



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





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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





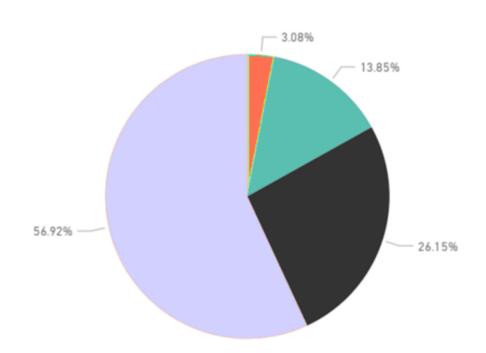
Facilities Summary

Agency	Buildings S	um of SqfGSF
Richardson Independent School District	66	6,350,643
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
Total	66	6,350,643

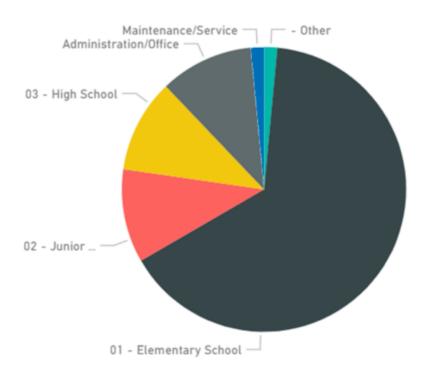
66 Buildings

6M Sum of SqfGSF

Portfolio Age



Building Classification





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







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%
Totals					\$502,438.00		\$38,795,589.04		\$89,348,017.04	





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Facility Condition Index (FCI) — Junior High Schools

Facilities Facilities	Year Built	Total SF	Cost/SF	Replacment Value	Costs Current F 2019	CI 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%
Total					\$861,195.00		\$36,501,959.60		\$74,968,473.40	





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%
Totals:					\$1,632,042.70		\$72,719,986.10		\$162,721,401.42	





Facility Condition Index (FCI) - Admin / M & O

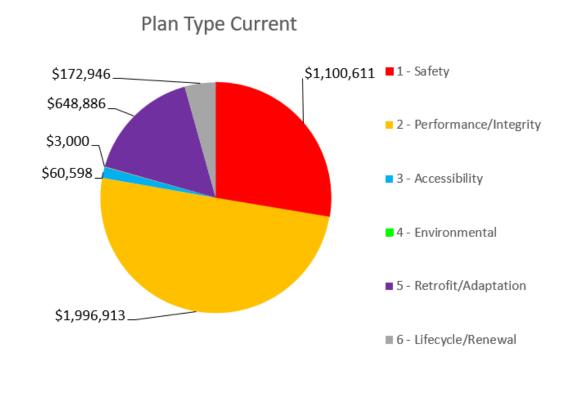
Facilities	Year Built	Total SF	Cost/SF	Replacment Value	Costs Current 2019	FCI Current	5 Year Costs 2024	FCI 5 Year	10 Year Costs 2029	FCI 10 Year
Administration Building (400 Greenville)	1914	35,400	\$300.00	\$10,620,000.00	\$277,752.80	2.62%	\$1,198,092.80	11.28%	\$2,313,285.30	21.78%
Annex (420 Greenville)	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%
Totals:					\$462,471.70		\$5,739,664.10		\$13,345,080.10	





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.						







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 that 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.





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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
Grand Total:	\$3,458,147.40	\$153,757,198.84	\$340,382,971.96

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







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