



**BUREAU
VERITAS**

FACILITY CONDITION ASSESSMENTS

Wyoming Schools
June 2023

Presenter:

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Program Manager
and
Jason Mayes

Successful Asset Management:

Managing assets and budgets through predictive and focused strategies, rather than by unpredictable or reactive actions.

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ABOUT BUREAU VERITAS

SCOPE OF WORK

**REPORTING AND FINDINGS –
SCHOOL STRUCTURES**

**REPORTING AND FINDINGS –
SUPPORT BUILDINGS**

QUESTIONS

BUREAU VERITAS NORTH AMERICA

NORTH AMERICA

\$900
Million In Revenue

8,000
Employees

140
Offices and Laboratories in All
50 States and Throughout Canada











BUILDING ASSESSMENT & PROJECT MANAGEMENT GROUP



National Focus on Facility Assessments and Capital Planning

\$120+ Million In Revenue	800+ Employees	35 Years of Assessments
60,000+ Projects Completed	10B+ SF of Municipal Assessments	40+ States with Consultants

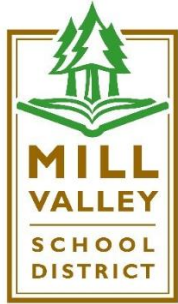
Relevant Educational Experience

- | | |
|--|--|
|  District Offices |  Athletic Fields |
|  Maintenance Buildings |  Warehouse |
|  Classroom Facilities |  Labs / STEM |
|  Libraries |  Performing Arts |

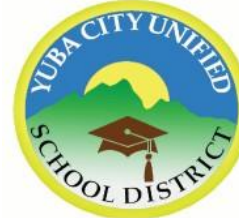
K-12 EDUCATIONAL



Evergreen
School District



REDWOOD DAY SCHOOL
Engaged. Prepared. Inspired.



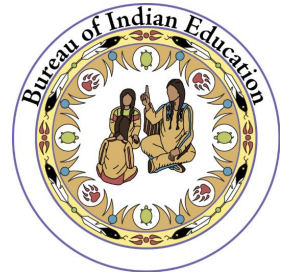
Simi Valley Schools
SIMI VALLEY UNIFIED SCHOOL DISTRICT



GUERNEVILLE
SCHOOL DISTRICT



CVUSD
CONEJO VALLEY UNIFIED SCHOOL DISTRICT



Ocean View
School District



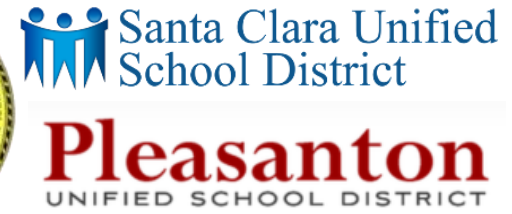
Escondido
UNION SCHOOL DISTRICT



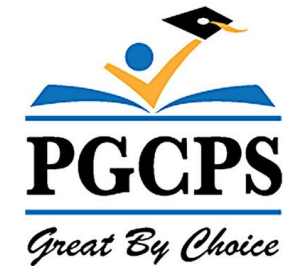
SAN PASQUAL VALLEY
Unified School District



CUPERTINO UNION
SCHOOL DISTRICT



K-12 EDUCATIONAL



STATEWIDE EXPERIENCE



JUDICIAL COUNCIL
OF CALIFORNIA



Utah Division of
Facilities Construction
and Management

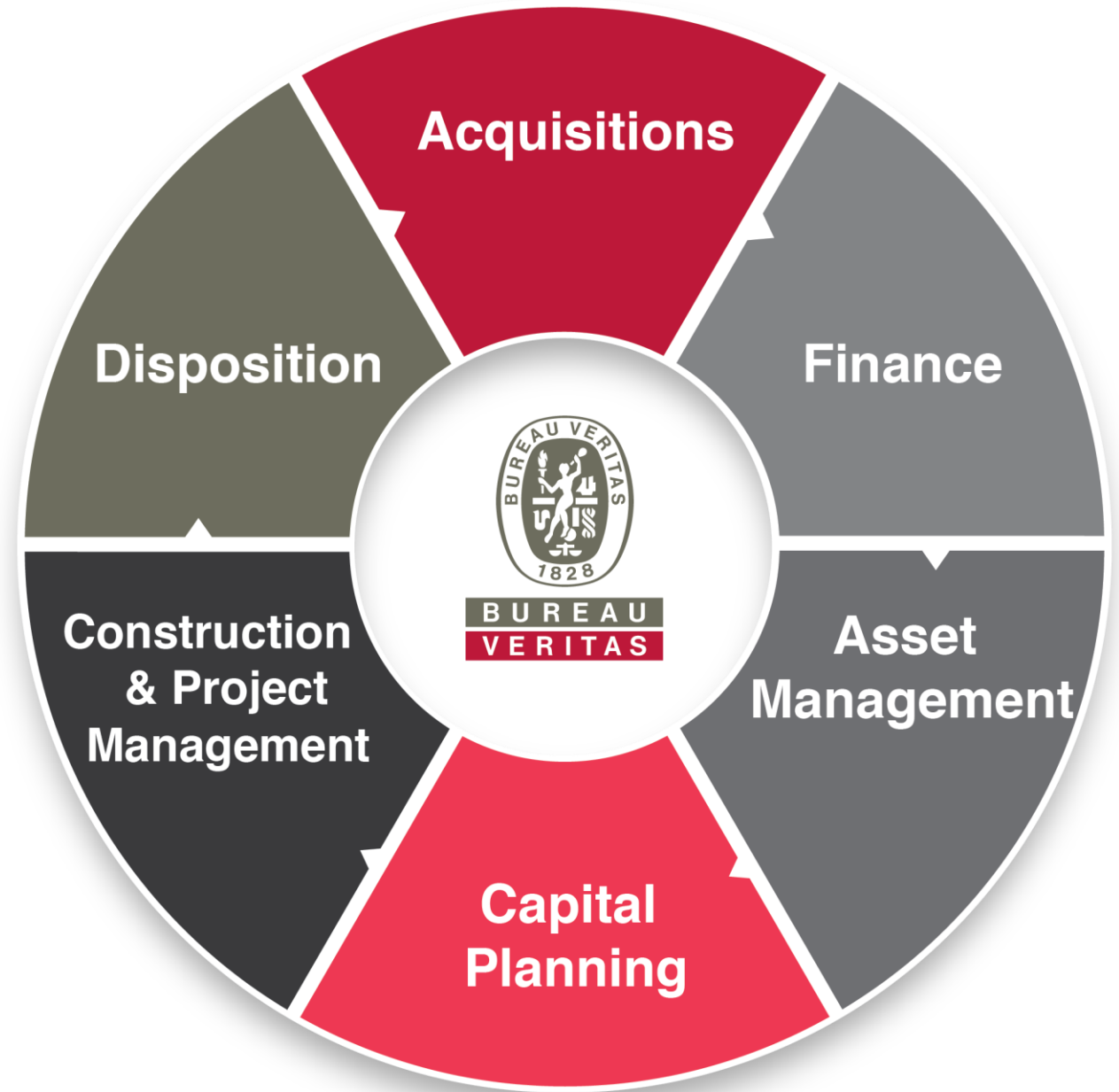


Office of
General Services

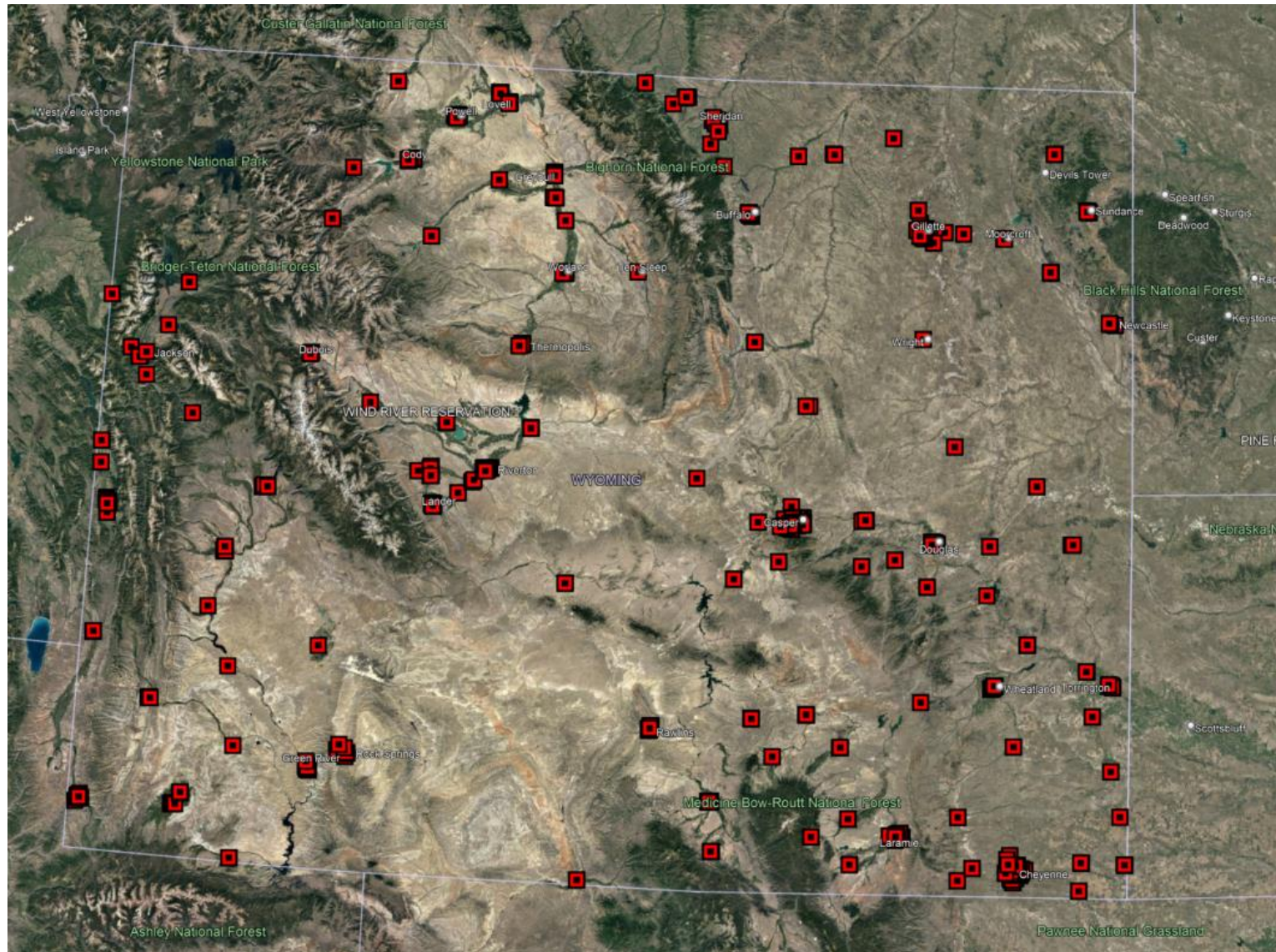


FACILITY CONSULTING

- FACILITY CONDITION ASSESSMENTS
- CAPITAL PLANNING
- ADA TRANSITION PLANS
- ENERGY AUDITS AND COMMISSIONING
- CMMS CONSULTING
- PREVENTIVE MAINTENANCE SCHEDULES



SCHOOL DISTRICT LOCATIONS



Albany #1
 Big Horn #1
 Big Horn #2
 Big Horn #3
 Big Horn #4
 Campbell #1
 Carbon #1
 Carbon #2
 Converse #1
 Converse #2
 Crook #1
 Fremont #1
 Fremont #2
 Fremont #6
 Fremont #14
 Fremont #21
 Fremont #24
 Fremont #25
 Fremont #38
 Goshen #1
 Hot Springs #1
 Johnson #1
 Laramie #1
 Laramie #2

Lincoln #1
 Lincoln #2
 Natrona #1
 Niobrara #1
 Park #1
 Park #6
 Park #16
 Platte #1
 Platte #2
 Sheridan #1
 Sheridan #2
 Sheridan #3
 Sublette #1
 Sublette #9
 Sweetwater #1
 Sweetwater #2
 Teton #1
 Uinta #1
 Uinta #4
 Uinta #6
 Washakie #1
 Washakie #2
 Weston #1
 Weston #7

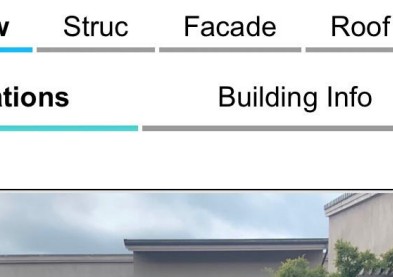
DATA COLLECTION TOOL

Field Data Entry | Library Technology Center

Counts
 Calc
 Notes
 Photos
 Assets
 Field
 Save

Overview
Struc
Facade
Roof
Interior
Elevator
Plum
HVAC
Elec
Fire
Other
Site

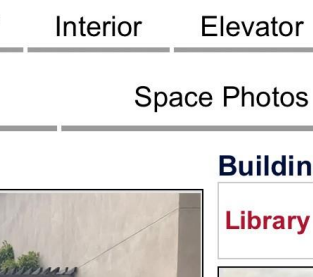
Elevations
Building Info
Space Photos
Plans / Sketches / Certificates / Other



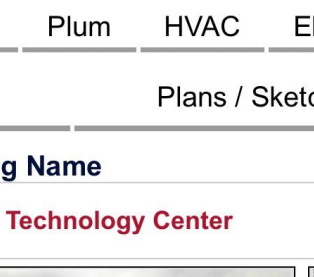
Building Name

140526.19R000 021.017
Monterey Peninsula College


Library Technology Center



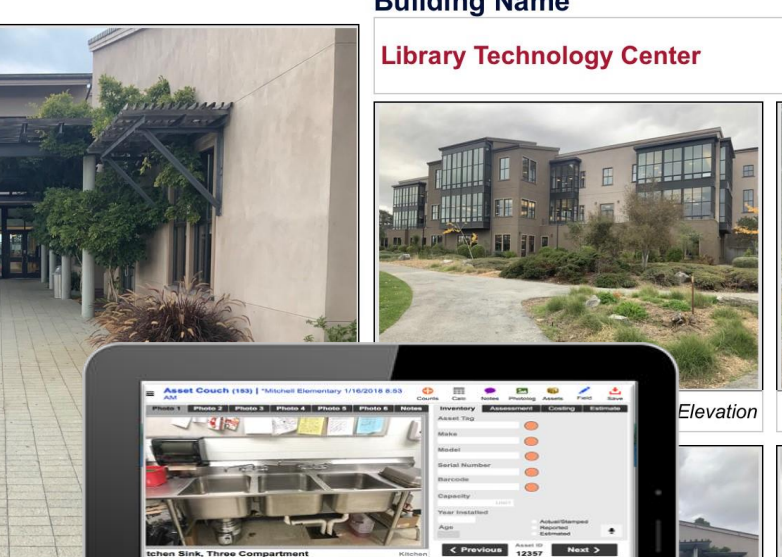
Left Elevation



Right Elevation



Rear Picnic Area



EXTRA PHOTO	Caption	Description	Built	Renovated
	Caption	Description	Built	Renovated

DATA COLLECTION

DATA COLLECTION BY FIELD ASSESSORS

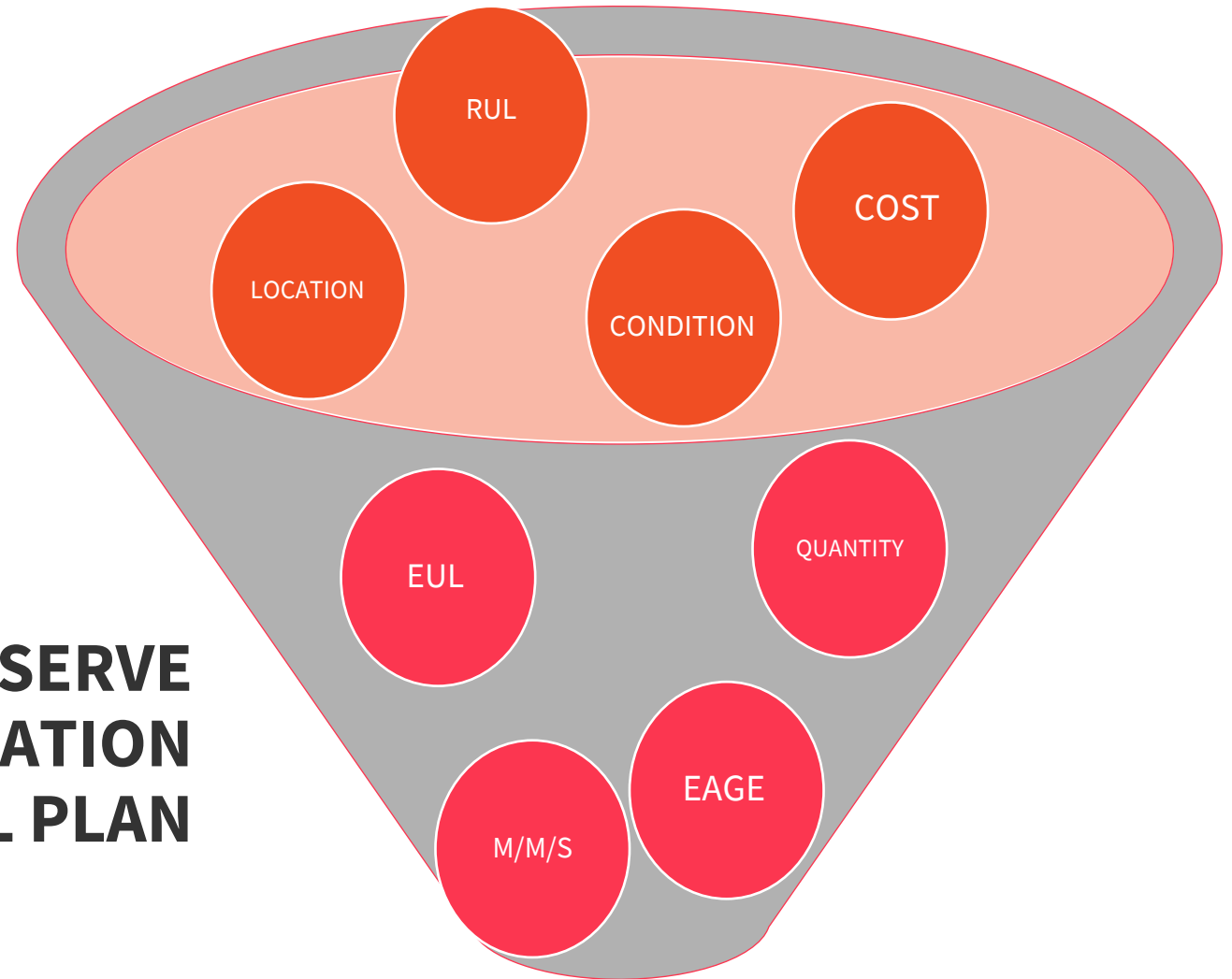
- Informational calls with school districts set up in advance of assessment
- Pre-Survey Questionnaires requested to be filled out in advance by school staff
- Visited every school building in person
- Review of Construction Plans where available

DATA COLLECTED

- Data on 48,159 individual materials, systems or equipment
- Data divided into 14 separate systems for each building, if present
- Data includes expected replacement year for each of the 48,159 individual materials, systems or equipment

CRITICAL DATA POINTS

REPLACEMENT RESERVE PRIORITIZATION CAPITAL PLAN



TERMS TO KNOW

- **EXPECTED USEFUL LIFE (EUL)** – Industry Standard Life Expectancy for a material or system
- **EFFECTIVE AGE** – Bureau Veritas Opinion on the age given the current conditions
- **REMAINING USEFUL LIFE** - Bureau Veritas Opinion on Number of Years Until Replacement
- **DEFICIENCIES** – Immediate Repairs and Short-Term Repairs
- **PLAN TYPES** – The Reason for a repair or replacement.
 - ✓ They are: Safety, Performance Integrity, Environmental, Accessibility, Lifecycle Repairs, Modernization/Adaptation
- **RESERVE ITEMS** – Assets whose replacement should be planned for in future years
- **IMMEDIATE REPAIRS** – Unsafe or life-safety, mission critical element, contribute to critical failure (Year 1)
- **SHORT TERM REPAIRS** – Less critical deficiencies (Years 2 & 3)
- **FCI** – Facility Condition Index

FACILITY CONDITION INDEX

FCI = Repair Needs / Building Replacement Value = FCI (%)

WHAT IS THE FCI PERCENTAGE REALLY TELLING US?

HIGHER FCI

- Means less remaining useful lifespan (RUL)

LOWER FCI

- Means more remaining useful lifespan (RUL)

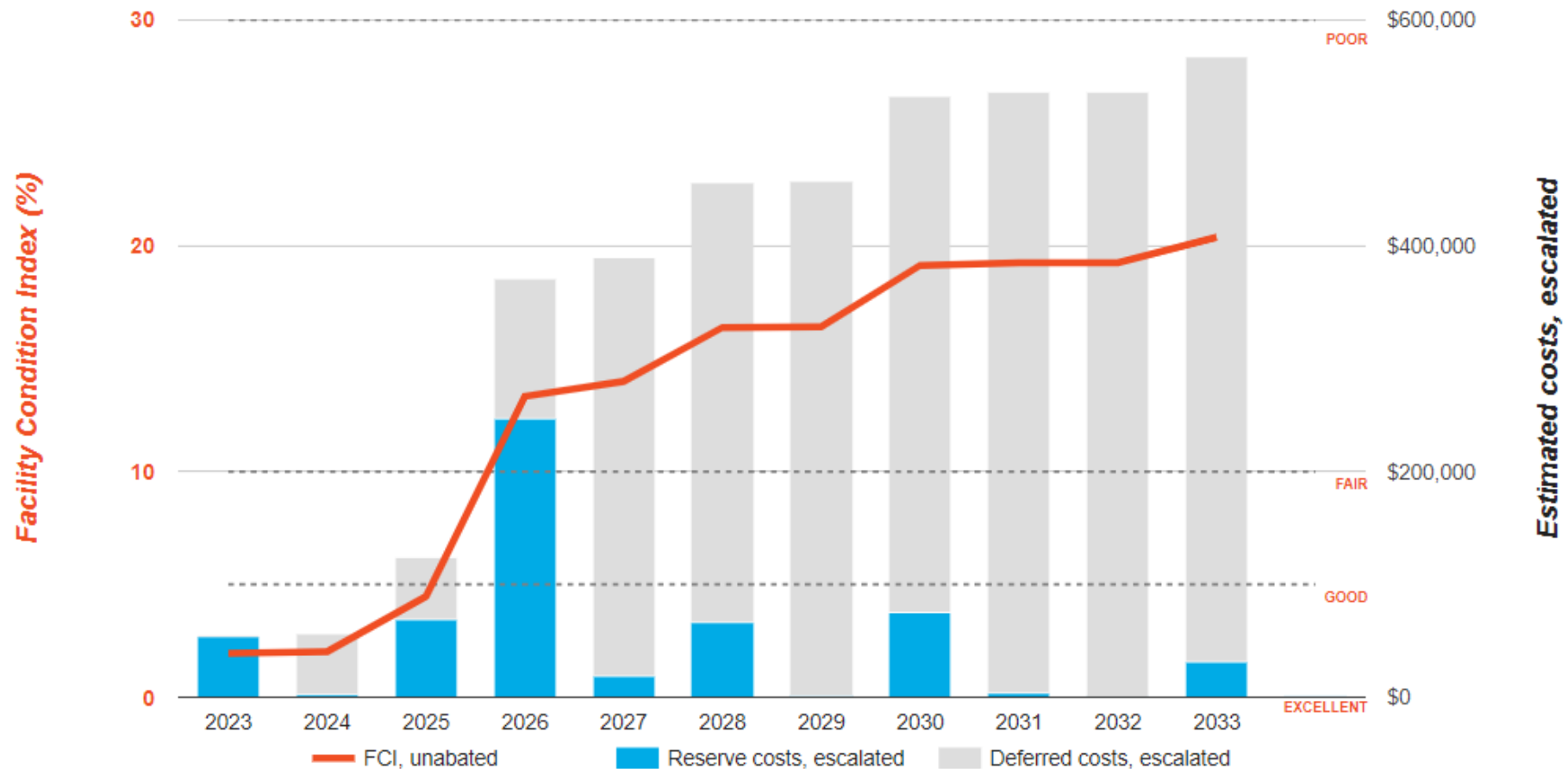
LOWER FCI = BETTER RELATIVE CONDITION

FCI EXAMPLES

- Entire new roof could increase FCI by 0.03
- Entire school new Flooring could increase FCI by 0.01
- New HVAC system could increase FCI by 0.04

FACILITY CONDITION INDEX

FCI INCREASES OVER TIME IF REPAIRS AND CAPITAL IMPROVEMENTS ARE NOT IMPLEMENTED



FACILITY CONDITION INDEX

WHAT IS THE FCI PERCENTAGE REALLY TELLING US?

**THE RELATIVE CONDITION OF THE BUILDING WHEN TO
CONSIDER RENOVATION OR REPLACEMENT**



FACILITY CONDITION INDEX

FCI CAN BE MEASURED AT DIFFERENT POINTS IN TIME.

For the purpose of capital planning and budgeting evaluating using the 5-year FCI is recommended for substantial renovation or replacement of school buildings.

Cost/SF	Total SF	Replacement Value	Current	1-Year	2-Year	3-Year	5-Year	10-Year
\$501	7,818	\$3,916,818	0.5%	0.7%	1.3%	1.3%	4.6%	13.8%
\$484	32,140	\$15,555,760	0.0%	0.0%	4.1%	8.6%	27.1%	31.3%
\$484	7,443	\$3,602,412	0.0%	0.1%	2.2%	3.4%	5.7%	19.0%
\$501	7,027	\$3,520,527	0.0%	0.0%	0.3%	0.5%	7.8%	8.4%
\$200	1,766	\$353,200	2.6%	2.6%	2.6%	2.6%	2.6%	17.4%
\$484	12,951	\$6,268,284	1.1%	1.2%	1.6%	2.8%	3.8%	11.9%

FINDINGS AND REPORTING

Albany #1	Lincoln #1
Big Horn #1	Lincoln #2
Big Horn #2	Natrona #1
Big Horn #3	Niobrara #1
Big Horn #4	Park #1
Campbell #1	Park #6
Carbon #1	Park #16
Carbon #2	Platte #1
Converse #1	Platte #2
Converse #2	Sheridan #1
Crook #1	Sheridan #2
Fremont #1	Sheridan #3
Fremont #2	Sublette #1
Fremont #6	Sublette #9
Fremont #14	Sweetwater #1
Fremont #21	Sweetwater #2
Fremont #24	Teton #1
Fremont #25	Uinta #1
Fremont #38	Uinta #4
Goshen #1	Uinta #6
Hot Springs #1	Washakie #1
Johnson #1	Washakie #2
Laramie #1	Weston #1
Laramie #2	Weston #7



KEY FINDINGS

KEY FINDINGS IN EACH SCHOOL REPORT

- Identifies significant deteriorated assets
- Brief description of the problem with a photo and costs



Fire Extinguisher Expired Certification

Type ABC,
Utility closet

Uniformat Code: D4030
Recommendation: **Replace in 2023**

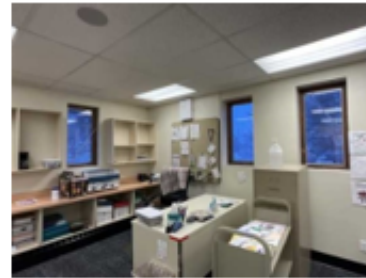
Priority Score: 90.9

Plan Type: Safety

Cost Estimate: \$200

\$\$\$\$

The fire extinguisher is overdue for inspection. Replacement is recommended. Due to the insignificant cost, this can be done during routine maintenance. - AssetCALC ID: 5132899



Window in Poor condition.

Wood
Building Exterior

Uniformat Code: B2020
Recommendation: **Replace in 2023**

Priority Score: 87.9

Plan Type:
Performance/Integrity

Cost Estimate: \$5,600

\$\$\$\$

There are three exterior windows that have cracked glazing. Replacement is recommended. - AssetCALC ID: 5133114



Sink/Lavatory in Poor condition.

Wall-Hung, Vitreous China
Restrooms

Uniformat Code: D2010
Recommendation: **Replace in 2023**

Priority Score: 83.9

Plan Type:
Performance/Integrity

Cost Estimate: \$7,000

\$\$\$\$

Three sinks are continuously running water. Replacement is recommended. - AssetCALC ID: 5133012

IMMEDIATE NEEDS REPORT

IMMEDIATE REPAIRS 12 Months – Unsafe or life-safety, mission critical element, contribute to critical failure. Time Period is one year.

ID	Location Description	UF Code	Description	Condition	Plan Type	Cost
5693013	Maintenance Shed	B3010	Roofing, Repairs	Poor	Performance/ Integrity	\$1,700
5692961	Site	G2020	Parking Lots, Pavement, Concrete, Repair	Poor	Performance/ Integrity	\$61,900
5692973	Parking lot	G2020	Parking Lots, Pavement, Asphalt, Cut & Patch	Poor	Performance/ Integrity	\$1,700
5692967	Site	G2060	Retaining Wall, Concrete Masonry Unit (CMU), Repair	Poor	Performance/ Integrity	\$1,400
5692998	Site	G2060	Fences & Gates, Fence, Chain Link 4', Replace	Poor	Performance/ Integrity	\$3,900
5913349	Boilers	P2030	Engineering Study, Mechanical, General Design	Poor	Performance/ Integrity	\$10,800
Total (6 items)						\$81,400



SYSTEMS EXPENDITURE FORECAST

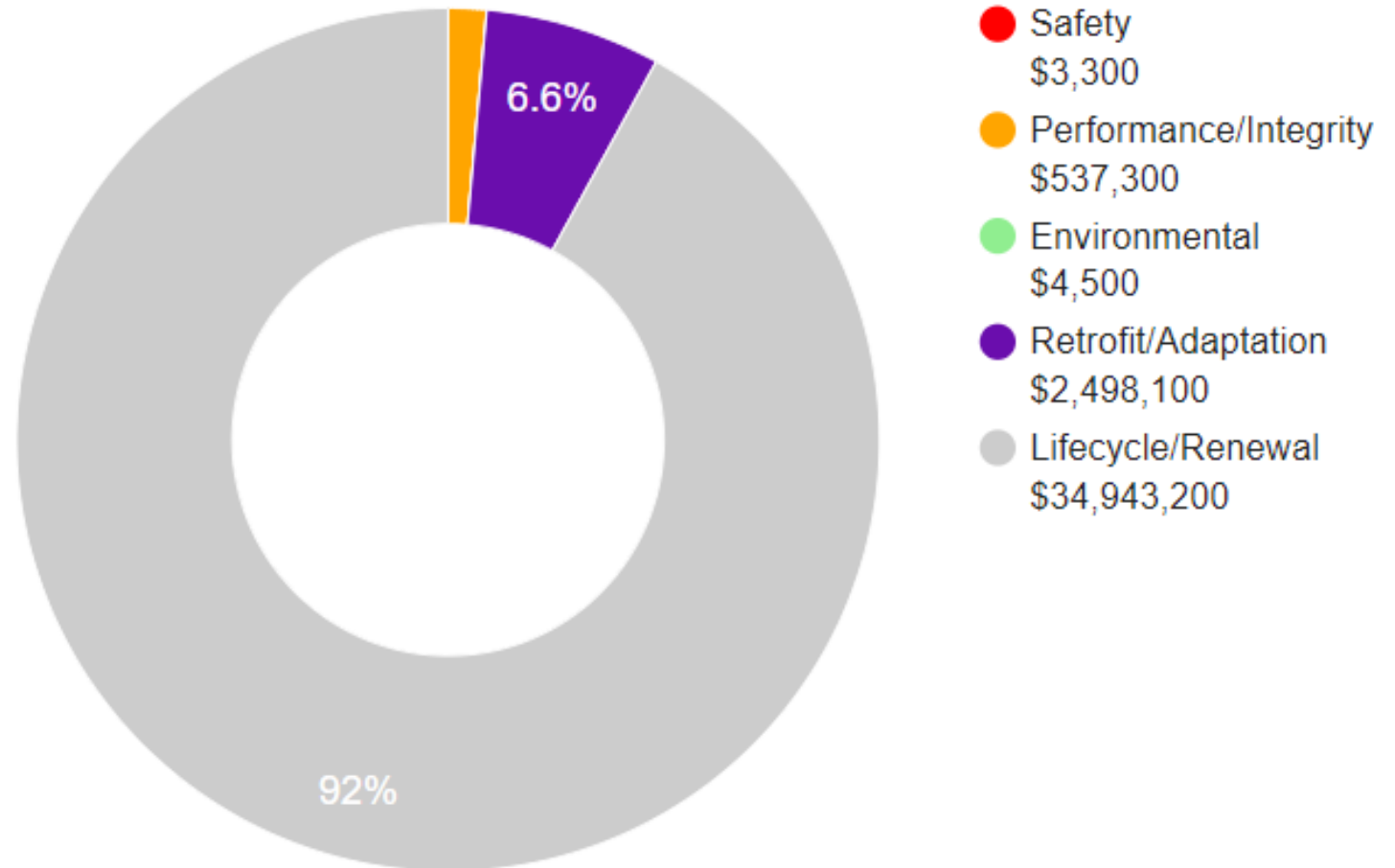
System Expenditure Forecast					
System	Immediate	Short Term (1-2 yr)	Near Term (3-5 yr)	Med Term (6-10 yr)	TOTAL
Facade	-	-	\$8,880	-	\$8,880
Roofing	\$1,702	-	-	-	\$1,702
Interiors	-	-	\$3,384,365	\$2,643,814	\$6,028,179
Conveying	-	-	-	\$52,945	\$52,945
Plumbing	-	-	-	\$55,493	\$55,493
HVAC	-	-	-	-	-
Fire Protection	-	-	-	-	-
Electrical	-	-	-	-	-
Fire Alarm & Electronic Systems	-	-	-	\$4,907,276	\$4,907,276
Equipment & Furnishings	-	-	\$2,537	\$302,234	\$304,771
Special Construction & Demo	-	-	\$24,357	\$177,031	\$201,388
Site Development	\$5,266	-	\$3,479,499	\$180,995	\$3,665,760
Site Pavement	\$63,622	\$141,152	\$103,463	\$286,920	\$595,157
Follow-up Studies	\$10,836	-	-	-	\$10,836



PLAN TYPE REPORT

PLAN TYPES – the Reason for a repair or replacement.

- Safety
- Performance Integrity
- Environmental
- Accessibility
- Modernization/Adaptation
- Lifecycle Repairs



10-YEAR TOTAL: \$37,986,400

REPLACEMENT RESERVES

6/2/2023

Uniformat Code	Location Description	ID	Cost Description	Lifespan (EUL)	Age	RUL	Quantity	Unit	Unit Cost *	Subtotal	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Deficiency Repair Estimate
A1010	Boiler room	5649809	Foundation System, Concrete w/ Continuous Footings,, 1-2 Story Building	75	65	10	985	LF	\$185.76	\$182,974											\$182,974	\$182,974
B2010	Building Exterior	5649779	Exterior Walls, Glass Block, Replace	40	35	5	220	SF	\$77.40	\$17,028						\$17,028						\$17,028
B2010	Building Exterior	5649801	Exterior Walls, Brick, Repoint	50	45	5	5366	SF	\$82.04	\$440,248						\$440,248						\$440,248
B2020	Throughout building	5649784	Glazing, Windows, Replace	30	25	5	6428	SF	\$77.40	\$497,527						\$497,527						\$497,527
B2050	Building Exterior	5649805	Exterior Door, Steel, Standard, Replace	40	35	5	20	EA	\$928.80	\$18,576						\$18,576						\$18,576
B3010	Roof	5649813	Roofing, Single-Ply Membrane, EPDM, Replace	20	18	2	32140	SF	\$17.03	\$547,280			\$547,280									\$547,280
C1030	Throughout building	5649802	Interior Door, Wood, Solid-Core, Replace	40	35	5	51	EA	\$1,083.60	\$55,264						\$55,264						\$55,264
C1030	Building Exterior	5649772	Interior Door, Steel, Standard, Replace	40	35	5	2	EA	\$928.80	\$1,858						\$1,858						\$1,858
C1070	Classrooms	5649787	Suspended Ceilings, Acoustical Tile (ACT), Replace	25	20	5	10000	SF	\$5.42	\$54,180						\$54,180						\$54,180
C1090	Restrooms	5649798	Toilet Partitions, Metal, Replace	20	10	10	12	EA	\$1,315.80	\$15,790											\$15,790	\$15,790
C2010	Throughout building	5649818	Wall Finishes, any surface, Prep & Paint	10	5	5	32140	SF	\$2.32	\$74,629						\$74,629						\$74,629
C2030	Hallways	5649806	Flooring, Luxury Vinyl Tile (LVT), Replace	15	10	5	2058	SF	\$11.61	\$23,893						\$23,893						\$23,893
C2030	Classrooms	5649790	Flooring, Carpet, Commercial Standard, Replace	10	5	5	28000	SF	\$11.61	\$325,080						\$325,080						\$325,080
C2030	Gymnasium	5960088	Flooring, Wood, Sports, Refinish	10	8	2	2664	SF	\$7.74	\$20,619			\$20,619									\$20,619
C2030	Gymnasium	5649783	Flooring, Maple Sports Floor, Replace	30	27	3	2664	SF	\$26.32	\$70,106				\$70,106								\$70,106
D2010	Throughout building	5649825	Plumbing System, Supply & Sanitary, (excludes fixtures), Replace	40	37	3	32140	SF	\$17.03	\$547,280				\$547,280								\$547,280
D2010	Boiler room	5649829	Backflow Preventer, Domestic Water, Replace	30	27	3	2	EA	\$4,953.60	\$9,907				\$9,907								\$9,907
D2010	Janitor closet	5649808	Sink/Lavatory, Service Sink, Laundry, Replace	30	27	3	1	EA	\$1,242.00	\$1,242				\$1,242								\$1,242
D2010	Restrooms	5649768	Sink/Lavatory, Vanity Top, Stainless Steel, Replace	30	25	5	4	EA	\$1,857.60	\$7,430						\$7,430						\$7,430
D2010	Restrooms	5649773	Urinal, Standard, Replace	30	25	5	6	EA	\$1,702.80	\$10,217						\$10,217						\$10,217
D2010	Restrooms	5649770	Toilet, Commercial Water Closet, Replace	30	25	5	12	EA	\$2,012.40	\$24,149						\$24,149						\$24,149
D2010	Throughout building	5649785	Drinking Fountain, Wall-Mounted, Bi-Level, Replace	15	5	10	2	EA	\$2,322.00	\$4,644											\$4,644	\$4,644





FINDINGS AND REPORTING – OVERALL INFORMATION



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VERITAS**

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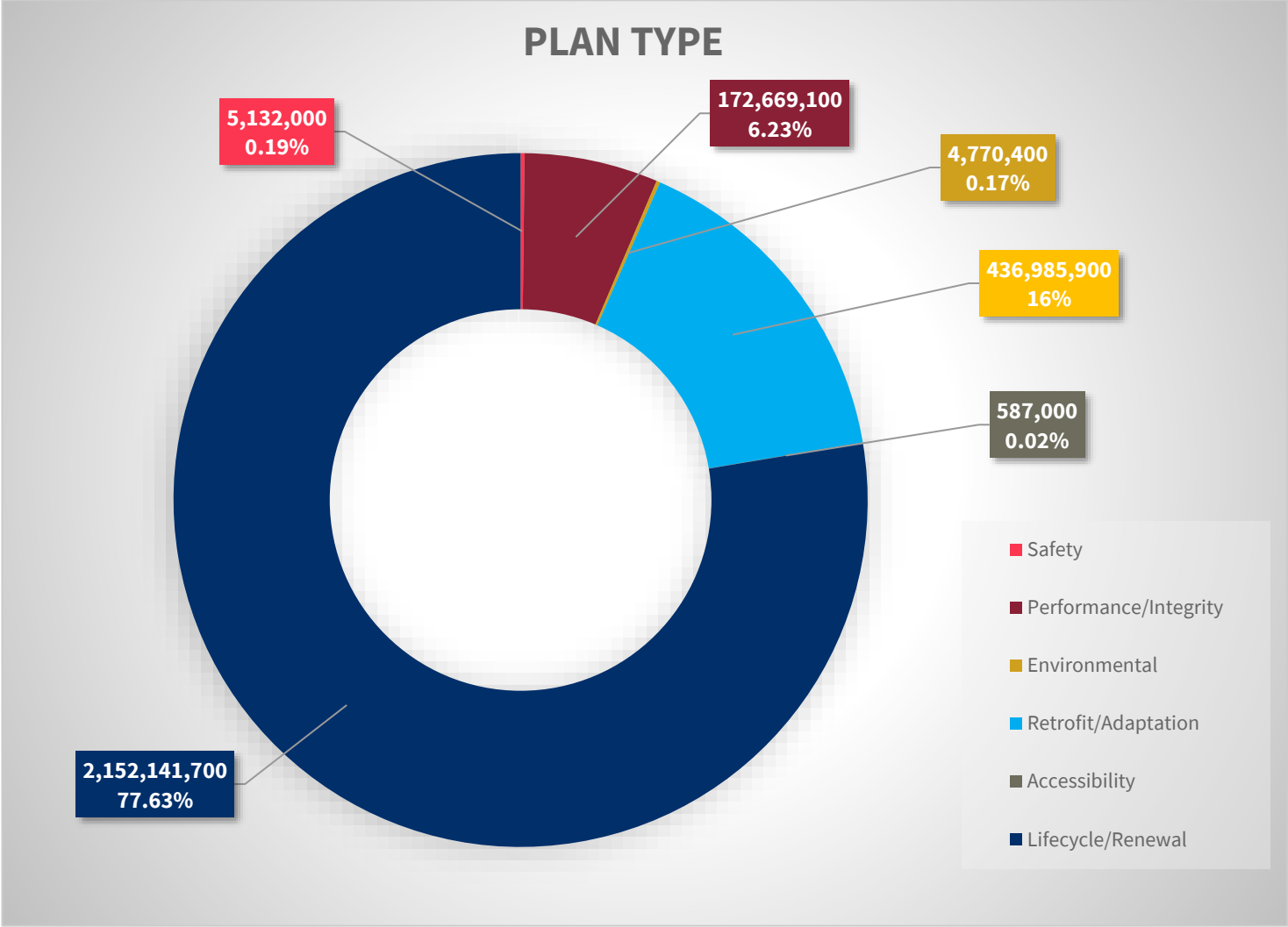
SYSTEMS EXPENDITURE REPORT

ALL COSTS FOR ALL DISTRICTS SEPARATED BY BUILDING SYSTEM

System	System Expenditure Forecast					TOTAL
	12-Month	Short Term (1-2 yr)	Near Term (3-5 yr)	Med Term (6-10 yr)	Long Term (11-20 yr)	
Structure	\$1,851,164	\$751,684	\$801,145	\$2,608,052	\$15,137,029	\$21,149,074
Facade	\$6,125,464	\$12,887,008	\$33,700,467	\$67,226,853	\$233,693,254	\$353,633,046
Roofing	\$23,303,031	\$43,481,515	\$78,086,080	\$176,865,807	\$315,054,438	\$636,790,871
Interiors	\$5,856,311	\$46,739,327	\$247,750,338	\$310,121,204	\$779,360,909	\$1,389,828,089
Conveying	\$1,437,362	\$1,132,205	\$3,198,629	\$1,823,136	\$8,964,052	\$16,555,384
Plumbing	\$1,374,922	\$32,382,751	\$58,915,575	\$98,222,380	\$257,732,871	\$448,628,499
HVAC	\$7,235,111	\$42,477,758	\$107,194,002	\$166,463,833	\$448,133,145	\$771,503,849
Fire Protection	\$140,968	\$2,165,505	\$7,583,468	\$14,649,217	\$44,915,187	\$69,454,345
Electrical	\$2,295,481	\$35,969,712	\$87,995,897	\$130,949,656	\$276,372,371	\$533,583,117
Fire Alarm & Electronic Systems	\$3,251,905	\$18,079,752	\$75,827,112	\$185,152,931	\$222,756,078	\$505,067,778
Equipment & Furnishings	\$6,148,576	\$10,746,060	\$58,357,794	\$154,362,578	\$177,270,746	\$406,885,754
Special Construction & Demo	\$1,515,131	\$1,739,818	\$8,043,783	\$14,322,424	\$47,020,546	\$72,641,702
Site Pavement	\$6,813,212	\$24,306,462	\$29,503,311	\$50,023,544	\$175,865,512	\$286,512,041
Site Development	\$4,515,444	\$17,813,730	\$77,456,487	\$143,219,910	\$304,041,040	\$547,046,611
Site Utilities	\$1,839,833	\$960,589	\$4,144,778	\$11,546,968	\$23,505,424	\$41,997,592
Follow-up Studies	\$495,628	\$0	\$3,589	\$0	\$0	\$499,217
Accessibility	\$330,872	\$0	\$0	\$0	\$0	\$330,872
TOTALS (3% inflation)	\$74,530,600	\$291,634,100	\$878,562,600	\$1,527,558,600	\$3,329,822,800	\$6,102,108,700

PLAN TYPE CHART – SCHOOLS

10-Year Cost Totals by Plan Type	
Safety	\$5,132,000
Performance/Integrity	\$172,669,100
Accessibility	\$587,000
Environmental	\$4,770,400
Retrofit/Adaptation	\$436,985,900
Lifecycle/Renewal	\$2,152,141,700
Total	\$2,772,286,100



FCI – EDUCATIONAL BUILDINGS

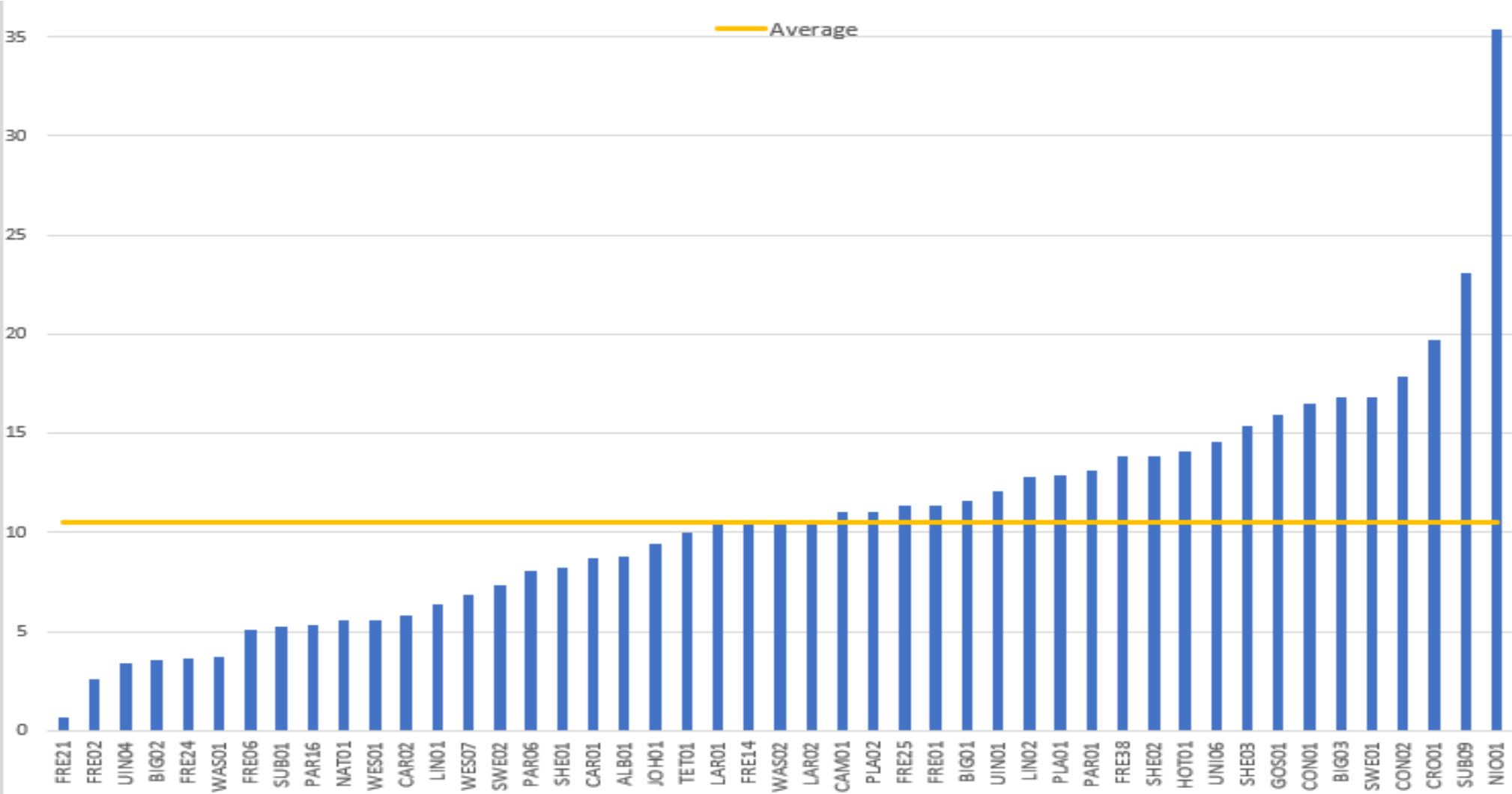
TEN HIGHEST FCI EDUCATIONAL BUILDINGS – 5-YEAR FCI

Educational Facility (year built)	Cost/SF	Total SF	Replacement Value	Current	3-Year	5-Year	10-Year
PLA01 Wheatland JHS_1601-005-0100 (1927)	\$565	42,465	\$19,109,250	2.40%	55.50%	56.00%	64.40%
GOS01 Southeast ES/MS/HS_0801-011-0100 (1980)	\$565	46,527	\$17,168,463	0.00%	33.90%	54.20%	93.90%
LAR01 Hobbs ES_1101-019-0100 (1959)	\$484	41,708	\$20,186,672	0.40%	12.80%	46.40%	54.50%
NIO01 Lusk ES/MS_1401-003-0100 (1984)	\$525	72,364	\$25,793,100	0.00%	4.70%	45.40%	54.80%
CON01 Douglas Intermediate ES_0501-010-0100 (1978)	\$484	55,727	\$20,563,263	4.00%	25.60%	39.30%	55.60%
SWE01 Rock Springs HS_1901-018-0100 (1971)	\$582	322,536	\$119,015,784	1.80%	21.30%	38.90%	52.80%
SUB09 Big Piney HS_1809-005-0100 (1987)	\$582	121,976	\$45,009,144	0.00%	9.40%	38.60%	56.90%
CAM01 Conestoga ES_0301-016-0100 (1982)	\$458	60,000	\$27,480,000	8.20%	21.20%	37.80%	49.20%
LAR01 Miller ES_1101-023-0100 (1965)	\$484	16,000	\$5,904,000	1.10%	4.50%	36.90%	47.20%
CON01 Douglas MS_0501-012-0100 (1988)	\$565	102,226	\$37,721,394	9.40%	18.90%	36.30%	65.80%

FCI – PER SCHOOL DISTRICT - EDUCATIONAL BUILDINGS

SCHOOL DISTRICT AVERAGE 5-YEAR FCI FOR EDUCATIONAL BUILDINGS

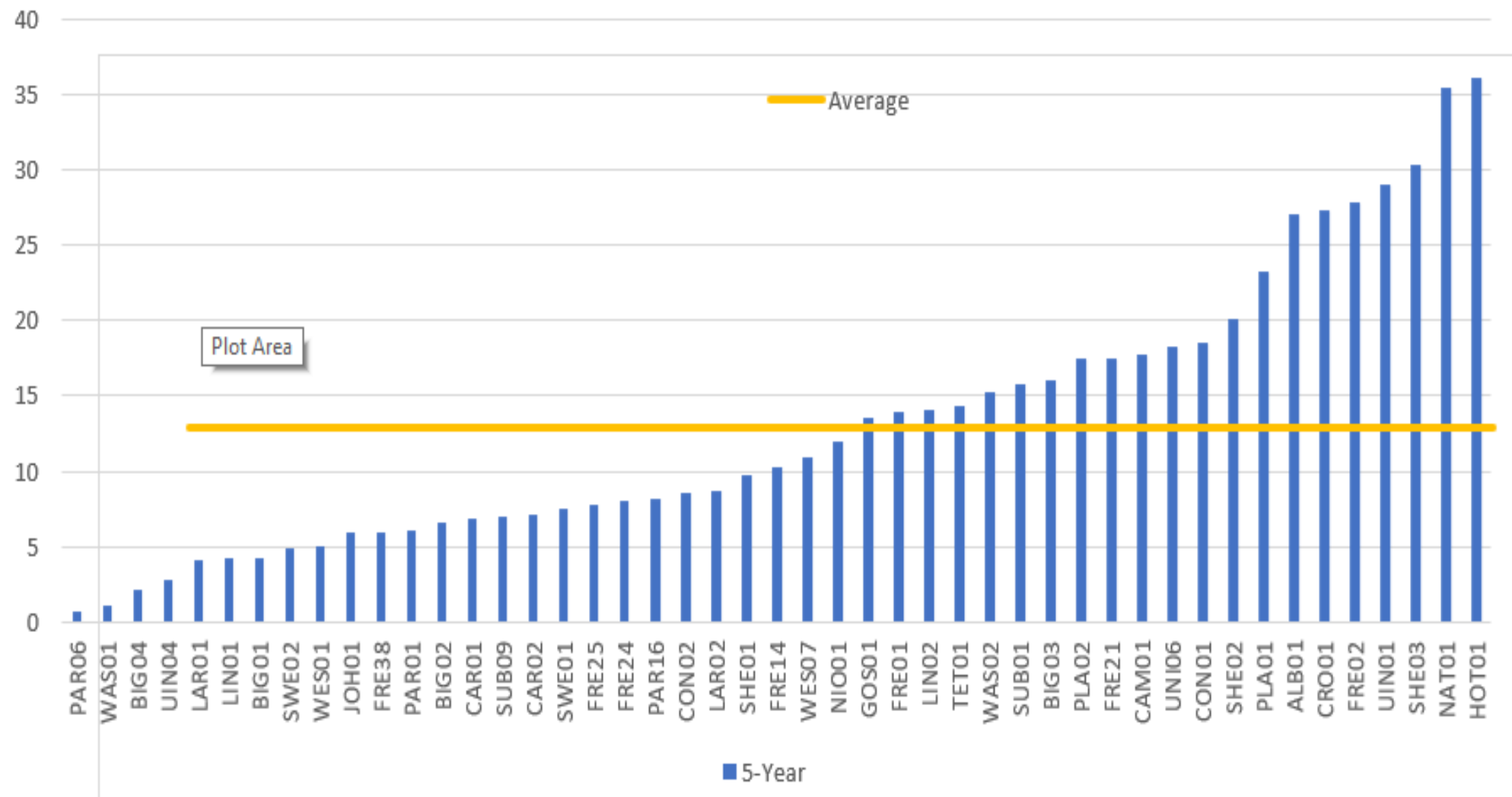
Higher numbers are worse condition



FCI – PER SCHOOL DISTRICT - SUPPORT BUILDINGS

SCHOOL DISTRICT AVERAGE 5-YEAR FCI FOR SUPPORT BUILDINGS

Higher numbers are worse condition





**BUREAU
VERITAS**

Questions?