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RICHARDSON INDEPENDENT SCHOOL DISTRICT

# Facility Condition Assessments

September 23, 2019



# Facility Condition Assessments

# Bond Planning for Facilities

## BACKGROUND INFORMATION:

- In response to our community engagement process with the Facilities & Infrastructure Action Team a consultant was selected to provide a current comprehensive assessment
- **Our last comprehensive assessment was completed in 2000**
- This new comprehensive assessment documents the condition of major systems and components affecting long-term performance, suitability, and viability of RISD facilities
- This assessment along with current work order trends and District demographic data will be used as the data points in bond planning
- Major projects will use the Program Planning Committee process for the bond planning process

# Bond Planning for Facilities

## OTHER CONSIDERATIONS:

- Incorporate strategic action team priorities and instructional needs
- Develop soft cost budgets
- Inventory exterior site amenities, playgrounds, and infrastructure
- Data cabling
- Furniture
- Asbestos abatement
- Impact of new code requirements ex: storm shelter

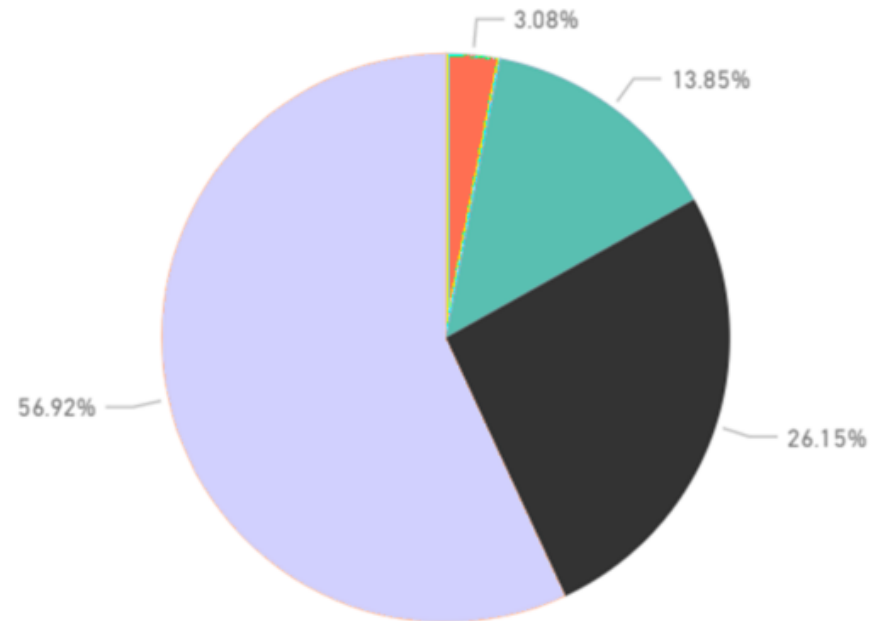
# FCA Objectives

- Review 63 District Facilities (66 Building Reports)
  - 9 Administration and Operational
  - 41 Elementary Schools
  - 8 Junior High Schools
  - 5 High Schools (incl: 1 K-12)
- Facility Condition Information
- Long Range Facilities Plan
- Mechanical Equipment Inventory
- Time frame for site reviews was January through April

# Facilities Summary

Agency	Buildings	Sum of SqfGSF
<b>Richardson Independent School District</b>	<b>66</b>	<b>6,350,643</b>
Administration	9	309,650
Elementary Schools	43	2,958,833
High Schools	5	1,957,980
Junior High Schools	8	1,093,351
SPE	1	30,829
<b>Total</b>	<b>66</b>	<b>6,350,643</b>

Portfolio Age

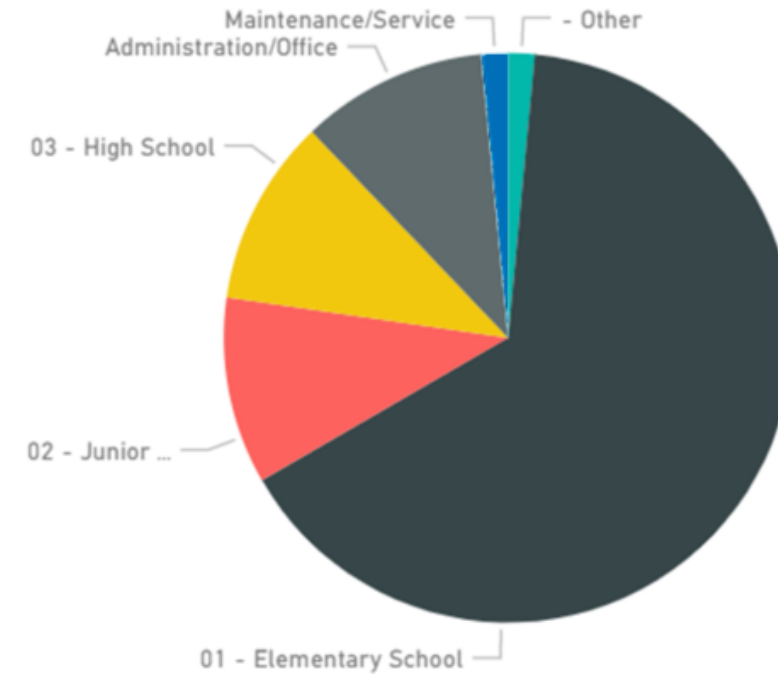


● Age under 10 ● Age 10 to 25 ● Age 25 to 50 ● Age over 50

**66**  
Buildings

**6M**  
Sum of SqfGSF

Building Classification



● - Other ● 01 - Elementar... ● 02 - Junior Hi... ● 03 - High Sc... ● Administrati...

# Scope of Services

## Facility Condition Assessment

- Exterior Systems - roofs, walls, window systems, doors
- Interior Construction - walls, doors, flooring, classroom casework
- Interior Finishes: Flooring, ceiling, wall finishes
- Health/Fire/Life Safety systems
- Level 1 ADA review (high level, non-measured study)
- Heating, Ventilation and Air Conditioning
- Plumbing
- Electrical and Service Distribution
- Fire Suppression

# FCA Process / Methodology

## Kick-Off Phase

- Existing Data Review
- Data Scheme Setup
- Asset Taxonomy
- Scheduling
- Interviews with Staff and Stakeholders

## Field Phase

- Pilot Program
- Architectural & Engineering Assessments
- Equipment Inventory

## Reporting Phase

- Individual Building Reports
- Cost Estimating
- Facilities Condition Index (FCI)
- Recommendations

## Final Deliverable

- Individual Building Reports
- Prioritization
- 4Tell Database and Analytics
- Export data to CMMS



# FCA Project Process/Methodology

- Process
  - Data collection – Plans, building histories, staff interviews
  - On-site review – Visual survey with maintenance staff escort
  - Reporting – Final data input, reporting
  - Quality Control – Data and draft report reviews
  - Findings – Facility Condition Index, forecasted funding
  - Training – Capital forecast reporting and preventive maintenance planning

# Facility Condition Index (FCI)

## Facility Condition Index (FCI)

One of the major goals of the FCA is to calculate each building's Facility Condition Index (FCI), which provides a theoretical objective indication of a building's overall condition. By definition, the FCI is defined as the ratio of the cost of current needs divided by current replacement value (CRV) of the facility.

### FCI Ranges and Description

0 – 5%	In new or well-maintained condition, with little or no visual evidence of wear or other deficiencies.
5 – 10%	Subjected to wear but is still in a serviceable and functioning condition.
10 – 30%	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.
30% and above	Has reached the end of its useful or serviceable life. Renewal is now necessary.

# Facility Condition Index (FCI) – High Schools

Facilities	Year Built	Total SF	Cost/SF	Replacment Value	Costs Current 2019	FCI Current	5 Year Costs 2024	FCI 5 Year	10 Year Costs 2029	FCI 10 Year
Berkner High School and STEM Academy	1967	492,092	\$325.00	\$159,929,900.00	\$83,935.00	0.05%	\$10,898,685.00	6.81%	\$18,976,095.00	11.87%
Lake Highlands Freshman Center	1997	165,000	\$325.00	\$53,625,000.00	\$54,980.00	0.10%	\$7,984,522.00	14.89%	\$17,379,139.00	32.41%
Lake Highlands High School	1962	375,146	\$325.00	\$121,922,450.00	\$197,383.00	0.16%	\$8,912,504.00	7.31%	\$20,949,292.00	17.18%
Pearce High School	1966	427,376	\$325.00	\$138,897,200.00	\$124,680.00	0.09%	\$5,979,501.80	4.30%	\$18,528,636.80	13.34%
Richardson High School	1957	498,366	\$325.00	\$161,968,950.00	\$18,650.00	0.01%	\$3,993,162.24	2.47%	\$10,607,252.24	6.55%
Christa McAuliffe Learning Center	1997	30,829	\$325.00	\$10,019,425.00	\$22,810.00	0.23%	\$1,027,214.00	10.25%	\$2,907,602.00	29.02%
<b>Totals</b>					<b>\$502,438.00</b>		<b>\$38,795,589.04</b>		<b>\$89,348,017.04</b>	

# Facility Condition Index (FCI) – Junior High Schools

Facilities	Year Built	Total SF	Cost/SF	Replacment Value	Costs Current 2019	FCI Current Year	5 Year Costs 2024	FCI 5 Year	10 Year Costs 2029	FCI 10 Year
Apollo Junior High School	1977	148,518	\$300.00	\$44,555,400.00	\$117,013.00	0.26%	\$3,686,841.70	8.27%	\$9,429,100.70	21.16%
Forest Meadow Junior High School	1967	137,640	\$300.00	\$41,292,000.00	\$18,040.00	0.04%	\$3,020,530.00	7.32%	\$5,591,646.00	13.54%
Lake Highlands Junior High	1956	159,977	\$300.00	\$47,993,100.00	\$568,165.00	1.18%	\$10,852,515.00	22.61%	\$19,999,582.10	41.67%
Liberty Junior High School	1974	112,823	\$300.00	\$33,846,900.00	\$60,000.00	0.18%	\$4,468,093.00	13.20%	\$8,075,670.60	23.86%
Parkhill Junior High School	1978	111,246	\$300.00	\$33,373,800.00	\$46,138.00	0.14%	\$4,684,078.60	14.04%	\$10,343,261.60	30.99%
Richardson North Junior High School	1964	150,284	\$300.00	\$45,085,200.00	\$20,950.00	0.05%	\$3,954,833.00	8.77%	\$7,994,065.20	17.73%
Richardson West Arts and Technology Magnet School	1962	144,298	\$300.00	\$43,289,400.00	\$12,176.00	0.03%	\$2,918,838.80	6.74%	\$5,502,573.80	12.71%
Westwood Junior High – The Math, Science and Leadership School	1969	128,565	\$300.00	\$38,569,500.00	\$18,713.00	0.05%	\$2,916,229.50	7.56%	\$8,032,573.40	20.83%
<b>Total</b>					<b>\$861,195.00</b>		<b>\$36,501,959.60</b>		<b>\$74,968,473.40</b>	

# Facility Condition Index (FCI) – Elementary Schools

Facilities	Year Built	Total SF	Cost/SF	Replacment Value	Costs Current 2019	FCI Current	5 Year Costs 2024	FCI 5 Year	10 Year Costs 2029	FCI 10 Year
Aikin Elementary	1978	83,568	\$280.00	\$23,399,040.00	\$16,140.00	0.07%	\$607,672.40	2.60%	\$1,277,234.40	5.46%
Arapaho Classical Magnet	1960	63,695	\$280.00	\$17,834,600.00	\$0.00	0.00%	\$1,324,996.00	7.43%	\$2,105,696.00	11.81%
Audelia Creek Elementary	2003	86,802	\$280.00	\$24,304,560.00	\$17,000.00	0.07%	\$3,641,812.00	14.98%	\$7,015,695.60	28.87%
Big Springs Elementary	1977	80,257	\$280.00	\$22,471,960.00	\$136,265.50	0.61%	\$2,629,808.30	11.70%	\$7,233,992.40	32.19%
Bowie Elementary	1967	74,279	\$280.00	\$20,798,120.00	\$0.00	0.00%	\$2,634,725.90	12.67%	\$6,672,643.10	32.08%
Brentfield Elementary (West)	1974	41,187	\$280.00	\$11,532,360.00	\$45,890.00	0.40%	\$2,697,680.70	23.39%	\$3,380,140.50	29.31%
Brentfield Intermediate (East)	1980	56,235	\$280.00	\$15,745,800.00	\$31,060.00	0.20%	\$1,621,537.30	10.30%	\$2,413,806.90	15.33%
Canyon Creek Elementary	1963	49,723	\$280.00	\$13,922,440.00	\$36,480.00	0.26%	\$1,608,048.60	11.55%	\$2,224,638.60	15.98%
Carolyn Burkhair Elementary	2004	87,176	\$280.00	\$24,409,280.00	\$0.00	0.00%	\$2,709,779.00	11.10%	\$3,614,021.80	14.81%
Dartmouth Elementary	1973	60,350	\$280.00	\$16,898,000.00	\$43,400.00	0.26%	\$1,139,209.00	6.74%	\$2,456,744.00	14.54%
Dobie Primary	1967	76,148	\$280.00	\$21,321,440.00	\$17,504.00	0.08%	\$1,024,865.40	4.81%	\$4,207,820.60	19.74%
Dover Elementary	1957	63,720	\$280.00	\$17,841,600.00	\$0.00	0.00%	\$1,366,905.40	7.66%	\$3,386,821.20	18.98%
Forest Lane Elementary	1998	83,832	\$280.00	\$23,472,960.00	\$258,750.00	1.10%	\$3,151,543.00	13.43%	\$5,006,763.00	21.33%
Forestridge Elementary	1967	77,696	\$280.00	\$21,754,880.00	\$153,000.00	0.70%	\$1,850,442.00	8.51%	\$3,738,528.00	17.18%
Greenwood Hills Elementary	1960	59,623	\$280.00	\$16,694,440.00	\$0.00	0.00%	\$1,218,216.80	7.30%	\$4,210,010.20	25.22%
Hamilton Park Pacesetter Magnet	1953	94,211	\$280.00	\$26,379,080.00	\$25,817.40	0.10%	\$4,548,065.20	17.24%	\$7,877,420.40	29.86%
Jess Harben Elementary	1974	58,678	\$280.00	\$16,429,840.00	\$0.00	0.00%	\$1,144,720.00	6.97%	\$4,426,085.00	26.94%
Lake Highlands Elementary	1954	68,967	\$280.00	\$19,310,760.00	\$0.00	0.00%	\$1,856,100.00	9.61%	\$5,221,502.00	27.04%
Mark Twain Elementary	1962	63,679	\$280.00	\$17,830,120.00	\$27,570.00	0.15%	\$1,026,080.60	5.75%	\$3,324,533.10	18.65%
Math/Science/Technology Magnet	1952	108,494	\$280.00	\$30,378,320.00	\$16,360.00	0.05%	\$1,096,811.50	3.61%	\$5,832,749.10	19.20%
Merriman Park Elementary	1978	66,477	\$280.00	\$18,613,560.00	\$0.00	0.00%	\$2,639,577.00	14.18%	\$4,149,947.00	22.30%

# Facility Condition Index (FCI) – Elementary Schools







Facilities	Year Built	Total SF	Cost/SF	Replacment Value	Costs Current 2019	FCI Current	5 Year Costs 2024	FCI 5 Year	10 Year Costs 2029	FCI 10 Year
Mohawk Elementary	1963	54,493	\$280.00	\$15,258,040.00	\$3,150.00	0.02%	\$884,210.40	5.80%	\$2,834,069.92	18.57%
Moss Haven Elementary	1975	77,836	\$280.00	\$21,794,080.00	\$123,780.00	0.57%	\$2,179,959.80	10.00%	\$5,319,979.80	24.41%
Northlake Elementary	1967	68,068	\$280.00	\$19,059,040.00	\$40,026.00	0.21%	\$1,102,602.00	5.79%	\$4,164,567.40	21.85%
Northrich Elementary	1958	58,535	\$280.00	\$16,389,800.00	\$167,750.00	1.02%	\$2,767,826.00	16.89%	\$6,098,951.00	37.21%
Northwood Hills Elementary	1963	60,368	\$280.00	\$16,903,040.00	\$0.00	0.00%	\$375,130.00	2.22%	\$2,074,599.90	12.27%
O Henry Elementary	1962	57,452	\$280.00	\$16,086,560.00	\$38,560.00	0.24%	\$1,025,623.40	6.38%	\$2,274,600.40	14.14%
Prairie Creek Elementary	1967	57,470	\$280.00	\$16,091,600.00	\$9,000.00	0.06%	\$568,850.00	3.54%	\$1,865,268.00	11.59%
Prestonwood Elementary	1969	52,434	\$280.00	\$14,681,520.00	\$0.00	0.00%	\$37,190.00	0.25%	\$647,146.20	4.41%
Richardson Heights Elementary	1954	58,583	\$280.00	\$16,403,240.00	\$0.00	0.00%	\$964,880.00	5.88%	\$1,702,702.60	10.38%
Richardson Terrace Elementary	1956	56,128	\$280.00	\$15,715,840.00	\$15,000.00	0.10%	\$576,932.00	3.67%	\$1,830,966.10	11.65%
Richland Elementary	1974	76,295	\$280.00	\$21,362,600.00	\$33,040.00	0.15%	\$722,190.00	3.38%	\$2,163,473.50	10.13%
RISD Academy	1968	147,779	\$280.00	\$41,378,120.00	\$150,815.00	0.36%	\$3,952,376.90	9.55%	\$5,418,783.90	13.10%
Sky Annex	1973	7,143	\$280.00	\$2,000,040.00	\$0.00	0.00%	\$0.00	0.00%	\$145,485.00	7.27%
Skyview Elementary	1966	79,696	\$280.00	\$22,314,880.00	\$0.00	0.00%	\$342,160.00	1.53%	\$2,726,072.50	12.22%
Spring Creek Elementary	1967	56,722	\$280.00	\$15,882,160.00	\$0.00	0.00%	\$720,425.00	4.54%	\$3,466,151.90	21.82%
Spring Valley Elementary	1968	59,252	\$280.00	\$16,590,560.00	\$17,452.80	0.11%	\$2,141,771.30	12.91%	\$3,435,117.20	20.71%
Springridge Elementary	1960	51,973	\$280.00	\$14,552,440.00	\$112,764.00	0.77%	\$1,369,684.50	9.41%	\$1,989,412.70	13.67%
Stults Road Elementary	1957	69,419	\$280.00	\$19,437,320.00	\$15,500.00	0.08%	\$1,970,796.20	10.14%	\$6,151,281.20	31.65%
Thurgood Marshall Elementary	2004	85,775	\$280.00	\$24,017,000.00	\$27,324.00	0.11%	\$6,203,660.00	25.83%	\$8,113,821.00	33.78%
Wallace Elementary	1958	72,367	\$280.00	\$20,262,760.00	\$20,679.00	0.10%	\$1,432,201.00	7.07%	\$4,922,117.00	24.29%
White Rock Elementary	1959	75,671	\$280.00	\$21,187,880.00	\$0.00	0.00%	\$903,714.00	4.27%	\$2,417,764.00	11.41%
Yale Elementary	1974	70,577	\$280.00	\$19,761,560.00	\$31,965.00	0.16%	\$939,207.50	4.75%	\$3,182,277.30	16.10%
<b>Totals:</b>					<b>\$1,632,042.70</b>		<b>\$72,719,986.10</b>		<b>\$162,721,401.42</b>	

# Facility Condition Index (FCI) – Admin / M & O

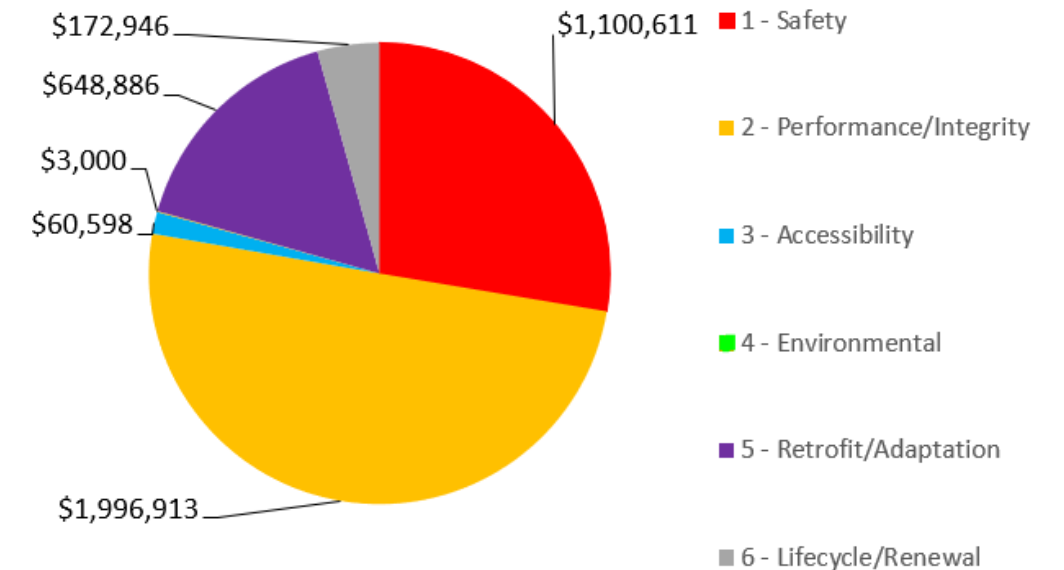
Facilities	Year Built	Total SF	Cost/SF	Replacment Value	Costs Current 2019	FCI Current	5 Year Costs 2024	FCI 5 Year	10 Year Costs 2029	FCI 10 Year
Administration Building (400 Greenville)	1914	35,400	\$300.00	\$10,620,000.00	\$277,752.80	2.62%	\$1,198,092.80	11.28%	\$2,313,285.30	21.78%
Annex (420 Greenville)	1974	26,526	\$300.00	\$7,957,800.00	\$3,376.00	0.04%	\$97,240.00	1.22%	\$448,099.00	5.63%
Arzel Ball Center (410 Greenville)	2017	23,000	\$300.00	\$6,900,000.00	\$0.00	0.00%	\$0.00	0.00%	\$265,200.00	3.84%
Clothes Closet (Belt Line)	1960	1,980	\$220.00	\$435,600.00	\$10,850.00	2.49%	\$11,483.00	2.64%	\$66,453.00	15.26%
Environmental Studies Center	1994	1,696	\$300.00	\$508,800.00	\$16,134.00	3.17%	\$137,091.00	26.94%	\$178,694.00	35.12%
Professional Development Center	1994	118,123	\$300.00	\$35,436,900.00	\$152,858.90	0.43%	\$2,926,385.10	8.26%	\$6,292,500.10	17.76%
Richardson ISD Operations Center	2017	93,856	\$300.00	\$28,156,800.00	\$1,500.00	0.01%	\$786,552.60	2.79%	\$2,702,987.00	9.60%
Welcome Center – (aka Newcomer Center)	1963	5,816	\$300.00	\$1,744,800.00	\$0.00	0.00%	\$329,473.10	18.88%	\$570,637.10	32.71%
Transportation Annex	1997	3,253	\$300.00	\$975,900.00	\$0.00	0.00%	\$253,346.50	25.96%	\$507,224.60	51.98%
<b>Totals:</b>					<b>\$462,471.70</b>		<b>\$5,739,664.10</b>		<b>\$13,345,080.10</b>	

# Categorization of Repair Needs

## Plan Type Descriptions

Safety		An observed or reported unsafe condition that if left unaddressed could result in an injury; a system or component that presents a potential liability risk.
Performance/Integrity		Component or system has failed, is almost failing, performs unreliably, does not perform as intended, and/or poses a risk to overall system stability.
Accessibility		Does not meet ADA, UFAS, and/or other handicap accessibility requirements.
Environmental		Improvements to air or water quality, including removal of hazardous materials from the building or site.
Retrofit/Adaptation		Components, systems, or spaces that are recommended for upgrades in in order to meet current standards, facility usage, or client/occupant needs.
Lifecycle/Renewal		Any component or system in which future repair or replacement is anticipated beyond the next several years or is of minimal substantial early-term consequence.

Plan Type Current





# Prioritization of Repairs

- The 6 categories indicated on a previous slide are listed in order of importance.
- The next most important consideration is whether a system is critical to the operation of the building. Roof repairs are more important than painting.
- Then consideration should be given to the use of the building. A storage building is less critical than a classroom building.
- Building components are generally more important than site components.
- Life safety is the highest building component.

# FCA Summary Findings

- Some of the repairs in the FCAs were already planned by the District and in progress or have been completed this summer.
- Infrared review of electrical panels and ARC Flash testing is recommended as a safety measure for aging electrical infrastructure.
- Some HVAC equipment has exceeded its estimated useful life and energy saving opportunities are present in schools with individual classroom systems.

# FCA Summary Findings

Facilities	Costs Current 2019	5 Year Costs 2024	10 Year Costs 2029
High School Totals	\$502,438.00	\$38,795,589.04	\$89,348,017.04
Junior High School Totals:	\$861,195.00	\$36,501,959.60	\$74,968,473.40
Elementary School Totals:	\$1,632,042.70	\$72,719,986.10	\$162,721,401.42
Admin and Maintenance & Operations Totals:	\$462,471.70	\$5,739,664.10	\$13,345,080.10
<b>Grand Total:</b>	<b>\$3,458,147.40</b>	<b>\$153,757,198.84</b>	<b>\$340,382,971.96</b>

- Repair/Replacement costs listed above do not include soft costs.



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