



Restroom countertop damage



Damaged lockers



Damaged ceiling tiles

INTERIOR CONDITIONS SYSTEM PRIORITY TABLE

	1	2	3	4	COST
Doors – replace noncompliant knob hardware with handle locksets; replace wired glass with safety glass	●				\$23,000
Ceilings – resolve sources of moisture causing staining and replace affected acoustical ceiling tile	●				\$225,000
Ceilings – replace acoustical ceiling tile with code compliant surface	●				\$14,400
Casework – replace older damaged cabinets		●			\$22,800
Equipment – replace stove units		●			\$10,600
Other elements – replace casework		●			\$8,000
Floors – clean or replace ceramic tile and replace carpet		●			\$1,000
Ceilings – replace damaged acoustical ceiling tile and rusted diffusers		●			\$1,500
Doors – replace damaged doors and hardware		●			\$4,000
Other elements – clean deck areas around wading pool and whirlpool; repair diving board attachment		●			\$3,200
Floors – clean or replace 1” x 1” ceramic tile and vinyl composition tile; install ceramic tile in areas with sealed concrete		●			\$34,500
Walls – repair cracked ceramic tile		●			\$300
Toilet partitions – replace damaged partitions; install urinal partitions		●			\$20,350
Other elements – replace damaged plumbing fixtures and accessories; replace damaged lockers, countertops and benches; verify sink heights for accessibility		●			\$4,900
Walls – repair or replace damaged vinyl covered wall panels or replace with gypsum board wall system; replace panel walls with stud walls or relocate cabinets			●		\$9,600
Floors – repair damaged and worn vinyl composition tile and replace cracked vinyl composition tiles; replace older carpet as other updates occur			●		\$1,944
Doors – replace damaged hollow metal doors			●		\$19,000
Other elements – replace drinking fountains with accessible units or provide directional signage indicating location of nearest accessible drinking fountains			●		\$6,000
Doors – scheduled door replacement should accommodate compliant vision panels			●		\$800
Walls – repair localized damaged masonry and wood panels				●	\$2,000
Lockers – repair damaged lockers				●	\$2,320

PHYSICAL CONDITIONS

STRUCTURAL SYSTEM CONDITIONS

Review of structural integrity of existing buildings with analysis of columns, walls, and roof.

OVERVIEW

The JCC High School was constructed in 1979, with a major addition constructed in 2004. The original building and addition are constructed using structural elements of precast concrete, cast-in-place concrete, steel framing, and concrete masonry unit (CMU) walls. The building features many varying roof elevations, multiple floors, and several large open spaces that require steel roof framing that is supported by precast or CMU walls. These material types, particularly the precast concrete portions of the building, are generally considered stout structures with long life spans if properly design, constructed, and maintained. Upon visual inspection, it is apparent a majority of the major structural systems are in good condition, with some small exceptions as listed below. Regular maintenance of the structure, in combination with the recommendations listed below, will help improve the long-term usability of this building.

SITE OBSERVATIONS

Roof Framing

System Description: A vast majority of the roofing material covering the High School is attached to a ribbed metal roof deck that is supported by a system of steel bar joists and steel beams, which are then supported by a combination of steel columns, CMU walls, or precast concrete wall panels, depending on the location within the building.

System Observations: The existing roof framing systems are commonly found in buildings built within the past 40-50 years, and the current condition of these structural elements is consistent with other buildings of similar age. The only structural concern with this particular roof framing at this stage in the building's lifespan is the condition of the ribbed metal roof deck, which is developing small amounts of rust on the underside of the deck. This minor rusting condition of the roof deck is consistent through many portions of the building, and is possibly the result of excess moisture coming into the ceiling space through leaks in the roofing material above. However, the more likely cause is excess moisture has developed within the roof framing space above the dropped acoustical ceiling tile (ACT) ceilings commonly found throughout the building as a result of condensation from mechanical systems. Refer to other sections of this report for a more thorough discussion of the ACTs that show signs of water damage, and how it relates to the mechanical systems.

System Condition: Good

Exterior Walls

System Description: The High School exterior walls are constructed of many different material types, including CMU and precast concrete panels, both of which are considered stout walls with long-term durability. Many of the walls have a brick or stone façade.



School sign



Rust on bottom of metal deck



Damaged brick column at entrance



Stair step crack in CMU wall



Cracked wall by track around Gym



Cracked floor by track around Gym



System Observations: A majority of the exterior walls do not show any signs of significant structural issues, as there is no visible evidence of excessive leaning, bowing, or cracked walls resulting from structural failure. However, tuckpointing, patching, and repair of select portions of the exterior brick and stone facades is needed as described elsewhere in this report. Note that the repair of damaged portions of the exterior façade walls is important from a structural perspective as it limits the amount of moisture that reaches integral structural elements such as steel columns and load-bearing CMU walls, which can be affected negatively by excess moisture that accentuates normal weathering effects (i.e. frost-thaw cycles). Repair of the brick façade improves the lifespan of the structural elements it covers and protects. Note that the damage of a brick column near the main entrance is not a structural concern, as it appears the brick column is a façade for a steel column buried within the brick.

System Condition: Good

Interior Walls

System Description: A large portion of the interior walls are constructed of CMU, only some of which are load-bearing. These walls are typically very stout and provide a long usable life. However, they are subject to minor shrinkage and temperature cracks that form over time.

System Observations: The cracks visible within the High School were minor in size and few in quantity.

System Condition: Good

Floor Framing

System Description: The High School floor framing is generally constructed out of a combination of steel bar joists, metal decks with concrete topping, steel beams, and precast concrete.

System Observations: The visible floors, walls, and ceilings of the High School are in relatively good shape. Very few cracks exist as previously mentioned. Further, no major sloped floors, bowed walls, or sagging ceilings were visible within the High School, with the exception of one location at the northwest corner of the concourse that surrounds the gymnasium in the original building. At this corner of the concourse, a large crack – approximately 1/4" to 3/8" wide – has formed along the floor of the concourse, eventually leading up the adjacent CMU wall. Upon further inspection of the floor framing from within the dropped ceiling below the concourse reveals that the crack has developed simply as a result of "differential deflection" of the floor framing. In simpler terms, the crack has formed because the floor framing in this area moves and deflects (or sags) in varying amounts when subjected to loads. The unique geometry of this area accentuates this effect. More importantly, the crack does not indicate any structural failure is imminent.

System Condition: Good

Foundations

System Description: The High School's load-bearing walls and columns are supported by a shallow foundation system constructed of cast-in-place concrete foundation walls and strip footings.

System Observations: The building's concrete foundation walls, basement walls, and footings appear to be performing adequately. No major signs of excessive or differential settlement are visible throughout the building.

System Condition: Good

RECOMMENDATIONS

Roof Framing

From a structural perspective, the slight rusting of the metal roof deck is not a major concern in its current state, nor is it a short-term issue. However, the rust on the metal roof deck could develop into a major issue over the next 10-20 years if the ceiling space continues to hold excessive amount of moisture, which quickens the rusting process. Failure to control the moisture in the ceiling space could result in the need for major repair or replacement of the metal roof deck throughout the building. Refer to other portions of this report for recommendations regarding how to control the moisture problems.

Exterior Walls

All brick façade issues should be repaired as described elsewhere in this report.

Interior Walls

None.

Floor Framing

Although it is not believed that the crack will widen in the future, quarterly monitoring of the crack is recommended. If the crack worsens significantly, a full structural investigation may be required.

Foundations

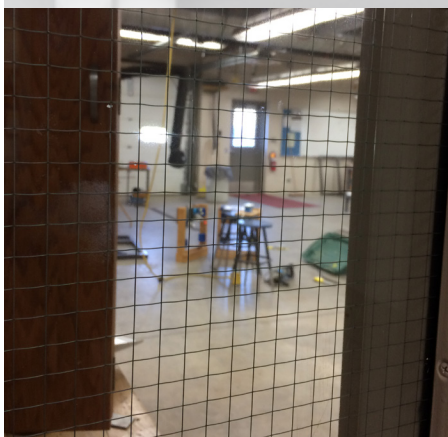
No repairs or reinforcements are needed at this time.



Partially blocked exit door in Graphics Lab



Noncompliant wired glass in sidelight



Wired glass in door sidelight



Noncompliant handrails and guards

PHYSICAL CONDITIONS

LIFE SAFETY CONDITIONS

Review of life safety, egress, and potential code deficiencies as discovered during field observation. Also includes conditions of the fire alarm system.

OBSERVATIONS

General

The building is protected throughout by an automatic sprinkler system.

The building appears to have adequate egress width, number of exits, and paths of egress travel. At the time of observation, one of the exits from the Graphics Lab was partially blocked.

Current building codes do not permit traditional wired glass in hazardous locations such as doors and sidelights. Some existing doors and sidelights have wired glass.

The older stairways and the upper level of the older gymnasium do not appear to have compliant handrails and guards. Handrails do not have proper extensions at the bottoms and tops of the stairways and do not meet graspability requirements. Guards do not comply with the opening limitation of four inches. The sealed concrete stair treads would benefit from vinyl or rubber stair nosings or nonslip strips to make them less slippery.

Fire Alarm System

System Description: The fire alarm system utilizes a Simplex 4020 conventional fire alarm control panel in the boiler room and Simplex 4009 IDNet NAC extension panels at selected locations in the building. The system monitors the water flow of the fire sprinkler system, and in the event that one of the sprinkler heads is activated, the fire alarm system then initiates notification devices to alert occupants. The system is also activated by manual pull stations located near exits and smoke/heat detectors placed in selected rooms. Notification devices, such as horn strobes, are located throughout the facility, including corridors, locker rooms, classrooms, gymnasium, etc.

System Observations: The existing fire alarm system is past its useful life expectancy, typically 15 years. The fire alarm system is a conventional system, which is an older technology that only allows the building to be monitored in zones, and does not give a precise location for any device that is activated. The existing control panel has also had components short circuit and burn up in the panel. The panel was repaired and is operational, but it is likely that other problems will arise.

System Condition: Poor

Emergency Egress Lighting

System Description: The facility utilizes wall mounted and ceiling mounted stand-alone emergency lights throughout the facility.

System Observations: The light fixtures appeared older but still functioned when tested.

System Condition: Good

Emergency Power

System Description: The facility has an 85 kW standby diesel generator for providing emergency power to the building. The generator will automatically power egress lighting and fire alarm circuits in the event of a power outage. The boiler pumps and controls can also be powered by the generator, but it requires a manual switchover.

System Observations: The generator appears to be original and is past its estimated useful life of 20 years, but it has not seen a lot of use in that time. The generator is tested frequently, and did not appear to have any major operating issues. The generator was originally intended to only power the “Life Safety Panel” which includes egress lighting and fire alarm circuits. The ability to also power boiler pumps and controls with a manual transfer switch was added later. The generator size still appears to be adequate to power all of these systems. The automatic transfer switch for the lighting and fire alarm circuits was recently replaced with an ASCO Series 300.

System Condition: Good

RECOMMENDATIONS

General

Clear items from the egress path at the Graphics Lab exit door.

Replace wired glass with safety glass in doors and sidelights.

Modify or replace handrails and guards to meet code requirements. Apply nonslip nosings or strips to concrete stair treads.

Fire Alarm System

It is recommended that the system be upgraded to an addressable fire alarm system. An addressable system would give a precise location of which device has been activated and can decrease the time it takes for a responder to locate and reach the fire. At the very least, the control panel should be replaced as components have already failed, and it will likely continue to deteriorate.

Emergency Egress Lighting

The typical life expectancy for the batteries in emergency light fixtures is 5 years. Depending on usage and maintenance, the actual battery life can vary greatly. The emergency light fixtures should be tested annually to ensure that they are operational. Fixtures that are not operational should then be repaired or replaced.

Emergency Power

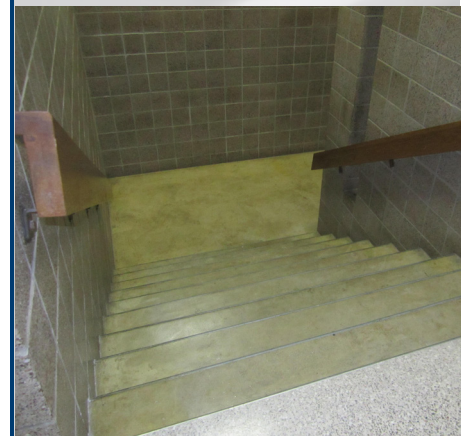
While the existing generator is past its useful life expectancy, these machines can potentially last much longer with the low amount of use they see combined with proper maintenance and testing.



Handrails not extended properly at bottom and tops of stairwell



Noncompliant guard opening limitation



Concrete stair treads in need of vinyl or rubber stair nosings or nonslip strips

LIFE SAFETY CONDITIONS SYSTEM PRIORITY TABLE

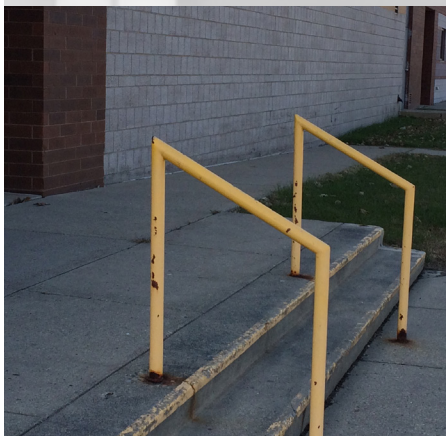
	1	2	3	4	COST
Upgrade fire alarm system	●				\$25,000
Clear items from the egress path at the Graphics Lab exit door.	●				\$750
Replace wired glass with safety glass in doors and sidelights.	●				\$1,800
Modify or replace handrails and guards to meet code requirements. Apply nonslip nosings or strips to concrete stair treads.	●				\$4,400



Noncompliant curb ramps and pedestrian crosswalk



Lack of handrails on stairs



Noncompliant handrails at pool entrance



Noncompliant grandstand seating

PHYSICAL CONDITIONS

ACCESSIBILITY CONDITIONS

Review of the existing structure for conformance with the 2015 Minnesota Accessibility Code and the 2010 Americans with Disabilities Act (ADA) Standards for Accessible Design. Site parking, access into the building and entrances, accessibility routes inside of building, and restroom accessibility were considered.

SITE OBSERVATIONS

Site, Parking, Entrances and Recreational Facilities

The building is served by five parking lots. Each lot has designated accessible parking spaces with access aisles and signage. The paths of travel from the accessible parking spaces to the door stoops vary in their level of compliance with the 2010 Americans with Disabilities Act (ADA) Standards for Accessible Design and the 2015 Minnesota Accessibility Code. Most curb ramps do not appear to meet the exact requirements and some do not have corresponding curb ramps at the sidewalks adjacent to the building. Pavement markings which indicate pedestrian crosswalk locations are faded. Sidewalks have elevation differences and cracking which make them noncompliant. Many concrete stoops at the entrance doors are higher than the adjacent sidewalks.

A stairway connects the parking lot on the southwest side of the building to the parking lot on the southeast side. The stairway does not appear to meet tread and riser requirements and does not have handrails.

A stairway connects the northwest parking lot with the northeast parking lot. The handrails are corroded and the path from the bottom of the stairway to the parking lot has a curb which makes it noncompliant.

The path from the parking lot to the pool entrance includes two risers in poor condition with noncompliant handrails. A nearby sloped sidewalk with no handrails appears to be a compliant walking surface to the entrance.

The recreational facilities on site include softball fields, baseball fields, a running track and field, a football field, a tennis court and a community garden. There are bleachers in various locations and a grandstand with seating. None of these facilities are compliant with current accessibility codes.

Currently the existing play areas are not fully accessible. If alterations are made in the future, ADA guidelines for accessible play areas would apply. Depending on the scope of the modifications, the altered areas may need to meet requirements for ground surface conditions, accessible routes to and within play areas, accessible ground level and elevated play components, and accessible routes connecting play components. Normal maintenance activities are not considered alterations.

Classrooms

Accessibility codes require that operable parts on accessible doors have a shape that is easy to grasp with one hand and does not require tight grasping, pinching or twisting of the wrist to operate. Many classroom doors currently have noncompliant locksets with knob hardware.

Vision panels in doors and sidelights adjacent to doors are required to have at least one panel with the bottom no more than 43 inches above the floor. Most doors with vision panels and sidelights do not meet this requirement.

Accessible sinks are required to have a clear floor space of 30" x 48" positioned for forward approach to the sink. The clear floor space includes knee and toe clearance under the sink. Exposed pipes must be insulated or otherwise configured to protect against contact. Classrooms currently have sinks with cabinets below, rather than clear floor space.

Restrooms

The entrance vestibules and doors at the older multiuse restrooms and locker rooms serving the pool do not appear to have the required maneuvering clearances.

The older restrooms and locker rooms do not have wheelchair accessible or ambulatory accessible compartments. Some compartments have no grab bars and some have grab bars and other accessories which do not comply with size, mounting height and location requirements.

The older locker rooms do not have accessible showers.

Some locker rooms do not appear to have lockers which comply with requirements for coat hook and shelf mounting heights.

Locker rooms do not provide accessible benches with proper back support.

Some lavatories have exposed pipes which do not have insulation to protect against contact.

Some restroom accessories do not appear to comply with mounting height and location requirements.

Single drinking fountains do not meet spout outlet height requirements for wheelchair users and standing people.

RECOMMENDATIONS

Site, Parking, Entrances and Recreational Facilities

Reconfigure the paths of travel which have noncompliant elevation differences, including concrete stoops and sidewalks, as required to meet accessibility standards.

Reconfigure the stairways and provide handrails as required to meet accessibility standards.

Replace the stairway at the pool entrance and install compliant handrails. Verify the slope of the walking surface and reconfigure it as required for a compliant walking surface.

Develop and implement a plan for bringing all recreational facilities into compliance with current accessibility standards.

Classrooms

Replace noncompliant knob hardware with handle locksets on classroom doors.

Replace noncompliant sidelights and doors with vision panels.



Noncompliant knob hardware and vision panel



Noncompliant classroom sink



Noncompliant maneuvering clearances at entrance to restrooms and locker rooms



No grab bars and other accessories in restroom



Noncompliant showers and benches

Replace sinks and casework in classrooms as required to provide clear floor space and knee and toe clearance under the sinks. Install insulation on exposed pipes.

Restrooms

Reconfigure the entrance vestibules and doors at the older restrooms and locker rooms as required to meet requirements for maneuvering clearances.

Reconfigure the older multiuse restrooms and locker rooms to include one wheelchair accessible toilet compartment and one ambulatory accessible toilet compartment in each restroom.

Reconfigure the older locker rooms to include accessible showers.

Install accessible lockers or customize existing lockers such that at least five percent of all lockers are accessible.

Install accessible benches with proper back support in all locker rooms.

Verify lavatory heights in all restrooms and install insulation on exposed pipes.

Verify mounting heights and locations of all restroom accessories and make adjustments as required to meet accessibility standards.

Install drinking fountains to meet requirements for spout outlet height for wheelchair users and standing people.

ACCESSIBILITY CONDITIONS PRIORITY TABLE

	1	2	3	4	COST
Pave and sign handicap accessible stalls in north gravel lot	●				\$2,500
Pave ADA accessible route to football field	●				\$1,500
Reconfigure the paths of travel which have noncompliant elevation differences, including concrete stoops and sidewalks, pool handrail, and stairway at the pool entrance as required to meet accessibility standards. Develop and implement a plan for bringing all recreational facilities into compliance with current accessibility standards.	●				\$165,000
Add an accessible walkway to the softball fields	●				\$15,000
Stoops – repair or replace damaged stoops; replace stoops or adjacent sidewalks to comply with accessible entrance requirements at door sills	●				\$16,000
Install van accessible signage		●			\$750
Reconfigure the entrance vestibules and doors at the older restrooms and locker rooms as required to meet requirements for maneuvering clearances.		●			\$10,400
Reconfigure the older multiuse restrooms and locker rooms to include one wheelchair accessible toilet compartment and one ambulatory accessible toilet compartment in each restroom.		●			\$2,000
Reconfigure the older locker rooms to include accessible showers.		●			\$60,000
Install accessible benches with proper back support in all locker rooms.		●			\$4,800
Verify mounting heights and locations of all restroom accessories and make adjustments as required to meet accessibility standards.		●			\$5,000
Install drinking fountains to meet requirements for spout outlet height for wheelchair users and standing people.		●			\$16,800

PHYSICAL CONDITIONS

PLUMBING CONDITIONS



Review of the existing building plumbing systems including water service, water fountains, sinks, toilets, and showers.

OBSERVATIONS

Domestic Water Heat exchanger with steam

System Description: There is a 4" domestic water service that enters the building in the boiler room and serves the building. At the same location there is a separate 6" water service that serves the sprinkler system for the building. There are various locations throughout the building that are lacking insulation as it may have been damaged and never replaced. The domestic cold water, domestic hot water, and domestic hot water recirculation lines have fiber glass insulation on the pipe. Typically closed cell insulation is recommended on the cold water lines. This is because close cell insulation won't absorb any moisture if there is a rip in the insulation. Fiber glass insulation absorbs water and then sags/rips away from the pipe if there is any rip in the insulation.

There is a Rheem electric booster water heater that is located in the mechanical room directly off of the cafeteria. The electric booster heater has the capacity of 120 gallons with a heating element of 44 KW. The booster heater was installed on November 19, 2014.

An A.O. Smith electric water heater is located in the mechanical room to the east of the gymnasium on the second floor. This electric water heater was installed in March 2002.

An A.O. Smith electric water heater is located in the storage room just outside of the new gymnasium. This unit was installed in October 2015 and is 6 KW while having a capacity of 120 gallons.

An A.O. Smith electric water heater is also located in the mechanical room directly off of the cafeteria. This water heater is of 9 KW and has the capacity of 50 gallons. This water heater was installed in January 14, 2010.

The entire building is on softened water as the cold water goes through the water softeners directly after the water meter. The water softeners were just fixed in 2016. There is a cold water line that goes over to the pool that doesn't get softened as well as various cold water lines that go to hose bibs on the exterior.

System Observations: *General:* A few of the eyewash and shower stations should be brought up to code. Each eyewash station should have a thermostatic mixing valve right next to the eyewash by code. The current design only have cold water going to the eyewash and shower stations. Also an eyewash station should be installed in the kitchen.

The faucets are missing aerators. Reinstalling the aerators on the faucets help ensure a proper flow of water coming out of the faucet while reduces the water usage.

The lavatories in the building are missing pipe wrap. Pipe wrap should be used below the lavatories to meet ADA needs.

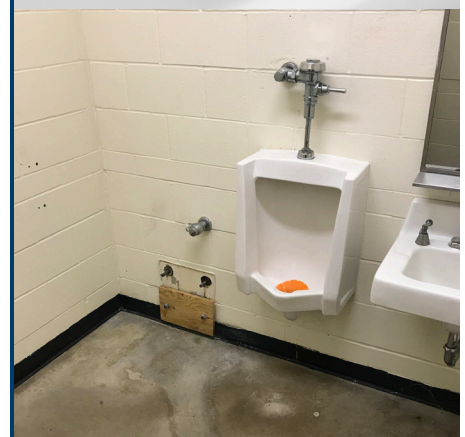
Various water closets throughout the building have broken seats. Replace the seats to make sure they are secure to the fixture.



Missing electric water cooler



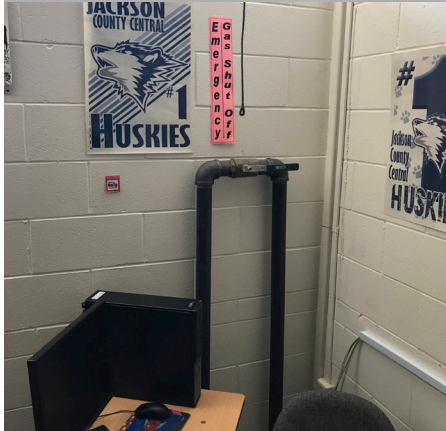
Leaking shower fixtures



Missing water closet



Broken faucet



Emergency gas shut off



Leaking exterior hose bib



Missing faucet on lavatory



Broken flush valve on urinal

Various sinks throughout the building have loose faucets. Replacing the faucets to make sure the loose faucets won't leak is recommended.

Boiler Room: The water heaters are newer and are in good condition. Current water heater type is an electric water heater. ISG recommends replacing the electric water heater with a directly vented water gas fired water heater. The efficiency a direct vented water heater has an efficiency of 95%-97% which is comparable to the electric water heater. The cost to run an electric water heater is much higher than the cost to run a gas fired water heater. Creating a new central plant with gas fired unit heaters is recommended instead of having various electric water heaters throughout the building.

The drinking fountains are in poor condition and should be replaced. There is locations where the electric water cooler has been demolished. ISG recommends installing a high/ low electric water cooler with a water bottle fill station.

The shower room fixtures for both the men's and women's locker rooms for the original gymnasium as well as the pool lockers are in poor condition. The showers leak and have broken heads and handles. ISG recommends replacing the shower fixtures.

The men's locker room is missing a water closet. ISG recommends replacing the fixture.

The lavatories have faucets in poor condition. Replacing the fixture is recommended.

Natural gas system for the chemistry and biology classrooms do not meet code. In the corner of the chemistry room is a gas shut off valve that controls the entire system. This is just a ball valve on the gas pipe. Current code requires emergency gas shut off buttons in each classroom and individual gas control for each classroom. The current design could have the chemistry classroom using gas for experiments, but if a valve is left open in the biology classroom and no one is in the room, there is no stopping the gas from filling the room. Also if an emergency occurs in the biology, someone would have to go two doors down to shut off the gas.

There is a hose bib that leaks. Replace existing hose bib to ensure the fixture doesn't leak.

2004 Addition: The locker room located behind the auditorium is missing a faucet on the sink. Replacing the faucet to have a fully functional sink is recommended.

The men's restroom have urinals that were not operating. Replacing the battery on the flush valves is recommended to ensure the fixture is operating properly.

The women's locker room just north of the gymnasium has the middle lavatory that doesn't work. Verify the battery is working properly in the sink.

The women's restroom just north of the gymnasium has one water closet that won't flush as well. Verify the battery in the flush valve is working as well.

The showers are leaking in the locker rooms. Replace the fixture to ensure that the showers don't leak when not being used.

System Condition: Overall the plumbing conditions in the building was good. There are some changes that is recommended to improve the systems efficiency. Verifying all domestic water piping is insulated is recommended. There are various areas where the insulation is missing or damaged from the pipe. Insulating the pipe helps decreases the amount of losses in the system.

Storm Water/Roof Drains

System Description: The building has two different types of roof drainage systems for different areas of the building. The original portion of the building has a primary and secondary roof drainage system. The primary roof drainage is collected internally and

then piped out below grade to the nearest storm sewer. The secondary roof drainage system is also collected internally but then is daylighted out the side of the building and spilled on grade. The 2004 additions have a primary roof drain system and then overflow scuppers instead of the secondary roof drainage.

System Observations: System seems in tact.

System Condition: Good

Natural Gas Piping

System Description: There is two gas services that come to the building. The gas services comes in on the east wall of the boiler room. Here there is a 4" interruptible gas service and a 1 1/2" firm gas service. The backup fuel system for the boilers is fuel oil. The fuel oil storage tank is located on the north side of the boiler room.

System Observations: All natural gas piping appeared to be in good condition.

System Condition: Good

RECOMMENDATIONS

Update science classrooms natural gas to meet current code.

Add thermostatic mixing valve to all eyewash stations.

Add pipe wrap to lavatories, and replace missing/damage piping insulation.

Add aerators on faucets.

Fix broken water closet seats

New high efficiency central hot water plant

Replace broken electric water coolers.

Replace shower fixtures in locker rooms.



PLUMBING CONDITIONS SYSTEM PRIORITY TABLE

	1	2	3	4	COST
Update science classrooms natural gas to meet current code	●				\$16,000
Add thermostatic mixing valve to all eyewash stations	●				\$8,000
Add pipe wrap to lavatories	●				\$14,000
Replace missing/damaged domestic water piping insulation		●			\$14,000
Install aerators on all faucets in the building		●			\$8,000
Fix broken water closet seats		●			\$3,000
New high efficiency central hot water plant		●			\$40,000
Replace broken electric water coolers		●			\$6,500
Replace shower fixtures in locker rooms		●			\$12,000
Replace missing water closet		●			\$1,800
Replace broken hose bib		●			\$800
Replace broken faucets		●			\$3,000
Replace broken flush valves		●			\$4,000



Rusted supply grille



IT Room in need of dedicated cooling or exhaust



Exhaust fan in need of replacement



Uninsulated chilled water lines

PHYSICAL CONDITIONS

MECHANICAL CONDITIONS

Review of existing mechanical systems and their components including verification that HVAC systems, as plumbing fixture counts, water piping, and water supply meet current building codes.

OBSERVATIONS

Heating Plant

System Description: Three steam boilers heat the entire building. One L.E.S. Boiler has a capacity of 3,680 MBH while the two Columbia boilers have an output of 3,444 MBH. These boilers run at roughly 70% efficiency. Newer hot water condensing boilers run at 90%-94% efficiency. The steam travels throughout the building to various pieces of equipment. These items include:

AHU – Air Handling Unit

RTU – Roof Top Unit

VAV – Variable Air Volume Units with Reheat Coil

FCU – Fan Coil Unit

UH – Unit Heater

CUH – Cabinet Unit Heater

UV – Unit Ventilator

MAU – Makeup Air Unit

Original Building

The original building consists of air handlers that are all in dedicated mechanical rooms. The basement mechanical room just west of the cafeteria has one large air handler unit that was built into the school. This unit serves a large portion of the space. In this mechanical room steam is converted over to hot water using heat exchangers and then pumped to other mechanical rooms. The mechanical room on the north end of the gymnasium has one air handler that has a hot water and chilled water coil. This unit serves the classrooms in the area. Directly to the east of the gymnasium is a large mechanical room that has a large amount of air handlers. The mechanical room has heat exchangers to convert the steam supply over to hot water for the air handlers. They also have a chilled water coil.

2004 Auditorium Addition

The addition has all of the equipment on the roof of the building. The auditorium area of the addition is served from two air handling units that are located on the low roof directly behind the stage. Two hot water, chilled water coil air handlers reside on the roof. A chiller is also on the roof in the same location to serve these two units with chilled water.

The addition has all of the equipment on the roof of the building. The gymnasium roof has two air handling units that are hot water and chiller water coils that serve the gymnasium space. Another roof top unit is located above the locker rooms that serves the miscellaneous rooms around the gymnasium. This unit has an energy recovery unit remote of the roof top unit. There is a chiller located on the roof as well. Next to a fourth roof top unit.

System Condition: Verify all exterior louvers seals are in good shape. Any damaged seal should be fixed to help ensure no water sneaks into the walls of the building. Louvers should be free of any debris, rust, and not dented or smashed.

No RTU or AHU was found to have any form of vibration isolation present on the units. Being that the units are on the roof or suspended from the ceiling, it is highly recommended to install vibration isolation springs below the unit to ensure no vibration from the unit can transmit into the floor of the building.

The building is a mixture of pneumatic and digital controls. Converting the building over to having digital controls and putting the entire building on a building management system is recommended.

It is recommended to change convert the building over from steam to hot water. A steam boiler runs at roughly 70% efficiency where a new condensing hot water boiler runs roughly at 93% efficiency.

The supply/return/exhaust grilles are dirty and rusted. They should be cleaned if dirty and replaced if rusted to ensure that proper airflow is going through the diffuser. The diffusers in the pool area need to be aluminum or plastic to ensure they won't rust. All supply/return/exhaust grilles throughout the building were very dirty.

The insulation on the steam system is lacking. Various spots around the building the insulation is missing and should be replaced especially if the pipe is at elevations where students can accidentally touch the pipe. Not only is adding insulation going to help make the system more efficient but also safer as the pipe can get extremely warm. All steam pipe and fittings should be insulated.

The existing systems throughout the building do not have any outside air monitoring going on. Adding CO2 detection can help monitor how much outside air is brought into the building. Adding these controls to new mechanical equipment will increase how efficient the building will operate.

Original Building

There is no dedicated cooling or exhaust for the IT room located next to the library. Due to the heat gain from the equipment, it is recommended to have a dedicated cooling or exhaust fan for the space to help make sure the temperature doesn't get too warm.

The janitor's closet located near the science classrooms on the main level is missing any sort of exhaust air. This janitor's closet has a strong odor and it would be recommended to have exhaust to the space to help keep the air fresh

The exhaust fan located above the bathroom group just directly south of the library needs to be replaced. The fan is extremely loud and vibrating on the roof as well as in the space. Replacing the fan will make it a lot quieter inside the space.

The exhaust fan located above the bathroom group in the front office area needs to be replaced. The fan is extremely loud and vibrating on the roof as well as in the space. Replacing the fan will make it a lot quieter inside the space.

AHU-8 doesn't have the chilled water or hot water coils insulated on the unit. ISG Recommends insulating the coils to minimize heat loss to the space. Also insulating the chilled water coil will prevent condensation forming on the ends of the coil and thus drip down onto the floor.

Exhaust fan 13 has a loose belt that should be replaced. Adding an auto belt tensioner is



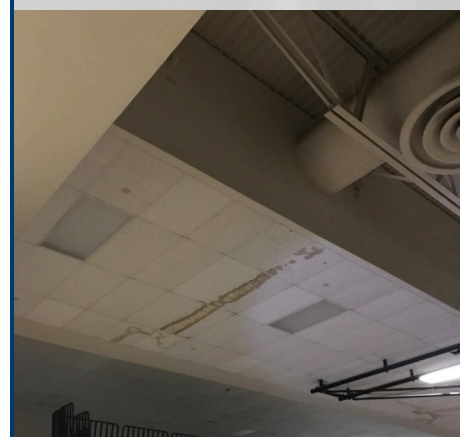
Dirty air handler unit



No vibration isolation on pump



Bent and damaged ductwork



Uninsulated ductwork condensation



Damaged insulation



Damaged exterior insulation with standing water inside



Uninsulated pipe and no vibration isolation

recommended on all belt driven exhaust fans. This will extend the life of the belt.

The janitor's office/shop area is lacking any sort of air movement. Adding a dedicated air source to the room is recommended. Code requires a fresh air source to any space that is being occupied by people.

The air handling unit located in the lower level directly off of the cafeteria is in need of cleaning. The filters are dirty and the unit needs to be cleaned out. The fans are vibrating inside the unit as well. Adding vibration isolation to the fans to ensure they don't vibrate into the structure is also recommended. The ductwork in the mechanical room is in need of replacing. There are areas where the ductwork has been caved in and decreased the free area of the ductwork.

The four large rooms that were added directly to the east of the library do not have proper airflow. The walls were added after original design and the ductwork wasn't properly fixed to accommodate the new spaces. The spaces have one supply to them and no way for the air to return out of the space or no supply air at all. Redesigning the airflow is recommended to ensure proper pressure and comfort levels in the space.

The mechanical room located to the right of the gymnasium has some pumps located in the space that don't have any vibration isolation on the pumps. To ensure no vibration is created and distributed through the floor ISG recommends adding the isolators.

The mechanical room located to the right of the gymnasium has a large amount of ductwork that is bent and leaking air. Repairing the ductwork is recommended to ensure the proper airflow gets to the correct locations.

The mechanical room located to the right of the gymnasium has a large amount of pipe that is uninsulated. Reinsulating the pipe to help keep the system losses to a minimum is recommended.

The gymnasium has some ceiling tile that is showing signs of water damage. It is noticed the ductwork travels directly over the space. It is recommended to insulate the ductwork that isn't in the conditioned space to prevent condensation forming on the ductwork and dripping down onto the ceiling.

The dryer vent in the restroom should be fixed. Instead of having the air get blown into the space, hard duct the dryer vent out the side of the building.

2004 Classroom Addition: There is an electrical room that has a transformer located next to the stairwell that doesn't have any airflow in the space. Adding a dedicated cooling or exhaust to the space is recommended to ensure the space doesn't get too warm due to the heat gain of the transformer.

2004 Auditorium Addition: AHU-4 is very dirty and needs to be cleaned. The belt on the fan is missing and should be replaced to push air. It was noted that the intake for the roof top unit isn't 10 feet away from the exhaust hood on the roof. Code requires any fresh air intake to be a minimum of 10 feet away from any exhaust air.

2004 Auditorium Addition: Set construction doesn't have a secondary heat source. With the large rolling door in the space adding a unit heater is recommended to help warm up the space quicker if the door is open during the winter months.

Hallway ceiling tile behind the auditorium has been damaged due to condensation on the chilled water piping. The insulation on the chilled water pipe is in poor condition and or missing. Replacing all of the insulation to ensure a tight seal around the pipe will prevent condensation from forming and dripping down onto the ceiling tile.

The exterior ductwork on the roof for the air handling units are in poor condition.

There are a few rips and tears in the insulation and water has begun to fill up the insulation. Replacing the insulation to ensure a tight seal is recommended.

The air handling units located on the roof are extremely dirty. Cleaning the coils and changing the filters is recommended to ensure proper airflows and air quality. Replacing the broken condensate drain is also recommended.

The fresh air intakes for the roof top units is too close to an exhaust fan. Code requires any fresh air intake to be a minimum of 10 feet away from any exhaust. Current design does not meet current code.

2004 Gym Addition: There is a janitor's closet on the lower level that has chemical storage in it. There is no air movement in the space. To help keep the chemical smell to a minimum it is recommended to add exhaust air to the space.

There are two chilled water pumps located on the main floor in a small mechanical room. The pumps have been leaking and it is noticeable. Also the floor has a slight vibration on it due to the pumps operating. ISG recommends replacing the pumps, fully insulating the chilled water lines and valves, and adding vibration isolation to the pumps.

AHU-5 had the condensation trap broken off of the unit. ISG recommends replacing the condensation trap to ensure no moisture is pulled into the unit from the opening.

The ACC#2 chiller is noisy. The old AGS model was known to have a loud pitch depending upon how the chiller was loaded. The compressors have remote oil separators and the R134A gas velocity coming in/out of the oil separators is what is creating the noise. Newer chillers have oil separators that are integral to the compressors making them much quieter. Adding Vibro Acoustics sound barriers around the machine would be recommended to help with the noise.

Roof top units 1A and 1B have some of the same issues. The inside of the units are dirty and should be cleaned. The filters should be changed and coils cleaned. Piping insulation in the inside of the unit is in poor shape and should be replaced. The condensate drain on the exterior should be fixed as well.

Roof top unit number 6 is dirty and should be cleaned. The filters should be changed as well to help with air quality and the fins on the coil should be combed to help with efficiency. The condensate drain on the exterior should be fixed as well.

The energy recovery unit on the roof is dirty and should be cleaned. The filters needed changing.

RECOMMENDATIONS

Reinsulate all exposed steam lines in building.

Hard duct dryer exhaust vent out exterior wall.

Add exhaust to lower 2004 addition janitor closet, and office/shop area,

Reduct 4 rooms ensure proper air flow.

Add air flow to electrical room.

Insulate ductwork in gymnasium.

Update controls to eliminate pneumatic.

Converts steam boilers over to hot water boilers.

Replace loose belt on exhaust fan 13.

Add secondary heat source to set construction.

Replace exterior ductwork to ensure no damage.

Clean RTU/AHU Units.

Dedicated cooling to IT room.

Fix bent ductwork in mechanical room east of gymnasium.

Replace exhaust fan in front offices.

Replace exhaust fan in restroom.

Clean return/exhaust grilles and replace rusted/damaged grilles.

Add vibration isolation to air handling units and roof top units.

MECHANICAL CONDITIONS SYSTEM PRIORITY TABLE

	1	2	3	4	COST
Reinsulate all exposed steam lines in building	•				\$80,000
Hard duct dryer exhaust vent out exterior wall	•				\$1,500
Add exhaust to lower 2004 addition janitors closet	•				\$2,000
Add exhaust to the Janitors office/shop area	•				\$5,000
Reduct 4 rooms to ensure proper air flow		•			\$10,000
Add air flow to electrical room to help keep space cool		•			\$6,000
Insulate ductwork in gymnasium that isn't exposed to the space		•			\$8,000
Update controls to eliminate pneumatic		•			\$150,000
Convert steam boilers over to hot water boilers		•			\$150,000
Replace loose belt on exhaust fan 13		•			\$400
Add secondary heat source to set construction		•			\$3,000
Replace exterior ductwork to ensure no damage		•			\$7,500
Clean RTU/AHU Units		•			\$20,000
Dedicated cooling to IT room		•			\$6,000
Fix bent ductwork in mechanical room east of gymnasium		•			\$30,000
Replace exhaust fan in front offices		•			\$2,000
Replace exhaust fan in restroom		•			\$2,000
Clean return/exhaust grilles and replace rusted/damaged grilles			•		\$16,000
Add vibration isolation to air handling units and roof top units			•		\$40,000

PHYSICAL CONDITIONS

ELECTRICAL CONDITIONS

Review of existing building electrical systems including electrical service, distribution, and lighting. This section also documents the security system.

OBSERVATIONS

Service

System Description: The facility has three separate electrical services that are all served by a pad mounted transformer on the north side of the building. The original building was served by a 1600-amp 3-phase, 4-wire, 277/480 volt service for the majority of the building and a 200-amp 3-phase, 4-wire, 277/480 volt service for the pool. A third 1200-amp 3-phase, 277/480 volt service was added for the building addition in 2004.

System Observations: The electrical services appear to be serving the building well and are adequate for the size of the building.

System Condition: 1600 Amp Service: Good
200 Amp Pool Service: Good
1200 Amp Addition Service: Good

Energy Usage

System Observations:

Utility data for gas and electricity over the last three years was analyzed to see if the facility's energy consumption has been consistent, and also how the School compares to other schools in the state. Looking at the Monthly Per Square Foot Energy Usage chart, the School has been pretty consistent over the last three years. Using the 2015-2016 data as a baseline, the School saw an increase in energy usage during the month of December, and a large drop in February. The overall year of 2016-2017 shows a slight decrease of 1.33 kBTU/SF, which is a reduction of about 2% compared to 2015-2016. The deviation is quite small and could be attributed to some warmer winter months in 2016-2017, as a few of the schools analyzed in this study showed similar results. A baseline can be established with these numbers to compare future energy usage. If there are large discrepancies with that baseline and future data, it can reveal if equipment is failing or if other issues are occurring.

The utility data was also averaged out over an entire year. Again, 2015-2016 was used as a baseline to compare the 2016-2017 data. The data can be seen in the following table. The data can also be compared to other schools in the state's public B3 Benchmarking data. The data is averaged per square foot so schools can be compared without the total size of the school having a large effect. Only the most recent year's data is compared.

The 75.47 total kBTU per square foot per year shown in the following table would put the facility at the 150th spot on the B3 Benchmarking List of Public Schools ranked by EUI (Energy Use Intensity). It would fall in the category of <100 kBTU/SF/yr, which is considered the top category. The School could still implement various mechanical and electrical improvements listed in this report to improve the facility's energy efficiency.



Electrical utility transformer



Main electrical gear without proper clearances



Electrical services distribution equipment



Branch panels without proper clearances



Rusted electrical equipment in pool mechanical room



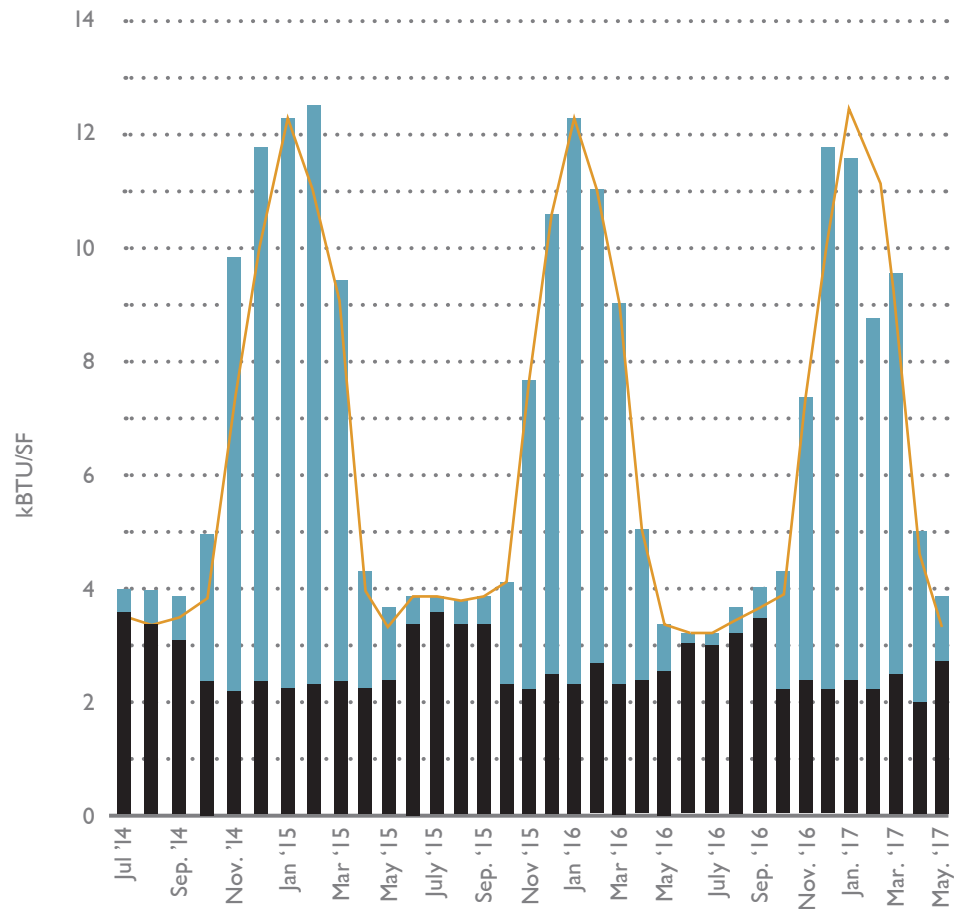
Rusted and corroded electrical device in pool mechanical room



Non-GFCI receptacle near sink



Typical Arc Flash Hazard label required by NEC



	KBTU PER SF PER YEAR		
	ACTUAL	BASLINE	CHANGE FROM BASELINE
ELECTRIC	29.53	30.43	0.90
GAS	45.94	46.37	0.43
TOTAL	75.47	76.81	1.33
% CHANGE	1.74%		

*Based on building square footage of 206,689 SF

Electrical Gear

System Description: The 1600-amp electrical service terminates in General Electric switchgear located on the northwest wall of the boiler room. The switchgear is rated for 480 volts, 1800 incoming amps, and 85,000 amps of short circuit current. The switchgear consists of a main section containing a main switch and two additional sections with fusible switches to feed mechanical equipment, motor control centers, step-down transformers, and branch panels throughout the facility.

The 200 amp service that serves the pool terminates in a small General Electric

switchboard on the north wall of the boiler room. The switchboard is rated for 600 volts. The switchboard contains a single 200-amp fusible switch that serves as the main disconnect. The switch then feeds a small step-down transformer and branch panels located in the pool mechanical room.

The 1200-amp electrical service that was added for the building addition in 2004 terminates in a General Electric switchboard located on the north wall of the boiler room. The switchboard is rated for 480 volts, 1200 amps, and 65,000 amps of short circuit current. The switchboard consists of a single cabinet that contains a main breaker and several feeder breakers for mechanical equipment, transformers, and branch panels throughout the addition.

System Observations: The 1600-amp switchgear appears to be original to the building. It has been modified over the years, but the work looks to have been done correctly, and the gear is still functioning despite its age. The average useful life is 40 years for switchgear and 30 years for panelboards and transformers. The transformers and branch panels are still functioning despite being past their useful life expectancy. The motor control centers that are fed from the switchgear have had failure of some minor components, such as switches and indicator lights. With the age of the equipment, it can be difficult to find replacement parts, but the facility staff has been able to modify available parts to work in place of the original equipment.

The 200-amp switchboard also appears original to the building, and has remained unchanged. It is still functioning, and has a few years left before it reaches the end of its expected useful life of 40 years. The switchboard feeds a distribution panel in the pool mechanical room that then feeds other equipment and panels. The equipment in the pool mechanical room has excessive rust and corrosion due to the damp environment.

The 1200-amp switchboard and branch panels added in 2004 are still in good condition. When the equipment was installed, it was also labeled with an arc flash hazard warning appropriate for the National Electric Code requirements at the time.

System Condition: 1600-amp service distribution gear (Main electrical switchboard): Fair

1600-amp service power + lighting equipment (Transformers, branch panels, etc.): Fair

200-amp pool service distribution gear (Main electrical switchboard): Fair

200-amp pool power + lighting equipment (Transformers, branch panels, etc.): Poor

1200-amp addition service distribution gear (Main electrical switchboard): Good

1200-amp addition power + lighting equipment (Transformers, branch panels, etc.): Good

Light Fixtures

System Description: The interior light fixtures are various styles of T8 linear fluorescent fixtures. Lighting in the original building, including classrooms, is manually switched. Lighting in assembly areas, common areas, and corridors of the addition is automatically controlled with a lighting control panel that uses a combination of a time clock and occupancy sensors. Classrooms in the addition are controlled with stand-alone occupancy sensors.

The exterior has building- and pole-mounted LED lighting that is controlled through the lighting control panel with a combination of a time clock and photocell. The lighting will turn on and off at scheduled times, as well as when light levels are reduced below a certain level at unscheduled times.

System Observation: The interior lighting in the original building was upgraded from fluorescent T12 linear fixtures to fluorescent T8 linear fixtures, as they are more

efficient and the lamps are still readily available. Some mechanical room light fixtures are still using T12 lamps. Lighting in the upstairs corridors is manually switched with circuit breakers. Light levels throughout the facility seemed appropriate.

System Condition: Good

Code Compliance

System Observation:

Receptacles located within 6 foot of a sink require GFCI protection. It appears that some receptacles did not meet this requirement.

RECOMMENDATIONS

Service

The electrical service should serve the building for the foreseeable future. If any additions or modifications occur, it is recommended that a detailed study be performed on the electrical system.

Electrical Gear

While the equipment for the original electrical services is approaching or past the end of its estimated useful life, these systems can potentially last much longer. The equipment should be examined periodically to ensure everything is still operational, but many times electrical gear can be kept in service until a major building renovation or addition occurs.

The only concerning electrical equipment was the transformer and branch panels in the pool mechanical room that are corroded and rusting. While the rust and corrosion on the equipment does not mean that the gear will not continue to work, it can increase the rate at which components fail. The equipment should be evaluated periodically to ensure all components are still functioning.

During the 2004 addition, all the new equipment, as well as the existing main gear, was labeled with arc flash hazard labels appropriate for the time. Since then, the National Electric Code has added additional requirements for arc flash hazard labeling. It is recommended that an arc flash study be performed on the facilities electrical services and equipment be properly labeled.

Light Fixtures

Lighting in the upstairs corridors that is currently switched with circuit breakers should be incorporated in the building's lighting controls. Occupancy sensors should also be added in these corridors so that the fixtures are operated by a schedule and occupancy sensors.

Classrooms in the original building should also be outfitted with occupancy sensors for lighting controls to reduce the amount of energy wasted when classrooms are unoccupied.

Light fixtures that are still using T12 lamps should be upgraded to T8 lamps, as they are more efficient and more readily available.

Code Compliance

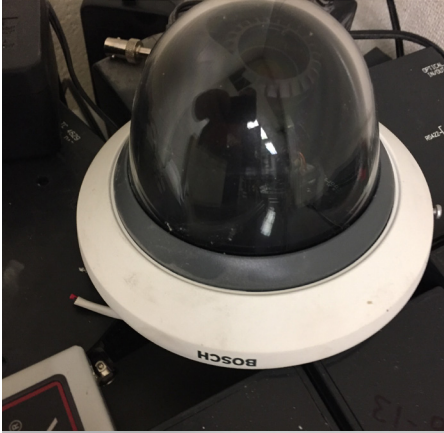
It should be verified that all receptacles near sinks are provided with GFCI protection. An arc flash study should be performed on the facilities electrical systems, and labels added to electrical equipment with updated information that is required by the most recent edition of the National Electric Code.



ELECTRICAL CONDITIONS SYSTEM PRIORITY TABLE

	1	2	3	4	COST
Add controls to common area lighting in original building	●				\$1,000
Upgrade existing T12 fixtures to T8		●			\$2,000
Perform arc flash study and label equipment			●		\$12,000
Add occupancy sensors in classrooms			●		\$2,500





Typical security camera



Security systems hardware rack



Entry with video door station

PHYSICAL CONDITIONS

SECURITY CONSIDERATIONS

Assessment of existing security equipment installed throughout the building. Review of existing primary entryways into the facility including door locations and visitor access.

OBSERVATIONS

Security Camera System

System Description: The building is outfitted with a CCTV camera system that is part of the security system platform that also includes access control. The main video recording hardware is made up of Intevo components by Kantech. The cameras are analog type manufactured by Bosch. Cameras have been placed in the main corridors and assembly areas, as well as pole-mounted cameras around the exterior of the building (see camera coverage map).

System Observations: The building has good camera coverage in most of the common areas. One location that facility staff members noted that is not currently monitored is the top of the stairwell in the northeast corner of the building.

System Condition: Good

Access Control System

System Description: The building's access control system is part of an integrated security platform system that combines surveillance cameras with the access control. The access control is a Kantech KT-400 platform that utilizes electronic card readers and door position sensors at required entrances. Electronic card readers allow staff members to gain entry when the building is locked without having to use an actual key. Card readers give the administration more flexibility in how they control access to the School by allowing them to place limitations on who can gain access into which area. If a card is lost or stolen, the administration can program the system to remove the lost cards ability to unlock doors. Older systems would require them to replace the locks. Door position sensors are also an added benefit of an access control system as they notify the administration if a door has been propped or forced open.

The School has also implemented the use of a video door station at the southwest entrance to control access to the building. Anyone attempting to enter the facility must first press a call button to alert staff that someone is at the door. An intercom and camera are incorporated into the door station to allow staff to identify anyone at the door before allowing them access to the building. Personnel will then be directed through the administrative office before entering the rest of the building.

System Observations: It appeared that the School has a majority of the exterior entrances incorporated into the access control system. The only entries that have not been added to the system are the entrances into the auditorium.

System Condition: Good

RECOMMENDATIONS

SECURITY CONSIDERATIONS PRIORITY TABLE	1	2	3	4	COST
Add camera to northeast stairwell	●				\$3,000
Add remaining exterior entries into access control system			●		\$14,000
Add cable management and redress network racks			●		\$4,000

PROGRAMMING + EDUCATIONAL ADEQUACY



PROGRAMMING + EDUCATIONAL ADEQUACY SPACE UTILIZATION

Review of the existing spaces to determine if area fulfills programming needs and are adequately sized to serve the existing school population per Minnesota Department of Education (MDE) standards.

OBSERVATIONS

Jackson County Central High School currently serves 357 students with the help of 29 staff members. The facility is sufficiently sized to handle this student population with many amenities within its 212,000 square feet. While the facility has been well maintained, the most frequently mentioned deficiency was the inconsistent thermal environment the HVAC system is currently providing.

Educational Spaces

The majority of standard classrooms serving the students are undersized per MDE standards. However, for the current class sizes this wasn't mentioned as an obstacle. Technology is adequately serving the instructional purposes. Unfortunately, thermal comfort was noted as a distraction within many rooms. English and social study spaces were specifically noted as being constantly cold.

The three science rooms serve as biology, physics, chemistry, and physical science classes. The chemistry lab has the luxury of being larger rooms, while the other two are in line with the standard sizes expected. As for as the thermal environment of the classroom is concerned the rooms are generally uncomfortable. Often it is hot in the winter and cold in the summer. This is a distraction to the students and teachers alike. Technology is adequate but stepped lighting controls would be beneficial during instruction times. The sanitary drainage in the biology and physical science rooms we noted as needing attention.


Agricultural science enrollment is typically between 15-30 students per semester. A classroom that formally served as family and consumer science space is now home for the classroom portion of the class. The ventilation is inadequate and the furniture and equip in this room is oversized for its current use. The Ag shop has great storage but could benefit from a larger overhead door. Having a walk-in cooler was noted as a huge advantage.

The metal shop is well sized. The welding equipment serves the curriculum well, though the shop's overall exhaust system is loud and need a lot of maintenance. The metal working tools could also be updated as they are older and in disrepair.

The wood shop is also well sized and is performing well with student interest and projects.

The industrial tech classroom often experiences student loads of up to 30 students, and is undersized for its use.

Generally speaking the special educational department is working well. The space location is advantageous as the goal is to integrate special education student into general classes. The largest student load typically experience is 7 students. Overall the spaces are large enough to accommodate this student load. The active boards are utilized and satisfy the needs of instructors and students.



The music curriculum at the High School is served with a choral room and band room. The band room is adequately sized and serves the curriculum and student loads appropriately. The choir room accommodates 62 students on a daily basis and is, unfortunately, undersized. The low ceiling and tiered seating create uncomfortable reverberation. Acoustic treatments may help the sound issues, but the space would still be of concern. The space was noted as notoriously warm. In between the choir and band room are the music offices. These rooms utilize vents in the doors as return grills which short circuits any acoustic isolation. Practice rooms are across the hall from the choir room and need attention as they are dilapidated and rarely used, except for portions of the music library.

Instruction for both 2-dimensional and 3-dimensional art is given within one space. With an average of 25-27 students the space is undersized. This is especially noticed when ceramics is being taught. The sinks within the room are small and inconveniently placed for student circulation during clean up. A dedicated exhaust system may be considered for the airbrushing station. The technology provided to the students is sufficient for the intended lessons. Another room serves as a graphic arts space. There are typically over 20 students in this classroom. Again technology functions well for the students and activities. Finally there is an art lab which contains 8 color presses. Due to the shape of the room, space is tight. Supervision is also a challenge in the lab. All three spaces were noted as being a bit cool.

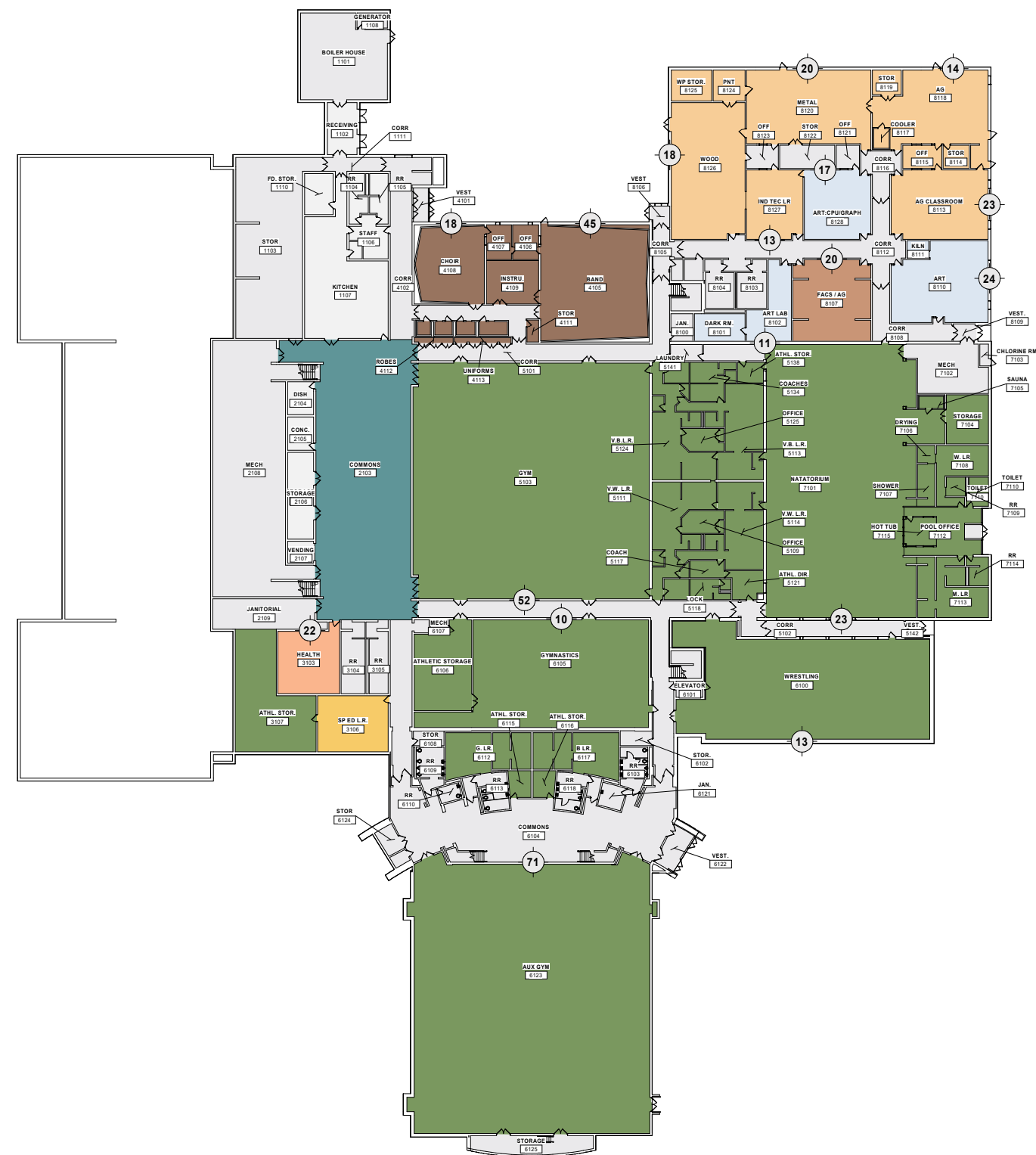
The physical education amenities at the high school are generously sized and generally serve the students, staff and community well. The main gymnasium is just under the minimum recommended size for a two station teaching environment. The cross courts close together which can cause some conflict when both are in use during tournaments or when they are both in use. The instructors also commented that the lighting could be improved in the main gym, as well as the auxiliary gym. The auxiliary gym has a bigger issue concerning its HVAC system. On humid days there is a major condensation problem which leave the floor wet and slippery. Obviously this hinders the activity within the space, causes safety concerns, and is damaging the wood floor. This same space serves as practice to the baseball team during inclement weather. If this continues a net at a minimum should be considered to protect the windows in the space. Different floor could be considered as well to serve such multipurpose activities.

Administrative Spaces

The administrative office provides a secure entrance into the building. The office suite offers all the suggested spaces, except a small conference room. For the most part the offices and other spaces are adequately sized. Having a second internal entrance for students and staff is a convenient feature.

SUMMARY

Though the overall size of the high school is more than adequate for the student load. It offers many amenities that other high schools are as fortunate to have. Corridors and pre-function spaces are generous. The biggest point of concern was the climate control within the teaching spaces.



DEPARTMENT LEGEND

- Art/Science
- Building Support Spaces
- Classroom
- Common Spaces
- Family and Consumer Sciences
- Food Service
- Music
- Physical Education / Athletics
- Special Education
- Technical Education

Jackson Central County School District #2895 Senior High School							Project 17-20569 Date 1-2-2018				
Grade Configuration:		9th Grade - 12th Grade									
Total Student Enrollment		357									
Full Day Student Equivalent		357									
Staff		29									
							Recommended				Current Max. Student Capacity
Description	Notes		Room #	Usage	Shared Space	Subtotal	Low Range	High Range	Avg. Student Capacity	Student Capacity Range	
School Learning Spaces											
Classrooms											
English Classroom	Undersized		1204	Full time	No	765	850	950	24	20-28	20
English Classroom	Undersized		1205	Full time	No	775	850	950	24	20-28	20
English Classroom			1206	Full time	No	885	850	950	24	20-28	23
Social Studies Classroom	Undersized		1207	Full time	No	765	850	950	24	20-28	20
Social Studies Classroom	Undersized		1208	Full time	No	756	850	950	24	20-28	19
Social Studies Classroom	Undersized		1213	Full time	No	738	850	950	24	20-28	19
Social Studies Classroom	Oversized		1211	Full time	No	1,192	850	950	24	20-28	31
Health Classroom	Undersized		3103	Full time	No	839	850	950	24	20-27	22
Math Classroom	Undersized		3206	Full time	No	824	850	950	24	20-28	21
Math Classroom	Undersized		3207	Full time	No	834	850	950	24	20-26	21
Math Classroom	Oversized		3208	Full time	No	1,040	850	950	24	20-27	27
Physical Science Classroom/Lab			1218	Full time	No	1,204	1,200	1,500	24	24	21
Biology Classroom/Lab	Undersized		1224	Full time	No	1,177	1,200	1,500	24	24	21
Chemistry/Physics Classroom/Lab	Oversized		4203	Full time	No	2,092	1,200	1,500	24	24	37
Science Lab Prep/Storage	Undersized		4203A	Full time	No	234	350	350	n/a		
Science Lab Prep/Storage	Oversized		1215/1219	Full time	No	517	350	350	n/a		
Science Lab Prep/Storage	Undersized		1221/1222/1223	Full time	No	298	350	350	n/a		
Science Lab Prep/Storage	Facility Deficient			Full time	No		350	350	n/a		
Subtotal (Classrooms)						14,935	14,350	16,350	333		322
Special Education											
Special Education Classroom	Facility Deficient			Full time	No		450	450	6	5-8	0
Special Education Classroom	Undersized		2211A	Full time	No	426	450	450	6	5-9	6
Special Education Classroom	Undersized		2211B	Full time	No	283	450	450	6	5-10	4
Special Education Classroom	Oversized		1209A	Full time	No	566	450	450	6	5-11	8
Special Education Classroom	Oversized		1209B	Full time	No	545	450	450	6	5-12	7
Special Education Classroom	Oversized		2226	Full time	No	560	450	450	6	5-12	7
Special Educatoin Classroom/Lab		Credit Recovery	3205	Full time	No	971	800	1,200	6	5-5	6
Special Educatoin Classroom/Lab			3106	Full time	No	840	800	1,200	6	5-6	5
Special Educatoin Classroom/Lab	Undersized		1217	Full time	No	733	800	1,200	6	5-7	5
Office	Undersized		2213	Full time	No	106	120	150	n/a		
Office	Undersized		1210	Full time	No	87	120	150	n/a		
Storage	Undersized		2212	Full time	No	180	200	250	n/a		
Subtotal (Special Ed.)						5,297	5,540	6,850	55		48
Technical Educaton											
Metals Lab			8120	Full time	No	1,962	1,800	2,400	22	25	20
Wood Shop			8126	Full time	No	2,123	2,000	3,000	22	24	18
AG Shop	Undersized		8118	Full time	No	1,686	2,000	3,000	22	25	14
Ag Classroom			8113	Full time	No	1,400	1,200	1,400	22	24	23
Principals of Technology	Undersized		8127	Full time	No	820	1,200	1,400	22	25	13
Wood Storage	Undersized		8125	Full time	No	268	350	350	n/a		
Ag Storage	Undersized		8114/8117/8119	Full time	No	345	350	350	n/a		
Metals Storage	Undersized		8122	Full time	No	270	350	350	n/a		
Paint Prep	Undersized		8124	Full time	No	210	350	350	n/a		
Subtotal (Technical Education)						9,084	9,600	12,600	109		88
Common Spaces											
Small Group/Conference/Office	Facility Deficient			Full time	No		150	200	4	4	0
Large Group - Team Learning Areas	Undersized	Post Secondary Lounge	3204	Full time	No	1,134	1,500	2,000	150	149	96
Large Group - Team Learning Areas	Undersized		114	Full time	No	995	1,500	2,000	150	149	85
Large Group - Team Learning Areas	Undersized		2225	Full time	No	564	1,500	2,000	150	150	48
Subtotal (Common Spaces)						2,693	4,650	6,200	453		229
Library / Media Center											
Entrance / Circ / Distribution			2206			800	700	900	n/a		
Seating / Stacks Comp / Ref (8-10% stud. x 35SF)	Oversized		2206	Full time	No	3,498	1,000	1,250	n/a		
Librarian Office	Undersized		2214	Full time	No	104	150	150	n/a		
Small Group / Conf / Office - Reading Corps.	Oversized		2116	Full time	No	220	150	200	n/a		
Multimedia Production	Oversized		2208/2209/2210	Full time	No	589	300	400	n/a		
Classroom	Facility Deficient			Full time	No		800	800	n/a		
Workroom / Storage	Undersized		2215	Full time	No	201	400	600	n/a		
Professional Library	Facility Deficient			Full time	No		200	200	n/a		
Subtotal (Library / Media Center)						5,412	3,700	4,500			
Business / Marketing											
Classroom	Facility Deficient			Full time	Yes		1,000	1,200	24	25-35	0
Classroom / Lab	Facility Deficient			Full time	Yes		1,200	2,400	24	25-35	0
Subtotal (Business / Marketing)						0	2,200	3,600	48		0
Family and Consumer Sciences											
Classroom	Facility Deficient			Full time	Yes		900	1,000	22	20-24	0
Classroom/Lab			8107	Full time	Yes	1,296	1,200	1,500	22	20-24	20
Subtotal (Family and Consumer Sciences)						1,296	2,100	2,500	43		20
Technology											
Computer Lab	Facility Deficient			Full time	No		1,000	1,400	25	25	0
Control and Headrooms	Facility Deficient			Full time	No		640	740	n/a		
Copy Center	Facility Deficient			Full time	No		500	800	n/a		
ITV/Distance Learning	Facility Deficient			Full time	No		900	900	n/a		
TV/Video Studio	Facility Deficient			Full time	No		1,250	1,250	25	25	0
Subtotal (Technology)						0	4,290	5,090	50		0
Art/Science											
Multipurpose - Graphic Arts	Undersized		8128	Full time	No	953	1,200	1,500	24	20-28	17
Drawing and Painting	Facility Deficient			Full time	No		1,200	1,500	24	20-28	0
Ceramics	Undersized		8110	Full time	No	1,496	1,500	1,500	24	20-28	24
Kiln/Glazing/Clay/Damp Rm.	Undersized		8111	Full time	No	80	400	600	n/a		
Storage (per area)	Facility Deficient			Full time	No		350	350	n/a		
Photography/Art Lab	Undersized		8102	Full time	No	526	1,000	1,200	24	20-28	11
Darkroom	Undersized		8101	Full time	No	288	400	800	n/a		
Office	Facility Deficient			Full time	No		120	120	n/a		
Subtotal (Art)						3,343	6,170	7,570	97		52

Educational Adequacy Assessment

ISG

Jackson Central County School District #2895

Project 17-20569

Senior High School

Date 1-2-2018

Grade Configuration: 9th Grade - 12th Grade
Total Student Enrollment 357
Full Day Student Equivalent 357
Staff 29

							Recommended				Current	
Description	Notes		Room #	Usage	Shared Space	Subtotal	Low Range	High Range	Avg. Student Capacity	Student Capacity Range	Max. Student Capacity	
Music												
Instrumental			4105	Full time	No	2,552	2,000	3,000	75	60-90	45	
Choral	Undersized		4108	Full time	No	1,051	1,500	2,200	55	60-90	18	
General Music	Facility Deficient			Full time	No		1,000	1,000	30	25-35	0	
Instrumental Stor. & Circ.	Undersized		4109	Full time	No	480	600	800	n/a			
Uniform Storage	Undersized		4113	Full time	No	52	300	400	n/a			
Choral Robe Storage	Undersized		4112	Full time	No	36	60	80	n/a			
Small Practice	Oversized	4 rooms	06/0706A/0706B/10	Full time	No	221	100	150	n/a			
Group Practice	Facility Deficient			Full time	No		350	450	n/a			
Ensemble Keyboarding Lab	Facility Deficient			Full time	No		750	750	n/a			
Recording Control Room	Facility Deficient			Full time	No		100	150	n/a			
Music Library	Facility Deficient			Full time	No		150	200	n/a			
Office / Lesson Studio	Oversized	2 offices	4106/4107	Full time	No	376	100	200	n/a			
Instrument Repair	Facility Deficient			Full time	No		75	75	n/a			
Performance Equipment Storage	Undersized		4111	Full time	No	54	200	300	n/a			
Subtotal (Music)						4,822	7,285	9,755	160		63	
Physical Education/Athletics												
Gymnasium (Two Stations)	Undersized		5103	Full time	No	11,772	12,000	14,000	58	52-60	52	
Multipurpose / Auxilliary Gymnasium	Oversized		6123	Full time	No	13,630	3,200	7,500	28	26-29	71	
Weights / Fitness			6206	Full time	No	3,526	2,000	4,000	28	26-30	32	
Pool	Undersized		7101/7115/7112	Full time	No	9,421	10,000	12,000	28	26-30	23	
Multipurpose / Auxilliary Gymnasium - Activity Space			5202	Full time	No	5,576	3,200	7,500	28	26-30	13	
Gymnastics			6105	Full time	No	4,216	3,200	7,500	28	26-30	10	
Wrestling	Oversized		6100	Full time	No	5,270	2,000	3,000	23	26-29	13	
Diving Well				Full time	No		1,500	2,500	n/a			
Physical Education Locker Rms (1 SF / Stud Cap.)	Oversized		3/7114/7109/7105/7	Full time	No	3,328	1,568	1,568	n/a			
Athletic Locker Rooms	Oversized		134/5113/5124/511	Full time	No	3,979	1,500	3,000	n/a			
General Storage (300 Per Station)	Oversized	4 Stations	5105/7104	Full time	No	547	300	300	n/a			
Athletic Storage	Oversized		3/5138/5130/5106/5	Full time	No	4,151	1,000	1,200	n/a			
Spectator Seating (10 SF / Person - Bleachers)		856 seat	In 5103	Full time	No		0	0	n/a			
Training Room	Facility Deficient			Full time	No		200	400	n/a			
Laundry	Undersized		5141	Full time	No	110	200	200	n/a			
Coach's Office			5125	Full time	No	182	150	200	n/a			
Coach's Office			5109	Full time	No	182	150	200	n/a			
Athletic Director Office			5121	Full time	No	195	150	200	n/a			
Subtotal (Physical Education / Athletics)						66,085	42,318	65,268	221		214	
Subtotal - School Learning Spaces (NSF)						102,587	60,110	75,090	1,568		759	
Current Max. Student												759
Optimal Student Capacity (75% of Max. Capacity)												569
Current Student Enrollment												357
Facility Efficiency												63%

Jackson Central County School District #2895							Project 17-20569				
Senior High School							Date 1-2-2018				
Grade Configuration:		9th Grade - 12th Grade									
Total Student Enrollment		357									
Full Day Student Equivalent		357									
Staff		29									
							Recommended				
					Shared Space	Subtotal	Low Range	High Range	Avg. Student Capacity	Student Capacity Range	Current Max. Student Capacity
Description	Notes		Room #	Usage							
School Support Spaces											
Administration / Health Services											
Reception / Waiting	Oversized	2 Spaces	32,223,231	Full time	No	1,400	250	400			
Principal	Oversized		3213	Full time	No	215	150	200			
Assistant Principal	Oversized		3212	Full time	No	212	150	200			
Secretarial Work Station	Oversized		3212B	Full time	No	226	100	150			
Work Room and Mail Area	Undersized		3234	Full time	No	267	350	350			
Small Conference Room	Facility Deficient			Full time	No		150	200			
Large Conference Room	Oversized		3229	Full time	No	584	250	400			
Other Offices	Oversized	4 offices	8121,8115,8123	Full time	No	462	100	150			
Restroom	Oversized	2 Restrooms	32,263,227	Full time	No	164	120	180			
Scheduling / Computer Services	Facility Deficient			Full time	No		150	250			
School Nurse / Health Services	Undersized		32,243,225	Full time	No	302	600	800			
Subtotal (Administration / Health Services)						3,832	2,370	3,280			
Guidance / Student Services											
Reception			2219	Full time	No	200	150	200			
Guidance Office	Oversized		2219,2228	Full time	No	418	150	150			
Secretarial Work Station			Part of 2219	Full time	No	80	80	100			
Conference Room			2220	Full time	No	200	150	200			
Psychologist, Social Worker Office	Facility Deficient			Full time	No		100	150			
Career Center			2218	Full time	No	431	400	1,000			
Testing	Facility Deficient			Full time	No		100	100			
Records / Supplies / Storage	Undersized		3218	Full time	No	60	200	250			
Student Store / Activities	Facility Deficient			Full time	No		400	700			
Subtotal (Guidance / Student Services)						1,189	1,730	2,850			
Teachers / Staff											
Planning Work Stations (50 SF per staff)	Facility Deficient			Full time	No		1,450	1,450			
Offices	Facility Deficient			Full time	No		100	150			
Conference/Kitchenette/Print (10-20 SF per staff)	Facility Deficient			Full time	No		290	580			
Toilets	Facility Deficient			Full time	No		120	180			
Subtotal (Teachers / Staff)						0	1,960	2,360			
Food Service											
Cafeteria Dining Space (14-16 SF per stud.)	Oversized		2103			5,881	4,998	5,712			
Staff Dining Space (20 SF / staff dining)	Oversized		1214			895	480	480			
Kitchen (Preparation)	Undersized	Pick one	1107			1865	2,000	3,000			
Serving Line	Undersized	Part of 2103 as well	2105/2107			308	1,500	2,000			
Dry Food Storage	Undersized		1110	Partial	No	250	300	450			
Cooler			Part of 1103			300	300	400			
Freezer			Part of 1103			350	350	450			
Dishwasher	Undersized		2104			182	400	600			
Office	Oversized		1106			250	150	150			
Locker Rooms / Restroom	Oversized	2 RR/LR	1104/1105			345	150	200			
Receiving and Holding	Undersized		1102			328	350	450			
Table Storage	Undersized		2106			480	800	1,000			
Subtotal (Food Service)						11,434	11,778	14,892			
Auditorium											
Seating - 250 seats	Oversized		0108			3160.00	2,500	2,500			
Stage			0108			2600.00	2,200	3,000			
Dressing Rooms	Oversized	2 Rooms	0103,0105			504.00	400	500			
Make-Up Room	Oversized		0104			401.00	200	250			
Restrooms with Showers	Oversized	2 rooms	0102,0105			398.00	128	128			
Costume Storage	Oversized		0101			910.00	150	225			
Scene Shop	Oversized		0106			1077.00	800	1,000			
Lobby			0110			1000.00	492	1,000			
Restrooms in Lobby Area	Oversized	3 Restrooms	0115,0111,0112			942.00	600	600			
Control Room	Undersized		In gen aud. Sq.ft.				200	240			
Dimmer Room	Undersized		In gen aud. Sq.ft.				120	150			
Catwalks	Facility Deficient						600	1,000			
Loading Bridge	Facility Deficient						150	150			
Piano Storage	Facility Deficient						80	80			
Other Options	Facility Deficient										
Subtotal (Auditorium)						10,992	8,620	10,823			
Subtotal - Net School Support Spaces							27,447	26,458	34,205		
Combined Subtotal - Net		Net School Learning Spaces + Net School Support Spaces					130,034	86,568	109,295		
Building Support Spaces											
Building Systems and Maintenance											
Custodial			2109	Full time	No	677	600	800			
Custodial Closets	Oversized		3211,6121,8100,			328	40	40			
Restrooms	Oversized	2.5% x NSF	216,3104,6103,610	Full time	No	3,634	3,251	3,251			
General Storage	Undersized	3.5% x NSF	3124,6125,6126,812	Full time	No	2,218	4,551	4,551			
Mech/Elec Interior Systems	Undersized	7.5-8.5% x NSF	3,5204,6107,7102,4	Full time	No	6,924	9,753	11,053			
Circulation and Structure	Facility Deficient	35-45% x NSF		Full time	No	68,312	45,512	58,515			
Subtotal - School Support Spaces						82,093	63,706	78,210			
TOTAL BUILDING (GSF)							212,127	150,274	187,505		

ATHLETIC COMPLEX





FACILITY OVERVIEW

ATHLETIC COMPLEX

PROPERTY

LAND PARCELS COMPRISING PLEASANTVIEW ELEMENTARY SCHOOL PROPERTY

240330400	9.22 Acres	Athletic Complex
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Lack of ADA accessible route through facilities



Areas of settlement, discoloration, and cracking in tennis court



Weathered wooden line judge stands



Lack of edging materials from sand and grass

PHYSICAL CONDITIONS

SITE CONDITIONS

Review of the existing building site including parking spaces, concrete walks, and other horizontal site elements. Site circulation, grading, paving, parking, stormwater, and playground space were also reviewed.

SITE OBSERVATIONS

Off-Site Recreational Facilities

System Description: East of the middle school, at the corner of Menage Avenue North and Milwaukee Street are three tennis courts, two sand volleyball pits, a softball field, and a combination baseball/football field. The Lakefield Aquatic Center is located north of the baseball field, however the City of Lakefield owns and operates the pool. No ADA accessible route throughout the facilities were observed at the time of the site inspection.

Tennis Courts

System Observation: All three tennis courts are constructed of bituminous pavement, however only two of the courts have an acrylic surfacing. Large areas of discoloration indicate that multiple areas on the courts pond. Areas of settlement and cracking throughout all the courts were also noted. Significant base failure or major cracking was not noted during inspection.

System Condition: Fair

System Recommendations: Mill, overlay and resurface the tennis courts.

Sand Volleyball Courts

System Observation: The sand volleyball court net posts are in good condition. The courts do not have an edging material to keep the sand from mixing with the surrounding grass. The wooden line judge stands are weathered but still appear to be structurally sound. A small shelter adjacent to the volleyball courts appeared to be in good condition with no roof defects noted, only some weathering of the wood.

System Condition: Good

System Recommendations: Standard maintenance and inspection should be performed on the athletic facilities. It is recommended to provide an edging material to reduce on surface loss of the court.

Softball Field

System Observation: The softball field has an all aglime infield with grass outfield. The aglime surfacing is in fair condition although grass and weeds have begun to grow near the edges. The bases are worn and home plate has a hole in it. Both dugouts have chain link walls with concrete floors and wood benches. The concrete is pitting, but still intact and the benches are weathered but in a usable condition.

The first and third base line fencing only extends to the edge of the infield. The fencing has been warped in areas, but is still in fair condition. There is a wood backstop in the area behind home plate to help protect the fencing although two of the wood panels are missing.

A concrete block shed/concession stand is located next to the first base fence. The shed walls appeared to be in good condition and no roof defects were noted. The wood door frames are rotting and creating void spaces.

No spectator bleachers were observed at the time of the site inspection. Behind the backstop fencing, the ground was visibly worn and had no vegetation at the location where the bleachers would be located, indicating that the bleachers are shared throughout the site.

System Condition: Fair

System Recommendations: Standard maintenance and inspection should be performed on the athletic facilities. It is recommended to replace the worn out deficient bases and the missing wood panels behind the home plate. Add fencing along first base line to protect players from on-site obstructions.

Baseball + Football Field

System Observation: King Field is used for both baseball and football games. The baseball infield is a combination of aglime baselines, grassed interior and clay mound. There has been some aglime surfacing loss creating lips near the grass edges.

The third base dugout has concrete block walls, concrete floor and metal roof with no permanent benches or bat racks. The block walls are in fair condition with areas of mortar joints eroding. The roof is in fair condition with warping occurring and weathered wood supports.

The first base dugout has wooden walls with a metal roof. The wood walls are very weathered and roof has some warping. There are permanent wood benches, but they are uneven and beginning to bow. Behind the backstop fencing there are two sets of bleachers. The bleachers are in fair condition with minor signs of age. The bleachers are placed directly on grass and not on a concrete slab.

Neither the right nor left field fencing extends the length of the field. Players are not protected from the light towers and other obstacles, which creates a play hazard. The backstop fencing is in good condition with no major defects.

Football is played in the outfield of the baseball field using removable goal posts. The posts have padding around the base which is in good condition, but the posts themselves are beginning to rust in areas where paint has chipped off.

The field has tower-style lighting around it that appear to be in working condition. The scoreboard for the field appeared functional. A wooden press box is also located in center field. The wood is weathered and has some cracking in the support posts. The metal roof on the press box appeared to be in good condition. There are bleachers placed adjacent to the press box that are visibly broken and warped.

System Condition: Fair

System Recommendations: Refresh the baseball field aglime surfacing, install bat racks and permanent benches in the dugouts, and remortar the western brick dugouts. It is recommended to extend the third baseline fencing to protect players from the on-site obstructions. Additionally, the press box and broken bleachers should be replaced.

Perimeter Fencing

Surrounding the facilities is chain link fencing. The fencing appears to have previously had a barbed wire top which is no longer installed, but some small sections remain near gates. Overall, the fencing is in good condition, however the mesh is pulling away from the top rail in the area along Milwaukee Street, south of 5th Avenue. The only other



Hole in home plate of softball field



Pitting concrete, weathered but usable benches



First and third base fencing only extends to edge of infield



Warped fencing



Worn ground behind backstop fencing



Aglime surfacing loss near grass edges



Lack of permanent benches or bat racks in third base dugout of baseball field



Lack of protection from light towers

defects noted were sections where the top rail is bowing in due to heavy loads placed on it.

System Condition: Fair

System Recommendations: Remove the remaining barbed wiring and repair the top rail and mesh of deficient fencing.

Parking

System Observation: Parking for the athletic fields is served by a gravel lot between the tennis courts and pool accessed by Menage Avenue North. The lot has no spaces marked, but it is estimated that approximately 95 vehicles could fit in the lot. No handicap accessible stalls have been provided in the lot. The gravel surfacing appears to be maintained with minimal rutting present. The lot also appears to generally drain well, however there are localized depressions which hold water.

Room for an additional 45 parking spaces is available on the grass shoulder along Milwaukee Street. There are concrete wheel stops protecting vehicles from hitting the fencing. The street curb is a drive-over style, but the grassed parking area does not provide a full parking stall length and vehicles protrude into the street approximately five feet. There are no ADA accessible access areas along Milwaukee nor any accessible routes throughout the facilities.

System Condition: Fair

System Recommendations: It is recommended to remove the wheel stops and to direct traffic to the gravel parking lot to protect vehicles and pedestrians from street traffic. It would be recommended to provide ADA accessible parking stalls within the gravel parking lot and construct an ADA accessible route throughout the site.

TRAFFIC PATTERNS + CONCERN AREAS



Weathered wood and cracking in press box support posts



Warped and broken bleachers adjacent to press box

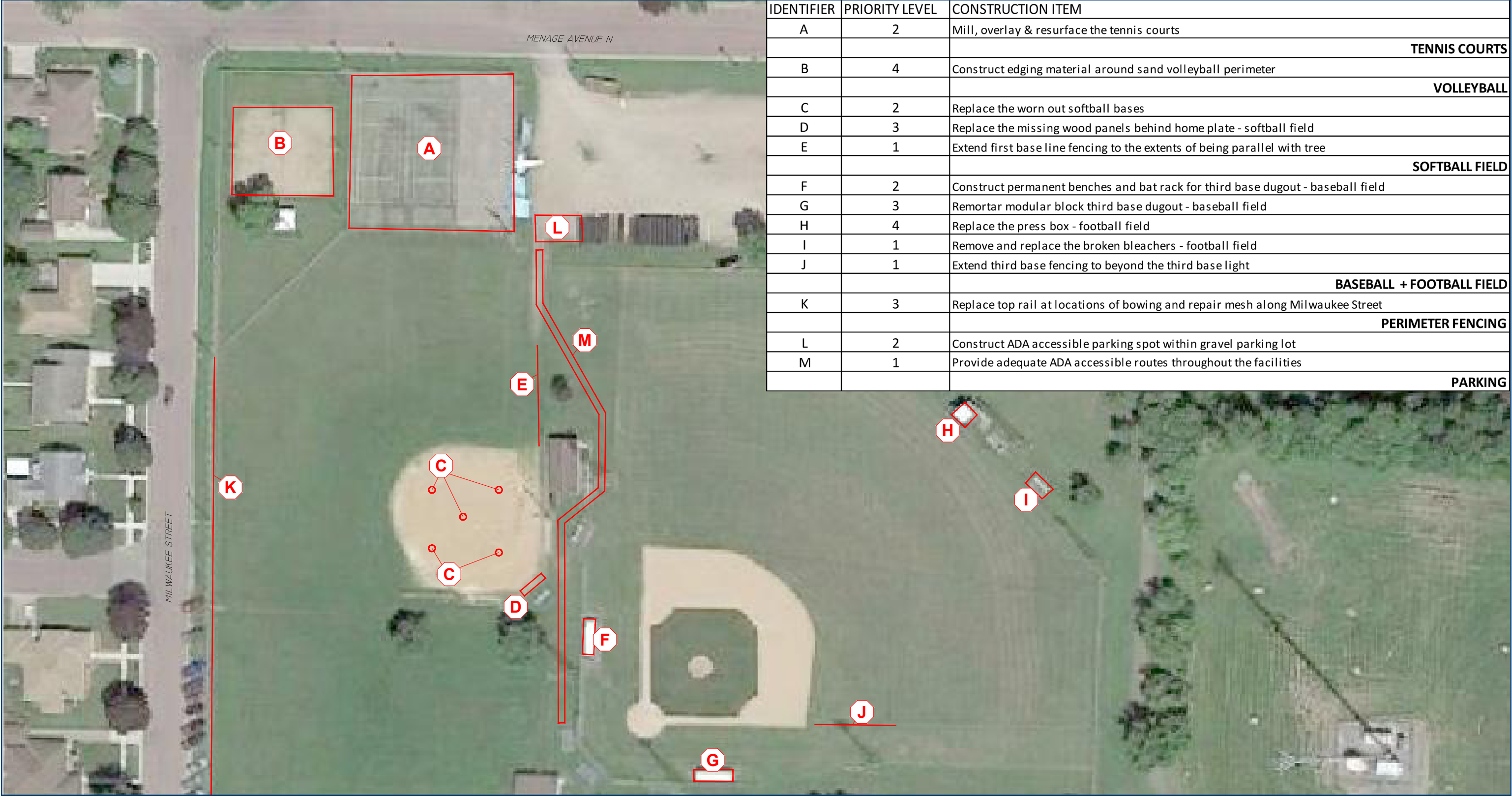


Barbed wire top in fencing

SITE CONDITIONS PRIORITY TABLE

	1	2	3	4	COST
Provide adequate accessible routes throughout the facilities and connect to local trails / sidewalks and provide ADA Accessible parking spots within gravel parking lot	●				\$27,070
Remove and replace the broken bleachers and extend third base fencing to beyond the third base light	●				\$13,100
Construct permanent benches and bat rack for third base dugout and remortar the modular blocks		●			\$1,150
Replace the missing wood panels being home plate and the softball bases and extend first base line fencing to be parallel to protect players from obstruction		●			\$4,410
Mill, overlay & resurface the tennis courts		●			\$150,000
Replace top rail at locations of bowling and repair mesh along Milwaukee Street			●		\$1,250
Replace the press box - football field				●	\$25,000
Construct edging material around sand volleyball perimeter				●	\$2,500

SITE IMPROVEMENT RECOMMENDATIONS



PRIORITY TABLES WITH ESTIMATED COSTS



Facility Name	Space Use Type	Building System	Item Description	Priority	Planned Year	Estimated Cost	Funding Source
Riverside	Playground Equipment	Site	Repair safety surfacing and ensure it extends to all equipment use zones	1	2020	\$ 1,000	
Riverside	Recreational Facilities	Site	Provide adequate accessible routes to and from playground and northern baseball field	1	2020	\$ 20,000	
Riverside	Recreational Facilities	Site	Remove the wooden door in baseball field that is flush with the ground and the wooden shed	1	2019	\$ 2,250	
Riverside	Retaining Walls	Site	Remove and replace wooden retaining wall/school sign located on the northeast	1	2020	\$ 3,000	
Riverside	South Parking Lot	Site	Remove & replace concrete driveway apron	1	2020	\$ 2,000	
Riverside	Utilities	Site	Replace and properly cover exposed / damaged utilities located at northeast corner of property	1	2019	\$ 500	
Riverside	Bus Loading Zone	Site	Widen the sidewalk along Park Street – including the expansion of the sidewalk to ten-foot wide, bus loading zone striping, and the addition of bus loading zone signage	2	2022	\$ 15,000	
Riverside	North Parking Lot	Site	Reconstruct north parking lot - regrade, replace bollards / safety wiring, walkways, restriping, and signage	2	2022	\$ 145,000	
Riverside	Playground Equipment	Site	Construct safety surface edging	2	2021	\$ 3,500	
Riverside	Recreational Facilities	Site	Repair and fix all deficient fencing around perimeter and baseball field	2	2023	\$ 13,000	
Riverside	Retaining Walls	Site	Construct railing/fencing at northeast corner of site	2	2023	\$ 6,000	
Riverside	Retaining Walls	Site	Replace any loose modular blocks from western retaining walls	2	2022	\$ 5,000	
Riverside	Playground Equipment	Site	Playground equipment removal / replacement per manufacture specifications - track equipment and all metal equipment on site and provide rubber mats below swings to reduce the loss of safety surfacing	3	2025	\$ 2,360	
Riverside	Recreational Facilities	Site	Install fencing to the extents of being parallel with the bounce structure, between the baseball field and playground	3	2026	\$ 8,400	
Riverside	Recreational Facilities	Site	Crack-fill, seal coat, restripe bituminous playground	3	2028	\$ 25,000	
Riverside	Corridors	Structural	Repair missing sealants and damaged mortar joints in the north exterior wall and interior corridor walls at the expansion joint between the original building and 1958 addition	1	2019	\$ 1,000	
Riverside	Walls	Structural	Patch and repair cracks in the walls of the upper level; monitor cracks quarterly	1	2019	\$ 10,000	
Riverside	Retaining Walls	Structural	Repair or replace failing retaining walls.	2	2024	\$ 30,000	
Riverside	Retaining Walls	Building Exterior	Retaining walls – repair or replace retaining wall system	1	2020	\$ 18,000	
Riverside	Windows	Building Exterior	Windows – clean discolored stone sills; replace damaged glass block units	1	2019	\$ 4,120	
Riverside	Walls	Building Exterior	Walls – repair brick and stone cracking and failed joints and clean discolored brick and stone at grade; paint stucco panels	2	2021	\$ 10,250	
Riverside	Doors	Building Exterior	Doors – replace rusted and damaged hollow metal doors and frames with aluminum to match newer doors and windows	3	2025	\$ 9,375	
Riverside	Stoops	Building Exterior	Stoops – replace stoops or adjacent sidewalks to comply with accessible entrance requirements at door sills	3	2028	\$ 16,800	
Riverside	Mechanical Building	Building Exterior	Mechanical building – repair brick cracking and failed joints	4	2030	\$ 1,200	
Riverside	Classrooms and Media Center	Building Interior	Doors – replace damaged wood doors and frames; replace noncompliant knob hardware with handle locksets	1	2019	\$ 25,000	
Riverside	Corridors	Building Interior	Doors – replace noncompliant knob hardware with handle locksets	1	2019	\$ 12,500	
Riverside	Corridors	Building Interior	Doors – replace wired glass with safety glass	1	2019	\$ 1,350	
Riverside	Corridors	Building Interior	Other elements – replace walk-off mats with mats which fit properly into recessed terrazzo areas	1	2020	\$ 5,300	
Riverside	Counselor's Office, Custodian's Rooms, Basement Kitchen and Storage Rooms	Building Interior	Doors – replace damaged wood doors and frames; replace noncompliant knob hardware with handle locksets	1	2019	\$ 8,000	

Facility Name	Space Use Type	Building System	Item Description	Priority	Planned Year	Estimated Cost	Funding Source
Riverside	Classrooms and Media Center	Building Interior	Ceilings – repair damaged acoustical ceiling tile; consider replacing perforated acoustical ceiling tile with a suspended acoustical ceiling tile system if lighting replacement is performed	2	2024	\$ 6,000	
Riverside	Classrooms and Media Center	Building Interior	Casework – replace damaged cabinets	2	2022	\$ 81,000	
Riverside	Counselor's Office, Custodian's Rooms, Basement Kitchen and Storage Rooms	Building Interior	Ceilings – repair damaged acoustical ceiling tile	2	2024	\$ 1,000	
Riverside	Counselor's Office, Custodian's Rooms, Basement Kitchen and Storage Rooms	Building Interior	Casework – replace damaged cabinetry and appliances	2	2022	\$ 4,800	
Riverside	Restrooms	Building Interior	Floors – replace older ceramic mosaic tile floor	2	2023	\$ 4,250	
Riverside	Restrooms	Building Interior	Ceilings – replace damaged acoustical ceiling tile; repair damaged plaster and gypsum board ceiling areas	2	2024	\$ 2,100	
Riverside	Restrooms	Building Interior	Doors – replace damaged wood doors and frames; replace noncompliant knob hardware with handle locksets	2	2022	\$ 8,400	
Riverside	Restrooms	Building Interior	Toilet partitions – replace damaged metal partitions; install urinal partitions	2	2022	\$ 4,125	
Riverside	Corridors	Building Interior	Ceilings – replace stained acoustical ceiling tiles	3	2026	\$ 1,250	
Riverside	Corridors	Building Interior	Doors – replace damaged wood doors and frames with new wood doors and hollow metal frames	3	2026	\$ 11,800	
Riverside	Counselor's Office, Custodian's Rooms, Basement Kitchen and Storage Rooms	Building Interior	Floors – reseal concrete floor; replace cracked vinyl composition tiles	3	2028	\$ 2,000	
Riverside	Gymnasiums	Building Interior	Doors – replace damaged wood doors and frames	3	2026	\$ 8,000	
Riverside	Kitchen and Cafeteria	Building Interior	Doors – replace damaged wood doors and frames	3	2026	\$ 8,000	
Riverside	Corridors	Building Interior	Floors – repair localized damaged terrazzo	4	2030	\$ 4,000	
Riverside	Corridors	Building Interior	Walls – repair minor damaged block and plaster	4	2030	\$ 1,500	
Riverside	Gymnasiums	Building Interior	Walls – repair damaged glazed concrete block	4	2030	\$ 1,000	
Riverside	Kitchen and Cafeteria	Building Interior	Walls – repair cracked plaster	4	2030	\$ 21,000	
Riverside	Life Safety	Life Safety	Expand the automatic sprinkler system throughout the building, or construct two hour rated fire barriers which separate the building into fire areas of less than 12,000 square feet.	1	2020	\$ 190,825	
Riverside	Life Safety	Life Safety	Combine two existing fire alarm systems into one	2	2021	\$ 15,000	
Riverside	Walkways	Accessibility	Reconstruct the southern concrete stairs leading to the bituminous playground with an ADA accessible ramp and provide Provide ADA compliant access to southern door slab connecting to southern parking lot	2	2023	\$ 15,450	
Riverside	Restrooms	Plumbing	Add pipe wrap to lavatories	1	2020	\$ 7,000	
Riverside	Riverside	Plumbing	Add thermostatic mixing valve to all eyewash stations	1	2019	\$ 6,000	
Riverside	Restrooms	Plumbing	Replace sinks in restrooms	2	2021	\$ 10,000	
Riverside	Riverside	Plumbing	Replace missing/damaged domestic water piping insulation	2	2021	\$ 40,000	
Riverside	Riverside	Plumbing	Install aerators on all faucets in the building	2	2021	\$ 3,000	
Riverside	Riverside	Plumbing	Add downspouts and splash blocks to overflow scuppers that are missing	2	2021	\$ 9,000	
Riverside	Riverside	Plumbing	Replace galvanized domestic water lines	2	2024	\$ 200,000	
Riverside	Classrooms	Plumbing	Replace sinks in classrooms	3	2025	\$ 24,000	
Riverside	Restrooms	Plumbing	Replace urinals in men's restrooms	3	2025	\$ 12,000	
Riverside	Restrooms	Plumbing	Replace water closets in restrooms	3	2025	\$ 16,000	
Riverside	Riverside	Plumbing	Fix broken electric water coolers and secure to wall	3	2025	\$ 4,000	
Riverside	Riverside	Security	Incorporate the remaining entrance (1) into the access control system	2	2022	\$ 5,000	
Riverside	Cafeteria	Mechanical	Add dedicated source of fresh air to Cafeteria	1	2020	\$ 30,000	

Facility Name	Space Use Type	Building System	Item Description	Priority	Planned Year	Estimated Cost	Funding Source
Riverside	Kitchen	Mechanical	Relocate kitchen MAU to be 10ft away from sidewall exhaust	1	2020	\$ 2,500	
Riverside	Kitchen	Mechanical	Add dedicated source of fresh air to Office in Kitchen	1	2020	\$ 2,000	
Riverside	Restrooms	Mechanical	Add fin tube radiation cover to girls restroom B109	1	2019	\$ 600	
Riverside	Restrooms	Mechanical	Remove brackets/pipe in toilet room C211	1	2019	\$ 1,500	
Riverside	Riverside	Mechanical	Duct dryer vent to exterior	1	2019	\$ 750	
Riverside	Mechanical Building	Mechanical	Install fresh air damper for mechanical/maintenance room	2	2021	\$ 4,000	
Riverside	Riverside	Mechanical	Update controls to eliminate pneumatic	2	2023	\$ 140,000	
Riverside	Riverside	Mechanical	Convert steam boilers over to hot water boilers	2	2024	\$ 400,000	
Riverside	Riverside	Mechanical	Replace exhaust fans in Area A restrooms	2	2022	\$ 40,000	
Riverside	Riverside	Mechanical	New air handling unit in basement of Area A with proper return ductwork	2	2024	\$ 150,000	
Riverside	Riverside	Mechanical	Reinsulate all exposed steam lines in building	2	2021	\$ 20,000	
Riverside	Riverside	Mechanical	Install relief dampers and transfer grilles in Area A and B classrooms	2	2021	\$ 45,000	
Riverside	Riverside	Mechanical	Replace leaking pneumatic thermostats	2	2021	\$ 3,500	
Riverside	Riverside	Mechanical	Replace missing exterior refrigerant piping insulation	2	2021	\$ 8,500	
Riverside	Riverside	Mechanical	Change Heating coil and cooling coil order in existing RTU's to allow for dehumidification	2	2021	\$ 8,000	
Riverside	Riverside	Mechanical	Replace unit ventilators, update HVAC equipment to hot water with dehumidification (also meeting ASHRAE 62.1)	2	2024	\$ 1,600,000	
Riverside	Riverside	Mechanical	Add energy Recovery to roof top units	2	2024	\$ 250,000	
Riverside	Riverside	Mechanical	Remove film on relief dampers and verify backdraft dampers are working properly	2	2021	\$ 2,000	
Riverside	Basement	Mechanical	New cabinet unit heater in basement of Area A	3	2025	\$ 3,000	
Riverside	Riverside	Mechanical	Clean return/exhaust grilles and replace rusted/damaged grilles	4	2030	\$ 6,000	
Pleasantview	Parking Lot	Site	Restripe accessible stalls to be ADA compliant, not blocking ADA accessible ramp + one van-accessible plaque	1	2020	\$ 1,500	
Pleasantview	Playground 2 Equip.	Site	Repair safety surfacing and ensure it extends to all equipment use zones	1	2019	\$ 700	
Pleasantview	Playground 2 Equip.	Site	Playground equipment removal - Climbing structure and composite structure	1	2019	\$ 1,200	
Pleasantview	Playground 3 Equip.	Site	Repair safety surfacing and ensure it extends to all equipment use zones and construct edging	1	2019	\$ 750	
Pleasantview	Playground 3 Equip.	Site	Remove playground protrusions and areas of entrapment according to current safety standards	1	2019	\$ 1,000	
Pleasantview	Playground 4 Equip.	Site	Repair safety surfacing and ensure it extends to all equipment use zones, construct safety surface edging and install rubber mats below swings to reduce surface loss	1	2019	\$ 1,280	
Pleasantview	Playground 6 Equip.	Site	Remove all metal equipment - metal slide, horizontal ladder, triple set pull up car, and parallel bars	1	2020	\$ 20,000	
Pleasantview	Track+Field	Site	Remove chain link backstop in the track field and install casting on the exposed drain tile	1	2019	\$ 850	
Pleasantview	Walkways	Site	Reconstruct the ADA accessible ramp to the main doors on the western side of the facility	1	2020	\$ 1,000	
Pleasantview	Bit. Basketball Court	Site	Crack fill, seal coat, and restripe bituminous pavement	2	2021	\$ 12,500	
Pleasantview	Funnel and Tether Ball	Site	Replace and extend playground surfacing for tether ball to be flush with existing ground elevations	2	2021	\$ 5,840	
Pleasantview	Utilities	Site	Replace northern parking lot storm structure and Re-mortar bricks in southern storm structure	2	2022	\$ 40,000	
Pleasantview	Playground 2 Equip.	Site	Construct safety surface edging	2	2022	\$ 1,000	
Pleasantview	Playground 5 Equip.	Site	Construct safety surface edging, repair safety surfacing and ensure it extends to all equipment use zones, install rubber mats below the swings, and rubber protection on swing chains	2	2022	\$ 2,220	
Pleasantview	Walkways	Site	Replace concrete panel(s) throughout the site	2	2024	\$ 4,950	
Pleasantview	Funnel and Tether Ball	Site	Provide surfacing for funnel ball or relocate the equipment	3	2025	\$ 1,500	
Pleasantview	Playground 2 Equip.	Site	Replacement of playground equipment - climbing structure and composite structure	3	2027	\$ 10,000	

Facility Name	Space Use Type	Building System	Item Description	Priority	Planned Year	Estimated Cost	Funding Source
Pleasantview	Playground 6 Equip.	Site	Replacement of playground equipment	3	2027	\$ 3,500	
Pleasantview	Pick-up/Drop-off	Site	Provide striping to indicate drop-off/pick-up areas in concrete parking lot	4	2030	\$ 750	
Pleasantview	Track+Field	Site	Remove track	4	2030	\$ 21,000	
Pleasantview	Classroom	Structural	Patch crack in brick wall in room 106; maintenance staff shall monitor on a monthly basis after completion of repair.	1	2019	\$ 300	
Pleasantview	Building Exterior	Building Exterior	Stoops – replace stoops with concrete to comply with accessible entrance requirements at door sills	1	2020	\$ 11,000	
Pleasantview	Building Exterior	Building Exterior	Walls – repair brick and concrete cracking and failed	3	2025	\$ 16,000	
Pleasantview	Building Exterior	Building Exterior	Doors – replace hollow metal doors and frames with aluminum to match new doors and windows	3	2025	\$ 12,850	
Pleasantview	Building Exterior	Building Exterior	Roof framing – repair damage at joints and ends of wood roof framing members	3	2027	\$ 750	
Pleasantview	Building Exterior	Building Exterior	Garage – patch crack in sloped slab; repaint door and window trim	3	2027	\$ 450	
Pleasantview	Classroom and Library	Building Interior	Doors – replace damaged wood doors and panels; replace noncompliant knob hardware with handle locksets; replace wired glass with safety glass	1	2019	\$ 3,100	
Pleasantview	Corridors	Building Interior	Doors – replace wired glass with safety glass; provide walking surface with 1:20 maximum running slope in parking lot entrance vestibule	1	2019	\$ 3,500	
Pleasantview	School Office	Building Interior	Doors – replace noncompliant knob hardware with handle locksets	1	2019	\$ 1,000	
Pleasantview	Classroom and Library	Building Interior	Floors – replace cracked and missing vinyl composition tiles	2	2025	\$ 50	
Pleasantview	Classroom and Library	Building Interior	Walls – repair cracked brick; replace panel walls in library office and storage room with stud walls or relocate cabinets	2	2021	\$ 2,300	
Pleasantview	Classroom and Library	Building Interior	Casework – replace damaged cabinets and wood closet doors and trim	2	2022	\$ 4,200	
Pleasantview	Corridors	Building Interior	Ceilings – replace perforated acoustical ceiling tile with a suspended acoustical ceiling tile system if lighting replacement is performed	2	2023	\$ 25,924	
Pleasantview	Corridors	Building Interior	Lockers – replace lockers	2	2025	\$ 51,000	
Pleasantview	Gymnasiums	Building Interior	Floors – replace cracked vinyl composition tile floor if cracked tiles are problematic for gymnasium activities; expansion joints will prevent cracking of new floor material	2	2025	\$ 350	
Pleasantview	Restrooms	Building Interior	Floors – replace ceramic tile floor	2	2025	\$ 21,000	
Pleasantview	Restrooms	Building Interior	Walls – replace cracked ceramic tile	2	2021	\$ 400	
Pleasantview	Restrooms	Building Interior	Ceilings – replace perforated acoustical ceiling tile with a suspended acoustical ceiling tile system if lighting replacement is performed	2	2023	\$ 3,600	
Pleasantview	Restrooms	Building Interior	Doors – replace damaged wood doors and panels; replace noncompliant knob hardware with handle locksets	2	2024	\$ 4,300	
Pleasantview	Restrooms	Building Interior	Toilet partitions – replace rusted metal partitions; install urinal partitions	2	2024	\$ 14,400	
Pleasantview	Restrooms	Building Interior	Other elements – replace mirrors and rusted toilets; verify sink heights for accessibility	2	2024	\$ 41,000	
Pleasantview	Kitchen and Storage	Building Interior	Doors – replace doors with water damage	3	2027	\$ 10,800	
Pleasantview	School Office	Building Interior	Ceilings – replace stained acoustical ceiling tiles	3	2026	\$ 80	
Pleasantview	Classroom and Library	Building Interior	Ceilings – touch up stain	4	2030	\$ 1,200	
Pleasantview	School Office	Building Interior	Walls – touch up paint	4	2030	\$ 450	
Pleasantview	Life Safety	Life Safety	Install an automatic sprinkler system throughout the building, or construct two hour rated fire barriers which separate the building into fire areas of less than 12,000 square feet.	1	2020	\$ 131,000	
Pleasantview	Life Safety	Life Safety	Install a new egress door in the gymnasium which discharges directly to the exterior of the building	1	2020	\$ 7,000	
Pleasantview	Life Safety	Life Safety	Additional emergency lighting fixtures	3	2026	\$ 1,000	
Pleasantview	Classrooms	Accessibility	Replace noncompliant knob hardware with handle locksets on classroom doors.	1	2019	\$ 6,000	

Facility Name	Space Use Type	Building System	Item Description	Priority	Planned Year	Estimated Cost	Funding Source
Pleasantview	Site, Parking, Entrances and Play Areas	Accessibility	Replace the existing noncompliant curb cut, sidewalk, stoop and door sill at the building's main entrance as required to meet accessibility standards.	1	2020	\$ 4,100	
Pleasantview	Site, Parking, Entrances and Play Areas	Accessibility	Remove the interior vestibule door in the northwest classroom or reconfigure the vestibule to provide 48 inches between the two doors in the open position, 12 inches of maneuvering clearance on the push side of the exterior door and 18 inches of maneuvering clearance on the pull side of the interior door.	1	2020	\$ 6,875	
Pleasantview	Restrooms	Accessibility	Reconfigure the entrance vestibules and doors at the four multiuse restrooms as required to meet requirements for maneuvering clearances.	2	2021	\$ 13,500	
Pleasantview	Restrooms	Accessibility	Reconfigure the larger girls' and boys' restrooms to accommodate one accessible shower compartment in each restroom.	2	2021	\$ 23,500	
Pleasantview	Walkways	Accessibility	ADA accessible accesses on both western facing doors	2	2022	\$ 3,000	
Pleasantview	Pleasantview	Plumbing	Add thermostatic mixing valve to all eyewash stations	1	2019	\$ 6,000	
Pleasantview	Restrooms	Plumbing	Add pipe wrap to lavatories	1	2020	\$ 7,000	
Pleasantview	Kitchen	Plumbing	Replace faucet in kitchen sink	2	2021	\$ 200	
Pleasantview	Kitchen	Plumbing	Replace faucet in food storage/office	2	2021	\$ 200	
Pleasantview	Locker Rooms	Plumbing	Replace leaking valve in showers	2	2021	\$ 2,000	
Pleasantview	Pleasantview	Plumbing	Replace missing/damaged domestic water piping insulation	2	2022	\$ 8,000	
Pleasantview	Pleasantview	Plumbing	Install aerators on all faucets in the building	2	2024	\$ 2,000	
Pleasantview	Pleasantview	Plumbing	Fix broken faucet on Mop Sink	2	2022	\$ 400	
Pleasantview	Pleasantview	Plumbing	Replace galvanized domestic water lines	2	2023	\$ 150,000	
Pleasantview	Pleasantview	Plumbing	Fix broken electric water coolers and secure to wall	2	2022	\$ 800	
Pleasantview	Restrooms	Plumbing	Replace sinks in restrooms	2	2024	\$ 6,000	
Pleasantview	Classrooms	Plumbing	Replace sinks in classrooms	3	2026	\$ 16,000	
Pleasantview	Restrooms	Plumbing	Replace urinals in men's restrooms	3	2026	\$ 4,000	
Pleasantview	Restrooms	Plumbing	Replace water closets in restrooms	3	2026	\$ 6,500	
Pleasantview	Pleasantview	Electrical	Perform arc flash study and label electrical equipment	3	2025	\$ 10,000	
Pleasantview	Pleasantview	Security	Add exterior cameras	2	2021	\$ 22,000	
Pleasantview	Pleasantview	Security	Add remaining exterior entries into access control system	3	2025	\$ 30,000	
Pleasantview	Corridors	Mechanical	Add air movement to the office located in the hallway	1	2020	\$ 2,000	
Pleasantview	IT Closet	Mechanical	Add exhaust to the IT Closet/chemical storage room	1	2020	\$ 2,500	
Pleasantview	Kitchen	Mechanical	Add air movement to kitchen office/food storage	1	2020	\$ 8,000	
Pleasantview	Offices	Mechanical	Add makeup air unit for the kitchen hood	1	2020	\$ 16,000	
Pleasantview	Pleasantview	Mechanical	Add air movement to the offices and internal rooms	1	2020	\$ 8,000	
Pleasantview	Pleasantview	Mechanical	Update controls to eliminate pneumatic	2	2024	\$ 120,000	
Pleasantview	Pleasantview	Mechanical	Install relief dampers and transfer grilles in classrooms	2	2023	\$ 12,000	
Pleasantview	Pleasantview	Mechanical	Add a cabinet unit heater to the vestibules	2	2021	\$ 6,000	
Pleasantview	Pleasantview	Mechanical	Replace Boilers	3	2024	\$ 350,000	
Pleasantview	Pleasantview	Mechanical	Clean return/exhaust grilles and replace rusted/damaged grilles	4	2030	\$ 4,500	
Pleasantview	Pleasantview	Mechanical	Relocate refrigerator/freezer compressor to outside the building	4	2030	\$ 3,000	
Pleasantview	Pleasantview	Mechanical	Upgrade ventilation system to meet ASHRAE 62.1	2	2023	\$ 1,250,000	
JCC Middle	Athletics	Site	Reconstruct bituminous basketball court - grading + striping	1	2020	\$ 53,000	
JCC Middle	Truck Loading Zone	Site	Remove the bituminous and concrete pavement on the north of the site and replace with bituminous pavement	1	2020	\$ 14,200	
JCC Middle	Utilities	Site	Repair and cover exposed / deficient conduit piping within the interior green space, remove broken wiring and remove excess wiring on north building face, and replace old electrical pedestals	1	2019	\$ 5,750	
JCC Middle	Walkways	Site	Remove Rotting Wood / Rusted Bolts off of floating slab on the north face of building	1	2019	\$ 500	
JCC Middle	Bus Loading Zone	Site	Install signage and striping for bus loading zone - city ROW	2	2019	\$ 1,250	
JCC Middle	Utilities	Site	Remove and Replace Rusted Iron Fencing - west face of building	2	2023	\$ 2,200	

Facility Name	Space Use Type	Building System	Item Description	Priority	Planned Year	Estimated Cost	Funding Source
JCC Middle	Utilities	Site	Provide barrier from exposed utilities on north side of building, from interior green space to around boiler room	2	2021	\$ 6,570	
JCC Middle	Utilities	Site	Install fencing from electrical posts in basketball court	2	2021	\$ 11,000	
JCC Middle	Walkways	Site	Replace broken sidewalk panels around the facility - city ROW	2	2022	\$ 3,000	
JCC Middle	Athletics	Site	Replace fencing around bituminous basketball court	3	2028	\$ 9,900	
JCC Middle	Staff Parking	Site	Stripe parking stalls on Cherry and 5th Avenue - city ROW	3	2029	\$ 2,500	
JCC Middle	Basement	Structural	Tuckpoint or cover the bottom two course of damaged CMU in the basement mechanical rooms with a concrete curb.	1	2019	\$ 500	
JCC Middle	Gymnasiums	Structural	The hole in the mezzanine floor north of the gymnasium in the East Wing shall be patched to eliminate the tripping hazard.	1	2019	\$ 200	
JCC Middle	Stairway	Structural	Replace the exit stair on the northeast corner of the East Wing.	1	2020	\$ 4,000	
JCC Middle	Walls	Structural	Infill missing CMU of wall between the corridor and room 103 with new CMU to provide full support down to the steel beam.	1	2020	\$ 1,000	
JCC Middle	Weight Room	Structural	The cantilevered beam supporting the floor framing above the 2nd floor weight room in the East Wing shall be reinforced with an additional column, or analyzed to determine if it is adequate for supporting the given loads considering the span and construction type.	1	2019	\$ 400	
JCC Middle	Roof	Building Exterior	Roof – replace sprayed foam roof	1	2020	\$ 262,000	
JCC Middle	Stoops	Building Exterior	Stoops – replace stoops or adjacent sidewalks to comply with accessible entrance requirements at door sills	1	2020	\$ 42,000	
JCC Middle	Walls	Building Exterior	Walls – repair damaged brick and failed joints, lintels and foundation; replace concrete cap with metal coping and fascia system; repair damaged stone panels; repair failing concrete masonry units and joints; replace metal louvers	1	2020	\$ 375,000	
JCC Middle	Windows	Building Exterior	Windows – replace metal framed window system with new aluminum framed window system with insulated glazing; replace glass block units with new glass block units or translucent wall system; replace window sills; repair or replace soffits and trim	1	2020	\$ 201,000	
JCC Middle	Doors	Building Exterior	Doors – replace rusted and damaged hollow metal doors	2	2021	\$ 38,000	
JCC Middle	Garage	Building Exterior	Garage – replace doors, siding and trim	3	2029	\$ 3,000	
JCC Middle	Corridors	Building Interior	Floors – repair all stair materials and apply nonslip nosings or strips to concrete stair treads	1	2019	\$ 7,800	
JCC Middle	Corridors	Building Interior	Doors – replace wired glass with safety glass	1	2020	\$ 3,000	
JCC Middle	Corridors	Building Interior	Other elements – install larger elevator	1	2020	\$ 210,000	
JCC Middle	Gymnasiums and Auditorium	Building Interior	Floors – reconfigure wood floors to eliminate sloping or mark sloped areas; replace vinyl composition tile in older gym areas; reconfigure auditorium floor and seating to comply with accessibility requirements	1	2020	\$ 220,000	
JCC Middle	Restrooms and Locker Rooms	Building Interior	Floors – reconfigure floors to eliminate elevation differences or mark locations; replace older ceramic tile; replace vinyl composition tile or install ceramic tile; install ceramic tile in areas with sealed concrete	1	2020	\$ 117,000	
JCC Middle	Restrooms and Locker Rooms	Building Interior	Walls – repair damaged plaster, masonry and tile	1	2020	\$ 25,000	
JCC Middle	School Office	Building Interior	Floors – replace older carpet; install ramp at level change location; install handrails on both sides of stairway	1	2020	\$ 11,100	
JCC Middle	School Office	Building Interior	Doors – replace damaged doors; replace noncompliant knob hardware with handle locksets	1	2020	\$ 45,000	
JCC Middle	School Office	Building Interior	Casework – install an accessible reception counter	1	2020	\$ 6,000	
JCC Middle	Classroom and Media Center	Building Interior	Floors – replace older vinyl composition tile floors; replace carpet	2	2022	\$ 67,000	
JCC Middle	Corridors	Building Interior	Doors – replace damaged doors and frames	2	2023	\$ 108,000	
JCC Middle	Corridors	Building Interior	Lockers – replace damaged and nonfunctioning lockers	2	2021	\$ 16,500	
JCC Middle	Restrooms and Locker Rooms	Building Interior	Ceilings – replace damaged acoustical ceiling tile; repair plaster ceilings	2	2024	\$ 12,000	

JCC Prioritized Tasks

Facility Name	Space Use Type	Building System	Item Description	Priority	Planned Year	Estimated Cost	Funding Source
JCC Middle	Restrooms and Locker Rooms	Building Interior	Doors – replace damaged doors; replace noncompliant knob hardware with handle locksets	2	2023	\$ 15,000	
JCC Middle	Restrooms and Locker Rooms	Building Interior	Toilet partitions – replace damaged partitions; install urinal partitions	2	2023	\$ 14,800	
JCC Middle	Restrooms and Locker Rooms	Building Interior	Other elements – replace damaged plumbing fixtures and accessories; replace damaged lockers and benches; verify sink heights for accessibility	2	2024	\$ 21,000	
JCC Middle	Corridors	Building Interior	Floors – repair damaged and worn vinyl composition tile and ceramic tile	3	2025	\$ 60,000	
JCC Middle	Corridors	Building Interior	Walls – repair localized damaged masonry and plaster	3	2026	\$ 2,000	
JCC Middle	Corridors	Building Interior	Ceilings – replace perforated acoustical ceiling tile with a suspended acoustical ceiling tile system if lighting replacement is performed; replace stained acoustical ceiling tiles	3	2027	\$ 80,000	
JCC Middle	Kitchen, Cafeteria and Maintenance Rooms	Building Interior	Floors – replace damaged vinyl composition tile	3	2025	\$ 31,400	
JCC Middle	School Office	Building Interior	Ceilings – replace damaged acoustical ceiling tiles	4	2030	\$ 33,000	
JCC Middle	Site, Parking, Entrances and Recreational Facilities	Life Safety	Expand the automatic sprinkler system throughout the building, or construct two hour rated fire barriers which separate the building into fire areas of less than 12,000 square feet.	1	2020	\$ 165,000	
JCC Middle	Site, Parking, Entrances and Recreational Facilities	Life Safety	Provide a second means of egress from the shop spaces and reconfigure the stairways adjacent to the gymnasium and locker rooms to meet code requirements.	1	2019	\$ 27,000	
JCC Middle	Site, Parking, Entrances and Recreational Facilities	Life Safety	Provide a second remote means of egress from the balcony and clear items from the egress path at the first floor stairway landing. Modify or replace handrails and guards to meet code requirements.	1	2020	\$ 26,000	
JCC Middle	Middle Accessible Parking Spaces and Access	Life Safety Accessibility	Additional emergency lighting fixtures	3	2027	\$ 2,000	
JCC Middle	Accessible Parking Spaces and Access	Accessibility	ADA compliant signage & striping for accessible parking stalls - city ROW	1	2019	\$ 600	
JCC Middle	Accessible Parking Spaces and Access	Accessibility	Remove concrete sidewalk and construct an ADA accessible access on Cherry Street and at the corner of N Griffin Street and 4th Avenue North - city ROW	1	2020	\$ 1,470	
JCC Middle	Walkways	Accessibility	Install detectable warning tiles at all ADA accessible accesses, including reconstructed access along Cherry Street - city ROW	2	2024	\$ 1,500	
JCC Middle	Classrooms	Plumbing	Install natural gas shut off button for chemistry/biology rooms per code	1	2019	\$ 25,000	
JCC Middle	Classrooms	Plumbing	Install clay traps on sinks in art room	1	2019	\$ 3,500	
JCC Middle	Kitchen	Plumbing	Install emergency eyewash station in kitchen	1	2020	\$ 3,000	
JCC Middle	Middle	Plumbing	Add thermostatic mixing valve to all eyewash stations	1	2020	\$ 8,000	
JCC Middle	Middle	Plumbing	Update all domestic water piping to eliminate galvanized pipe	1	2020	\$ 300,000	
JCC Middle	Restrooms	Plumbing	Add pipe wrap to lavatories	1	2020	\$ 10,000	
JCC Middle	Classrooms	Plumbing	Fix broken sink in room 125	2	2023	\$ 1,000	
JCC Middle	Corridors	Plumbing	Secure electric water cooler to wall in hallway.	2	2021	\$ 1,200	
JCC Middle	Gymnasium	Plumbing	Replace broken drinking fountain in gymnasium	2	2021	\$ 4,000	
JCC Middle	Locker Rooms	Plumbing	Replace broken shower fixtures in men's and women's locker rooms	2	2022	\$ 7,000	
JCC Middle	Middle	Plumbing	Replace missing/damaged domestic water piping insulation	2	2021	\$ 60,000	
JCC Middle	Middle	Plumbing	Install aerators on all faucets in the building	2	2024	\$ 4,000	
JCC Middle	Middle	Plumbing	Replace water heater with new direct vent water heater	2	2022	\$ 24,000	
JCC Middle	Middle	Plumbing	Install washing machine box for washing machine	2	2021	\$ 800	
JCC Middle	Middle	Plumbing	Replace water softeners	2	2022	\$ 10,000	
JCC Middle	Classrooms	Plumbing	Replace chemistry lab sinks	3	2025	\$ 10,000	
JCC Middle	Classrooms	Plumbing	Replace biology lab sinks	3	2025	\$ 10,000	
JCC Middle	Middle	Plumbing	Replace basin in type sinks	3	2026	\$ 4,500	

Facility Name	Space Use Type	Building System	Item Description	Priority	Planned Year	Estimated Cost	Funding Source
JCC Middle	Middle	Plumbing	Replace sink in 1964 addition	3	2026	\$ 800	
JCC Middle	Classrooms	Plumbing	Update sinks in home education classroom	4	2030	\$ 3,500	
JCC Middle	Middle	Electrical	Perform arc flash study and label electrical equipment	3	2026	\$ 10,000	
JCC Middle	Middle	Security	Additional exterior cameras	2	2021	\$ 11,000	
JCC Middle	Middle	Security	Add remaining exterior entries into access control system	3	2025	\$ 20,000	
JCC Middle	Boiler Room	Mechanical	Add exhaust to chemical storage closet directly outside boiler room	1	2020	\$ 5,000	
JCC Middle	Cafeteria	Mechanical	Add air movement to the cafeteria	1	2020	\$ 60,000	
JCC Middle	Classrooms	Mechanical	Replace furnace for music room with a new system	1	2020	\$ 60,000	
JCC Middle	Classrooms	Mechanical	Update science classrooms to meet current exhaust rate codes	1	2019	\$ 20,000	
JCC Middle	Classrooms	Mechanical	Add fresh air movement to the three small rooms just north of the music room	1	2019	\$ 8,000	
JCC Middle	Corridors and Office	Mechanical	Add air movement to office space off of hallway	1	2019	\$ 10,000	
JCC Middle	Locker Rooms	Mechanical	Add dedicated fresh air to locker rooms in 1920 building	1	2020	\$ 42,000	
JCC Middle	Middle	Mechanical	Add a dishwasher hood above the dishwasher	1	2019	\$ 7,500	
JCC Middle	Middle	Mechanical	Add air movement to the janitors closet next to the kitchen	1	2020	\$ 3,000	
JCC Middle	Offices	Mechanical	Add air movement to the office space in the 1920 building	1	2019	\$ 15,000	
JCC Middle	Boiler Room	Mechanical	Replace damaged/broken air intake louver in boiler room	2	2021	\$ 4,000	
JCC Middle	Classrooms	Mechanical	Reduce roof top unit on interior classrooms in 1964 addition	2	2022	\$ 20,000	
JCC Middle	Gymnasium	Mechanical	Replace the two air handlers located in the gymnasium	2	2024	\$ 80,000	
JCC Middle	Gymnasium	Mechanical	Replace air handler located below the gymnasium	2	2024	\$ 45,000	
JCC Middle	IT Room	Mechanical	Dedicated cooling for IT room in 1920 building	2	2022	\$ 14,000	
JCC Middle	IT Room	Mechanical	Dedicated cooling for IT room in 1964 addition next to library	2	2022	\$ 6,000	
JCC Middle	IT Room	Mechanical	Dedicated cooling for IT closet in 1984 addition behind front office desk	2	2022	\$ 6,000	
JCC Middle	Locker Rooms	Mechanical	Replace leaking radiator in locker room	2	2021	\$ 900	
JCC Middle	Middle	Mechanical	Convert steam boilers over to hot water boilers	2	2024	\$ 420,000	
JCC Middle	Middle	Mechanical	Update controls to eliminate pneumatic	2	2024	\$ 280,000	
JCC Middle	Middle	Mechanical	Reinsulate all exposed steam lines in building	2	2022	\$ 65,000	
JCC Middle	Middle	Mechanical	Replace air handling unit located in 1920 building	2	2024	\$ 50,000	
JCC Middle	Middle	Mechanical	Replace two window units with minisplit in the 1920 building	2	2022	\$ 12,000	
JCC Middle	Roofing	Mechanical	Add vibration isolation to air handling units and roof top units	2	2022	\$ 35,000	
JCC Middle	Stairway	Mechanical	Add heat source to stairwell in 1920 building	2	2021	\$ 6,000	
JCC Middle	Middle	Mechanical	Clean return/exhaust grilles and replace rusted/damaged grilles	4	2030	\$ 16,000	
JCC Middle	Middle	Mechanical	Upgrade HVAC system to meet ASHRAE 62.1	2	2021	\$ 3,304,440	
JCC High School	Baseball	Site	Replace backstop netting	1	2020	\$ 10,000	
JCC High School	Baseball	Site	Fix protruding railing in first base bleachers	1	2021	\$ 2,500	
JCC High School	Baseball	Site	Repaint dugouts	1	2020	\$ 1,000	
JCC High School	Parking Lot B	Site	Reconstruct north circulation access	1	2020	\$ 50,000	
JCC High School	Playground Equipment	Site	Remove and replace southernmost play unit + rusting pieces of equipment and repair safety surfacing and ensure it extends to all equipment use zones	1	2019	\$ 14,500	
JCC High School	Baseball	Site	Construct new bullpen areas	2	2023	\$ 5,500	
JCC High School	Baseball	Site	Replace batting cage netting	2	2023	\$ 5,000	
JCC High School	Parking Lot A	Site	Repair and mortar the catch basin adjusting rings/blocks in circulation access	2	2023	\$ 600	
JCC High School	Parking Lot A	Site	Restripe crosswalk pavement markings	2	2021	\$ 1,500	
JCC High School	Parking Lot B	Site	Full depth patching of potholes	2	2021	\$ 500	
JCC High School	Parking Lot B	Site	Crack fill, seal coat, and restripe the parking lot	2	2023	\$ 25,000	
JCC High School	Parking Lot B	Site	Crack fill and seal coat the circulation access	2	2023	\$ 5,500	
JCC High School	Parking Lot C	Site	Reset storm structure	2	2023	\$ 1,000	
JCC High School	Parking Lot C	Site	Replace mesh of chain-linked fencing around generator and remove barbed wire	2	2024	\$ 3,150	
JCC High School	Parking Lot D	Site	Restripe crosswalk pavement markings	2	2023	\$ 1,500	
JCC High School	Parking Lot D	Site	Install fire lane signage and striping	2	2022	\$ 1,500	
JCC High School	Parking Lot D	Site	Crack fill, seal coat, and restripe the parking lot and include an additional ADA stall	2	2023	\$ 15,000	
JCC High School	Parking Lot D, Pool	Site	Replace deteriorating concrete curb	2	2023	\$ 450	
JCC High School	Softball	Site	Repaint/repair bleachers	2	2021	\$ 3,500	

Facility Name	Space Use Type	Building System	Item Description	Priority	Planned Year	Estimated Cost	Funding Source
JCC High School	Track + Field	Site	Replace track take off boards	2	2021	\$ 2,500	
JCC High School	Track + Field	Site	Replace concrete pole vault pad	2	2023	\$ 5,000	
JCC High School	Track + Field	Site	Repair dislodged blocks in south retaining wall	2	2021	\$ 750	
JCC High School	Utilities	Site	Replace the broken water valve cover south of Lot B	2	2021	\$ 1,250	
JCC High School	Walkways	Site	Install railings on stairway	2	2023	\$ 20,000	
JCC High School	Baseball	Site	Replace leaning fencing of eastern outfield	3	2025	\$ 3,900	
JCC High School	Parking Lot A	Site	Crack seal, seal coat, and restripe the parking lot	3	2027	\$ 35,000	
JCC High School	Parking Lot A	Site	Crack seal and seal coat the circulation access	3	2027	\$ 8,000	
JCC High School	Parking Lot B	Site	Restripe crosswalk pavement markings	3	2027	\$ 500	
JCC High School	Parking Lot C	Site	Full depth replacement of medium to low severity alligator and block cracks	3	2027	\$ 15,000	
JCC High School	Parking Lot C	Site	Crack fill, seal coat, and restripe the parking lot	3	2027	\$ 27,000	
JCC High School	Parking Lot D	Site	Crack fill and seal coat the circulation access	3	2027	\$ 8,000	
JCC High School	Parking Lot D, Pool	Site	Crack fill, seal coat, and restripe the parking lot	3	2027	\$ 8,000	
JCC High School	Track + Field	Site	Restripe track (2-5 years)	3	2025	\$ 15,000	
JCC High School	Track + Field	Site	Remove and replace fencing at southeast corner of track	3	2026	\$ 6,500	
JCC High School	Walkways	Site	Replace concrete sidewalk	3	2026	\$ 7,500	
JCC High School	Football	Site	Pave gravel lot northwest of football field to provide closer spectator access	4	2030	\$ 120,000	
JCC High School	Parking Lot D, Pool	Site	Replace the storm structure	4	2030	\$ 5,000	
JCC High School	Softball	Site	Pave parking area east of the fields	4	2030	\$ 35,000	
JCC High School	Tennis Court	Site	Construct new tennis courts	4	2030	\$ 800,000	
JCC High School	Track + Field	Site	Resurface track in next 7 years	4	2030	\$ 150,000	
JCC High School	Walls	Building Exterior	Walls - repair damaged brick and concrete masonry units; repair failed masonry joints and expansion joints; resolve source of water intrusion causing efflorescence and repair affected brick; resolve source of water intrusion causing staining and mold and repair affected stucco; repair damaged storefront; clean or replace greenhouse system	1	2020	\$ 86,600	
JCC High School	Windows	Building Exterior	Windows - repair damaged screens, failing lintels and window	2	2019	\$ 13,000	
JCC High School	Doors	Building Exterior	Doors - replace rusted and damaged hollow metal doors and frames; repair damaged bollards	3	2028	\$ 10,000	
JCC High School	Corridors and Commons, classrooms, media center, and community room	Building Interior	Doors - replace noncompliant knob hardware with handle locksets; replace wired glass with safety glass	1	2020	\$ 23,000	
JCC High School	Corridors, Commons, Classrooms, media center, and community	Building Interior	Ceilings - resolve sources of moisture causing staining and replace affected acoustical ceiling tile	1	2020	\$ 225,000	
JCC High School	Kitchen, Cafeteria and Maintenance Rooms	Building Interior	Ceilings - replace acoustical ceiling tile with code compliant surface	1	2020	\$ 14,400	
JCC High School	Classrooms, media center, and community rooms	Building Interior	Casework - replace older damaged cabinets	2	2022	\$ 22,800	
JCC High School	Kitchen, Cafeteria and Maintenance Rooms	Building Interior	Equipment - replace stove units	2	2023	\$ 10,600	
JCC High School	Kitchen, Cafeteria and Maintenance Rooms	Building Interior	Other elements - replace casework	2	2022	\$ 8,000	
JCC High School	Pool	Building Interior	Floors - clean or replace ceramic tile and replace carpet	2	2021	\$ 1,000	

Facility Name	Space Use Type	Building System	Item Description	Priority	Planned Year	Estimated Cost	Funding Source
JCC High School	Pool	Building Interior	Ceilings – replace damaged acoustical ceiling tile and rusted diffusers	2	2021	\$ 1,500	
JCC High School	Pool	Building Interior	Doors – replace damaged doors and hardware	2	2021	\$ 4,000	
JCC High School	Pool	Building Interior	Other elements – clean deck areas around wading pool and whirlpool; repair diving board attachment	2	2021	\$ 3,200	
JCC High School	Restrooms and Locker Rooms	Building Interior	Floors – clean or replace 1" x 1" ceramic tile and vinyl composition tile; install ceramic tile in areas with sealed concrete	2	2023	\$ 34,500	
JCC High School	Restrooms and Locker Rooms	Building Interior	Walls – repair cracked ceramic tile	2	2021	\$ 300	
JCC High School	Restrooms and Locker Rooms	Building Interior	Toilet partitions – replace damaged partitions; install urinal partitions	2	2024	\$ 20,350	
JCC High School	Restrooms and Locker Rooms	Building Interior	Other elements – replace damaged plumbing fixtures and accessories; replace damaged lockers, countertops and benches; verify sink heights for accessibility	2	2022	\$ 4,900	
JCC High School	Classrooms, media center, and community rooms	Building Interior	Walls – repair or replace damaged vinyl covered wall panels or replace with gypsum board wall system; replace panel walls with stud walls or relocate cabinets	3	2026	\$ 9,600	
JCC High School	Corridors, Commons, Classrooms, media center, and community	Building Interior	Floors – repair damaged and worn vinyl composition tile and replace cracked vinyl composition tiles; replace older carpet as other updates occur	3	2027	\$ 1,944	
JCC High School	Gymnasiums	Building Interior	Doors – replace damaged hollow metal doors	3	2028	\$ 19,000	
JCC High School	Gymnasiums	Building Interior	Other elements – replace drinking fountains with accessible units or provide directional signage indicating location of nearest accessible drinking fountains	3	2025	\$ 6,000	
JCC High School	Kitchen, Cafeteria and Maintenance Rooms	Building Interior	Doors – scheduled door replacement should accommodate compliant vision panels	3	2025	\$ 800	
JCC High School	Corridors and Commons	Building Interior	Walls – repair localized damaged masonry and wood panels	4	2030	\$ 2,000	
JCC High School	Corridors and Commons	Building Interior	Lockers – repair damaged lockers	4	2030	\$ 2,320	
JCC High School	High	Life Safety	Upgrade fire alarm system	1	2019	\$ 25,000	
JCC High School	Life Safety	Life Safety	Clear items from the egress path at the Graphics Lab exit door.	1	2019	\$ 750	
JCC High School	Life Safety	Life Safety	Replace wired glass with safety glass in doors and sidelights.	1	2019	\$ 1,800	
JCC High School	Life Safety	Life Safety	Modify or replace handrails and guards to meet code requirements. Apply nonslip nosings or strips to concrete stair treads.	1	2020	\$ 4,400	
JCC High School	Football	Accessibility	Pave & sign handicap accessible stalls in north gravel lot	1	2019	\$ 2,500	
JCC High School	Football	Accessibility	Pave ADA accessible route to football field	1	2019	\$ 1,500	
JCC High School	Site, Parking, Entrances and Recreational Facilities	Accessibility	Reconfigure the paths of travel which have noncompliant elevation differences, including concrete stoops and sidewalks, pool handrailing, and stairway at the pool entrance as required to meet accessibility standards. Develop and implement a plan for bringing all recreational facilities into compliance with current accessibility standards.	1	2020	\$ 165,000	
JCC High School	Softball	Accessibility	Add an accessible walkway to the softball fields	1	2020	\$ 15,000	
JCC High School	Stoops	Accessibility	Stoops – repair or replace damaged stoops; replace stoops or adjacent sidewalks to comply with accessible entrance requirements at door sills	1	2020	\$ 16,000	
JCC High School	Parking Lot D, Pool	Accessibility	Install van accessible signage	2	2021	\$ 750	
JCC High School	Restrooms	Accessibility	Reconfigure the entrance vestibules and doors at the older restrooms and locker rooms as required to meet requirements for maneuvering clearances.	2	2022	\$ 10,400	
JCC High School	Restrooms	Accessibility	Reconfigure the older multi-use restrooms and locker rooms to include one wheelchair accessible toilet compartment and one ambulatory accessible toilet compartment in each restroom.	2	2021	\$ 2,000	
JCC High School	Restrooms	Accessibility	Reconfigure the older locker rooms to include accessible showers.	2	2023	\$ 60,000	

Facility Name	Space Use Type	Building System	Item Description	Priority	Planned Year	Estimated Cost	Funding Source
JCC High School	Restrooms	Accessibility	Install accessible benches with proper back support in all locker rooms.	2	2021	\$ 4,800	
JCC High School	Restrooms	Accessibility	Verify mounting heights and locations of all restroom accessories and make adjustments as required to meet accessibility standards.	2	2023	\$ 5,000	
JCC High School	Restrooms	Accessibility	Install drinking fountains to meet requirements for spout outlet height for wheelchair users and standing people.	2	2024	\$ 16,800	
JCC High School	Classrooms	Plumbing	Update science classrooms natural gas to meet current code	1	2020	\$ 16,000	
JCC High School	High	Plumbing	Add thermostatic mixing valve to all eyewash stations	1	2019	\$ 8,000	
JCC High School	High	Plumbing	Add pipe wrap to lavatories	1	2020	\$ 14,000	
JCC High School	High	Plumbing	Replace missing/damaged domestic water piping insulation	2	2021	\$ 14,000	
JCC High School	High	Plumbing	Install aerators on all faucets in the building	2	2024	\$ 8,000	
JCC High School	High	Plumbing	Fix broken water closet seats	2	2022	\$ 3,000	
JCC High School	High	Plumbing	New high efficiency central hot water plant	2	2024	\$ 40,000	
JCC High School	High	Plumbing	Replace broken electric water coolers	2	2021	\$ 6,500	
JCC High School	High	Plumbing	Replace shower fixtures in locker rooms	2	2021	\$ 12,000	
JCC High School	High	Plumbing	Replace missing water closet	2	2021	\$ 1,800	
JCC High School	High	Plumbing	Replace broken hose bib	2	2022	\$ 800	
JCC High School	High	Plumbing	Replace broken faucets	2	2022	\$ 3,000	
JCC High School	High	Plumbing	Replace broken flush valves	2	2022	\$ 3,000	
JCC High School	High	Electrical	Add controls to common area lighting in original building	1	2020	\$ 1,000	
JCC High School	High	Electrical	Upgrade existing T12 fixtures to T8	2	2022	\$ 2,000	
JCC High School	High	Electrical	Perform arc flash study and label equipment	3	2026	\$ 12,000	
JCC High School	High	Electrical	Add occupancy sensors in classrooms	3	2027	\$ 2,500	
JCC High School	High	Security	Add camera to northeast stairwell	1	2020	\$ 3,000	
JCC High School	High	Security	Add remaining exterior entries into access control system	3	2028	\$ 14,000	
JCC High School	High	Security	Add cable management and redress network racks	3	2028	\$ 4,000	
JCC High School	High	Mechanical	Reinsulate all exposed steam lines in building	1	2020	\$ 80,000	
JCC High School	High	Mechanical	Hard duct dryer exhaust vent out exterior wall	1	2019	\$ 1,500	
JCC High School	High	Mechanical	Add exhaust to lower 2004 addition janitors closet	1	2019	\$ 2,000	
JCC High School	Offices	Mechanical	Add exhaust to the Janitors office/shop area	1	2019	\$ 5,000	
JCC High School	Classrooms	Mechanical	Reduce 4 rooms to ensure proper air flow	2	2023	\$ 10,000	
JCC High School	Electrical Room	Mechanical	Add air flow to electrical room to help keep space cool	2	2022	\$ 6,000	
JCC High School	Gymnasium	Mechanical	Insulate ductwork in gymnasium that isn't exposed to the space	2	2021	\$ 8,000	
JCC High School	High	Mechanical	Update controls to eliminate pneumatic	2	2024	\$ 150,000	
JCC High School	High	Mechanical	Convert steam boilers over to hot water boilers	2	2024	\$ 150,000	
JCC High School	High	Mechanical	Replace loose belt on exhaust fan 13	2	2021	\$ 400	
JCC High School	High	Mechanical	Add secondary heat source to set construction	2	2022	\$ 3,000	
JCC High School	High	Mechanical	Replace exterior ductwork to ensure no damage	2	2023	\$ 7,500	
JCC High School	High	Mechanical	Clean RTU/AHU Units	2	2021	\$ 20,000	
JCC High School	IT Room	Mechanical	Dedicated cooling to IT room	2	2021	\$ 6,000	
JCC High School	Mechanical Room	Mechanical	Fix bent ductwork in mechanical room east of gymnasium	2	2021	\$ 30,000	
JCC High School	Offices	Mechanical	Replace exhaust fan in front offices	2	2021	\$ 2,000	
JCC High School	Restrooms	Mechanical	Replace exhaust fan in restroom	2	2021	\$ 2,000	
JCC High School	High	Mechanical	Clean return/exhaust grilles and replace rusted/damaged grilles	3	2025	\$ 16,000	
JCC High School	Roofing	Mechanical	Add vibration isolation to air handling units and roof top units	3	2026	\$ 40,000	
Athletic Complex	Parking	Accessibility	Provide adequate accessible routes throughout the facilities and connect to local trails / sidewalks and provide ADA Accessible parking spots within gravel parking lot	1	2020	\$ 27,070	
Athletic Complex	Baseball	Athletic Complex	Remove and replace the broken bleachers and extend third base fencing to beyond the third base light	1	2020	\$ 13,100	
Athletic Complex	Baseball	Athletic Complex	Construct permanent benches and bat rack for third base dugout and remortar the modular blocks	2	2023	\$ 1,150	

APPENDIX



August 1, 2017

Mark Steffen
Director of Buildings & Grounds
Jackson County Central Public Schools
1128 North Highway
Jackson, MN 56143



**RE: 2017 Playground Safety Audits
IEA Project #201710395**

Dear Mr. Steffen:

At the request of Jackson County Central Public Schools, IEA conducted playground safety audits on July 19, 2017 at the following locations:

- Pleasantview Elementary School
- Riverside Elementary School
- JCC Softball Fields

The purpose of the playground audits is to examine the playground equipment and protective surfacing and document compliance with American Society for Testing and Materials (ASTM) standards and the Consumer Product Safety Council (CPSC) guidelines. The inspection was conducted by Ben Olsen, a Certified Playground Safety Inspector.

INTRODUCTION

The Minnesota Department of Education requires schools to have their playgrounds audited by a Certified Playground Safety Inspector (CPSI) if health and safety funding is to be used for repair or replenishment of surfacing material. The audit is a one-time concentrated inspection of the playground, and addresses such factors as protective surfacing, equipment use zones, specific types of equipment (slides, swings), age appropriateness and design, and accessibility.

IEA follows federal guidelines and standards from the Consumer Product Safety Commission (CPSC) and American Society for Testing and Materials (ASTM) when conducting inspections. CPSC published the *Handbook for Playground Safety* to promote greater safety awareness among those who purchase, install, and maintain public playground equipment. ASTM used CPSC guidance to publish a set of voluntary technical standards, *F1487 Standard Consumer Safety Performance Specification for Playground Equipment for Public Use* to identify and eliminate the hazards which cause serious injuries on public playgrounds.

Two types of hazards associated with playground equipment are “entrapments” and “protrusions.” An entrapment hazard consists of a space that is large enough for a small body to fit through, but not large enough for a child’s head to pass through, posing the potential for strangulation or broken bones. This is tested against a typical 95th percentile 12-year-old head and a typical 5th percentile 2-year-old torso. The space should either be big enough for both to pass through (>9 inches) or small enough for neither to pass through (<3.5 inches).

A protrusion hazard consists of an object protruding from the equipment in a manner that could potentially impale a child. A protrusion can also pose a strangulation hazard from clothing becoming caught on the projections.

Whether a protrusion is considered hazardous depends on the diameter of the protrusion; the larger the diameter, the longer the length may be before it is considered a protrusion hazard.


SUMMARY OF FINDINGS



Areas of noncompliance with ASTM and CPSC guidelines are identified below. Based on our assessment, we have assigned a priority level to each identified issue as follows:

- Priority 1:** Life threatening; could cause permanent disability. These are immediate action items that should be repaired or replaced during the current school year.
- Priority 2:** Could cause serious or non-disabling injury. These action items should be implemented over the next 3-5 years.
- Priority 3:** Could cause slight injury or may not cause injury, but do not meet CPSC Guidelines. These action items should be considered in long-term (10 years or more) budget planning.

Pleasantview Elementary – Northeast Playground







Priority	Hazard	Photo
1	No priority 1 hazards were identified at the time of the inspection.	N/A
2	There is damage to the slide on the home play equipment creating a sharp edge at the bottom. In addition, home play equipment is not recommended on public use playgrounds. The home play equipment was not fully inspected during the audit as manufacturers have different CPSC and ASTM standards to follow for this type of equipment.	

3	A piece of asphalt was found on the playground.	
3	Litter was found on the playground. Consider installing trash receptacles to reduce the chance of litter accumulation on the playground.	
3	It is recommended that a sign be provided that informs of age appropriateness, regulations for the playground, or contact information for maintenance issues. It is also recommended that the signs have warnings about not wearing helmets on the playground and about hot surfaces.	N/A

Pleasantview Elementary – Northwest Playground



Priority	Hazard	Photo
1	The pea rock surfacing material is approximately zero to one inches throughout the play area. Pea rock should be maintained at a minimum depth of nine inches throughout the play area and raked to prevent pack down. Grass and weeds were also observed growing throughout the play area.	N/A
1	The concrete footers are exposed at the base of the play structure. Footers should be covered with an appropriate amount of surfacing material.	
2	Bolts are missing at the base of the rock wall climbing panel.	
3	The plastic coating on the chain ladder is cracking.	

3	The coating on the platform is starting to chip causing rust on the metal surface.	
3	It is recommended that a sign be provided that informs of age appropriateness, regulations for the playground, or contact information for maintenance issues. It is also recommended that the signs have warnings about not wearing helmets on the playground and about hot surfaces.	N/A

Pleasantview Elementary – Climbing Area






Priority	Hazard	Photo
1	The pea rock surfacing material is approximately zero to two inches throughout the play area. Pea rock should be maintained at a minimum depth of nine inches throughout the play area and raked to prevent pack down. Grass and weeds were also observed growing throughout the play area.	N/A
2	The use zone on the south side of the red horizontal ladder was measured at four feet. The use zone should be a minimum of six feet.	N/A

Priority	Hazard	Photo
3	It is recommended that a sign be provided that informs of age appropriateness, regulations for the playground, or contact information for maintenance issues. It is also recommended that the signs have warnings about not wearing helmets on the playground and about hot surfaces.	N/A

Pleasantview Elementary – Blue & Red Dome Climber






Priority	Hazard	Photo
1	The pea rock surfacing material is approximately two to three inches throughout the play area. Pea rock should be maintained at a minimum depth of nine inches throughout the play area and raked to prevent pack down. Grass and weeds were also observed growing throughout the play area.	N/A
1	The opening between the bars on the south dome creates a head entrapment hazard.	
2	The use zone was measured between four and five feet for the play structure. The use zone should be a minimum of six feet in all directions.	N/A

2	There are bolts with more than two threads exposed inside the dome roof creating a protrusion hazard. No more than two threads should be exposed on any bolt.	
3	The paint is starting to chip on the base of the dome.	
3	It is recommended that a sign be provided that informs of age appropriateness, regulations for the playground, or contact information for maintenance issues. It is also recommended that the signs have warnings about not wearing helmets on the playground and about hot surfaces.	N/A

Pleasantview Elementary – Swing Area







Priority	Hazard	Photo
1	The pea rock surfacing material is approximately zero to one inches throughout the play area. Pea rock should be maintained at a minimum depth of nine inches throughout the play area and raked to prevent pack down. Grass and weeds were also observed growing throughout the play area.	N/A
1	The concrete footers are exposed at the base of the blue swings. Footers should be covered with an appropriate amount of surfacing material.	
2	The front and rear use zones of both swing sets are not wide enough. Belt swings should have a use zone that is a minimum distance of two times the distance from the protective surfacing to the pivot point.	N/A
2	There is a loose protruding bolt on the metal swing set.	
3	The swings were measured to be 22 inches from the support poles on the metal swing set. Each swing should be a minimum of 30 inches from a support pole when measured at a height of 60 inches.	N/A
3	The swings in the north bay on the metal swing set are too close together. There should be a minimum of 24 inches between swings when measured at a height of 60 inches.	N/A



3	The plastic coating is cracking on the chains of the blue swing set.	
3	It is recommended that a sign be provided that informs of age appropriateness, regulations for the playground, or contact information for maintenance issues. It is also recommended that the signs have warnings about not wearing helmets on the playground and about hot surfaces.	N/A

Pleasantview Elementary – South Play Area



Priority	Hazard	Photo
1	The pea rock surfacing material is approximately one to two inches throughout the play area. Pea rock should be maintained at a minimum depth of nine inches throughout the play area and raked to prevent pack down. Grass and weeds were also observed growing throughout the play area.	N/A


1	The concrete footers are exposed on the slide. Footers should be covered with an appropriate amount of surfacing material.	
1	The guardrail at the top of the slide is not sufficient to prevent falls. Protective barriers are used on playgrounds when the platform fall height is greater than 48 inches on playgrounds for 5 to 12-year olds. The slide platform height requires a protective barrier with a top edge measuring 38 inches or higher from the platform and a bottom edge measuring less than 3.5 inches from the platform with an infill. The placement of the bottom edge and infill needs to be done without creating an entrapment hazard.	
1	There are more than two threads exposed on bolts near the slide entry creating an entanglement hazard. Slides should have a 21-inch non-entanglement zone in all directions.	
2	The slide has a metal sliding surface. Metal surfaces are not recommended on slides as they create a potential burn hazard when exposed to direct sunlight.	

2	There are bolts with more than two threads exposed on the horizontal ladder creating a protrusion hazard. No more than two threads should be exposed on any bolt.	
3	The fiberglass is cracking round the bolt at the bottom of the slide.	
3	The slide has an exit height of 16 inches above the pea rock surfacing. Slides greater than four feet tall should have an exit height between seven and 15 inches above the protective surfacing. The exit height should be re-measured after surfacing material is replenished.	N/A
3	It is recommended that a sign be provided that informs of age appropriateness, regulations for the playground, or contact information for maintenance issues. It is also recommended that the signs have warnings about not wearing helmets on the playground and about hot surfaces.	N/A

Riverside Elementary – Blue Composite Structure




Priority	Hazard	Photo
1	The pea rock surfacing material is approximately one to three inches throughout the play area. Pea rock should be maintained at a minimum depth of nine inches throughout the play area and raked to prevent pack down. Grass and weeds were also observed growing throughout the play area.	N/A
1	The guardrails on the north and south steps of the west rock climber access platform are not sufficient to prevent falls. Protective barriers are used on playgrounds when the platform fall height is greater than 48 inches on playgrounds for 5 to 12-year olds. The access platform height requires a protective barrier with a top edge measuring 38 inches or higher from the platform and a bottom edge measuring less than 3.5 inches from the platform with an infill. The placement of the bottom edge and infill needs to be done without creating an entrapment hazard.	

Priority	Hazard	Photo
3	The southeast sidewinder slide has an exit height of 16 inches above the pea rock surfacing. Slides greater than four feet tall should have an exit height between seven and 15 inches above the protective surfacing. The exit height should be re-measured after surfacing material is replenished.	N/A
3	The northeast slide has an exit height of 19 inches above the pea rock surfacing. Slides greater than four feet tall should have an exit height between seven and 15 inches above the protective surfacing. The exit height should be re-measured after surfacing material is replenished.	N/A
3	Litter was found on the playground. Consider installing trash receptacles to reduce the chance of litter accumulation on the playground.	
3	It is recommended that a sign be provided that informs of age appropriateness, regulations for the playground, or contact information for maintenance issues. It is also recommended that the signs have warnings about not wearing helmets on the playground and about hot surfaces.	N/A


Riverside Elementary – Metal Jungle Gym



Priority	Hazard	Photo
1	The pea rock surfacing material is approximately one to three inches throughout the play area. Pea rock should be maintained at a minimum depth of nine inches throughout the play area and raked to prevent pack down. Grass and weeds were also observed growing throughout the play area.	N/A
3	The horizontal ladder is 89 inches above the surfacing material. Upper body climbing equipment should have a maximum height of 84 inches above the playground surfacing material. The height should be re-measured after pea rock surfacing material is replenished.	N/A
3	One of the parallel bars is bent.	




Riverside Elementary – Swing Set






Priority	Hazard	Photo
1	The pea rock surfacing material is approximately one to three inches throughout the play area. Pea rock should be maintained at a minimum depth of nine inches throughout the play area and raked to prevent pack down.	N/A
1	Tree branches are within the swing use zone on the east side. Playground equipment should have at least 84 inches of clearance from overhead wires and branches.	

Softball Fields



Priority	Hazard	Photo
1	The pea rock surfacing material is approximately one to two inches throughout the play area. Pea rock should be maintained at a minimum depth of nine inches throughout the play area and raked to prevent pack down. Grass and weeds were also observed growing throughout the play area.	N/A
2	The playground equipment does not have adequate use zones. Equipment should have a minimum use zone of 6 feet in all directions without overlapping.	N/A
2	There is a missing piece of equipment on the south end of the green and red structure creating a fall hazard. A guardrail should be installed to protect against falls.	
2	There are sharp edges around the bolt holes near the missing piece of equipment on the red and green structure.	
2	There are bolts with more than two threads exposed on the dome climber creating a protrusion hazard. No more than two threads should be exposed on any bolt.	
3	There is rust on the dome climber connection pieces.	N/A

Priority	Hazard	Photo
3	The gray double slide has an exit height of 13 inches above the pea rock surfacing. Slides less than four feet tall should have a maximum exit height of 11 inches above the protective surfacing. The exit height should be re-measured after surfacing material is replenished.	N/A
3	The red slide has an exit height of 16 inches above the pea rock surfacing. Slides less than four feet tall should have a maximum exit height of 11 inches above the protective surfacing. The exit height should be re-measured after surfacing material is replenished.	N/A
3	The platform is loose on the red and green structure.	
3	The protective coating is chipping off the platforms on the blue and red/green play structures resulting in rusted metal.	

Priority	Hazard	Photo
3	The black plastic underlayment for the surfacing material is exposed creating a trip hazard.	
3	It is recommended that a sign be provided that informs of age appropriateness, regulations for the playground, or contact information for maintenance issues. It is also recommended that the signs have warnings about not wearing helmets on the playground and about hot surfaces.	N/A

RECOMMENDATIONS

General

Prior to repair of any playground equipment, consult your playground manufacturer. Repairs should always be made with manufacturer's equipment and approval. Playground repairs may be covered under UFARS 347 of your health and safety budget. Replacement parts or playground removal and replacement are not eligible for funding from the state.

Surfacing Material

Surfacing material should be replenished to maintain an appropriate depth. CPSC recommends 3-6 inches of loose-fill (e.g. gravel), one layer of geotextile cloth, and a minimum of 9 inches of loose-fill material such as shredded rubber, pea gravel, or wood mulch/chips. Concrete, asphalt, and hard-packed earth are strongly discouraged.

Unitary surfacing material should be inspected for cracks, gauges, and wear and tear to maintain the appropriate depth. Rubber mats and rubber poured surfacing material should be free of loose debris such as sand, dirt, and small stones that create a slip hazard. Consult your playground manufacturer on proper maintenance of your rubber mat and poured rubber surfacing.

Use Zones

The use zone of a piece of equipment or composite structure should be clear of obstacles or hazards. In addition, use zones should have adequate surfacing material. Use zones should be a minimum of 6 feet in all directions, with extended use zones for slides, swings, and other specific equipment as detailed in the hazard listings above.

Entanglement and Impalement Hazards

Bolts and other protrusions should be minimized by replacing the bolt, adding a nut, or tightening the fastener. If the protrusion increases in diameter from the initial surface, it should be replaced. "S" hooks should be closed so there is no gap or space greater than 0.04 inches, approximately the thickness of a dime.

Entrapment Hazards

Openings should be less than 3.5 inches or greater than 9 inches to avoid risk of strangulation. Equipment with entrapment hazards should have additional equipment installed or be replaced.

Maintenance

Many of the Priority 2 and Priority 3 hazards may be prevented by the implementation of a playground maintenance program, including weekly and/or monthly safety inspections. Upon request, IEA can assist the district with inspections and/or training of custodial employees or playground aides/supervisors.

GENERAL COMMENTS

Ideally with inspections and/or the training of custodial employees or playground aides/supervisors, many of the Priority 2 and Priority 3 hazards may be prevented. IEA can assist with these upon request by the district. Similarly, by the implementation of a playground maintenance program, including weekly and/or monthly safety inspections, many of the Priority 2 and Priority 3 hazards may be prevented.


The analysis and opinions expressed in this report are based upon data obtained from Jackson County Central Public Schools at the indicated locations. This report does not reflect variations in conditions that may occur across the site, property, or facility. Actual conditions may vary and may not become evident without further assessment.

The report is prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted environmental, health, and safety practices. Other than as provided in the preceding sentence and in our Proposal #6007 dated April 14, 2017 regarding Playground Safety Audits, including the General Conditions attached thereto, no warranties are extended or made.

If you have any questions or need additional information, please contact our office.

Sincerely,

IEA, INC.



Ben Olsen
Project Manager
Certification #37916-0420

EXPERTISE

ARCHITECTURE
ENGINEERING
ENVIRONMENTAL
PLANNING

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AGRICULTURE
CIVIC + CULTURE
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The ISG logo consists of the letters "ISG" in a bold, sans-serif font, centered within a dark gray square.

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