

POUDRE SCHOOL
DISTRICT
LOPEZ ELEMENTARY
SCHOOL

FACILITY CONDITION ASSESSMENT

FORT COLLINS, CO

OCTOBER 2023



Together, Building a Thriving Planet



WILLIAM LOPEZ SCHOOL
637 WABASH

Leaders Today - Leading Tomorrow

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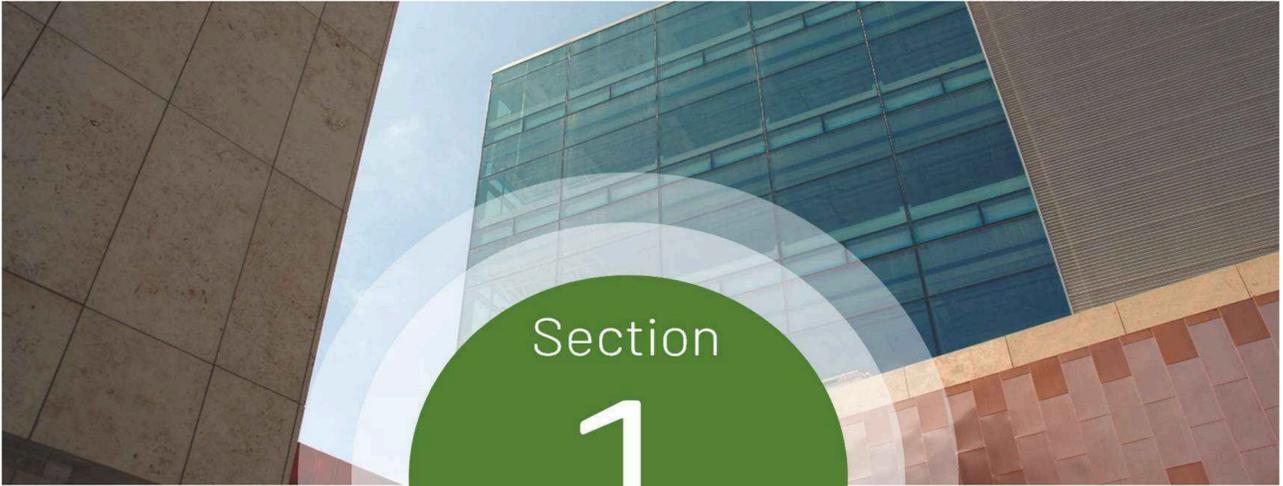
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Section

1

Executive Summary

Executive Summary

Project Goals

The contents of this report present the results of the Facility Condition Assessment (FCA) performed at Lopez ES within the Poudre School District (PSD) on July 11, 2023. PSD intends to utilize the findings of this report to inform both capital and operating budgets, prioritize maintenance efforts, and optimize planning processes as replacements and upgrades of assets and facility systems become necessary in the future.

Facility List

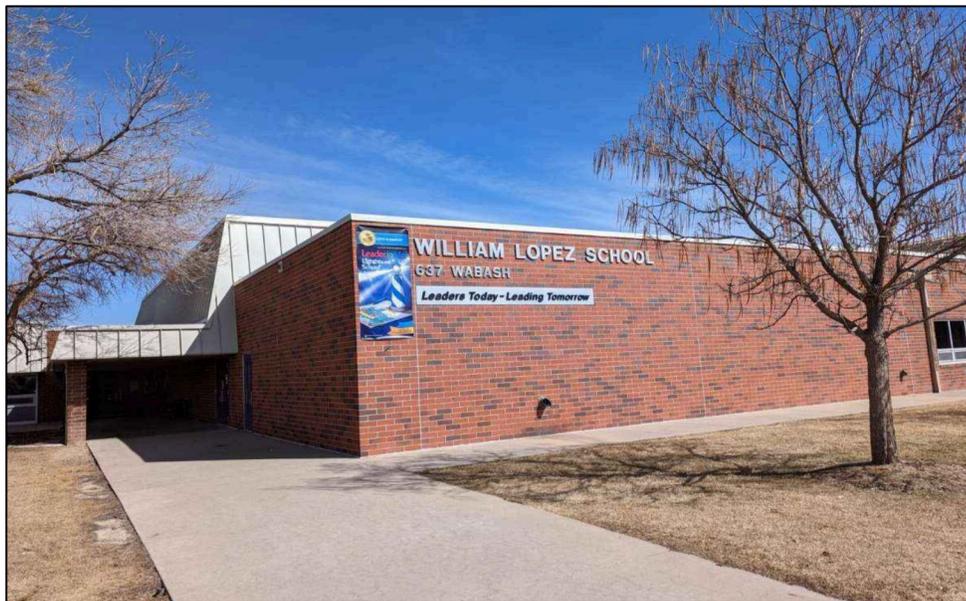
The scope of the FCA project included the assessment of the following campus.

FACILITY NAME	AREA (SF)	YEAR(S) BUILT
LOPEZ ES	57,639	1986
TOTAL	57,639	

Facility Summary

Lopez ES

Lopez ES is located at 637 Wabasg St., Fort Collins, CO 80526. This 57,639 SF facility consists of one level and was initially constructed in 1986. The equity index for this school is 1.19.



Lopez ES

Executive Summary

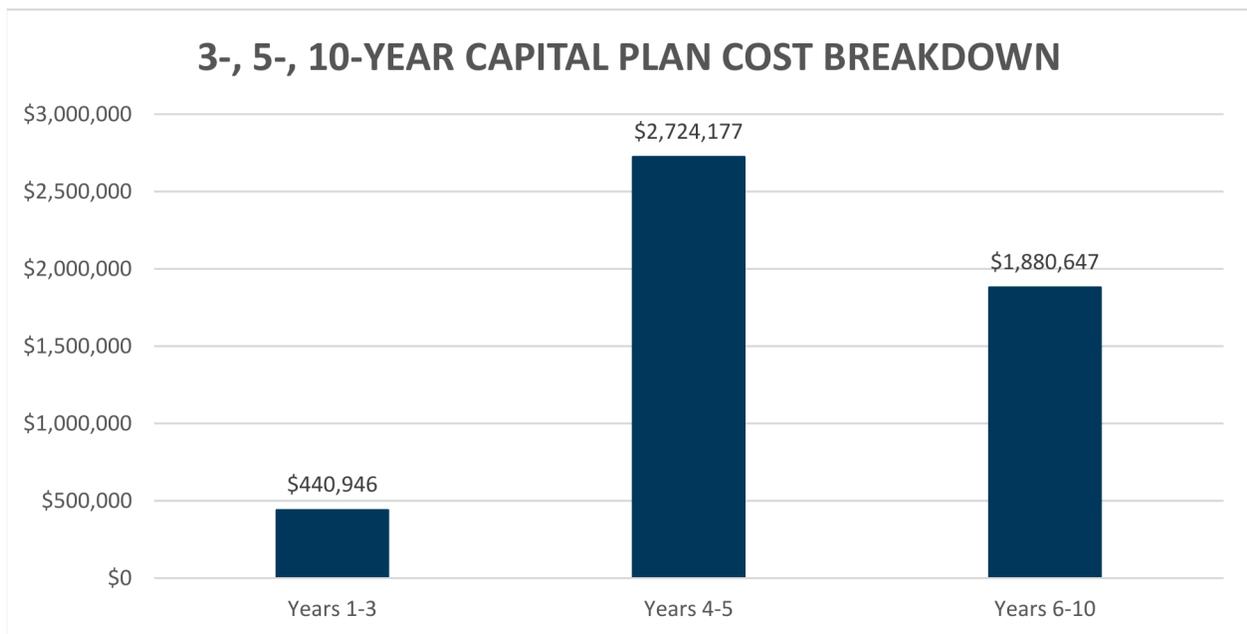
Assessment Summary

This section summarizes the building systems at the facility and describes the general condition observed based on the assessment performed on July 11, 2023. Additional details, findings and recommendations are presented in Section 3 of this report.

Capital Plan Summary

The estimated replacement costs for equipment expected to fail within the next ten years are shown below, divided into three separate plans. These plans are the 3-Year Plan, 5-Year Plan, and the 10-Year Plan. Each plan includes the cost for replacement of equipment expected to fail during these periods, based on the observed condition of the equipment at the time of the assessment.

Replacement costs include 3% inflation year over year.



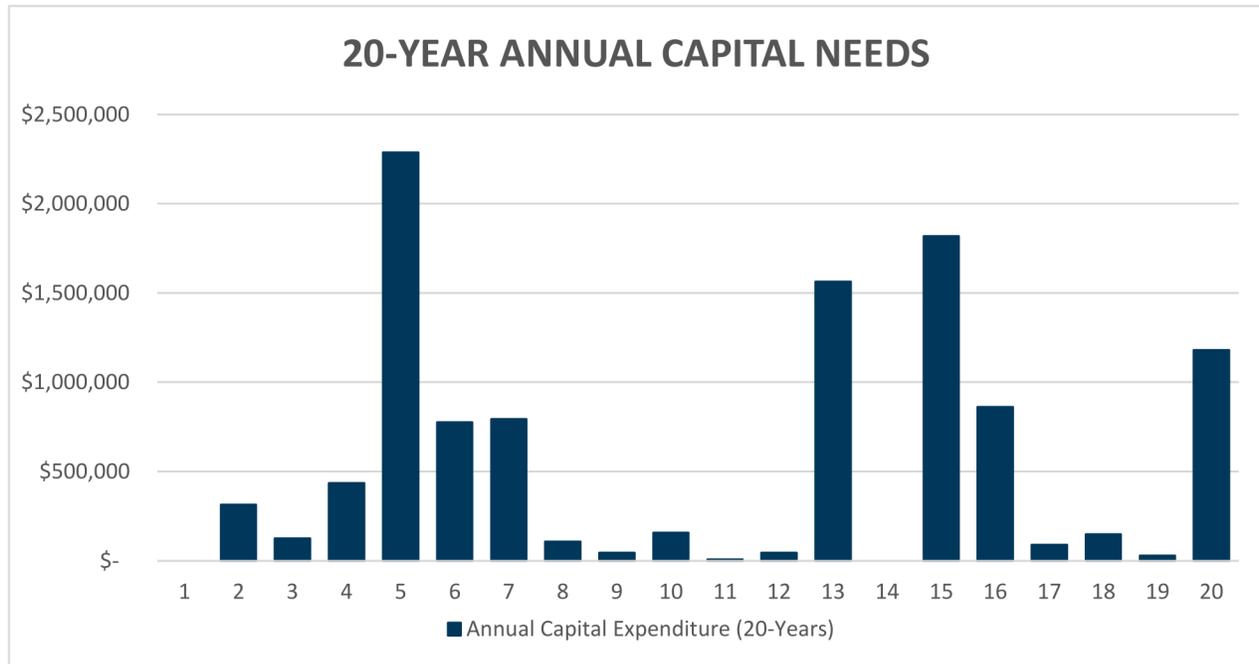
3-, 5-, 10-Year Capital Plan Cost Breakdown

Executive Summary

Annual Capital Expenditure (20 Years)

20-Year Annual Capital Needs and 20-Year Annual Capital Expenditure by Subsystem below indicate the estimated replacement costs for equipment expected to fail within the next twenty years, and are displayed both by year and by subsystem.

Replacement costs include 3% inflation year over year.



Annual Capital Expenditure by Year

Replacement costs associated with the Annual Capital Expenditure graph and table include values that are adjusted for inflation.

20-Year Annual Capital Expenditure by Subsystem

Subsystem	Years 1-5	Years 6-10	Years 11-15	Years 15-20
B20 - Enclosure	\$0	\$169,390	\$71,117	\$0
B30 - Roofing	\$397,774	\$0	\$37,485	\$0
C10 - Int. Construction	\$0	\$23,000	\$1,326,057	\$0
C20 - Stairs	\$0	\$0	\$0	\$0
C30 - Interior Finishes	\$131,718	\$1,245,633	\$24,609	\$1,067,080
D10 - Conveying	\$0	\$0	\$0	\$0
D20 - Plumbing	\$0	\$54,564	\$8,373	\$60,008
D30 - HVAC	\$727,165	\$216,344	\$1,548,691	\$133,876
D40 - Fire Suppression	\$0	\$0	\$0	\$0
D50 - Electrical	\$1,902,970	\$158,509	\$419,693	\$1,047,403
E10 - Equipment	\$5,496	\$13,206	\$0	\$0
Total:	\$2,635,631	\$442,624	\$1,976,757	\$1,241,287

Section

2

Approach and Methodology

Scope and Approach

Scope and Approach

SCOPE OF WORK

The scope of this facility condition assessment includes all major mechanical, electrical, and plumbing equipment, and commercial refrigeration equipment. In addition, the building enclosure, roofing, interior construction and finishes, and fire suppression systems are included within the assessment. Turf, site assets, kitchen assets besides walk-in freezers, exhaust fans and kitchen make up air units are not included in scope.

The following table lists the general asset types included within the scope of this assessment. Also shown is the corresponding Unifomat code, which has been used to catalog equipment based on type and intended use.

UniFormat Classification of Building Systems

UNIFORMAT CODE	CATEGORY DESCRIPTION
B20	Exterior Enclosure (i.e. windows, walls, doors)
B30	Roofing (i.e. roofing covering, skylights, etc.)
C10	Interior Construction (i.e. doors, walls)
C20	Interior Stairs (i.e. stair construction)
C30	Interior Finishes (i.e. flooring, ceiling finishes, etc.)
D10	Conveying (i.e., elevators)
D20	Plumbing (i.e., water heating, pumps, compressors)
D30	Heating, Ventilation, and Air Conditioning
D40	Fire Suppression Systems
D50	Electrical (panelboards, transformers, switchgear)
E10	Equipment, Kitchen Hoods, Walk-in Units, etc.

Scope and Approach

RATINGS, METHODS AND SCORING

To allow Poudre School District more flexibility in prioritizing capital planning efforts, McKinstry has developed the following metrics which assign various scores to each asset.

Asset Condition

Condition ratings are presented for each asset as a score of 1 – 5. Scores are based upon a visual inspection during the building evaluation period. A score of 1 signifies that the asset is in great, “like new” condition. A score of 2 indicates that the asset is in good condition. A score of 3 signifies that the asset is in expected “average” condition based on function and the age of the asset. A score of 4 signifies that the asset is in poor condition, in need of repair, and will require replacement in the near future. A score of 5 signifies that the asset is in very poor or failed condition and in need of imminent replacement.

SCORE	CONDITION ASSESSMENT
1	Asset is in great condition, no action required.
2	Asset is in good condition, regular maintenance expected.
3	Asset is in expected condition, regular replacement/maintenance expected.
4	Asset is in poor condition, maintenance/replacement recommended soon.
5	Asset is in very poor condition, urgent replacement needed.

Student/Teacher Impact

Student/Teacher Impact scores are presented for each asset on a scale of 1 – 5 (low to high impact). This metric considers educational (student and/or teacher) impact caused if the equipment were to fail. Assets serving classrooms and other educational spaces are assigned scores of 2-5 depending on the impact the failure of an asset would have and if backups are available. A student/teacher impact score of 1 indicates that there is little to no impact to educational activities.

SCORE	STUDENT/TEACHER IMPACT
1	Failure poses no significant educational impact.
2	Failure poses low educational impact.
3	Failure poses moderate impact. Asset serves teaching area, but has backup.
4	Failure poses high educational impact.
5	Failure poses severe impact. Asset serves teaching area and has no backup.

Energy Cost Impact

The Energy Impact score is presented for each asset on a scale of 1-5 (low to high impact). Each of the asset types within the scope of this assessment were evaluated based on their impact to energy cost and consumption (including electrical, natural gas, and liquid fuels). Assets with a higher Energy Cost Impact score indicate that the asset has a large contribution to the overall energy costs of the facility. A sample of Energy impact scores is shown below:

Scope and Approach

ASSET TYPE	ASSET SIZE	ENERGY COST IMPACT (1-5)
Air Handling Unit	less than 10,000 CFM	3
	between 10,000 CFM – 50,000 CFM	4
	greater than 50,000 CFM	5
Chiller	less than 200 tons	3
	between 200 – 500 tons	4
	greater than 500 tons	5
Computer Room AC Condensing Unit Heat Pump	less than 10 tons	2
	greater than 10 tons	3
Cooling Tower	less than 200 tons of rejection	2
	greater than 200 tons of rejection	3
Dust Collector	less than 5 HP	2
	between 5 HP and 25 HP	3
	greater than 25 HP	4
Exhaust Fan	less than 5000 CFM	2
	greater than 5000 CFM	3
Fan Coil Unit	greater than 3000 CFM	2
Fuel Fired Boiler	less than 200 MBH	2
	between 200 – 1000 MBH	3
	between 1000 – 2000 MBH	4
	greater than 2000 MBH	5
Furnace	less than 100 MBH	2
	between 100 and 500 MBH	3
	greater than 500 MBH	4
Generator	less than 500 KW	2
	greater than 500 KW	3
Lighting, Exterior	LED	2
	Fluorescent	3
	HID/Incandescent	4
Lighting, Interior	LED	2
	Fluorescent	4
	HID/Incandescent	5
Make-Up Air Unit	less than 5,000 CFM	3
	between 5,000 and 25,000 CFM	4
	greater than 25,000 CFM	5
Pumps	less than 25 HP	2
	between 25 -150 HP*	3
	greater than 150 HP*	4
Return Fan Supply Fan	less than 20 HP	2
	greater than 20 HP*	3

Scope and Approach

ASSET TYPE	ASSET SIZE	ENERGY COST IMPACT (1-5)
Rooftop Unit	less than 5 ton	2
	between 5 and 20 tons	3
	between 20 and 50 tons	4
	greater than 50 tons	5
Transformer	greater than 200 kVA	2
VFD	greater than 50 HP	2
Air Compressor	All sizes	2
Air Curtain		
Air Dryer		
Cabinet Unit Heater		
Dehumidifier		
Electric Duct Heater		
Humidifier		
Unit Heater		
Unit Ventilator		
Walk-In Condenser		
Walk-In Unit		
All Other		

*Add 1 for direct drive motors

Operational Impact

Operational Impact scores are presented for each asset on a scale of 1 – 5 (low to high impact). This metric considers the operational impact caused if the equipment were to fail. Assets serving critical administrative and district operational spaces are assigned scores of 2-5 depending on the impact the failure of an asset would have and if backups are available. An operational impact score of 1 indicates that there is little to no impact to administrative or operational activities.

SCORE	OPERATIONAL COST IMPACT SCORE
1	Asset has little to no operational impact.
2	Asset has a low level of operational impact.
3	Asset has a moderate operational impact.
4	Asset has a high level of operational impact.
5	Asset has severe operational impact.

Industry Life Expectancy

The designed life expectancy for a given asset is determined using a combination of widely accepted industry standards including ASHRAE and BOMA, as well as a manufacturers’ database of equipment life expectancies. This value is expressed in number of years.

Scope and Approach

Observed Remaining Life

The Observed Remaining Life is also expressed in number of years and takes into consideration the function and operating environment of the asset, as well as a determination based upon a visual inspection of the asset. The Observed Remaining Life value may vary from the Design Life value. For example, a secondary heat exchanger that has been well maintained may have an Observed Remaining Life that is greater than the expected Design Life. Likewise, a primary chilled water pump that has not been well maintained, and shows visual signs of premature wear and tear, may have an Observed Remaining Life that is less than the expected Design Life.

Cost Estimating

Based on the constraints of the scope outlined in the contract we have based our asset pricing upon industry standards, RSMMeans, and pricing data sourced through McKinstry's construction division. This information is intended to assist in the prioritization and resource allocation associated with maintenance and capital replacement projects. Cost estimates are determined using specific characteristics of each asset (tonnage, motor size, capacity, etc.) along with one of several cost information data sets. Standard equipment warranties are included.

To clarify, all Estimated Replacement Costs include averages of the material cost of the asset, the demolition and installation of that asset type and are expressed in 2023 dollars. Additionally, site specific construction and equipment invoices have been utilized as available.

Costs associated with project design, contractor competence, commissioning, test and balance services and are excluded from the estimate and are the responsibility of the Client. McKinstry assumed a 3% inflation, applied year over year. All work is during normal business hours. For mechanical equipment any duct work, piping, existing appurtenances are to be reused; costs to repair or replace any lines going to or coming from the units is excluded. Existing isolation valves to be used; repair or replacement of isolation valves is excluded.

Costs typically associated with project-specific parameters are excluded and should be added at the discretion of the Client. Such exclusions include risks or contingencies such as asbestos abatement, other hazardous waste abatement, scope changes, design changes, taxes, special wage requirements such as Prevailing Wage rates, warranty management and unknown site conditions. Overtime and after-hours work is excluded. Any necessary structural or electrical upgrades to replace equipment is excluded. Incidental code violations resulting from project scope or execution are excluded. Correction of any existing code violations are excluded. Temporary heating, cooling, ventilation, and power during construction and the warranty period are excluded. Moving of heavy equipment or furniture to complete the work is excluded. Running and terminating new IP drops for equipment is excluded. Any changes to fire and life safety systems for mechanical equipment upgrades is excluded.

Data-Driven Maintenance Approach

Included with the submission of this report is the FCA Data Collection Workbook, which includes all data collected for each asset. The Workbook can be used to quickly sort through equipment and prioritize maintenance and replacement efforts. Additional observations and equipment details are provided within the workbook for each asset.

Scope and Approach

Each asset is classified according to building system, size, capacity, and other standards, as well as ratings of current condition and impact of failure. Such organization and classification facilitate searching and sorting the data for maintenance and replacement priorities. As mentioned, the impact ratings help to compare one asset to another. Based on observed condition and impact scores, the future maintenance priorities for each building are described further in later sections.

As each of the components identified in the workbook is repaired or replaced, the information can be revised to reflect the new conditions. Remaining useful life values can also be manually iterated one year from the assessment date to reflect fewer remaining years of life. Assets no longer in service can be removed from the list. Similarly, assets that have been newly installed can be added to the list. Following the impact guidelines, relative priority can be calculated for these assets.

Equity Index

As an additional metric to the six existing areas of the Facilities Condition Assessment, Poudre School District has created an Equity Index to assist in prioritizing facilities improvement projects. This number takes into account student poverty, students qualifying for ELA services, students qualifying for Special Education services, and students who are homeless. The calculated score for each school is based on these factors and where it falls in relation to the district average. The formula would be:

$$\frac{\text{School Percentage in these areas added together as decimals}}{\text{District Percentages in these areas added together as decimals}}$$

In this formula, a school with student needs equal to the district average would have an equity index of 1.0. Schools with student needs higher than the district average would have an Equity Index greater than 1.0. Schools with student needs less than the district average would have an Equity Index less than 1.0.

Category	Equity Index
Low	0.29
High	3.20
Average	1.11
Median	0.95

The equity index for Lopez ES is 1.19.

Sample Calculation:

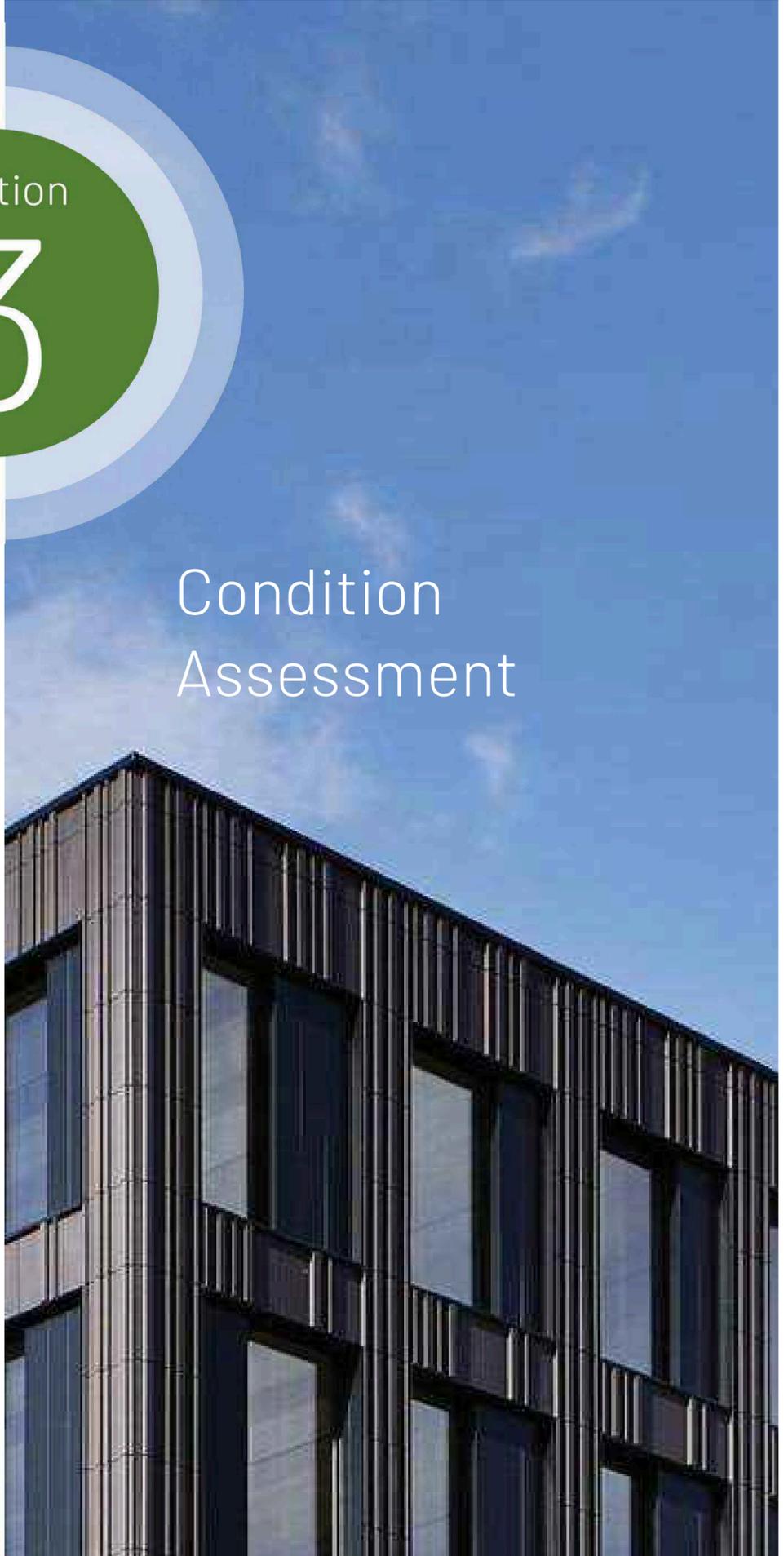
School Name	School Population K-12 Total	F/R	ELL	SPED	McKinney-Vento	Total of Previous Columns	Equity Index Number = school average / district average
Sample	381	15.20%	0.00%	8.40%	0.00%	0.24	0.24/0.48 = 0.49
Grand PSD Total - Oct 2022 Count	26,163	29.5%	5.8%	9.5%	3.4%	0.48	

F/R - Free or Reduced-Price Lunch; ELL- English Language Learners; SPED - Special Ed.; McKinney-Vento - Homeless Assistance

Section

3

Condition Assessment



Condition Assessment

SYSTEMS DESCRIPTION

This section summarizes the building systems at Lopez ES and describes the general condition observed based on the assessment. Specific findings and recommendations are detailed later in this report.

Exterior Enclosure

The building's exterior walls consist of a combination of masonry brick and concrete masonry unit (CMU). These walls date back to the building's initial construction in 1986, and the gymnasium addition in 2001. Exterior doors include a combination of single and double metal doors. Exterior windows include steel framed windows on the 1994 addition, aluminum framed windows on the original building, and glass brick windows on the 2001 addition. No major deficiencies were noted with the building's exterior.

Roofing

The flat portions of the building's roofing consist of rolled asphalt sheets. Based on available records, this roofing was installed circa 2010. Severe bubbling of the roofing was noted in numerous locations, likely due to water infiltration or improper adhesion to the roofing substructure. [REDACTED] There are numerous sloped standing-seam metal accents on the edges of the roof of the original building, and covering the gymnasium addition.

Interior Construction and Finishes

Interior walls consist of a combination of drywall, CMU walls, hollow metal doors, and wood doors. There are also several areas with folding partition doors and glass observation windows. There were no major deficiencies noted with the building's interior construction items.

The building's flooring includes carpeting, vinyl floor tiles, and an athletic floor covering in the gymnasium. Ceilings are finished with either painted drywall or acoustic ceiling tiles. While no major deficiencies were noted with these finishes, original ceiling tiles will require replacement within 2-7 years.

Conveyance

There are no conveyance systems in use within this building.

Electrical and Lighting

The building's electrical distribution equipment includes 120/208V panels, transformers, and switchgear. The main entry switchboard has a total ampacity of 2,000 amps. The majority of the distribution assets are original to the 1986 construction of the building, with some assets having been added in 2001 with the addition. The building utilizes one (1) 23 kVA backup generator, installed in 1985. [REDACTED] The building's interior lighting includes a combination of linear fluorescent and light emitting diode (LED) fixtures. Exterior lighting includes both high intensity discharge (HID) fixtures, and light emitting diode (LED) fixtures (Gym and Media). Replace any remaining HID and fluorescent lighting throughout the building with LED lighting to reduce the building's energy costs.

HVAC Systems

The building's heating, ventilation, and air conditioning (HVAC) system includes five (5) multi-zone rooftop air handling units providing ventilation to the majority of the building. These air handlers were installed in 2013, and are equipped with hydronic heating coils and controlled via variable frequency drives (VFDs). Supplemental heating is provided to each zone by hydronic baseboard heaters, these units were installed in 2013. Heating water is provided by two (2) natural gas fired hydronic boilers installed in 1986 and 2001. [REDACTED] Additional HVAC equipment includes rooftop air handler for the gymnasium, multiple rooftop exhaust fans, a kitchen make-up air unit, and heating water pumping equipment.

Plumbing

Domestic hot water is provided by a combination of four (4) water heaters, including (1) natural gas fired unit and three (3) electric units. These units were installed between 2008-2014, [REDACTED] Additional plumbing equipment includes domestic hot water circulation pumps, backflow preventers, and expansion vessels.

Fire Suppression

[REDACTED]

Equipment

The building utilizes one (1) walk-in cooler equipped with two (2) remote rooftop condensers. These units generally appear to have been updated between 2005-2010.

Condition Assessment

PRIORITIES

SPECIFIC PRIORITIES

The top capital measures (up to five max) have been detailed in the following tables. Each measure receives a priority level of 1, 2, or 3. A priority level of 1 indicates that the measure is considered an immediate concern or a potential hazard and should be addressed as soon as possible. A priority level of 2 indicates that the measure is considered urgent, but not a potential hazard or there is a less severe impact to occupants. A priority level of 3 indicates that the assets associated with the measure are nearing end of life, but have not yet failed or have a mild to moderate impact on occupant safety and comfort.

Lopez ES

1. Replace the Original Boiler

The original heating water boiler is currently 37 years old, and has surpassed its recommended lifespan. [REDACTED] should be prioritized for replacement within the next 3 years. Replacing this unit will ensure that the building has a reliable and efficient heating source.

The following assets are included within this measure:

- Boiler 1 (FCAID-360084)
- Pump P-5 (FCAID-360094)



Priority Level:	1
Estimated Cost:	\$98,610
Remaining Life:	3 years

Condition Assessment

2. Replace the Roofing

The roofing was found to be in poor condition, with areas of severe bubbling and surface separation. These bubbles are at risk for moisture infiltration into the structure if not addressed, therefore the replacing or refurbishing the roofing should be prioritized in the next 4 years. Based on available documentation, portions of the roofing were replaced in 2010, which may be under warranty.



The following assets are included within this measure:

- Roofing, Rolled Asphalt (FCAID-360015)



Priority Level: 2
Estimated Cost: \$364,020
Remaining Life: 4 years

3. Replace or Refurbish Outdated HVAC Equipment

Generally, the assets included in this measure were installed between 1980-2001, and have reached the end of their industry recommended lifespan. Plan for replacement of these assets over the next 2-5 years to ensure the systems is functioning as designed.



The following assets are included within this measure:

- AHU-1 (FCAID-360042)
- AHU-2 (FCAID-360043)
- Gym AHU (FCAID-360047)
- RTU-2 (FCAID-360146)
- SF-1 (FCAID-360147)
- UV-54 (FCAID-360149)
- RTU-1 (FCAID-360145)
- EF-13 (FCAID-360061)
- SF-2 (FCAID-360148)
- Kitchen Hood (FCAID-360096)
- CH-1 (FCAID-360051)
- CH-2 (FCAID-360052)
- CH-2 (FCAID-360053)
- CH-4 (FCAID-360054)
- CH-4 (FCAID-360055)
- FCU-1 (FCAID-360057)
- (11) Exhaust Fans (FCAIDs vary)
- Convector (FCAID-360144)



Priority Level: 2
Estimated Cost: \$577,850
Remaining Life: 2-5 years

Condition Assessment

4. Replace the Generator

The building's backup power supply is provided by a 23 kVA generator, installed when the building was constructed circa 1986. [REDACTED]



The following assets are included within this measure:

- Backup Generator (FCAID-360151)
- ATS (FCAID-360150)



Priority Level: 2
Estimated Cost: \$29,050
Remaining Life: 2 years

5. Replace Fluorescent and HID Lighting

While a portion of the building's lighting has been converted to LED, including the gymnasium and library, portions of the building still utilize fluorescent technology. Additionally, a number of exterior building-affixed lighting fixtures utilize high intensity discharge (HID) lamps. Replacing these fixtures with LED lighting will reduce energy and maintenance costs of the building.



The following assets are included within this measure:

- Interior Lighting: Fluorescent (FCAID-360156)
- Exterior Lighting, HID (FCAID-360152)



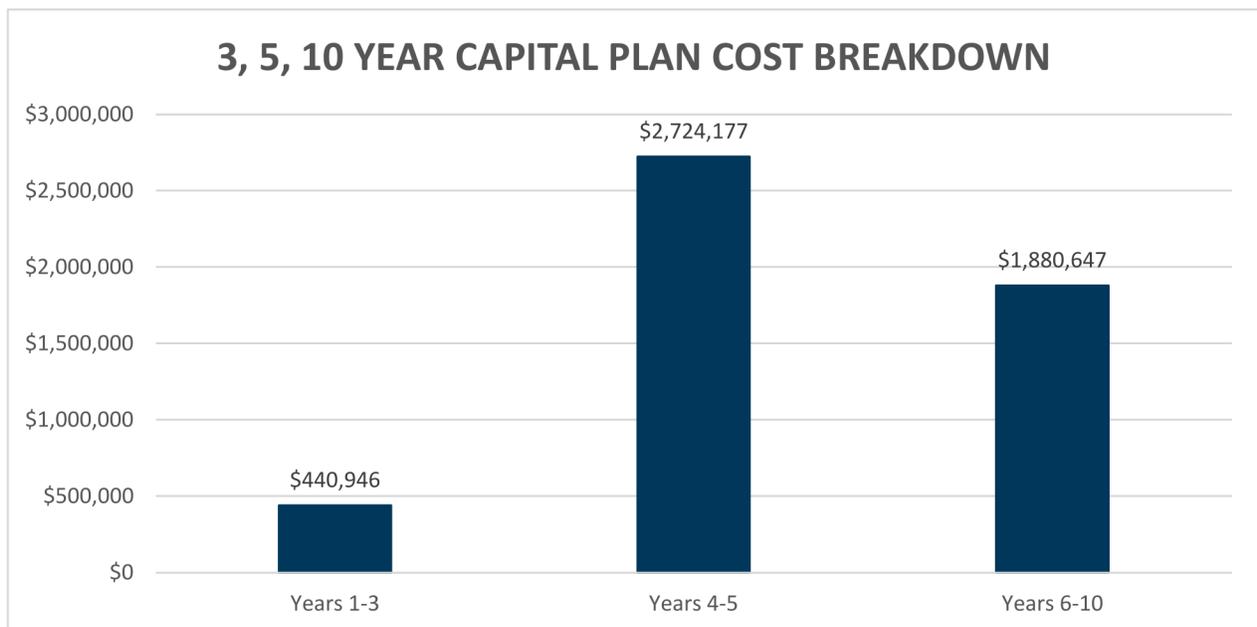
Priority Level: 3
Estimated Cost: \$776,770
Remaining Life: 3-5 years

Condition Assessment

3-, 5-, 10-YEAR PLANS

The following sections present the expected equipment replacement costs over the next ten years, broken into three separate plans. These plans are the 3-Year Plan, 5-Year Plan, and the 10-Year Plan. Each plan includes the equipment expected to fail during these periods, based on the observed condition of the equipment at the time of the assessment. Note, the 3-Year Plan includes assets failing within the next three years, the 5-Year Plan includes assets failing between four and five years, and the 10-Year Plan includes assets failing between in the next six to ten years from the assessment date.

The chart below presents the total expected replacement costs for each plan. Note that these figures include 3% inflation YOY.



Future Capital Plan

The table below displays replacement costs for the campus, and the number of associated assets expected to fail within the next ten years. Assets requiring replacement or extensive maintenance in this plan are presented in Appendices A, B, and C.

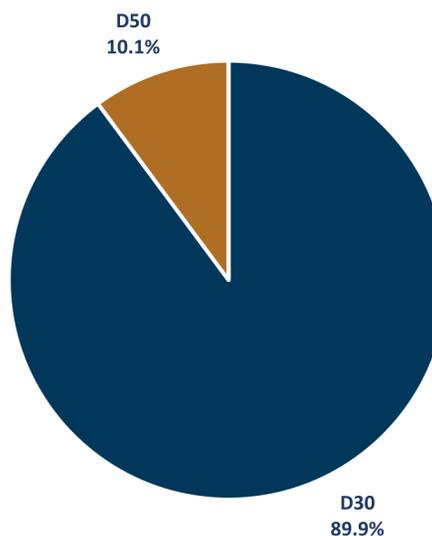
REPLACEMENT PERIOD	ASSET QUANTITY	CUMULATIVE REPLACEMENT COST
3-Year Plan	10	\$440,946
5-Year Plan	30	\$2,724,177
10-Year Plan	58	\$1,880,647
Total	98	\$5,045,770

Condition Assessment

3-YEAR PLAN BREAKDOWN

The three-year plan includes the estimated capital expenditure needed to replace assets reaching end of life in years 1-3, or between 2024 and 2026. The sum of the anticipated capital needs is \$440,946. The specific assets that will reach end of life in this period are listed in Appendix A.

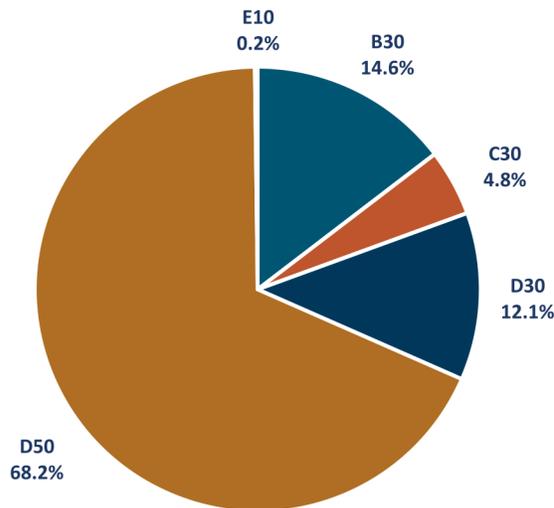
SUBSYSTEM	Years 1-3	Percent
A10 - Foundations	\$0	0%
B10 - Superstructure	\$0	0%
B20 - Exterior Enclosure	\$0	0%
B30 - Roofing	\$0	0%
C10 - Int. Construction	\$0	0%
C20 - Stairs	\$0	0%
C30 - Interior Finishes	\$0	0%
D10 - Conveying	\$0	0%
D20 - Plumbing	\$0	0%
D30 - HVAC	\$396,225	90%
D40 - Fire Protection	\$0	0%
D50 - Electrical	\$44,721	10%
E10 - Equipment	\$0	0%
G20 - Site Improvements	\$0	0%
G40 - Site Electrical	\$0	0%



5-YEAR PLAN BREAKDOWN

The five-year plan includes the estimated capital expenditure needed to replace assets reaching end of life in years 4-5, or between 2027 and 2028. The sum of the anticipated capital needs is \$2,724,177. The specific assets that will reach end of life in this period are listed in Appendix A.

SUBSYSTEM	Years 4-5	Percent
A10 - Foundations	\$0	0%
B10 - Superstructure	\$0	0%
B20 - Exterior Enclosure	\$0	0%
B30 - Roofing	\$397,774	15%
C10 - Int. Construction	\$0	0%
C20 - Stairs	\$0	0%
C30 - Interior Finishes	\$131,718	5%
D10 - Conveying	\$0	0%
D20 - Plumbing	\$0	0%
D30 - HVAC	\$330,939	12%
D40 - Fire Protection	\$0	0%
D50 - Electrical	\$1,858,249	68%
E10 - Equipment	\$5,496	<1%
G20 - Site Improvements	\$0	0%
G40 - Site Electrical	\$0	0%

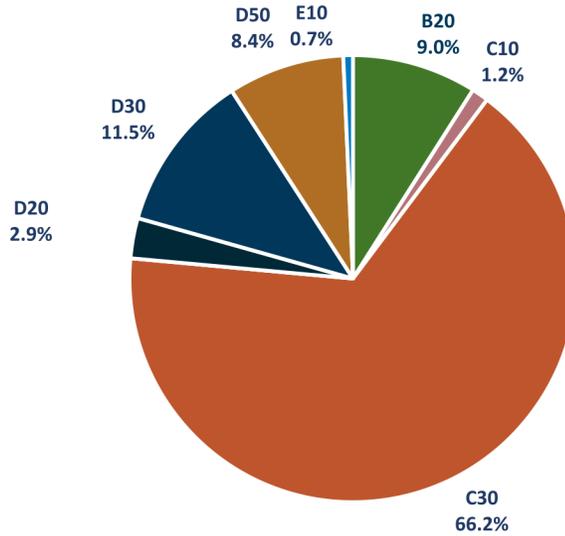


Condition Assessment

10-YEAR PLAN BREAKDOWN

The ten-year plan includes the estimated capital expenditure needed to replace assets reaching end of life in years 6-10, or between 2029 and 2033. The sum of the anticipated capital needs is \$1,880,647. The specific assets that will reach end of life in this period are listed in Appendix A.

SUBSYSTEM	Years 6-10	Percent
A10 - Foundations	\$0	0%
B10 - Superstructure	\$0	0%
B20 - Exterior Enclosure	\$169,390	9%
B30 - Roofing	\$0	0%
C10 - Int. Construction	\$23,000	1%
C20 - Stairs	\$0	0%
C30 - Interior Finishes	\$1,245,633	66%
D10 - Conveying	\$0	0%
D20 - Plumbing	\$54,564	3%
D30 - HVAC	\$216,344	12%
D40 - Fire Protection	\$0	0%
D50 - Electrical	\$158,509	8%
E10 - Equipment	\$13,206	1%
G20 - Site Improvements	\$0	0%
G40 - Site Electrical	\$0	0%



Condition Assessment

PRIORITY SUMMARY

The summary below assigns a composite Overall Priority Score to the campus as of the assessment date. Priority Scores range from 6 (low priority) to 30 (high priority), and are based on asset condition, operating impact, student impact, energy impact, estimated replacement cost, and observed remaining life.

In addition to the Overall Priority Score, each Subsystem category within the site is assigned a Priority Score. This score can differentiate systems that may need more attention than others, due to condition or impact on occupants or operations. Each Subsystem category includes a general narrative section under the Description column.

Future Capital Plan

The Subsystem scores are color coded to reflect the level of priority: ≤ 12 = Green, 12.1-23.9 = Yellow, ≥ 24 = Red. Higher priority scores indicate that a system should be considered for maintenance or capital improvements before other systems with lower scores. The rating scale for Priority Score is visualized below.



Condition Assessment

PRIORITY SCORE SUMMARY - LOPEZ ES



LOPEZ ES

BUILDING TYPE:	Elementary School
YEAR BUILT:	1986
GROSS AREA (SF):	57,639
DATE ASSESSED:	July 11, 2023
PRIORITY SCORE:	15.9

SUBSYSTEM:	DESCRIPTION	PRIORITY SCORE
B20 - Ext. Enclosure	The building's exterior walls consist of a combination of masonry brick and concrete masonry unit (CMU). These walls date back to the building's initial construction in 1986, and the gymnasium addition in 2001. Exterior doors include a combination of single and double metal doors. Exterior windows include steel framed windows on the 1994 addition, aluminum framed windows on the original building, and glass brick windows on the 2001 addition. No major deficiencies were noted with the building's exterior.	12.7
B30 - Roofing	The flat portions of the building's roofing consist of rolled asphalt sheets. Based on available records, this roofing was installed circa 2010. Severe bubbling of the roofing was noted in numerous locations, likely due to water infiltration or improper adhesion to the roofing substructure. [REDACTED] There are numerous sloped standing-seam metal accents on the edges of the roof of the original building, and covering the gymnasium addition.	16.2
C10 - Int. Construction	Interior walls consist of a combination of drywall, CMU walls, hollow metal doors, and wood doors. There are also several areas with folding partition doors and glass observation windows. There were no major deficiencies noted with the building's interior construction items.	14.1
C30 - Interior Finishes	The building's flooring includes carpeting, vinyl floor tiles, and an athletic floor covering in the gymnasium. Ceilings are finished with either painted drywall or acoustic ceiling tiles. While no major deficiencies were noted with these finishes, original ceiling tiles will require replacement within 2-7 years.	15.0
D20 - Plumbing	Domestic hot water is provided by a combination of four (4) water heaters, including (1) natural gas fired unit and three (3) electric units. These units were installed between 2008-2014, [REDACTED] Additional plumbing equipment includes domestic hot water circulation pumps, backflow preventers, and expansion vessels.	11.7
D30 - HVAC	The building's heating, ventilation, and air conditioning (HVAC) system includes five (5) multi-zone rooftop air handling units providing ventilation to the majority of the building. These air handlers were installed in 2013, and are equipped with hydronic heating coils and controlled via variable frequency drives (VFDs). Supplemental heating is provided to each zone by hydronic baseboard heaters, these units were installed in 2013. Heating water is provided by two (2) natural gas fired hydronic boilers installed in 1986 and 2001. [REDACTED] Additional HVAC equipment includes rooftop air handler for the gymnasium, multiple rooftop exhaust fans, a kitchen make-up air unit, and heating water pumping equipment.	16.5
D40 - Fire Suppression	[REDACTED]	N/A
D50 - Electrical	The building's electrical distribution equipment includes 120/208V panels, transformers, and switchgear. The main entry switchboard has a total ampacity of 2,000 amps. The majority of the distribution assets are original to the 1986 construction of the building, with some assets having been added in 2001 with the addition. The building utilizes one (1) 23 kVA backup generator, installed in 1985. [REDACTED] The building's interior lighting includes a combination of linear fluorescent and light emitting diode (LED) fixtures. Exterior lighting includes both high intensity discharge (HID) fixtures, and light emitting diode (LED) fixtures (Gym and Media). Replace any remaining HID and fluorescent lighting throughout the building with LED lighting to reduce the building's energy costs.	21.0
E10 - Equipment	The building utilizes one (1) walk-in cooler equipped with two (2) remote rooftop condensers. These units generally appear to have been updated between 2005-2010.	15.6

System priority scored from 6 (lowest priority) to 30 (highest priority) based on condition, operating impact, student/teacher impact, energy impact, estimated replacement cost, and observed remaining life. [≤12 = green, 12-24 = yellow, ≥24 = red]

Appendices

- A. 3-YEAR PLAN ASSETS LIST
- B. 5-YEAR PLAN ASSETS LIST
- C.10-YEAR PLAN ASSETS LIST

Appendix A

APPENDIX A: 3-YEAR PLAN ASSETS LIST

The individual assets associated with the 3-Year Plan are shown below, sorted from highest to lowest priority score. The priority score key is shown below for convenience.

Note that these values represent current replacement costs expressed in 2023 dollar amounts and are not adjusted for inflation.

LOW	MEDIUM-LOW	MEDIUM	MEDIUM-HIGH	HIGH
6	12	18	24	30

The asset ID listed for each entry has been assigned during this assessment and reflects the corresponding asset in the FCA workbook.

LOPEZ ES

ASSET ID	DESCRIPTION	SUBSYSTEM	OBSERVED REMAINING	REPLACEMENT COST	PRIORITY SCORE
FCAID-360042	AHU-1	D30 - HVAC	2	\$142,200	24
FCAID-360043	AHU-2	D30 - HVAC	2	\$92,430	22
FCAID-360084	Boiler 1	D30 - HVAC	3	\$93,980	22
FCAID-360146	RTU-2	D30 - HVAC	2	\$35,380	20
FCAID-360151	Backup Generator	D50 - Electrical	2	\$22,400	19
FCAID-360147	SF-1	D30 - HVAC	2	\$6,710	18
FCAID-360094	Pump P-5	D30 - HVAC	3	\$4,630	16
FCAID-360150	ATS	D50 - Electrical	2	\$6,650	15
FCAID-360152	Exterior Lighting, HID	D50 - Electrical	3	\$13,950	15
FCAID-360061	EF-13	D30 - HVAC	3	\$6,210	15

Appendix B

APPENDIX B: 5-YEAR PLAN ASSETS LIST

The individual assets associated with the 5-Year Plan are shown below, sorted from highest to lowest priority score. The priority score key is shown below for convenience.

Note that these values represent current replacement costs expressed in 2023 dollar amounts and are not adjusted for inflation.

LOW	MEDIUM-LOW	MEDIUM	MEDIUM-HIGH	HIGH
6	12	18	24	30

The asset ID listed for each entry has been assigned during this assessment and reflects the corresponding asset in the FCA workbook.

LOPEZ ES

ASSET ID	DESCRIPTION	SUBSYSTEM	OBSERVED REMAINING LIFE	REPLACEMENT COST	PRIORITY SCORE
FCAID-360156	Interior Lighting: Fluorescent	D50 - Electrical	5	\$762,820	24
FCAID-360154	Fire Alarm System	D50 - Electrical	5	\$449,010	22
FCAID-360155	Emergency Exit Lighting	D50 - Electrical	5	\$219,600	21
FCAID-360047	Gym AHU	D30 - HVAC	5	\$106,650	20
FCAID-360170	Security System	D50 - Electrical	5	\$219,600	20
FCAID-360015	Roofing, Rolled Asphalt	B30 - Roofing	4	\$364,020	19
FCAID-360149	UV-54	D30 - HVAC	4	\$30,370	18
FCAID-360145	RTU-1	D30 - HVAC	5	\$32,740	17
FCAID-360183	Walk-in Condenser, Left	E10 - Equipment	4	\$5,030	17
FCAID-360148	SF-2	D30 - HVAC	5	\$6,210	15
FCAID-360096	Kitchen Hood	D30 - HVAC	5	\$11,230	14
FCAID-360074	EF-3	D30 - HVAC	5	\$5,550	13
FCAID-360058	EF-10	D30 - HVAC	5	\$5,550	13
FCAID-360144	Convactor	D30 - HVAC	5	\$1,910	13
FCAID-360062	EF-14	D30 - HVAC	5	\$1,260	13
FCAID-360054	CH-4	D30 - HVAC	5	\$6,610	13
FCAID-360064	EF-17	D30 - HVAC	5	\$6,210	13
FCAID-360060	EF-12	D30 - HVAC	5	\$6,210	13
FCAID-360075	Exhaust Fan	D30 - HVAC	5	\$5,550	13
FCAID-360055	CH-4	D30 - HVAC	5	\$6,610	13
FCAID-360059	EF-11	D30 - HVAC	5	\$5,550	13
FCAID-360057	FCU-1	D30 - HVAC	5	\$6,360	13
FCAID-360030	VCT Flooring	C30 - Int. Finishes	5	\$117,030	13
FCAID-360052	CH-2	D30 - HVAC	5	\$8,750	13
FCAID-360051	CH-1	D30 - HVAC	5	\$8,750	13

FCAID-360071	EF-9	D30 - HVAC	5	\$5,550	13
FCAID-360053	CH-2	D30 - HVAC	5	\$6,610	13
FCAID-360072	EF-1	D30 - HVAC	5	\$9,590	13
FCAID-360073	EF-2	D30 - HVAC	5	\$5,550	13
FCAID-360065	EF-18	D30 - HVAC	5	\$5,550	13

Appendix C

APPENDIX C: 10-YEAR PLAN ASSETS LIST

The individual assets associated with the 10-Year Plan are shown below, sorted from highest to lowest priority score. The priority score key is shown below for convenience.

Note that these values represent current replacement costs expressed in 2023 dollar amounts and are not adjusted for inflation.

LOW	MEDIUM-LOW	MEDIUM	MEDIUM-HIGH	HIGH
6	12	18	24	30

The asset ID listed for each entry has been assigned during this assessment and reflects the corresponding asset in the FCA workbook.

LOPEZ ES

ASSET ID	DESCRIPTION	SUBSYSTEM	OBSERVED REMAINING LIFE	REPLACEMENT COST	PRIORITY SCORE
FCAID-360172	Main Switchboard, Section 2	D50 - Electrical	7	\$32,370	17
FCAID-360171	Main Switchboard, Section 1	D50 - Electrical	7	\$40,180	17
FCAID-360027	Carpeting	C30 - Int. Finishes	6	\$553,200	16
FCAID-360025	Acoustic Tiles	C30 - Int. Finishes	7	\$407,260	15
FCAID-360184	Walk-in Condenser, Right	E10 - Equipment	7	\$5,030	15
FCAID-360185	Walk-in Cooler	E10 - Equipment	7	\$6,030	15
FCAID-360093	Pump P-4	D30 - HVAC	7	\$6,560	14
FCAID-360012	Exterior Windows, Steel	B20 - Ext. Enclosure	7	\$34,160	14
FCAID-360092	Pump P-3	D30 - HVAC	7	\$6,560	14
FCAID-360164	Panel L1C	D50 - Electrical	7	\$3,270	13
FCAID-360160	Panel KP	D50 - Electrical	7	\$3,270	13
FCAID-360039	WH-1	D20 - Plumbing	7	\$8,580	13
FCAID-360066	EF-19	D30 - HVAC	7	\$5,550	13
FCAID-360162	Panel L1A	D50 - Electrical	7	\$3,270	13
FCAID-360067	EF-23	D30 - HVAC	7	\$1,260	13
FCAID-360166	Panel L1E	D50 - Electrical	7	\$4,740	13
FCAID-360068	EF-24	D30 - HVAC	7	\$5,550	13
FCAID-360095	Dishwasher Hood	D30 - HVAC	6	\$8,190	13
FCAID-360069	EF-5	D30 - HVAC	7	\$1,260	13
FCAID-360161	Panel L1A	D50 - Electrical	7	\$3,270	13
FCAID-360070	EF-7	D30 - HVAC	7	\$1,260	13
FCAID-360163	Panel L1B	D50 - Electrical	7	\$3,270	13
FCAID-360008	Metal Doors, Double	B20 - Ext. Enclosure	6	\$79,360	13
FCAID-360165	Panel L1D	D50 - Electrical	7	\$3,270	13
FCAID-360089	HW Pump AHU-2	D30 - HVAC	9	\$4,630	13

FCAID-360167	Panel L1E	D50 - Electrical	7	\$4,740	13
FCAID-360029	Ceramic Tile Flooring	C30 - Int. Finishes	7	\$49,390	13
FCAID-360063	EF-16	D30 - HVAC	7	\$6,210	13
FCAID-360038	Water Heater	D20 - Plumbing	7	\$10,610	13
FCAID-360088	HW Pump AHU-1	D30 - HVAC	9	\$4,630	13
FCAID-360056	CH-5	D30 - HVAC	6	\$8,750	12
FCAID-360078	FCU-2	D30 - HVAC	10	\$9,490	12
FCAID-360083	FCU-7	D30 - HVAC	10	\$9,490	12
FCAID-360037	DHWP-1	D20 - Plumbing	8	\$4,630	12
FCAID-360079	FCU-3	D30 - HVAC	10	\$12,240	12
FCAID-360077	FCU-1	D30 - HVAC	10	\$9,490	12
FCAID-360082	FCU-6	D30 - HVAC	10	\$9,490	12
FCAID-360090	Pump P-1	D30 - HVAC	10	\$11,900	12
FCAID-360091	Pump P-2	D30 - HVAC	10	\$11,900	12
FCAID-360081	FCU-5	D30 - HVAC	10	\$9,490	12
FCAID-360080	FCU-4	D30 - HVAC	10	\$9,490	12
FCAID-360022	Folding Partition Door (Double)	C10 - Int. Construct.	6	\$19,840	11
FCAID-360041	WH-3	D20 - Plumbing	9	\$8,580	11
FCAID-360026	Athletic Flooring	C30 - Int. Finishes	8	\$48,020	11
FCAID-360040	WH-2	D20 - Plumbing	9	\$8,580	11
FCAID-360001	Exterior Doors, Double, Gym Addition (12)	B20 - Ext. Enclosure	8	\$19,840	11
FCAID-360009	Exterior Doors, Single, Gym Addition	B20 - Ext. Enclosure	8	\$9,920	10
FCAID-360048	HW Air Separator	D30 - HVAC	7	\$7,530	10
FCAID-360178	VFD AHU-3 Supply	D50 - Electrical	10	\$5,630	9
FCAID-360180	VFD AHU-4 Supply	D50 - Electrical	10	\$5,630	9
FCAID-360179	VFD AHU-4 Exhaust	D50 - Electrical	10	\$5,480	9
FCAID-360076	HW Expansion Tank	D30 - HVAC	9	\$7,230	9
FCAID-360182	VFD AHU-5 Supply	D50 - Electrical	10	\$5,630	9
FCAID-360177	VFD AHU-3 Exhaust	D50 - Electrical	10	\$5,480	9
FCAID-360050	HW Bypass Feeder	D30 - HVAC	9	\$1,950	9
FCAID-360035	DHW Expansion Tank	D20 - Plumbing	8	\$3,430	9
FCAID-360153	Exterior Lighting, LED	D50 - Electrical	10	\$610	8
FCAID-360087	Glycol Feeder	D30 - HVAC	8	\$1,780	8