# POUDRE SCHOOL DISTRICT

# FOSSIL RIDGE HIGH SCHOOL

HOME OF THE

SABERCATS



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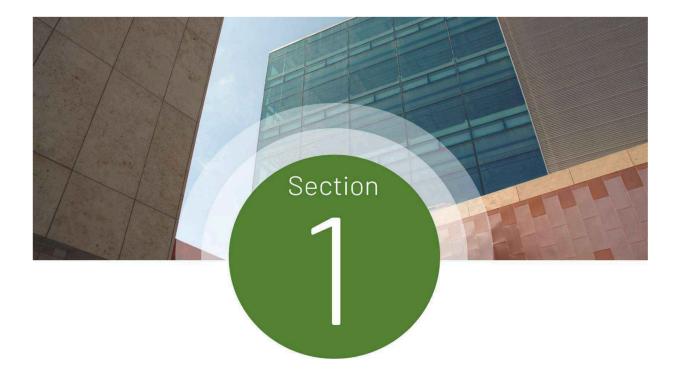
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# Executive Summary



# **Project Goals**

The contents of this report present the results of the Facility Condition Assessment (FCA) performed at Fossil Ridge HS within the Poudre School District (PSD) on July 24, 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
FOSSIL RIDGE HS	296,375	2004
TOTAL	296,375	

#### **Facility Summary**

### **Fossil Ridge HS**

Fossil Ridge HS is located at 5400 Ziegler Rd., Fort Collins, CO 80528. This 296,375 SF facility consists of two levels and was initially constructed in 2004. The equity index for this school is 0.31.



Fossil Ridge HS

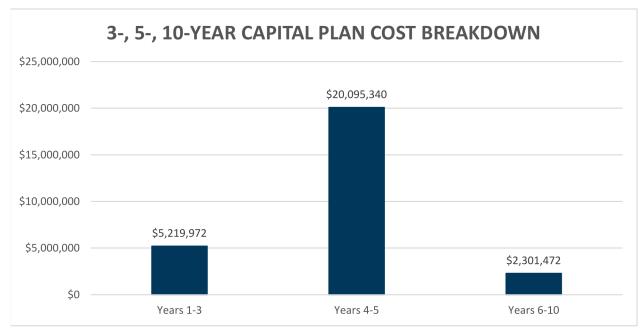
### **Assessment Summary**

This section summarizes the building systems at the facility and describes the general condition observed based on the assessment performed on July 24, 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.

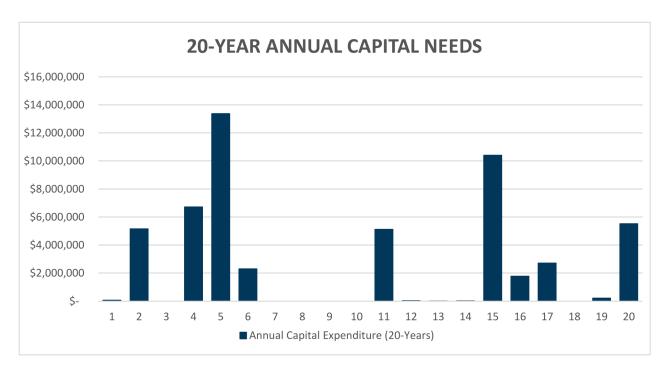
Replacement costs include 3% inflation year over year.



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

# 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.

Subsystem	Years 1-5	Years 6-10	Years 11-15	Years 15-20
B20 - Enclosure	B20 - Enclosure \$0		\$5,117,190	\$0
B30 - Roofing	\$2,185,299	\$54,103	\$0	\$0
C10 - Int. Construction	\$0	\$40,041	\$0	\$0
C20 - Stairs	\$0	\$0	\$0	\$0
C30 - Interior Finishes	\$6,686,159	\$76,106	\$2,345,482	\$2,235,196
D10 - Conveying	\$0	\$0	\$273,733	\$0
D20 - Plumbing	\$10,589	\$0	\$28,002	\$22,234
D30 - HVAC	\$7,589,256	\$713,382	\$26,336	\$282,556
D40 - Fire Suppression	\$0	\$0	\$7,773,410	\$0
D50 - Electrical \$8,837,121		\$1,400,345 \$14,424		\$7,674,104
E10 - Equipment \$0		\$17,493	\$17,493 \$0	
Total:	\$16,436,966	\$2,131,221	\$8,115,905	\$7,978,894

#### 20-Year Annual Capital Expenditure by Subsystem





# **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 Uniformat code, which has been used to catalog equipment based on type and intended use.

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.

#### UniFormat Classification of Building Systems

# **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:

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

ASSET TYPE	ASSET SIZE	ENERGY Cost impact (1-5)
	less than 5 ton	2
Rooftop Unit	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		
Air Curtain		
Air Dryer		
Cabinet Unit Heater		
Dehumidifier		
Electric Duct Heater	All sizes	2
Humidifier		
Unit Heater	1	
Unit Ventilator	1	
Walk-In Condenser	1	
Walk-In Unit	]	
All Other	All sizes	1

\*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.

# **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, RSMeans, 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.

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:

# School Percentage in these areas added together as decimals 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.

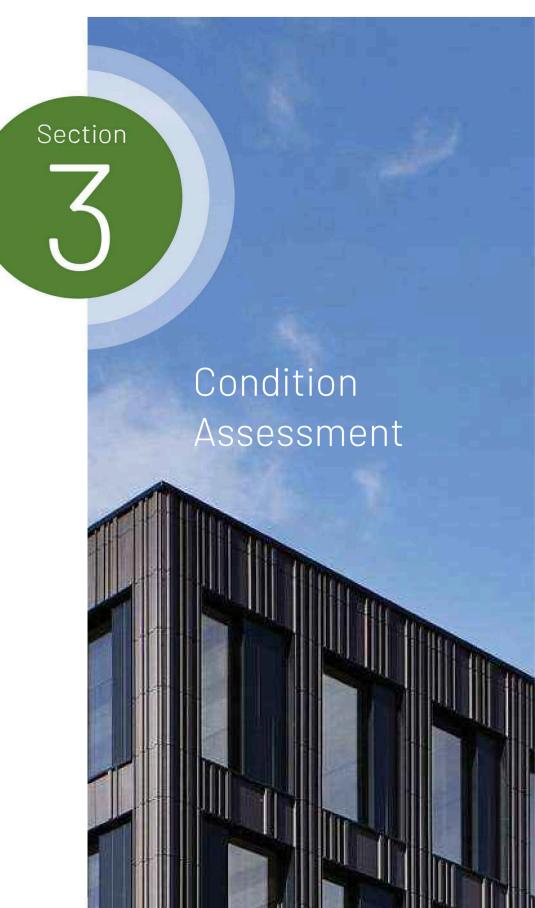
Category	Equity Index
Low	0.29
High	3.20
Average	1.11
Median	0.95

The equity index for Fossil Ridge HS is 0.31.

# 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.; McKinnney-Vento - Homeless Assistance





# SYSTEMS DESCRIPTION

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

#### **Exterior Enclosure**

The original building was constructed in 2004. Subsequent renovations to the school were completed in 2013, 2014, and 2015. Exterior walls are primarily of brick, metal clapboard panel, and cast-in-place concrete construction. Windows are of the aluminum framed type, but include some metal clad wood windows. Exterior doors consist of hollow metal and storefront types. Exterior

#### Roofing

Original 2004 rolled asphalt roofing is present on the entirety of the building. Metal flashing, concrete flashing/coping are original. The rolled asphalt roofing is a second se

#### **Interior Construction and Finishes**

All interior construction and finish assets date to the 2004 original construction. Vinyl and hardwood flooring assets are now 4 years past expected life and are in need of replacement within two years.

Though the majority of interior construction and finish assets have remaining industry life,

#### Conveyance

Two passenger elevators are provided to serve the two floors of the building. Additionally, a wheelchair lift is provided in the Auditorium. All have 15 years remaining life.

#### **Electrical and Lighting**

The building includes both 120/208V and 277/480V service. Electrical assets, including panelboards, transformers, and the main switchboard date to 2004. **Construct and the main** d 10 more VFDs are expected to require replacement within 4 years. The back-up generator is original, needing replacement in 5 years. Emergency back-up lighting dates to 2004, as does the majority of the building's interior fluorescent lighting fixtures. Recommend replacement of the remaining fluorescent lighting fixtures with LED lighting fixtures in approximately 4 years. The fire alarm system and the security system are original but have 5-6 years of remaining life. One solar PV array is provided along with three solar inverters

#### **HVAC Systems**

HVAC assets include (15) air handling units, one air-cooled chiller with (8) ice storage tanks, (113) blower coil units, exhaust fans, CRAC units, duct heating units, cabinet unit heaters, and VAVs with Reheat Coils. The heating water system features three gas-fired boilers that were replaced in 2020 along with 3 associated boiler circulation pumps. The two heating water pumps are original requiring replacement within 4 years. All four of the CHWPs are original.

The air-cooled chiller is expected to be replaced in approximately 4 years. The BAS is thought to be original to the 2004 construction, but may have been updated in 2018 (all cabinets were locked).

#### Plumbing

Plumbing assets include one gas-fired water heater (a 1500 MBH boiler replaced in 2017), backflow preventers, circulation pumps, and storage tanks (replaced 2017).

Both of these assets require replacement within 1-2 years.

#### **Fire Suppression**

The fire alarm system is original and will need to be replaced in approximately 5 years. The wet fire sprinkler system dates to the 2004 original construction, and has 15 years of remaining life. The Fire Protection System appears to be well maintained and updated per fire code requirements. No deficiencies were noted with this system.

#### Equipment

The Kitchen area is provided two walk-in coolers and one walk-in freezer with associated condensing units. All three units are original to the 2004 construction and are expected to require replacement in approximately 6 years.

# **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.

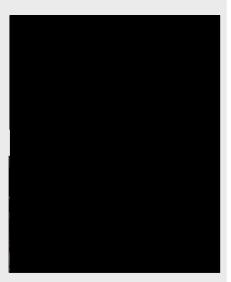
Fossil Ridge HS

#### Foundation Subsidence - Wall & Floor Damage

Foundational subsidence was noted. Though the majority of interior construction and finish assets have remaining industry life, many of the flooring surfaces throughout the first floor were observed to have sustained damage as a result of known subsidence issue

The following assets are included within this measure:

N/A



Priority Level:	1
Estimated Cost:	TBD
Remaining Life:	N/A

# Condition Assessment

# Failed & Outdated VFDs

Of the 2004-built VFD two of these have 2015 replacements located inside. Eight more of the VFDs date to 2004 and are expected to require replacement in 4 years.

The following assets are included within this measure:

FCAID-210473 through FCAID-210483





Priority Level:	2
Estimated Cost:	\$64,190
Remaining Life:	1-4 Years

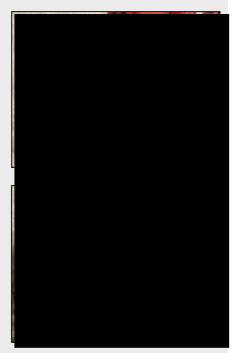
# Replace P-3 & P-4

Chilled Water Pumps P-3 and P-4 are 10 Hp original pumps. These pumps are at expected life in 2023,

The following assets are included within this measure:

FCAID-210095, FCAID-210096

Priority Level:	2
Estimated Cost:	\$32,220
Remaining Life:	1 Year



# **Condition Assessment**

# **Replace BFP-Main-DCW**

BFP-Main-DCW serves the main incoming domestic cold water service. Replace within 2 years.

The following assets are included within this measure: FCAID-210055



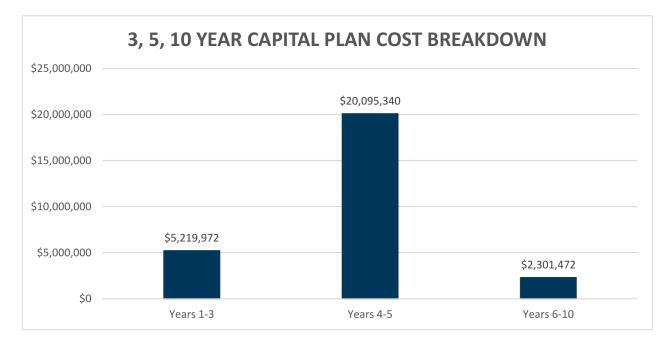


		2
	ty Level:	2
Estimat	ed Cost:	\$1,600
Remain	ing Life:	2 Years
Replace DHWCP-2 & AS-2		
DHWCP-2 (Replacement Cost \$6,990) and AS-2 (Replacement Co Recommend replace		the
The following assets are included within this measure:		
FCAID-210059, FCAID-210082		
Priorit	ty Level:	2
Estimat	ed Cost:	\$16,850
Remain	ing Life:	1 Year

# 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**

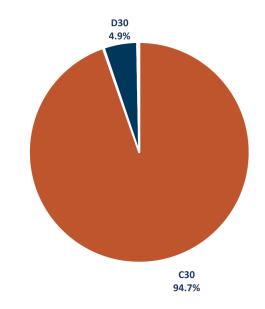
The table below displays replacement costs for the campus, and the number of associated assets expected to fail within the next ten years. Assets requiring replacement or extensive maintenance in this plan are presented in Appendices A, B, and C.

REPLACEMENT PERIOD	ASSET QUANTITY	CUMULATIVE REPLACEMENT COST
3-Year Plan	24	\$5,219,972
5-Year Plan	222	\$20,095,340
10-Year Plan	96	\$2,301,472
Total	342	\$27,616,784

# **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 \$5,219,972. The specific assets that will reach end of life in this period are listed in Appendix A.

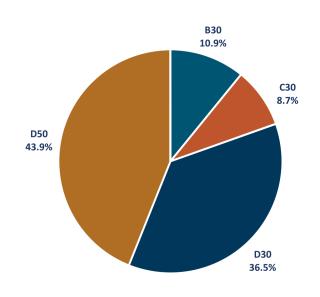
SUBSYSTEM	Years 1-3	Percent
A10 - Foundations	\$0	0%
B10 - Superstructure	\$0	0%
B20 - Exterior Enclosure	\$0	0%
B30 - Roofing	\$0	0%
C10 - Int. Construction	\$0	0%
C20 - Stairs	\$0	0%
C30 - Interior Finishes	\$4,940,900	95%
D10 - Conveying	\$0	0%
D20 - Plumbing	\$8,338	<1%
D30 - HVAC	\$255,105	5%
D40 - Fire Protection	\$0	0%
D50 - Electrical	\$15,630	<1%
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 \$20,095,340. The specific assets that will reach end of life in this period are listed in Appendix A.

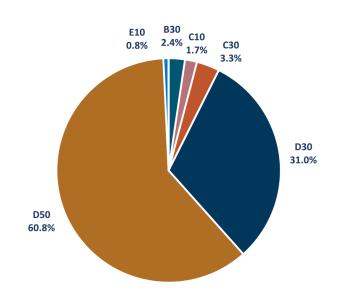
SUBSYSTEM	Years 4-5	Percent
A10 - Foundations	\$0	0%
B10 - Superstructure	\$0	0%
B20 - Exterior Enclosure	\$0	0%
B30 - Roofing	\$2,185,299	11%
C10 - Int. Construction	\$0	0%
C20 - Stairs	\$0	0%
C30 - Interior Finishes	\$1,745,259	9%
D10 - Conveying	\$0	0%
D20 - Plumbing	\$2,251	<1%
D30 - HVAC	\$7,334,151	36%
D40 - Fire Protection	\$0	0%
D50 - Electrical	\$8,821,491	44%
E10 - Equipment	\$0	0%
G20 - Site Improvements	\$0	0%
G40 - Site Electrical	\$6,888	<1%



# **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 \$2,301,472. 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	\$0	0%
B30 - Roofing	\$54,103	2%
C10 - Int. Construction	\$40,041	2%
C20 - Stairs	\$0	0%
C30 - Interior Finishes	\$76,106	3%
D10 - Conveying	\$0	0%
D20 - Plumbing	\$0	0%
D30 - HVAC	\$713,382	31%
D40 - Fire Protection	\$0	0%
D50 - Electrical	\$1,400,345	61%
E10 - Equipment	\$17,493	1%
G20 - Site Improvements	\$0	0%
G40 - Site Electrical	\$0	0%



# **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.

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

# **Condition Assessment**

# **PRIORITY SCORE SUMMARY - FOSSIL RIDGE HS**

	FOSSIL RIDGE HS	;
	BUILDING TYPE: Hig	gh School
	YEAR BUILT:	2004
	GROSS AREA (SF): 2	96,375
	DATE ASSESSED: July	12, 2023
	PRIORITY SCORE:	16.9
SUBSYSTEM:	DESCRIPTION	PRIORITY SCORE
20 - Ext. Enclosure	The original building was constructed in 2004. Subsequent renovations to the school were completed in 2013, 2014, and 2015. Exterior walls are primarily of brick, metal clapboard panel, and cast-in-place concrete construction. Windows are of the aluminum framed type, but include some metal clad wood windows. Exterior doors consist of hollow metal and storefront types.	13.4
30 - Roofing	Original 2004 rolled asphalt roofing is present on the entirety of the building. Metal flashing, concrete flashing/coping and skylights are original. The rolled asphalt roofing is expected to have 5 years of remaining useful life.	16.6
10 - Int. Construction	All interior construction and finish assets date to the 2004 original construction. Vinyl and hardwood flooring assets are now 4 years past expected life and are in need of replacement within two years.	13.5
30 - Interior Finishes	Though the majority of interior construction and finish assets have remaining industry life, many of the flooring surfaces throughout the first floor were observed to have sustained damage as a result of known subsidence issue	17.6
20 - Plumbing	Plumbing assets include one gas-fired water heater (a 1500 MBH boiler replaced in 2017), backflow preventers, circulation pumps, and storage tanks (replaced 2017).	12.9
930 - HVAC	HVAC assets include (15) air handling units, one air-cooled chiller with (8) ice storage tanks, (113) blower coil units, exhaust fans, CRAC units, duct heating units, cabinet unit heaters, and VAVs with Reheat Coils. The heating water system features three gas-fired boilers that were replaced in 2020 along with 3 associated boiler circulation pumps. The two heating water pumps are original requiring replacement within 4 years. All four of the CHWPs are original. The BAS is thought to be original to the 2004 construction, but may have been updated in 2018 (all cabinets were locked).	17.1
40 - Fire Suppression	The fire alarm system is original and will need to be replaced in approximately 5 years. The wet fire sprinkler system dates to the 2004 original construction, and has 15 years of remaining life. The Fire Protection System appears to be well maintained and updated per fire code requirements. No deficiencies were noted with this system.	20.0
50 - Electrical	The building includes both 120/208V and 277/480V service. Electrical assets, including panelboards, transformers, and the main switchboard date to 2004. Of the back-up generator is original, needing replacement in 5 years. Emergency back-up lighting dates to 2004, as does the majority of the building's interior fluorescent lighting fixtures. Recommend replacement of the remaining fluorescent lighting fixtures with LED lighting fixtures in approximately 4 years. The fire alarm system and the security system are original but have 5-6 years of remaining life. One solar PV array is provided along with three solar inverters	22.4
10 - Equipment	The Kitchen area is provided two walk-in coolers and one walk-in freezer with associated condensing units. All three units are original to the 2004 construction and are expected to require replacement in approximately 6 years.	15.0

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. [ $\leq 12 = \text{green}$ , 12-24 = yellow,  $\geq 24 = \text{red}$ ]

Appendices

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

# **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.

#### **FOSSIL RIDGE HS**

ASSET ID	DESCRIPTION	SUBSYSTEM	OBSERVED Remaining	REPLACEMENT Cost	PRIORITY Score
FCAID-210344	MAU-2	D30 - HVAC	2	\$96,540	19
FCAID-210043	Interior Floor Finishes: Ceramic Tile	C30 - Int. Finishes	2	\$1,078,470	19
FCAID-210345	MAU-3	D30 - HVAC	2	\$96,540	19
FCAID-210040	Interior Floor Finishes: Concrete	C30 - Int. Finishes	2	\$614,490	19
FCAID-210050	Interior Floor Finishes: Hardwood	C30 - Int. Finishes	2	\$438,310	19
FCAID-210096	P-4	D30 - HVAC	1	\$16,110	18
FCAID-210095	P-3	D30 - HVAC	1	\$16,110	18
FCAID-210049	Interior Floor Finishes: VCT	C30 - Int. Finishes	2	\$830,250	18
FCAID-210036	Interior Ceiling Finishes: ACT	C30 - Int. Finishes	2	\$1,487,580	18
FCAID-210045	Interior Floor Finishes: Resilient Flooring	C30 - Int. Finishes	2	\$42,630	16
FCAID-210160	EF-C6	D30 - HVAC	2	\$8,190	16
FCAID-210048	Interior Floor Finishes: Traffic Coating	C30 - Int. Finishes	2	\$121,800	16
FCAID-210039	Interior Floor Finishes: Coated Concrete	C30 - Int. Finishes	2	\$72 <i>,</i> 910	16
FCAID-210195	EF-H5	D30 - HVAC	2	\$5,550	16
FCAID-210044	Interior Floor Finishes: Misc. Tile	C30 - Int. Finishes	2	\$39 <i>,</i> 080	16
FCAID-210046	Interior Floor Finishes: Stage Floor Tile	C30 - Int. Finishes	2	\$65 <i>,</i> 650	16
FCAID-210059	DHWCP-2	D20 - Plumbing	1	\$6,690	16
FCAID-210478	VFD-MAU-3	D50 - Electrical	1	\$5,210	15
FCAID-210477	VFD-MAU-2	D50 - Electrical	1	\$5,210	15
FCAID-210476	VFD-MAU-1	D50 - Electrical	1	\$5,210	15
FCAID-210055	BFP-Main DCW	D20 - Plumbing	2	\$1,600	14
FCAID-210047	Interior Floor Finishes: Sheet Vinyl	C30 - Int. Finishes	2	\$2 <i>,</i> 540	14
FCAID-210037	Interior Floor Finishes: Rubber Floor	C30 - Int. Finishes	2	\$3,280	14
FCAID-210082	AS-2	D30 - HVAC	1	\$9,860	14

# **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.

### **FOSSIL RIDGE HS**

ASSET ID	DESCRIPTION	SUBSYSTEM	OBSERVED REMAINING LIFE	REPLACEMENT Cost	PRIORITY Score
FCAID-210368	Emergency Back-Up Lighting	D50 - Electrical	4	\$1,129,190	25
FCAID-210370	Interior Lighting: Fluorescent	D50 - Electrical	4	\$4,460,950	25
FCAID-210099	Chiller-1	D30 - HVAC	4	\$283 <i>,</i> 390	23
FCAID-210072	AHU-15	D30 - HVAC	5	\$212,730	23
FCAID-210066	AHU-1	D30 - HVAC	5	\$204,060	23
FCAID-210079	AHU-8	D30 - HVAC	5	\$183,150	22
FCAID-210070	AHU-13	D30 - HVAC	5	\$158,700	22
FCAID-210367	Fire Alarm System	D50 - Electrical	5	\$2,308,760	22
FCAID-210067	AHU-10	D30 - HVAC	5	\$138,790	20
FCAID-210074	AHU-3	D30 - HVAC	5	\$126,200	20
FCAID-210080	AHU-9	D30 - HVAC	5	\$115,540	20
FCAID-210073	AHU-2	D30 - HVAC	5	\$125,560	20
FCAID-210068	AHU-11	D30 - HVAC	5	\$116,680	20
FCAID-210069	AHU-12	D30 - HVAC	5	\$92,150	19
FCAID-210071	AHU-14	D30 - HVAC	5	\$57,090	19
FCAID-210076	AHU-5	D30 - HVAC	5	\$49,340	19
FCAID-210077	AHU-6	D30 - HVAC	5	\$74,370	19
FCAID-210075	AHU-4	D30 - HVAC	5	\$37,830	19
FCAID-210078	AHU-7	D30 - HVAC	5	\$97,260	19
FCAID-210106	CU-2	D30 - HVAC	4	\$11,370	17
FCAID-210108	CU-F	D30 - HVAC	4	\$12,030	17
FCAID-210107	CU-A	D30 - HVAC	4	\$11,640	17
FCAID-210109	CU-Kitchen	D30 - HVAC	4	\$13,470	17
FCAID-210017	Roofing: Rolled Asphalt	B30 - Roofing	5	\$1,708,560	17
FCAID-210105	CU-1	D30 - HVAC	4	\$12,030	17

FCAID-210083	Building Automation System	D30 - HVAC	5	\$2,539,930	17
FCAID-210343	MAU-1	D30 - HVAC	5	\$96,540	16
FCAID-210038	Interior Floor Finishes: Carpet	C30 - Int. Finishes	5	\$1,550,640	16
FCAID-210366	Exterior Lighting: Wall Pack	D50 - Electrical	4	\$27,290	15
FCAID-210098	P-6	D30 - HVAC	4	\$19,490	15
FCAID-210333	HWP-1	D30 - HVAC	4	\$19,490	15
FCAID-210364	Back-Up Generator	D50 - Electrical	5	\$7,240	15
FCAID-210157	EF-C3	D30 - HVAC	4	\$1,260	15
FCAID-210155	EF-C1	D30 - HVAC	4	\$8,660	15
FCAID-210334	HWP-2	D30 - HVAC	4	\$19,490	15
FCAID-210097	P-5	D30 - HVAC	4	\$19,490	15
FCAID-210016	Roofing: Metal Flashing	B30 - Roofing	5	\$116,540	15
FCAID-210318	BCU-H2	D30 - HVAC	5	\$9,490	14
FCAID-210286	BCU-C5	D30 - HVAC	5	\$9,490	14
FCAID-210270	BCU-C12	D30 - HVAC	5	\$11,440	14
FCAID-210115	HC-14	D30 - HVAC	5	\$3,300	14
FCAID-210302	BCU-E5	D30 - HVAC	5	\$12,240	14
FCAID-210116	HC-15	D30 - HVAC	5	\$2,260	14
FCAID-210262	BCU-B5	D30 - HVAC	5	\$9 <i>,</i> 490	14
FCAID-210117	HC-16	D30 - HVAC	5	\$2,260	14
FCAID-210278	BCU-C2	D30 - HVAC	5	\$11,440	14
FCAID-210118	HC-17	D30 - HVAC	5	\$2,260	14
FCAID-210294	BCU-D4	D30 - HVAC	5	\$18,690	14
FCAID-210119	HC-18	D30 - HVAC	5	\$2,260	14
FCAID-210310	BCU-F5	D30 - HVAC	5	\$11,440	14
FCAID-210120	HC-19	D30 - HVAC	5	\$2,260	14
FCAID-210114	HC-13	D30 - HVAC	5	\$2,260	14
FCAID-210121	HC-2	D30 - HVAC	5	\$2,260	14
FCAID-210266	BCU-B9	D30 - HVAC	5	\$9,490	14
FCAID-210122	HC-20	D30 - HVAC	5	\$2,260	14
FCAID-210274	BCU-C16	D30 - HVAC	5	\$16,540	14
FCAID-210123	HC-21	D30 - HVAC	5	\$2,260	14
FCAID-210282	BCU-C23	D30 - HVAC	5	\$9,490	14
FCAID-210124	HC-22	D30 - HVAC	5	\$2,260	14
FCAID-210290	BCU-C9	D30 - HVAC	5	\$9,490	14
FCAID-210125	HC-23	D30 - HVAC	5	\$2,260	14
FCAID-210298	BCU-E1	D30 - HVAC	5	\$7,830	14
FCAID-210126	HC-3	D30 - HVAC	5	\$2,260	14
FCAID-210306	BCU-F1	D30 - HVAC	5	\$9,490	14
FCAID-210127	HC-4	D30 - HVAC	5	\$2,260	14
FCAID-210314	BCU-F9	D30 - HVAC	5	\$11,440	14
FCAID-210128	HC-5	D30 - HVAC	5	\$2,260	14
FCAID-210322	BCU-H6	D30 - HVAC	5	\$11,440	14
FCAID-210129	HC-6	D30 - HVAC	5	\$2,260	14
FCAID-210260	BCU-B3	D30 - HVAC	5	\$8,870	14
FCAID-210130	HC-7	D30 - HVAC	5	\$3,300	14
FCAID-210264	BCU-B7	D30 - HVAC	5	\$9,860	14

FCAID-210131	HC-8	D30 - HVAC	5	\$2,260	14
FCAID-210268	BCU-C10	D30 - HVAC	5	\$9,860	14
FCAID-210132	HC-9	D30 - HVAC	5	\$2,260	14
FCAID-210272	BCU-C14	D30 - HVAC	5	\$12,240	14
FCAID-210102	CRAC-2	D30 - HVAC	4	\$12 <i>,</i> 570	14
FCAID-210276	BCU-C18	D30 - HVAC	5	\$7,830	14
FCAID-210103	CRAC-3	D30 - HVAC	4	\$12,570	14
FCAID-210280	BCU-C21	D30 - HVAC	5	\$9 <i>,</i> 490	14
FCAID-210211	BCU-A1	D30 - HVAC	5	\$11,090	14
FCAID-210284	BCU-C3	D30 - HVAC	5	\$8,870	14
FCAID-210212	BCU-A10	D30 - HVAC	5	\$11,440	14
FCAID-210288	BCU-C7	D30 - HVAC	5	\$9,860	14
FCAID-210213	BCU-A11	D30 - HVAC	5	\$11,090	14
FCAID-210292	BCU-D2	D30 - HVAC	5	\$12,240	14
FCAID-210214	BCU-A12	D30 - HVAC	5	\$9,490	14
FCAID-210296	BCU-D6	D30 - HVAC	5	\$12,240	14
FCAID-210215	BCU-A13	D30 - HVAC	5	\$11,440	14
FCAID-210300	BCU-E3	D30 - HVAC	5	\$9,490	14
FCAID-210216	BCU-A14	D30 - HVAC	5	\$9,860	14
FCAID-210304	BCU-E7	D30 - HVAC	5	\$11,440	14
FCAID-210217	BCU-A15	D30 - HVAC	5	\$9,490	14
FCAID-210308	BCU-F3	D30 - HVAC	5	\$9,860	14
FCAID-210218	BCU-A16	D30 - HVAC	5	\$9,860	14
FCAID-210312	BCU-F7	D30 - HVAC	5	\$12,240	14
FCAID-210219	BCU-A17	D30 - HVAC	5	\$9,490	14
FCAID-210316	BCU-G2	D30 - HVAC	5	\$12,240	14
FCAID-210220	BCU-A18	D30 - HVAC	5	\$11,440	14
FCAID-210320	BCU-H4	D30 - HVAC	5	\$14,390	14
FCAID-210221	BCU-A19	D30 - HVAC	5	\$9,490	14
FCAID-210112	HC-11	D30 - HVAC	5	\$2,260	14
	BCU-A2	D30 - HVAC	5	\$11,440	14
FCAID-210259	BCU-B24	D30 - HVAC	5	\$11,440	14
FCAID-210223	BCU-A20	D30 - HVAC	5	\$8,870	14
FCAID-210261	BCU-B4	D30 - HVAC	5	\$9,860	14
FCAID-210224	BCU-A21	D30 - HVAC	5	\$12,240	14
FCAID-210263	BCU-B6	D30 - HVAC	5	\$9,490	14
FCAID-210225	BCU-A22	D30 - HVAC	5	\$7,830	14
FCAID-210265	BCU-B8	D30 - HVAC	5	\$9,860	14
FCAID-210226	BCU-A23	D30 - HVAC	5	\$8,870	14
FCAID-210267	BCU-C1	D30 - HVAC	5	\$9,490	14
FCAID-210227	BCU-A24	D30 - HVAC	5	\$8,870	14
FCAID-210269	BCU-C11	D30 - HVAC	5	\$9,860	14
FCAID-210228	BCU-A25	D30 - HVAC	5	\$7,830	14
FCAID-210220	BCU-C13	D30 - HVAC	5	\$12,240	14
FCAID-210271	BCU-A26	D30 - HVAC	5	\$16,540	14
FCAID-210223	BCU-C15	D30 - HVAC	5	\$9,490	14
FCAID-210275	BCU-A27	D30 - HVAC	5	\$9,490	14
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FCAID-210275	BCU-C17	D30 - HVAC	5	\$11,440	14
FCAID-210231	BCU-A28	D30 - HVAC	5	\$12,240	14
FCAID-210277	BCU-C19	D30 - HVAC	5	\$12,240	14
FCAID-210232	BCU-A29	D30 - HVAC	5	\$9 <i>,</i> 860	14
FCAID-210279	BCU-C20	D30 - HVAC	5	\$9 <i>,</i> 860	14
FCAID-210233	BCU-A3	D30 - HVAC	5	\$11,440	14
FCAID-210281	BCU-C22	D30 - HVAC	5	\$11,440	14
FCAID-210234	BCU-A30	D30 - HVAC	5	\$11,440	14
FCAID-210283	BCU-C24	D30 - HVAC	5	\$11,440	14
FCAID-210235	BCU-A31	D30 - HVAC	5	\$9 <i>,</i> 490	14
FCAID-210285	BCU-C4	D30 - HVAC	5	\$9 <i>,</i> 860	14
FCAID-210236	BCU-A32	D30 - HVAC	5	\$9 <i>,</i> 490	14
FCAID-210287	BCU-C6	D30 - HVAC	5	\$9 <i>,</i> 490	14
FCAID-210237	BCU-A4	D30 - HVAC	5	\$11,440	14
FCAID-210289	BCU-C8	D30 - HVAC	5	\$9,860	14
FCAID-210238	BCU-A5	D30 - HVAC	5	\$11,440	14
FCAID-210291	BCU-D1	D30 - HVAC	5	\$7,830	14
FCAID-210239	BCU-A6	D30 - HVAC	5	\$11,440	14
FCAID-210293	BCU-D3	D30 - HVAC	5	\$11,440	14
FCAID-210240	BCU-A7	D30 - HVAC	5	\$11,440	14
FCAID-210295	BCU-D5	D30 - HVAC	5	\$9,860	14
FCAID-210104	CRAC-4	D30 - HVAC	4	\$12,570	14
FCAID-210297	BCU-D7	D30 - HVAC	5	\$11,440	14
FCAID-210101	CRAC-1	D30 - HVAC	4	\$12,570	14
FCAID-210299	BCU-E2	D30 - HVAC	5	\$11,440	14
FCAID-210110	HC-1	D30 - HVAC	5	\$2,260	14
FCAID-210301	BCU-E4	D30 - HVAC	5	\$16,540	14
FCAID-210111	HC-10	D30 - HVAC	5	\$2,260	14
FCAID-210303	BCU-E6	D30 - HVAC	5	\$7,830	14
FCAID-210245	BCU-B11	D30 - HVAC	5	\$9,860	14
FCAID-210305	BCU-E8	D30 - HVAC	5	\$14,390	14
FCAID-210246	BCU-B12	D30 - HVAC	5	\$11,440	14
FCAID-210307	BCU-F2	D30 - HVAC	5	\$14,390	14
FCAID-210247	BCU-B13	D30 - HVAC	5	\$12,240	14
FCAID-210309	BCU-F4	D30 - HVAC	5	\$11,440	14
FCAID-210248	BCU-B14	D30 - HVAC	5	\$12,240	14
FCAID-210311	BCU-F6	D30 - HVAC	5	\$14,390	14
FCAID-210249	BCU-B15	D30 - HVAC	5	\$9,490	14
FCAID-210313	BCU-F8	D30 - HVAC	5	\$14,390	14
FCAID-210250	BCU-B16	D30 - HVAC	5	\$16,540	14
FCAID-210315	BCU-G1	D30 - HVAC	5	\$11,440	14
FCAID-210251	BCU-B17	D30 - HVAC	5	\$11,440	14
FCAID-210317	BCU-H1	D30 - HVAC	5	\$9,860	14
FCAID-210252	BCU-B18	D30 - HVAC	5	\$7,830	14
FCAID-210319	ВСИ-НЗ	D30 - HVAC	5	\$11,440	14
FCAID-210253	BCU-B19	D30 - HVAC	5	\$12,240	14
FCAID-210321	ВСИ-Н5	D30 - HVAC	5	\$9,860	14
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FCAID-210254	BCU-B2	D30 - HVAC	5	\$11,440	14
FCAID-210234	BCU-H7	D30 - HVAC	5	\$11,440	14
FCAID-210323	BCU-B20	D30 - HVAC	5	\$14,390	14
FCAID-210233	HC-12	D30 - HVAC	5	\$8,870	14
FCAID-210113	BCU-B21	D30 - HVAC	5	\$2,200	14
FCAID-210250	BCU-B22	D30 - HVAC	5	\$9,490	14
FCAID-210257	Exterior Lighting: Recessed Soffit	D50 - Electrical	4	\$11,440	14
FCAID-210303	BCU-B1	D30 - HVAC	5	\$2,430	14
FCAID-210243	BCU-B10	D30 - HVAC	5	\$9,450	14
FCAID-210244	Roofing: Solar Tunnels	B30 - Roofing	5	\$97,810	14
FCAID-210242	BCU-A9	D30 - HVAC	5	\$11,440	14
FCAID-210242	BCU-A8	D30 - HVAC	5	\$11,440	14
FCAID-210258	BCU-B23	D30 - HVAC	5	\$9,490	14
FCAID-210474	VFD-HWP-1	D50 - Electrical	4	\$6,510	13
FCAID-210371	Heat Trace-1	D50 - Electrical	5	\$6,000	13
FCAID-210475	VFD-HWP-2	D50 - Electrical	4	\$6,510	13
FCAID-210479	VFD-P-5	D50 - Electrical	4	\$6,510	13
FCAID-210480	VFD-P-6	D50 - Electrical	4	\$6,510	13
FCAID-210359	VAV-G7	D30 - HVAC	5	\$2,680	12
FCAID-210355	VAV-G3	D30 - HVAC	5	\$3,300	12
FCAID-210473	VFD-Exhaust Fan-AHU-2	D50 - Electrical	4	\$5,630	12
FCAID-210340	Ice Storage Tank-6	D30 - HVAC	5	\$32,290	12
FCAID-210357	VAV-G5	D30 - HVAC	5	\$2,680	12
FCAID-210341	Ice Storage Tank-7	D30 - HVAC	5	\$32,290	12
FCAID-210363	ATS-1	D50 - Electrical	5	\$12,460	12
FCAID-210342	Ice Storage Tank-8	D30 - HVAC	5	\$32,290	12
FCAID-210338	Ice Storage Tank-4	D30 - HVAC	5	\$32,290	12
FCAID-210065	Air Compressor-1	D30 - HVAC	5	\$11,060	12
FCAID-210356	VAV-G4	D30 - HVAC	5	\$3,300	12
FCAID-210349	VAV-G1	D30 - HVAC	5	\$8,900	12
FCAID-210358	VAV-G6	D30 - HVAC	5	\$2,680	12
FCAID-210350	VAV-G10	D30 - HVAC	5	\$2,680	12
FCAID-210361	VAV-G9	D30 - HVAC	5	\$3,300	12
FCAID-210351	VAV-G11	D30 - HVAC	5	\$8,900	12
FCAID-210336	Ice Storage Tank-2	D30 - HVAC	5	\$32,290	12
FCAID-210335	Ice Storage Tank-1	D30 - HVAC	5	\$32,290	12
FCAID-210337	Ice Storage Tank-3	D30 - HVAC	5	\$32,290	12
FCAID-210481	VFD-Return Fan-AHU-3	D50 - Electrical	4	\$5 <i>,</i> 630	12
FCAID-210339	Ice Storage Tank-5	D30 - HVAC	5	\$32,290	12
FCAID-210483	VFD-Supply Fan-AHU-3	D50 - Electrical	4	\$5 <i>,</i> 630	12
FCAID-210352	VAV-G12	D30 - HVAC	5	\$5 <i>,</i> 640	12
FCAID-210482	VFD-Supply Fan-AHU-2	D50 - Electrical	4	\$5 <i>,</i> 630	12
FCAID-210353	VAV-G13	D30 - HVAC	5	\$2 <i>,</i> 680	12
FCAID-210354	VAV-G2	D30 - HVAC	5	\$2,680	12
FCAID-210360	VAV-G8	D30 - HVAC	5	\$2,680	12
FCAID-210100	Air Dryer-1	D30 - HVAC	5	\$2,510	11
FCAID-210054	BFP-HWS Make-Up	D20 - Plumbing	5	\$400	11

FCAID-210056	Fire Suppression Backflow Preventer	D20 - Plumbing	5	\$1,600	11
FCAID-210491	Phase C Solar Meter	G40 - Site Electric	5	\$1,530	10
FCAID-210489	Phase A Solar Meter	G40 - Site Electric	5	\$1,530	10
FCAID-210488	Electric Meter: Main Switchboard MSB	G40 - Site Electric	5	\$1,530	10
FCAID-210012	Roofing: Hatches	B30 - Roofing	5	\$18,700	10
FCAID-210490	Phase B Solar Meter	G40 - Site Electric	5	\$1,530	10
FCAID-210327	Gas Meter	D30 - HVAC	5	\$3,430	10
FCAID-210329	Glycol Feeder GT-2	D30 - HVAC	5	\$1,780	10
FCAID-210210	ET-2	D30 - HVAC	5	\$7,230	10

# 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.

### **FOSSIL RIDGE HS**

ASSET ID	DESCRIPTION	SUBSYSTEM	OBSERVED Remaining Life	REPLACEMENT Cost	PRIORITY Score
FCAID-210445	Security System	D50 - Electrical	6	\$1,129,190	20
FCAID-210185	EF-F6	D30 - HVAC	6	\$27,120	15
FCAID-210197	EF-K2	D30 - HVAC	6	\$39,340	15
FCAID-210196	EF-K1	D30 - HVAC	6	\$39,340	15
FCAID-210486	Walk-In Freezer	E10 - Equipment	6	\$5,030	15
FCAID-210484	Walk-In Cooler-1	E10 - Equipment	6	\$5,030	15
FCAID-210205	IH-F1	D30 - HVAC	6	\$27,120	15
FCAID-210170	EF-D6	D30 - HVAC	6	\$27,120	15
FCAID-210485	Walk-In Cooler-2	E10 - Equipment	6	\$5,030	15
FCAID-210208	RH-I1	D30 - HVAC	6	\$8,190	14
FCAID-210015	Roofing: Ladders	B30 - Roofing	6	\$46,670	14
FCAID-210200	EF-Main Entrance/Admin-1	D30 - HVAC	6	\$6,710	13
FCAID-210183	EF-F4	D30 - HVAC	6	\$1,260	13
FCAID-210175	EF-E3	D30 - HVAC	6	\$1,260	13
FCAID-210134	EF-2	D30 - HVAC	6	\$6,210	13
FCAID-210191	EF-H1	D30 - HVAC	6	\$6,210	13
FCAID-210135	EF-A1	D30 - HVAC	6	\$1,260	13
FCAID-210171	EF-D7	D30 - HVAC	6	\$12,980	13
FCAID-210136	EF-A10	D30 - HVAC	6	\$9,590	13
FCAID-210179	EF-E7	D30 - HVAC	6	\$6,210	13
FCAID-210137	EF-A11	D30 - HVAC	6	\$8,190	13
FCAID-210187	EF-F8	D30 - HVAC	6	\$6,710	13
FCAID-210138	EF-A2	D30 - HVAC	6	\$6,710	13
FCAID-210089	CH-D1	D30 - HVAC	6	\$6,360	13
FCAID-210139	EF-A3	D30 - HVAC	6	\$1,260	13

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FCAID-210091	CH-F1	D30 - HVAC	6	\$6,360	13
FCAID-210140	EF-A4	D30 - HVAC	6	\$1,260	13
FCAID-210173	EF-E1	D30 - HVAC	6	\$6,210	13
FCAID-210141	EF-A5	D30 - HVAC	6	\$6,710	13
FCAID-210177	EF-E5	D30 - HVAC	6	\$6,710	13
FCAID-210142	EF-A6	D30 - HVAC	6	\$1,260	13
FCAID-210181	EF-F2	D30 - HVAC	6	\$1,260	13
FCAID-210143	EF-A7	D30 - HVAC	6	\$6,210	13
FCAID-210088	CH-C1	D30 - HVAC	6	\$6,610	13
FCAID-210144	EF-A8	D30 - HVAC	6	\$6,710	13
FCAID-210189	EF-G2	D30 - HVAC	6	\$1,260	13
FCAID-210145	EF-A9	D30 - HVAC	6	\$6,210	13
FCAID-210193	EF-H3	D30 - HVAC	6	\$5,550	13
FCAID-210146	EF-B1	D30 - HVAC	6	\$8,660	13
FCAID-210198	EF-K3	D30 - HVAC	6	\$6,210	13
FCAID-210147	EF-B2	D30 - HVAC	6	\$6,710	13
FCAID-210202	EF-Main Entrance/Admin-3	D30 - HVAC	6	\$6,710	13
FCAID-210148	EF-B3	D30 - HVAC	6	\$1,260	13
FCAID-210207	RH-D2	D30 - HVAC	6	\$8,660	13
FCAID-210149	EF-B4	D30 - HVAC	6	\$1,260	13
FCAID-210172	EF-D8	D30 - HVAC	6	\$1,260	13
FCAID-210150	EF-B5	D30 - HVAC	6	\$6,710	13
FCAID-210174	EF-E2	D30 - HVAC	6	\$1,260	13
FCAID-210151	EF-B6	D30 - HVAC	6	\$8,190	13
FCAID-210176	EF-E4	D30 - HVAC	6	\$8,190	13
FCAID-210152	EF-B7	D30 - HVAC	6	\$5,550	13
FCAID-210178	EF-E6	D30 - HVAC	6	\$6,710	13
FCAID-210153	EF-B8	D30 - HVAC	6	\$5,550	13
FCAID-210180	EF-F1	D30 - HVAC	6	\$5,550	13
FCAID-210154	EF-B9	D30 - HVAC	6	\$6,210	13
FCAID-210182	EF-F3	D30 - HVAC	6	\$5,550	13
FCAID-210156	EF-C2	D30 - HVAC	6	\$6,710	13
FCAID-210184	EF-F5	D30 - HVAC	6	\$8,190	13
FCAID-210158	EF-C4	D30 - HVAC	6	\$1,260	13
FCAID-210186	EF-F7	D30 - HVAC	6	\$6,710	13
FCAID-210159	EF-C5	D30 - HVAC	6	\$6,710	13
FCAID-210188	EF-G1	D30 - HVAC	6	\$6,710	13
FCAID-210161	EF-C7	D30 - HVAC	6	\$5,550	13
FCAID-210190	EF-G3	D30 - HVAC	6	\$6,210	13
FCAID-210162	EF-C8	D30 - HVAC	6	\$5,550	13
FCAID-210192	EF-H2	D30 - HVAC	6	\$6,710	13
FCAID-210163	EF-C9	D30 - HVAC	6	\$6,210	13
FCAID-210194	EF-H4	D30 - HVAC	6	\$6,710	13
FCAID-210164	EF-Courtyard Terrace-1	D30 - HVAC	6	\$8,190	13
FCAID-210104	CH-E1	D30 - HVAC	6	\$6,360	13
FCAID-210050	EF-D1	D30 - HVAC	6	\$6,210	13
FCAID-210103	EF-K4	D30 - HVAC	6	\$8,190	13
L CUID-510133		DJU - HVAC	U	90,190	13

FCAID-210085	CH-A1	D30 - HVAC	6	\$6,610	13
FCAID-210201	EF-Main Entrance/Admin-2	D30 - HVAC	6	\$6,710	13
FCAID-210086	CH-A2	D30 - HVAC	6	\$6,610	13
FCAID-210204	IH-D1	D30 - HVAC	6	\$8,660	13
FCAID-210168	EF-D4	D30 - HVAC	6	\$1,260	13
FCAID-210206	RH-D1	D30 - HVAC	6	\$8,660	13
FCAID-210094	CH-H2	D30 - HVAC	6	\$6,360	13
FCAID-210133	EF-1	D30 - HVAC	6	\$16,270	13
FCAID-210092	CH-F2	D30 - HVAC	6	\$6,360	13
FCAID-210093	CH-H1	D30 - HVAC	6	\$6,360	13
FCAID-210087	CH-B1	D30 - HVAC	6	\$6,360	13
FCAID-210166	EF-D2	D30 - HVAC	6	\$1,260	13
FCAID-210167	EF-D3	D30 - HVAC	6	\$1,260	13
FCAID-210169	EF-D5	D30 - HVAC	6	\$6,710	13
FCAID-210346	UH-A1	D30 - HVAC	6	\$5,030	12
FCAID-210032	Interior Ceiling Finishes: Wood Clouds	C10 - Int. Construct.	6	\$23,550	12
FCAID-210042	Interior Wall Finishes: Tile	C30 - Int. Finishes	6	\$65,650	12
FCAID-210348	UH-D1	D30 - HVAC	6	\$3,520	12
FCAID-210347	UH-A2	D30 - HVAC	6	\$3,520	12
FCAID-210446	Photovoltaic Solar Array	D50 - Electrical	6	\$28,630	11
FCAID-210033	Interior Wall Finishes: Wood Panel	C10 - Int. Construct.	6	\$10,990	11
FCAID-210448	Phase B Solar Inverter	D50 - Electrical	6	\$16,710	10
FCAID-210449	Phase C Solar Inverter	D50 - Electrical	6	\$16,710	10
FCAID-210447	Phase A Solar Inverter	D50 - Electrical	6	\$16,710	10