COMMUNITY AND TECHNICAL COLLEGES
Washington State Board

COLUMBIA BASIN COLLEGE

2026 Capital Planning Facility Report

State Board for Community and Technical Colleges

Facility Condition Survey — 2025 Cycle

Minor Works — 2027–2029 Biennium Capital Request

Portfolio (2025 FPMT inventory)	46 buildings · 988,322 GSF
Buildings carrying 2025 deficiencies	15 · 561,255 GSF
Weighted-average condition	234 (Adequate)
2027 preservation request	**$6,421,000 (11 projects)**
2027 Minor Works total	**$9,931,000 (preservation + infrastructure + program + URF)**
Deferred preservation backlog	$13,703,000 (40 projects)

CONTENTS

COLUMBIA BASIN COLLEGE 1
2026 Capital Planning Facility Report 1
Contents 2
1. Executive Summary 6
Capital planning headlines 6
Headline numbers 7
Capital outlook 7
2. College Portfolio Overview 9
Building inventory 9
3. Capital Planning Roadmap 11
3.1 Immediate biennium (2027–2029 request) 11
3.2 Mid-term (next biennium plus one, 2029–2033) 11
3.3 Long-term (7–10+ years, 2033 and beyond) 12
3.4 Cross-cutting system themes 12
4. Deficiency Inventory and Findings 14
4.1 Summary table 14
SBCTC condition-rating bands 16
Distribution observations 16
4.2 Findings detail 16
D01 — KaLWALL system, Multiple (Main Campus) 16
D02 — Air handling units, Library Building (Main Campus) 17
D03 — Roof top units, Industrial Building I (Main Campus) 18
D04 — Heat pump, Hud Building (Main Campus) 19
D05 — Exterior flatwork, Multiple (Main Campus) 20
D06 — Air Handling Unit, Lee R Thornton Ctr (Main Campus) 20
D07 — Exhaust fans, Lee R Thornton Ctr (Main Campus) 21
D08 — Heat pump, Classroom Building (Main Campus) 22
D09 — Auto door operators, Multiple (Main Campus) 23
D10 — Elevators, Health Science Center (Richland Campus) 23
D11 — Lighting controls, Multiple (Main Campus) 24
D12 — Roof, Multiple (Main Campus) 25
D13 — Unit heaters, Vocational Tech Building (Main Campus) 26
D14 — Chilled water pump, Utilities Building (Main Campus) 26

D15 — Multi zones units, Lee R Thornton Ctr (Main Campus) 27
D16 — Boilers, Lee R Thornton Ctr (Main Campus) 28
D17 — Air handling units, Hawk Union Building (Main Campus) 29
D18 — Dampers, Ag Lab Greenhouse (Main Campus) 29
D19 — Rooftop hydronic unit, Hawk Union Building (Main Campus) 30
D20 — Transformer, Site (Main Campus) 31
D21 — Rooftop unit, Lee R Thornton Ctr (Main Campus) 32
D22 — Heat pump, Hawk Union Building (Main Campus) 32
D23 — Fan coil units, Library Building (Main Campus) 33
D24 — Unit heaters, Lee R Thornton Ctr (Main Campus) 34
D25 — Heat recovery pump, Lee R Thornton Ctr (Main Campus) 35
D26 — Exhaust fans, Building W (Main Campus) 35
D27 — Fan coil units, Hawk Union Building (Main Campus) 36
D28 — Boilers, Health Science Center (Richland Campus) 37
D29 — Air handling units, Health Science Center (Richland Campus) 38
D30 — Chillers, Utilities Building (Main Campus) 38
D31 — Compressor, Career & Technology (Main Campus) 39
D32 — Chiller, Career & Technology (Main Campus) 40
D33 — Air handling unit, Health Science Center (Richland Campus) 41
D34 — Chilled water pump, Health Science Center (Richland Campus) 42
D35 — Pumps, Health Science Center (Richland Campus) 42
D36 — Unit heaters, Health Science Center (Richland Campus) 43
D37 — Exhaust fans, Health Science Center (Richland Campus) 44
D38 — Roof, Utilities Building (Main Campus) 44
D39 — Heat pump, Multiple (Richland Campus) 45
D40 — Water softener, Health Science Center (Richland Campus) 45
D41 — Windows, Multiple (Richland Campus) 46
D42 — Through-wall heaters, Karchner Building (Main Campus) 47
D43 — Water heaters, Multiple (Main Campus) 48
D44 — Gutters, Administration Building (Main Campus) 49
D45 — Roof, Business Building (Main Campus) 49
D46 — Lighting , Multiple (Main Campus) 50
D47 — Data vaults, Multiple (Main Campus) 51
D48 — Chiller, Health Science Center (Richland Campus) 51
D49 — Air compressor, Health Science Center (Richland Campus) 52

D50 — Medical VAC, Health Science Center (Richland Campus) 53
D51 — Air handling unit, Lee R Thornton Ctr (Main Campus) 54
D52 — Fan coil units, Health Science Center (Richland Campus) 54
D53 — Irrigation pump, Site (Main Campus) 55
5. Building Profiles 57
Karchner Building — condition score 523 57
Vocational Tech Building — condition score 428 57
Utilities Building — condition score 405 57
Industrial Building I — condition score 282 58
Library Building — condition score 244 58
Hud Building — condition score 225 59
Hawk Union Building — condition score 222 59
Classroom Building — condition score 212 59
Ag Lab Greenhouse — condition score 202 60
Administration Building — condition score 188 60
Lee R Thornton Ctr — condition score 177 60
Health Science Center — condition score 174 61
Career & Technology — condition score 165 61
6. Infrastructure Systems 62
Prior biennium funded — 2025–2027 (all categories) 62
On the radar for 2029–2031 62
7. Master Plan Alignment 63
Master planning currency 63
Reported capital priorities 63
8. Maintenance Capacity Snapshot 65
In-house maintenance staffing (2025 pre-survey) 65
Derived metrics 65
Capital reinvestment context 66
9. Decarbonization and Clean Buildings Compliance 67
9.1 The Clean Buildings Performance Standard 67
9.2 CBC's covered buildings 67
9.3 Aligning capital renewal with compliance 68
9.4 Compliance pathway — central plant versus building-by-building 69
10. Appendix: Building Condition Detail 70
Karchner Building — condition score 523 70

Vocational Tech Building — condition score 428 71
Utilities Building — condition score 405 71
Industrial Building I — condition score 282 72
Library Building — condition score 244 73
Hud Building — condition score 225 74
Hawk Union Building — condition score 222 75
Classroom Building — condition score 212 75
Ag Lab Greenhouse — condition score 202 76
Administration Building — condition score 188 77
Lee R Thornton Ctr — condition score 177 78
Health Science Center — condition score 174 79
Career & Technology — condition score 165 79
Business Building — condition score 154 80

1. EXECUTIVE SUMMARY

This report covers Columbia Basin College (CBC) for the 2025 SBCTC Facility Condition Survey cycle, which informs the college's Minor Works capital budget request for the 2027–2029 biennium. The college operates two campuses — the Pasco Main Campus (site 190A) and the Richland Campus (site 190B). The 2025 survey identified **53 capital deficiencies totaling $20,124,000** of preservation need. Of this, **$6,421,000 across 11 projects** is included in the 2027 preservation request, **$13,703,000 across 40 projects** is deferred to future cycles, and 2 items are excluded. The full 2027 Minor Works request, including infrastructure, program, and Urgent Repair Fund (URF) categories, totals **$9,931,000**.

Capital planning headlines

1. The 2027 preservation request is HVAC- and envelope-led, and spread across many buildings rather than concentrated in one.

The single largest project is a campus-wide KaLWALL skylight/daylighting repair ($1,847,000, 29% of the request). HVAC is the dominant system at $2,366,000 — the Hud Building R-22 heat-pump replacement ($726,000), the Library Building air handlers ($621,000), the Lee R Thornton Center server-room air handler ($512,000) and exhaust fans ($197,000), the Industrial Building I rooftop units ($205,000), and a Classroom Building heat pump ($105,000). The balance is Health Science Center elevators ($806,000), campus-wide lighting controls ($681,000), campus-wide exterior flatwork ($620,000), and ADA auto door operators ($101,000). The average deficiency score of the included projects is 83.3. CBC's preservation ask is roughly 2.3× the system-wide average preservation request and carries 11 projects against a system average of 6.5.

2. The deferred backlog is very large and overwhelmingly mechanical — $13,703,000, more than double the 2027 ask, and 66% HVAC.

Of the $13,703,000 deferred, $9,026,000 (66%) is D30 HVAC — aging boilers, chillers, air handlers, heat pumps, and rooftop units, much of it R-22 or end-of-life. By building, the Richland **Health Science Center alone carries $3,213,000** of deferred mechanical work (boilers, chillers, air handlers, pumps, and a medical vacuum system), the **Lee R Thornton Center carries $2,488,000** (multizone units, boilers, a rooftop unit, and unit heaters), and **Hawk Union carries $1,386,000**. A further $3,613,000 of deferred work is campus-wide (a multi-building roof package, site transformer, campus lighting, data vaults, and irrigation pumps). This backlog is the single most important number in this report for mid-term planning.

3. Several buildings receiving 2027 capital are flagged for replacement in the college's master plan.

The 2024-current Main Campus master plan lists no renovation or demolition priorities but eight replacement priorities — including **Industrial Building I** and the **Library Building**, both of which receive 2027 preservation funding this cycle (Industrial Building I rooftop units, D03, $205,000; Library air handlers, D02, $621,000), and the **Karchner Building** (the worst-scored building in the portfolio at 523), which carries a deferred through-wall-heater item. Because OFM guidance expects capital-repair dollars to return at least 13 years of useful life, investing preservation funds in replacement-flagged buildings warrants explicit justification. Section 7 develops this alignment question, which is the central master-plan tension this cycle.

4. A large share of the portfolio comes under the Clean Buildings Performance Standard inside this planning window — and the deferred backlog sits squarely in those buildings.

Fourteen CBC buildings exceed the 20,000 GSF Clean Buildings coverage floor — eight Tier 1 (≥50,000 GSF) and six Tier 2 (20,001–50,000 GSF). The Tier 2 buildings reach their first compliance deadline of July 1, 2027, and most Tier 1 buildings reach theirs on June 1, 2028. The deferred HVAC and lighting backlog — R-22 equipment, aging boilers and chillers, and obsolete fluorescent lighting — is concentrated in these same covered buildings, so the next equipment-replacement decision in each is also a compliance decision. Section 9 develops this alignment.

Headline numbers

Metric	Value
Total buildings (2025 FPMT inventory)	46
Total portfolio GSF	988,322
Buildings scored (condition rating)	38 (8 auxiliary structures not separately scored)
Buildings carrying 2025 deficiencies	15 (+ Building W, not in FPMT)
Weighted-average condition score (scored)	234 (Adequate) — was 239 in 2023
Total 2027 preservation request	**$6,421,000 (11 projects)**
Total 2027 infrastructure request	$852,000 (1 project)
Total 2027 program request	$1,582,000
Total 2027 URF request	$1,076,000
Total 2027 Minor Works request	**$9,931,000**
Deferred preservation backlog	$13,703,000 (40 projects)
Total preservation deficiencies identified (2025 FCS)	53 (11 included, 40 deferred, 2 excluded)
Prior biennium funded (2025–2027, all categories)	$5,507,000
Buildings under Clean Buildings Standard (within horizon)	14 (8 Tier 1, 6 Tier 2)

Capital outlook

Immediate biennium (2027–2029). An HVAC- and envelope-led request of $6,421,000 across 11 projects (preservation), plus $852,000 infrastructure, $1,582,000 program, and $1,076,000 URF for a $9,931,000 Minor Works total. The preservation request is defensible on score — every included project scored 76 or above. The largest single line is the campus-wide KaLWALL repair; HVAC is the dominant system.

Mid-term (4–6 years, 2029–2033). The $13,703,000 deferred backlog — two-thirds HVAC — defines the next several asks and is far larger than any single biennium can absorb. The Richland Health Science Center ($3,213,000) and the Lee R Thornton Center ($2,488,000) are the two dominant deferred concentrations, both consisting of aging central-plant and air-handling equipment that is operationally fragile and, in the case of R-22 units, regulatorily exposed. Sequencing this backlog across multiple biennia — and coordinating it with Clean Buildings compliance — is the core mid-term task.

Long-term (7–10+ years, 2033 and beyond). Eight buildings are flagged for replacement in the master plan, several of them old, low-scored, and carrying deferred deficiencies (Karchner 523, Vocational Tech 428, Industrial Building I 282, Library 244). The capital-planning discipline for these buildings is to fund only the minimum repairs needed to keep them serviceable until replacement, and to fold larger renewal needs into replacement proposals rather than preservation. The Utilities Building (405) and its central-plant equipment also warrant a coordinated condition reassessment.

Clean Buildings compliance. The Tier 2 (July 2027) and Tier 1 (June 2028) deadlines fall inside the mid-term window and overlap precisely with the buildings carrying the deferred HVAC and lighting backlog. Specifying that deferred renewal as high-efficiency or electric equipment at the point of replacement — rather than like-for-like — is the central capital-planning opportunity this cycle, developed in Section 9.

2. COLLEGE PORTFOLIO OVERVIEW

Columbia Basin College operates two campuses. The **Pasco Main Campus (site 190A)** holds the great majority of building area and combines a 1950s–1960s instructional core — the 1957 Utilities Building, the 1957 Vocational Tech Building, the 1958 Administration Building, and the 1964 Library Building — with a large body of modern construction added across the last two decades, including the 2005 Lee R Thornton Center (the largest building in the portfolio at 155,462 GSF), the 2009 Business Building, the 2011 Career & Technology building, the 2014 Social Sciences and World Languages Center, and the 2022 Student Recreation Center (SRC). The smaller **Richland Campus (site 190B)** is anchored by the modern Health Science Center (2004) and Wortman Medical Science Center (2017), alongside the older ROC complex (Richland "A," "B," and "C," 1974–1980). The strongest condition scores belong to the newest academic buildings, while the 1950s Main Campus stock — the Utilities Building (405) and Vocational Tech Building (428) — carries the weakest conditions among the larger buildings.

Building inventory

Building	Camp.	GSF	Built	Reno.	Score	Rating	Predominant use
Business Building	Main	22,500	2009	—	**154**	Superior	Instructional
Career & Technology	Main	79,420	2011	—	**165**	Superior	Instructional
Health Science Center	Rich.	67,010	2004	2013	**174**	Superior	Instructional (health science)
Lee R Thornton Ctr	Main	155,462	2005	—	**177**	Adequate	Instructional / science labs
Administration Building	Main	54,111	1958	2003	**188**	Adequate	Administrative / instructional
Ag Lab Greenhouse	Main	4,007	2014	—	**202**	Adequate	Instructional (agriculture)
Classroom Building	Main	7,116	1995	2013	**212**	Adequate	Instructional
Hawk Union Building	Main	67,695	1976	2005	**222**	Adequate	Student services
Hud Building	Main	6,294	2007	—	**225**	Adequate	Instructional
Building W	Main	—	—	—	**239**	Adequate	Not in FPMT inventory
Library Building	Main	37,895	1964	1992	**244**	Adequate	Library / instructional
Industrial Building I	Main	7,166	1983	—	**282**	Needs improvement — maintenance	Instructional (industrial)
Utilities Building	Main	4,811	1957	1995	**405**	Needs improvement — renovation	Central plant / utilities
Vocational Tech Building	Main	45,368	1957	1960	**428**	Needs improvement — renovation	Instructional / administrative
Karchner Building	Main	2,400	1979	—	**523**	Replace or renovate	Instructional support
Portfolio (scored, GSF-weighted)		**561,255**			**234**	**Adequate (avg)**	

Score = 2025 canonical building condition score (BCS), drawn from the CONDITION worksheet of the FCS workbook (lower is better). Rating bands follow the SBCTC scale shown in Section 4.1. This table lists the 15 buildings carrying 2025 deficiencies; the full 2025 FPMT inventory comprises 46 structures totaling 988,322 GSF across both campuses, of which 38 received a condition score this cycle. The remaining scored buildings — including the SRC (2022), Wortman Medical Science Center (2017), and Social Sciences and World Languages Center (2014) — are in Adequate or Superior condition with no deficiencies identified.

Age profile

The portfolio falls into two clear cohorts. A **1950s–1960s cohort** — the Utilities Building (1957), Vocational Tech Building (1957), Administration Building (1958), Library Building (1964), and Hawk Union Building (1976) — carries the oldest systems and, among the larger buildings, the weakest conditions; the Utilities Building (405) and Vocational Tech Building (428) both sit in the renovation band, and the Vocational Tech Building deteriorated from 373 in 2023 to 428 in 2025, the largest single-building decline in the surveyed set. A **2000s–2020s cohort** — the Lee R Thornton Center (2005), Hud Building (2007), Business Building (2009), Career & Technology (2011), Ag Lab Greenhouse (2014), and the Richland Health Science Center (2004) — holds the best scores. The pattern that matters for capital planning is that the modern buildings are not deficiency-free: the Lee R Thornton Center (177, Adequate) and the Health Science Center (174, Superior) are among the best-scored buildings in the portfolio yet carry the two largest deferred mechanical backlogs, a reminder that original equipment installed around 2004–2005 is now passing 20 years of service and entering its renewal window as a cohort.

Buildings excluded from this report's inventory table are the auxiliary structures under roughly 20,000 GSF (storage buildings, modular classrooms, athletic dugouts and press boxes, the chemical bunker, and maintenance buildings) and the larger scored buildings with no 2025 deficiencies. None were excluded for being leased — all FPMT structures are college-owned.

3. CAPITAL PLANNING ROADMAP

3.1 Immediate biennium (2027–2029 request)

The 2027 Minor Works request totals $9,931,000: $6,421,000 preservation (11 projects), $852,000 infrastructure (1 project), $1,582,000 program, and $1,076,000 URF. The **preservation request is HVAC- and envelope-led.** The largest single line is a campus-wide KaLWALL skylight/daylighting repair (D01, $1,847,000, 29% of preservation), classified under roofing. HVAC is the dominant system at $2,366,000 across six projects — the Hud Building R-22 heat pumps (D04, $726,000), the Library Building air handlers (D02, $621,000), the Lee R Thornton Center server-room air handler (D06, $512,000) and exhaust fans (D07, $197,000), the Industrial Building I rooftop units (D03, $205,000), and a Classroom Building heat pump (D08, $105,000). The remainder is Health Science Center elevators (D10, $806,000), campus-wide lighting controls (D11, $681,000), campus-wide exterior flatwork (D05, $620,000), and ADA auto door operators (D09, $101,000). The average deficiency score of included projects is 83.3, and every funded project scored 76 or above.

In system-wide context, CBC's $6,421,000 preservation request is roughly 2.3× the system-wide average ($2,842,941) and carries 11 projects against a system average of 6.5; its median project cost ($620,000) is about three times the system median ($202,000), reflecting a request weighted toward a few large HVAC and envelope projects rather than many small ones. The single 2027 infrastructure project is a potable-water-line replacement (asset 3479, $852,000) running north–south through the Main Campus core past Career & Technology.

3.2 Mid-term (next biennium plus one, 2029–2033)

The $13,703,000 deferred backlog across 40 projects defines the mid-term, and it is **overwhelmingly mechanical and heavily concentrated by building.** By system, D30 HVAC is $9,026,000 (66% of the deferred total) — aging boilers, chillers, air handlers, heat pumps, multizone units, and rooftop units. By building, the two dominant concentrations are the Richland **Health Science Center ($3,213,000),** carrying a full central-plant renewal (boilers D28 $845,000, chiller D48 $661,000, air handlers D29 $545,000, a medical vacuum system D50 $433,000, and a string of pumps, an air compressor, unit heaters, exhaust fans, and a water softener), and the **Lee R Thornton Center ($2,488,000),** carrying eight multizone units (D15, $1,138,000), three boilers (D16, $849,000), a rooftop unit (D21, $286,000), unit heaters (D24, $145,000), and a heat-recovery pump (D25, $70,000). **Hawk Union ($1,386,000)** adds air handlers, a rooftop hydronic unit, and a heat pump; the **Utilities Building ($718,000)** adds its two 1995 chillers and roof; **Career & Technology ($623,000)** adds a chiller and compressor; and the **Ag Lab Greenhouse ($608,000)** adds obsolete roof-damper controls. A further $3,613,000 is campus-wide — a multi-building roof package (D12, $875,000), a campus lighting replacement (D46, $753,000), failing irrigation pumps (D53, $750,000), Richland windows (D41, $377,000), sunken data vaults (D47, $359,000), and a site transformer (D20, $311,000).

Two features of this backlog drive sequencing. First, much of the HVAC is the original 2004–2005 equipment in the Health Science Center and Lee R Thornton Center reaching end of life as a cohort, plus R-22 units that the federal phase-out makes increasingly uneconomic to maintain. Second, the deferred total is far larger than any single biennium can absorb, so the college will need to phase this renewal across at least the 2029–2031 and 2031–2033 biennia — prioritizing the Health Science Center and Lee R Thornton central-plant equipment, which is both the largest concentration and the most operationally critical.

3.3 Long-term (7–10+ years, 2033 and beyond)

The long-horizon picture is dominated by the master plan's **eight replacement priorities,** several of which are old, low-scored, and already carrying deficiencies: the Karchner Building (523, the worst score in the portfolio), the Vocational Tech Building (428), Industrial Building I (282), and the Library Building (244), plus the Performing Arts Building (503), Industrial Building 2 (413), North Campus Classrooms (238), the Carpentry Complex (538), and the Richland ROC complex. For these buildings the capital-planning discipline is to fund only the minimum repairs needed to keep them serviceable until replacement and to fold larger renewal needs into replacement proposals, since OFM guidance expects capital-repair dollars to return at least 13 years of useful life — a return that is hard to justify in a building slated for removal. The Utilities Building (405) and its 1995 central-plant chillers warrant a coordinated condition reassessment in advance of the next cycle, as the building sits at the threshold where component-by-component repair gives way to whole-building or whole-plant decisions.

3.4 Cross-cutting system themes

HVAC central-plant and air-handling renewal — and R-22 phase-out.

HVAC is two-thirds of the deferred backlog and the defining capital theme of this cycle. It clusters in central-plant and air-handling equipment at the Health Science Center (boilers, chiller, air handlers) and the Lee R Thornton Center (boilers, multizone units), with secondary concentrations at Hawk Union, the Utilities Building, and Career & Technology. R-22 refrigerant runs through both the request and the backlog — the Hud Building heat pumps funded this cycle (D04) are R-22, as are the Lee R Thornton server unit and multiple Richland and Pasco split systems. With U.S. production of R-22 banned since 2020, these units cannot be recharged economically and should be sequenced into the next two biennia rather than carried indefinitely; their replacement is also the natural point to move to high-efficiency or electric systems consistent with the Clean Buildings Performance Standard (Section 9).

Lighting and lighting controls.

Lighting is split between a campus-wide controls replacement funded this cycle (D11, $681,000) and a campus-wide fixture replacement deferred (D46, $753,000) — together a $1,434,000 program responding to obsolete controls (boards no longer programmable) and discontinued fluorescent fixtures across the Business Building, Career & Technology, Classroom Building, and others. This is the lowest-cost, highest-certainty energy-use reduction in the portfolio: an LED-and-controls conversion both clears the backlog and directly lowers the energy-use intensity the Clean Buildings Standard measures.

Roofing and building envelope.

Roofing is led by the campus-wide KaLWALL/skylight repair funded this cycle (D01, $1,847,000) — a daylighting-system failure causing water intrusion in the Career & Technology machine shop and the Lee R Thornton Center. Deferred roofing adds a multi-building roof package (D12, $875,000), the Administration Building gutters (D44, $314,000), the Utilities Building roof (D38, $152,000), and the Business Building roof (D45, $137,000). Envelope work also includes deferred single-pane window replacement across the Richland ROC buildings (D41, $377,000).

Site and utility infrastructure.

Beyond the 2027 potable-water-line project ($852,000), the deferred list carries genuinely infrastructure-scale items: two 40-year-old, 100+ horsepower irrigation pumps serving the campus (D53, $750,000), a site

transformer (D20, $311,000), and sunken data vaults that flood and block fiber extension (D47, $359,000). These should be evaluated against the college's infrastructure request stream rather than competing directly with building preservation.

Clean Buildings Performance Standard alignment.

The most important cross-cutting theme is the overlap between the deferred HVAC and lighting backlog and the fourteen buildings coming under the Clean Buildings Performance Standard in 2027 (Tier 2) and 2028 (Tier 1). Most of the deferred mechanical and lighting work sits in these covered buildings, and almost all of it — R-22 HVAC, aging boilers and chillers, and obsolete lighting — is precisely the equipment the standard targets. Treating the 2029–2033 mechanical and lighting renewal as a coordinated compliance-and-renewal program, rather than a series of like-for-like swaps, is developed in full in Section 9.

4. DEFICIENCY INVENTORY AND FINDINGS

Section 4.1 is a ranked navigation index with a rating-band legend and distribution notes. Section 4.2 reproduces the problem and repair descriptions verbatim from the 2025 survey — these are the authoritative record of what was identified and recommended and are not paraphrased.

4.1 Summary table

ID	Building	Camp.	System	Component	DSc	BCS	Budget	Status
D01	Multiple	Main	B30 Roofing	KaLWALL system	91	239	$1,847,000	**Included (2027)**
D02	Library Building	Main	D30 HVAC	Air handling units	91	244	$621,000	**Included (2027)**
D03	Industrial Building I	Main	D30 HVAC	Roof top units	87	282	$205,000	**Included (2027)**
D04	Hud Building	Main	D30 HVAC	Heat pump	86	225	$726,000	**Included (2027)**
D05	Multiple	Main	G20 Site Improvements	Exterior flatwork	81	239	$620,000	**Included (2027)**
D06	Lee R Thornton Ctr	Main	D30 HVAC	Air Handling Unit	81	177	$512,000	**Included (2027)**
D07	Lee R Thornton Ctr	Main	D30 HVAC	Exhaust fans	81	177	$197,000	**Included (2027)**
D08	Classroom Building	Main	D30 HVAC	Heat pump	81	212	$105,000	**Included (2027)**
D09	Multiple	Main	D50 Electrical	Auto door operators	81	239	$101,000	**Included (2027)**
D10	Health Science Center	Rich.	D10 Vertical Transportation	Elevators	80	174	$806,000	**Included (2027)**
D11	Multiple	Main	D50 Electrical	Lighting controls	76	239	$681,000	**Included (2027)**
D12	Multiple	Main	B30 Roofing	Roof	75	239	$875,000	Deferred
D13	Vocational Tech Building	Main	D30 HVAC	Unit heaters	75	428	$125,000	Deferred
D14	Utilities Building	Main	D30 HVAC	Chilled water pump	75	405	$70,000	Deferred
D15	Lee R Thornton Ctr	Main	D30 HVAC	Multi zones units	71	177	$1,138,000	Deferred
D16	Lee R Thornton Ctr	Main	D30 HVAC	Boilers	71	177	$849,000	Deferred
D17	Hawk Union Building	Main	D30 HVAC	Air handling units	71	222	$690,000	Deferred
D18	Ag Lab Greenhouse	Main	D30 HVAC	Dampers	71	202	$608,000	Deferred
D19	Hawk Union Building	Main	D30 HVAC	Rooftop hydronic unit	71	222	$426,000	Deferred
D20	Site	Main	D50 Electrical	Transformer	71	239	$311,000	Deferred
D21	Lee R Thornton Ctr	Main	D30 HVAC	Rooftop unit	71	177	$286,000	Deferred
D22	Hawk Union Building	Main	D30 HVAC	Heat pump	71	222	$256,000	Deferred
D23	Library Building	Main	D30 HVAC	Fan coil units	71	244	$249,000	Deferred
D24	Lee R Thornton Ctr	Main	D30 HVAC	Unit heaters	71	177	$145,000	Deferred
D25	Lee R Thornton Ctr	Main	D30 HVAC	Heat recovery pump	71	177	$70,000	Deferred
D26	Building W	Main	D30 HVAC	Exhaust fans	71	239	$39,000	Deferred

ID	Building	Camp.	System	Component	DSc	BCS	Budget	Status
D27	Hawk Union Building	Main	D30 HVAC	Fan coil units	71	222	$14,000	Deferred
D28	Health Science Center	Rich.	D30 HVAC	Boilers	70	174	$845,000	Deferred
D29	Health Science Center	Rich.	D30 HVAC	Air handling units	70	174	$545,000	Deferred
D30	Utilities Building	Main	D30 HVAC	Chillers	70	405	$496,000	Deferred
D31	Career & Technology	Main	D30 HVAC	Compressor	70	165	$312,000	Deferred
D32	Career & Technology	Main	D30 HVAC	Chiller	70	165	$311,000	Deferred
D33	Health Science Center	Rich.	D30 HVAC	Air handling unit	70	174	$174,000	Deferred
D34	Health Science Center	Rich.	D30 HVAC	Chilled water pump	70	174	$170,000	Deferred
D35	Health Science Center	Rich.	D30 HVAC	Pumps	70	174	$137,000	Deferred
D36	Health Science Center	Rich.	D30 HVAC	Unit heaters	70	174	$80,000	Deferred
D37	Health Science Center	Rich.	D30 HVAC	Exhaust fans	70	174	$15,000	Deferred
D38	Utilities Building	Main	B30 Roofing	Roof	66	405	$152,000	Deferred
D39	Multiple	Rich.	D30 HVAC	Heat pump	66	239	$125,000	Deferred
D40	Health Science Center	Rich.	D20 Plumbing	Water softener	64	174	$47,000	Deferred
D41	Multiple	Rich.	B20 Exterior Closure	Windows	61	239	$377,000	Deferred
D42	Karchner Building	Main	D30 HVAC	Through-wall heaters	57	523	$190,000	Deferred
D43	Multiple	Main	D20 Plumbing	Water heaters	56	239	$63,000	Deferred
D44	Administration Building	Main	B30 Roofing	Gutters	55	188	$314,000	Deferred
D45	Business Building	Main	B30 Roofing	Roof	54	154	$137,000	Deferred
D46	Multiple	Main	D50 Electrical	Lighting	51	239	$753,000	Deferred
D47	Multiple	Main	F10 Special Construction	Data vaults	51	239	$359,000	Deferred
D48	Health Science Center	Rich.	D30 HVAC	Chiller	50	174	$661,000	Deferred
D49	Health Science Center	Rich.	E10 Equipment	Air compressor	50	174	$106,000	Deferred
D50	Health Science Center	Rich.	F10 Special Construction	Medical VAC	45	174	$433,000	Deferred
D51	Lee R Thornton Ctr	Main	D30 HVAC	Air handling unit	45	177	Excluded	Excluded

ID	Building	Camp.	System	Component	DSc	BCS	Budget	Status
D52	Health Science Center	Rich.	D30 HVAC	Fan coil units	44	174	Excluded	Excluded
D53	Site	Main	G20 Site Improvements	Irrigation pump	41	239	$750,000	Deferred

DSc = deficiency score. BCS = 2025 canonical building condition score (239 is carried for campus-wide "Multiple"/"Site" items, equal to the 2023 portfolio weighted average). Budget = MACC + soft costs. Status: "Included (2027)" = funded in the 2027 preservation request; "Deferred" = below this biennium's budget cutoff; "Excluded" = carried for monitoring with no budget estimate. All deferred and excluded items are nonetheless designated Immediate or Deferrable in the survey.

SBCTC condition-rating bands

Score range	Rating
146–175	Superior
176–275	Adequate
276–350	Needs improvement — maintenance
351–475	Needs improvement — renovation
476–730	Replace or renovate

Distribution observations

The Richland **Health Science Center is the single largest concentration of deferred dollars** ($3,213,000 across 11 deficiencies), all of it mechanical — a near-complete central-plant and air-handling renewal in one 2004 building. The Richland Campus as a whole carries $3,054,000 of the $13,703,000 deferred backlog despite holding only a small fraction of the college's buildings. By Uniformat system, **D30 HVAC dominates** at $9,026,000 (66%) of the deferred backlog and $2,366,000 of the included request. The 2027 request, by contrast, is led by the campus-wide KaLWALL roofing project (D01, $1,847,000) and is spread across roofing, HVAC, electrical, vertical transportation, and site systems. **Twelve deficiencies are campus-wide** rather than building-specific (the KaLWALL repair, exterior flatwork, ADA door operators, lighting controls and fixtures, a multi-building roof, a site transformer, distributed heat pumps and water heaters, Richland windows, data vaults, and irrigation pumps). Two items are excluded — a Lee R Thornton air handler (D51) and the Health Science Center fan coil units (D52) — carried for condition monitoring rather than near-term replacement, with no budget estimate.

4.2 Findings detail

Problem and repair descriptions below are reproduced exactly as written in the 2025 survey, including original punctuation, spelling, and any artifacts.

D01 — KaLWALL system, Multiple (Main Campus)

Image: Link

Deficiency score	91	**Budget estimate**	$1,847,000
Bldg condition score	239	**Status**	Included (2027)

System	B30 Roofing	**Deferability**	Immediate
Location	Multiple	**Priorities**	Health/Safety (50%), Facility Use (50%)

Problem Description

Multiple campus buildings with KaLWALL daylighting/skylight systems are experiencing water intrusion. The 2023 Facility Condition Survey identifies this as Deficiency R01 (“KaLWALL skylights are leaking”) with location listed as “Multiple (190A)” and a “Needs Study” designation, indicating the leak paths and repair scope were not fully characterized at the time of survey.

The current operational priority is the west side of Building T (Lee R. Thornton Center, BLDG 00T). The college reports rainwater enters the Machine Shop through the KaLWALL system when wind blows from the north and east, resulting in drips and puddling on the shop floor and elevating risk to electrical power distribution and CNC machines. This wind-direction sensitivity is consistent with wind-driven rain and pressure effects, where wind-driven rain is one of the most significant climate moisture loads and water entry commonly occurs at deficiencies at penetrations and joints.

Skylight/daylighting systems are joint-dense assemblies that rely on durable laps, gaskets, and sealant continuity at panel-to-frame interfaces, end conditions, and perimeter transitions to the roof/wall water-control layers. When sealant/gasket systems age (UV exposure, thermal cycling, and movement), small discontinuities can become active leak paths; with wind, overlaps and “gravity-only” defenses can be defeated and liquid water can be driven through gaps by air pressure differences.

Beyond immediate interior impacts, recurring wetting increases the likelihood of concealed deterioration at curbs, fasteners, and adjacent substrates and drives corrosion risk where water contacts electrical components.

Repair Description

Repair the KaLWALL skylight/daylighting systems (initial priority: west side of Building T Machine Shop) by performing a targeted diagnostic investigation (visual review, selective disassembly as needed, and water testing where appropriate) to identify active leakage paths, then restore watertight performance by repairing/replacing failed gaskets/sealants and correcting perimeter flashing and transition detailing at all identified failure points.

Provide additive alternates so the college can prioritize and extend repairs to other buildings/areas with KaLWALL systems based on funding level and operational risk at the time of construction.

D02 — Air handling units, Library Building (Main Campus)

Image: Link

Deficiency score	91	**Budget estimate**	$621,000
Bldg condition score	244	**Status**	Included (2027)
System	D30 HVAC	**Deferability**	Immediate
Location	Roof	**Priorities**	Health/Safety (50%), Facility Use (50%)

Problem Description

Building L (Library Building 190-00L) has three air handling units (AHUs 1–3) reported as original to the building (1964). The 2023 Facility Condition Survey identifies three “air handlers” serving the building that have exceeded their expected life but remain maintainable, with a recommendation to continue monitoring/maintenance and to recondition the units as repairs become more frequent.

The college reports it has already invested significant maintenance effort in these units and now needs to replace fan shafts and bearings to keep the AHUs operable. Fan shaft/bearing wear is a common end-of-life failure mechanism that drives vibration, misalignment, and reduced fan reliability, increasing the likelihood of unplanned outages and loss of ventilation and temperature control in served spaces. The survey’s recommended “recondition as maintenance and repairs become more frequent” approach aligns with this condition and supports a repair scope focused on the fan assemblies and related AHU operability components rather than full unit replacement.

Repair Description

Repair AHUs 1–3 in Building L by reconditioning the units to restore operability, including replacement of fan shafts and bearings, fan/motor alignment and balancing, and verification of fan performance and safeties. Complete start-up, testing/adjusting/balancing, and functional performance verification for the repaired AHUs to confirm required airflow, ventilation, and zone temperature control are restored.

D03 — Roof top units, Industrial Building I (Main Campus)

Image: Link

Deficiency score	87	**Budget estimate**	$205,000
Bldg condition score	282	**Status**	Included (2027)
System	D30 HVAC	**Deferability**	Immediate
Location	Roof	**Priorities**	Health/Safety (25%), Facility Use (75%)

Problem Description

The I Complex is served by two roof-mounted HVAC units that are beyond their design life and no longer provide reliable service. The 2023 Facility Condition Survey identified two HVAC units at Industrial Building I as “Exceeded its expected life,” with date installed reported as 1993, average life expectancy of 20 years, and the recommendation to fund replacement.

The college reports both units now require extensive maintenance and shut down on occasion, which prevents reliable use of the spaces they serve. At this stage of asset life, failure behavior typically shifts from isolated component repairs to recurring faults driven by cumulative wear and exposure: refrigerant leaks, compressor/condenser issues, belt/fan and bearing wear, and control/electrical problems that trigger nuisance trips and hard lockouts. These are common packaged rooftop unit degradation pathways, and they align with the building’s documented poor HVAC condition (inadequate capacity/zoning/distribution and ventilation gaps noted in hazardous areas).

Reliability risk is the core issue, not just comfort. When these units drop out, the building can lose temperature control and outdoor-air ventilation, driving interrupted instruction/work, increased reactive maintenance, and higher likelihood of secondary impacts (humidity swings, condensation, and air-quality

complaints). Duct leakage and distribution losses further compound performance shortfalls, forcing longer runtimes and accelerating wear on already end-of-life equipment.

Repair Description

Replace both HVAC units serving the I Complex (Carrier model 50HCQD12CM5A0A380; reported 1993 vintage) with new packaged rooftop units sized to the existing loads and compatible with the existing air distribution. Include curb adapters or new curbs as required, economizers/outdoor-air provisions, BAS controls interface, electrical/controls reconnection, testing/start-up, and disposal of removed equipment.

D04 — Heat pump, Hud Building (Main Campus)

Image: None

Deficiency score	86	**Budget estimate**	$726,000
Bldg condition score	225	**Status**	Included (2027)
System	D30 HVAC	**Deferability**	Immediate
Location	Multiple	**Priorities**	Health/Safety (25%), Facility Use (75%)

Problem Description

The X Building HVAC is served by seven split-system units (Trane), and the college reports the overall system as hydronic-integrated and prone to recurring breakdowns. In 2025, the college incurred >$100,000 in HVAC repairs, indicating the systems are no longer in a maintainable reliability band and are consuming operating dollars in a reactive mode rather than planned renewal.

All seven units are reported to use HCFC-22 (R-22) refrigerant, which compounds the reliability and cost risk because R-22 servicing now depends on recovered/recycled/reclaimed stock rather than new production/import. As R-22 availability tightens, the cost and logistics of leak repair and recharge become less predictable, and the risk of extended outages increases when failures occur during peak heating/cooling demand windows.

The provided nameplate for a representative unit confirms the vintage and constraints driving this replacement scope: Trane XB 12, MFR date 05/2003, Model 2TTB2042A1000AA, 208/230V, 1-phase, 60 Hz, MCA 23A, MOCP 40A, and HCFC-22 charge 5 lb 6 oz. This places the equipment at ~22 years old as of 2025, where age-driven mechanisms (refrigerant leaks, compressor and condenser fan motor wear, electrical/control component failures, coil degradation) shift from “fixable events” to common-mode risk across a same-vintage fleet. When condensers/heat-exchangers foul or degrade, refrigeration systems see higher condensing pressures and compressor stress, reducing capacity and increasing trips and power draw—failure drivers that become more frequent as equipment ages and maintenance tolerance narrows.

Repair Description

Replace the seven existing Trane R-22 split-system units serving the Ex Building (and matched indoor coils/air handlers and refrigerant piping as required for a complete, code-compliant refrigerant conversion) with a new HVAC system using current refrigerants and modern controls. Replace or rework hydronic-interface components only where needed to integrate the new systems, and commission the installation to verify capacity, safeties, and stable temperature/humidity control under occupied and design conditions.

D05 — Exterior flatwork, Multiple (Main Campus)

Image: Link

Deficiency score	81	**Budget estimate**	$620,000
Bldg condition score	239	**Status**	Included (2027)
System	G20 Site Improvements	**Deferability**	Immediate
Location	Multiple	**Priorities**	Facility Use (100%)

Problem Description

Multiple areas of exterior concrete flatwork across campus are failing, with heaved slabs, cracked/broken panels, and uneven transitions that create trip hazards and reduce the usability of primary pedestrian routes. The failure pattern is consistent with differential movement (subgrade settlement, moisture-driven expansion/contraction, freeze–thaw cycling, tree-root intrusion, and localized drainage/ponding) that breaks panels and lifts slab edges, making spot grinding and patching short-lived and often ineffective when the base condition is compromised.

This condition has operational and liability consequences. Uneven joints and lifted panels can interrupt accessible routes and create noncompliant vertical discontinuities, particularly where transitions exceed 1/2 in, increasing risk of falls and claims while limiting safe circulation during wet or icy conditions.

The requested scope is approximately 10,000 SF of concrete replacement, with final priorities to be set by the college at time of funding. Because the observed distress suggests base and drainage drivers (not cosmetic surface wear), the appropriate corrective approach is full panel replacement (demo and replace), not grinding or patching.

The estimate should assume full-depth replacement with subgrade corrections and a conservative contingency consistent with survey estimating practice (MACC-based, with recognition that latent conditions can drive costs higher once demolition exposes base issues).

Repair Description

Repair failed exterior concrete flatwork by demolishing and replacing approximately 10,000 SF of heaved/cracked panels, including subgrade reconditioning, doweling/edge support where needed, proper jointing, and restoration of adjacent surfaces. Repair work will be packaged so the college can prioritize locations at time of funding, with field verification to maintain accessible routes and limit vertical transitions (target ≤1/2 in where applicable).

D06 — Air Handling Unit, Lee R Thornton Ctr (Main Campus)

Image: Link

Deficiency score	81	**Budget estimate**	$512,000
Bldg condition score	177	**Status**	Included (2027)
System	D30 HVAC	**Deferability**	Immediate
Location	Roof	**Priorities**	Facility Use (100%)

Problem Description

Building T (Lee R Thornton Center, BLDG 00T) was constructed in 2005 and is a major campus facility (~155,462 GSF; survey area reported ~128,166 SF).

The primary air handling unit serving the server room is located in the mechanical mezzanine and is reported to be beyond its design life, requiring frequent maintenance and recurring internal component replacement. The nameplate identifies a McQuay International “Central Station Air-Handling Unit” (Model CAH012FDDC, Serial FBOU041100962), which is consistent with a custom/modular, central-station AHU platform where reliability depends heavily on fan assemblies, motors, bearings, belts/sheaves (if belt-driven), and damper/actuator performance.

In addition, the rooftop unit (RTU) serving the server room is reported to be near end of service life, requires frequent repairs due to failing components, and uses R-22 (HCFC) refrigerant. An active/visible leak was observed at the time of assessment, and the RTU installation date is documented as June 2007. R-22 equipment carries compounding risk because refrigerant availability and repair economics worsen over time, and leak events tend to become more frequent as coils, valves, and brazed joints age.

This is a reliability problem, not a comfort complaint. These units are described as the only means to cool and regulate server-room temperature, making them a single point of failure for IT uptime. Loss of cooling in a server room can drive rapid temperature rise (high sensible heat load), forced IT shutdown, hardware damage, and service interruption. The 2023 facility survey already flags Building T data-closet HVAC as exceeding life expectancy and warns that cooling failures can cause equipment shutdown and service interruption, which aligns with the risk profile described here.

The observed/mechanistic drivers are straightforward end-of-life HVAC physics and wear: rotating equipment degradation (bearings, shafts, fan wheels), motor insulation breakdown, belt/sheave wear and alignment drift, damper linkage/actuator failure, and casing leakage that destabilizes airflow and temperature control. Standard AHU maintenance focus areas—belts, motors, dampers, and vibration-related wear—are exactly the components now being reported as recurring failure points. Deferring correction increases the probability of an unplanned outage with high downstream impact (IT downtime, emergency procurement, after-hours work, and potential collateral damage from leak events).

Repair Description

Repair the mechanical-mezzanine server-room AHU by replacing end-of-life internal components (fan assemblies, bearings, motors, and associated dampers/louvers/actuators) and restoring stable airflow control. Replace the dedicated server-room rooftop cooling unit (installed June 2007) with a current-refrigerant unit and complete required curb/connection, controls integration, and commissioning to maintain continuous server-room temperature control.

D07 — Exhaust fans, Lee R Thornton Ctr (Main Campus)

Image: Link

Deficiency score	81	**Budget estimate**	$197,000
Bldg condition score	177	**Status**	Included (2027)
System	D30 HVAC	**Deferability**	Immediate
Location	Multiple	**Priorities**	Health/Safety (50%), System Use (50%)

Problem Description

Building T (Lee R Thornton Center, BLDG 00T) is a major campus facility constructed in 2005 (≈ 155,462 GSF).

The building has 12 exhaust fans that are reported to be ~21 years old, placing the fleet in the end-of-life risk band where failures become less predictable and more disruptive.

This is not a comfort-only issue. Exhaust Fans EF-1 and EF-2 serve a science lab and support removal of potentially hazardous chemicals, so loss of exhaust capacity directly elevates indoor air quality and life-safety risk, can destabilize pressure relationships (driving contaminant/odor migration to adjacent areas), and can force partial shutdown of lab functions until ventilation is restored. Age-related degradation for belt-driven exhaust fans typically includes bearing wear and vibration, belt/sheave wear and misalignment, fan wheel imbalance, corrosion at housings/fasteners from roof exposure, and motor insulation breakdown—mechanisms that trend from nuisance maintenance to sudden failure as multiple components reach end-of-life together.

EF-2 is documented with a 46A motor (representative nameplate data), which signals a meaningful electrical load and reinforces that replacements must be coordinated with electrical characteristics (voltage/phase, starter/VFD/control scheme, overcurrent protection, and disconnecting means). Deferring replacements across a same-vintage fleet increases common-mode risk: parts availability tightens, failures cluster, and the maintenance burden grows precisely on the fans that protect lab operations.

Repair Description

Replace exhaust fans EF-1, EF-2, and EF-3 in the 2027 biennium and continue a phased program of three fan replacements per biennium until all 12 fans are renewed, with EF-1 and EF-2 as first priority due to lab service. Replace each selected fan assembly (fan/wheel/housing), motor (verify and match required electrical characteristics, including the documented 46A duty for EF-2), belts, bearings, guards, and associated electrical/controls as required, then perform TAB/functional verification to confirm required exhaust airflow and intended lab pressure relationships.

D08 — Heat pump, Classroom Building (Main Campus)

Image: Link

Deficiency score	81	**Budget estimate**	$105,000
Bldg condition score	212	**Status**	Included (2027)
System	D30 HVAC	**Deferability**	Immediate
Location	Roof	**Priorities**	Health/Safety (50%), System Use (50%)

Problem Description

Building D Heat Pump 2 is an AAON packaged rooftop heat pump (Model RN-009-8-0-E60E-14A, Serial 201209-ANEQ07466) with a reported 125A maximum. The college reports the unit has reached the end of its design life (assume installed 2012), which typically shows up as declining reliability and control stability—more nuisance trips, reduced capacity in peak conditions, and increasing maintenance hours as compressors, fan assemblies, contactors, sensors, and control hardware accumulate wear from thermal cycling, vibration, and weather exposure.

When HVAC control degrades, indoor RH can drift upward in shoulder seasons or during high outside-air operation, increasing condensation potential on cooler interior surfaces (windows, exterior walls, diffusers) and raising the probability of localized microbial growth and material deterioration. Electrical risk also rises with age as connections loosen and components heat-cycle; the 125A maximum load makes service capacity, overcurrent protection, and connection integrity non-negotiable.

Repair Description

Repair and recondition Building D Heat Pump 2 (AAON RN-009-8-0-E60E-14A) by restoring refrigeration, airside, electrical, and controls performance (repair leaks, replace worn compressors/controls/electrical components as needed, clean/restore coils and airflow components, and recommission sequences and safeties). Repair scope includes required rigging access, testing/verification of nameplate electrical protections, and startup documentation confirming stable heating/cooling and humidity control under representative loads.

D09 — Auto door operators, Multiple (Main Campus)

Image: None

Deficiency score	81	**Budget estimate**	$101,000
Bldg condition score	239	**Status**	Included (2027)
System	D50 Electrical	**Deferability**	Immediate
Location	Multiple	**Priorities**	Facility Use (100%)

Problem Description

Multiple buildings—primarily the X Building and the Health Science Center—have failed ADA automatic door operator actuators at primary entry points, preventing doors from operating as intended for accessible use. These failures compromise the accessible route and reduce independent entry for people using wheelchairs, walkers, or with limited upper-body strength, creating operational disruption and an avoidable exposure to ADA access complaints. The exact unit costs are currently unknown, but the deficiency is discrete, repeatable, and appropriate for standardized replacement.

When actuators fail, doors are often operated manually, left unsecured, or propped, which increases hinge/closer wear, accelerates hardware degradation, and can create pinch-point/queuing issues at busy entrances. In conditioned facilities, malfunctioning or non-latching entry doors also increase uncontrolled infiltration/exfiltration and entry pressure imbalance, which can drive comfort complaints and (in cold weather) localized condensation or icing risk at door frames and adjacent finishes.

Repair Description

Replace the failed ADA automatic door operator actuators at four priority door locations in the X Building and the Health Science Center. Test, adjust, and recommission each opening (sensor function, opening force/speed, hold-open timing, latch/close coordination, and any fire/life-safety or egress interfaces) to restore reliable accessible operation.

D10 — Elevators, Health Science Center (Richland Campus)

Image: None

Deficiency score	80	**Budget estimate**	$806,000

Bldg condition score	174	**Status**	Included (2027)
System	D10 Vertical Transportation	**Deferability**	Immediate
Location	Multiple	**Priorities**	Facility Use (100%)

Problem Description

The Health Science Center has two elevators with obsolete non-regenerative drive and braking systems that are no longer manufactured and are now >20 years old (consistent with the building's 2004 vintage).

As these safety-critical components age out of support, failures shift from "repairable downtime" to "extended outage" because parts are scarce or unavailable. The college reports that the last time a repair was needed, it took more than two months to obtain parts, which is a clear reliability signal that the elevators are in a parts-obsolescence risk band (availability and lead time, not just condition, is now the primary failure mode).

Extended elevator outages are not a convenience issue in a health-sciences facility. When one elevator is down, capacity and redundancy are cut in half and vertical access becomes fragile; when outages extend weeks, the building's accessible route between floors is effectively compromised, forcing detours, staff assistance, rescheduling, or partial loss of function for occupants with mobility limitations. Prolonged outages also increase operational disruption (moving equipment and supplies, patient-simulation loads, deliveries) and elevate exposure to accessibility complaints and reputational risk. Because the drive/braking system is integral to safe motion control and stopping performance, "keep patching" becomes an unstable strategy: each failure event risks a longer outage window, higher emergency service costs, and reduced confidence in safe, code-compliant operation.

Repair Description

Replace the obsolete drive and braking system critical components for both Health Science Center elevators, including any OEM-required controller/interface updates, per the Otis recommendations and Otis report-defined scope. Test, commission, and certify the elevators to restore reliable, fully functional accessible service.

D11 — Lighting controls, Multiple (Main Campus)

Image: None

Deficiency score	76	**Budget estimate**	$681,000
Bldg condition score	239	**Status**	Included (2027)
System	D50 Electrical	**Deferability**	Immediate
Location	Multiple	**Priorities**	Facility Use (75%), System Use (25%)

Problem Description

Building B (Business Building), the CTE Building (Career & Technology), and Building D (Classroom Building) have failing lighting control systems with controller hardware that is obsolete and no longer supported. The college reports the systems are effectively stuck "ON" in affected areas, leaving instructors unable to turn lights off or set appropriate lighting scenes; this limits modern instruction (projection/media, demonstrations, glare control) and reduces functional use of classrooms and labs.

The 2023 Facility Condition Survey specifically documents that the Business Building and Career & Technology building lighting controls have required repairs, that new parts require new programming to function, and that the college cannot easily find a contractor to program the boards; the survey notes that replacement justification requires vendor confirmation that the system can no longer be programmed and documentation that the contractor search has been exhausted.

The college reports similar control deficiencies in Building D (controls installed 1995) with inadequate lighting control for current instructional needs.

Loss of lighting control drives unnecessary continuous operation, increasing electrical consumption and adding avoidable internal heat that can increase cooling demand. Continuous operation also accelerates wear of lamps/drivers/ballasts and increases maintenance burden and disruption. Best-practice classroom lighting relies on reliable zoning and controls so occupants can selectively reduce lighting and manage daylight—capability that is currently unavailable in these spaces.

The affected facilities include the following Main Campus instructional buildings (sizes/vintages shown for context): Business Building (190-00BN, 22,500 SF), Career & Technology (190-CTE, 72,241 SF), and Classroom Building (190-00D, 7,136 SF; built 1995, remodeled 2013).

Repair Description

Replace the obsolete lighting control systems in Buildings B, CTE, and D with a supported, maintainable controls platform (controllers, boards/modules, sensors, wall stations, relays/power packs, and associated network components as required), and rezone instructional spaces to provide functional lighting scenes for teaching and presentations. Commission the system and deliver complete programming, as-built control documentation, and O&M information, including verification of reliable manual control and automatic shutoff/occupancy functions.

D12 — Roof, Multiple (Main Campus)

Deficiency score	75	**Budget estimate**	$875,000
Bldg condition score	239	**Status**	Deferred
System	B30 Roofing	**Deferability**	Immediate
Location	Roof	**Priorities**	Health/Safety (50%), Increased Repair/Replacement Cost (50%)

Problem Description

Multiple campus buildings have roof assemblies that are no longer reliably shedding water, resulting in active leakage at some areas and reduced reserve capacity at others. The Maintenance Building (BLDG 00M, 1972) has “a number of leaking roofs” per college observation, and the estimate scope assumes 100% roof sheathing replacement due to water damage/rot, which indicates chronic wetting has progressed beyond surface repairs into the structural roof deck and creates an elevated risk of continued interior moisture, mold growth, and deterioration of adjacent materials and stored assets.

The Classroom Building D (BLDG 00D, 1995) planetarium shingle roof is nearing end of service life; while there may be no active leaks today, aging shingles and underlayment commonly lose wind- and water-resistance at laps, edges, and skylight-related flashings, and the estimate includes 20% roof sheathing replacement for water damage/rot, signaling concealed deterioration risk as the assembly reaches end-of-life. The Vocational Tech Building (BLDG 00V, 1957) and associated T/U/Observatory roof areas are being carried as coating renewals, consistent with roofs where the exterior weathering layer has degraded and

requires restoration to prevent water entry that can migrate at seams, penetrations, and terminations if the substrate is not cleaned, dried, and stabilized prior to coating.

Repair Description

Replace the composite shingle roof assemblies at the Maintenance (Ground's) Building and Building D (planetarium area) by removing existing shingles/underlayment to the deck as scoped, installing new drip edge, 30-lb felt, ice and snow shield (30 inches at eaves and rakes), and 50-year asphalt shingles with ridge vent, restoring skylight-related specialty flashings at Building D, and replacing water-damaged/rotted sheathing (100% at Ground's; 20% at D, per allowance).

Repair roof areas at V/T/U/Observatory by removing debris, cleaning/prepping substrates, and applying new roof coatings with a 10-year warranty (bituminous at V; PVC at T/U/Observatory), including project alternates as carried (V skylights; extended warranty at U/Observatory; Observatory new roof option).

D13 — Unit heaters, Vocational Tech Building (Main Campus)

Deficiency score	75	**Budget estimate**	$125,000
Bldg condition score	428	**Status**	Deferred
System	D30 HVAC	**Deferability**	Immediate
Location	Multiple	**Priorities**	Health/Safety (25%), System Use (75%)

Problem Description

The northeast wing of the V Building (carpentry shop, break room, and fleet area) is currently heated by a small number of unit heaters that provide inefficient, uneven conditioning across multiple distinct spaces. In shop/fleet occupancies, unit heaters commonly drive stratification (warm air collecting at the ceiling while occupied zones remain cool), and their effectiveness is further undermined by high air-change conditions from large doors, intermittent openings, and typical leakage paths in older construction. The result is higher operating cost per delivered comfort, wider temperature swings, and reduced reliability of maintaining stable conditions in areas that are regularly occupied and used for work.

This is a performance and operating-cost problem with a practical risk tail. Poor zoning and unstable space temperatures increase the likelihood of cold-stress complaints, disruption to shop productivity, and, during cold snaps, an elevated risk of localized freeze issues at any nearby domestic water lines or equipment vulnerable to low temperatures.

Repair Description

Replace the existing unit heaters serving the V Building northeast wing with a small ducted mini-split heat pump system sized for the served loads, using two outdoor condensing units and approximately five indoor units/heads to serve the five functional spaces (carpentry shop, break room, fleet, and associated areas). Repair includes removal/abandonment of the unit heaters and associated services, and installation of new refrigerant piping, condensate management, electrical power, controls/thermostats, and required supports/curbs for the outdoor equipment.

D14 — Chilled water pump, Utilities Building (Main Campus)

Deficiency score	75	**Budget estimate**	$70,000

Bldg condition score	405	**Status**	Deferred
System	D30 HVAC	**Deferability**	Immediate
Location	Mechanical	**Priorities**	Health/Safety (25%), System Use (75%)

Problem Description

Building U (Utilities Building, BLDG 00U) is a 4,811 GSF campus utility plant constructed in 1957 and supports central mechanical service to the campus.

During the site visit, Chilled Water Pump 1 (reported by the college as likely associated with the 1995 chilled water equipment vintage) showed evidence of active leakage.

A leaking chilled water pump is typically driven by seal/packing degradation, gasket failure, or shaft/bearing wear that induces vibration and misalignment, which accelerates leakage rates and increases the probability of sudden failure. If the leak progresses, the pump can lose capacity and fail to maintain chilled-water flow and differential pressure, which directly threatens cooling service reliability. Ongoing leakage also creates secondary risk in the mechanical room (slip hazard, localized corrosion of bases/anchors and adjacent piping/supports, and water impacts to equipment and finishes) and increases reactive maintenance burden and unplanned outage risk for building operations.

Repair Description

Replace Chilled Water Pump 1 with a new pump assembly (pump and motor as required) compatible with the existing chilled-water system, including removal of the leaking unit, reconnection to existing piping/electrical, alignment, and startup testing. Perform final functional verification of flow/pressure performance and confirm no leakage at seals, flanges, or connections.

D15 — Multi zones units, Lee R Thornton Ctr (Main Campus)

Deficiency score	71	**Budget estimate**	$1,138,000
Bldg condition score	177	**Status**	Deferred
System	D30 HVAC	**Deferability**	Immediate
Location	Multiple	**Priorities**	Health/Safety (25%), System Use (75%)

Problem Description

Building T's HVAC is supported by eight multi-zone units that are all approximately 21 years old and have reached the end-of-life risk band. Even if units are currently operating, same-vintage equipment creates a common-mode failure risk: as internal components age together, the probability shifts from isolated part failures to cascading reliability problems that are harder to predict, schedule, and source parts for—especially where controls, actuators, and VFDs are involved.

End-of-life multi-zone equipment typically degrades through a combination of mechanical wear (fan bearings, belts, shafts), coil fouling/corrosion (reduced heat transfer and higher run time), damper and actuator drift/failure (loss of zone control and ventilation stability), and VFD/control aging (capacitor/drive failures, heat-related electronics degradation, obsolescence). This is a building-performance issue, not a comfort issue: loss of dependable air distribution and control can destabilize ventilation and pressure relationships,

drive humidity excursions in shoulder seasons, and create operational downtime in instructional spaces. The broader 2023 survey context also flags multiple HVAC assets in Building T as “near the end of their expected life,” reinforcing that the building is entering a campus-management phase where proactive replacement planning is lower-risk than reactive outage response.

Repair Description

Replace three of the eight end-of-life Building T multi-zone units as the 2027 biennium phase, including associated internal components, actuators, VFDs, and required controls integration to restore reliable zone control and system stability. Replace the remaining five units in subsequent biennia as a planned sequence, with final unit selection prioritized by documented condition trends (failures, vibration, amperage, corrosion, and controls stability) at the time of funding.

D16 — Boilers, Lee R Thornton Ctr (Main Campus)

Deficiency score	71	**Budget estimate**	$849,000
Bldg condition score	177	**Status**	Deferred
System	D30 HVAC	**Deferability**	Immediate
Location	Mechanical	**Priorities**	Health/Safety (25%), System Use (75%)

Problem Description

Building T (Lee R Thornton Center, BLDG 00T) was constructed in 2005 and is a major vocational arts facility where reliable heating is mission-critical for scheduled programs and winter operations.

The building’s heating plant is served by three natural-gas boilers of the same vintage. The boilers are reported to be ~21 years old with no active operational issues, but the equipment is visibly aged and now sits in the end-of-life risk band where failures become less predictable and more disruptive. A provided nameplate (representative unit) identifies a Sellers boiler, Model C-100-W (Model 15 “Commodore”), with 4,184,000 BTU/hr input and 3,348,000 BTU/hr output (≈ 100 boiler HP), 150 psi maximum design pressure, and 460V/3-phase power characteristics.

At this age and duty, boiler risk is driven by predictable degradation mechanisms: fireside and waterside corrosion, scaling/fouling that reduces heat transfer and increases fuel use, refractory and gasket deterioration from thermal cycling, burner/ignition and safety control wear, and increasing parts/controls obsolescence. The operational risk of deferral is not just comfort loss; a boiler outage during cold weather can force program shutdowns and create secondary risks (loss of freeze protection at coils/piping, localized water damage if freeze events or relief events occur, and elevated maintenance burden from reactive repairs).

Repair Description

Replace the three natural-gas boilers serving Building T with new packaged boilers of equivalent capacity (≈100 BHP / 3.35 MMBH output each) and reconnect to existing distribution, gas, venting, electrical, and BAS interfaces. Include required ancillary work (isolation valves, controls/safeties, combustion air and venting upgrades as needed, startup/testing, and commissioning) and sequence/phasing to maintain heating service.

D17 — Air handling units, Hawk Union Building (Main Campus)

Deficiency score	71	**Budget estimate**	$690,000
Bldg condition score	222	**Status**	Deferred
System	D30 HVAC	**Deferability**	Immediate
Location	Mechanical	**Priorities**	Health/Safety (25%), System Use (75%)

Problem Description

Building H (Hawk Union Building, BLDG 00H) is a 67,695 GSF student services and support facility constructed in 1976.

The building's HVAC distribution depends on eight air handling units (AHUs) that are approximately 25 years old and are now in the end-of-life risk band where failures shift from isolated component replacement to recurring reliability and controls issues.

At this age, AHU degradation typically presents as declining fan and motor reliability (bearings, belts, shafts), coil and drain-pan deterioration (corrosion, fouling, leakage), damper and actuator failures (outside-air control drift, stuck dampers), and electrical/control instability (nuisance trips, sensor drift, failed safeties). These failures reduce the system's tolerance to peak conditions and shoulder-season humidity swings, increasing the likelihood of comfort complaints, ventilation nonperformance, and moisture risk (elevated indoor RH and condensation at cold surfaces or within ductwork), which is a direct IAQ and material-durability concern in student-facing spaces.

The college is already executing phased replacements due to these common-mode age and failure patterns. The current biennium work includes replacement of three AHUs (including AHU-5 and AHU-6) with a reported total cost of approximately $300,000 (2025 dollars) under a JOC delivery method. Because all eight units share similar vintage and risk profile, additional AHUs are expected to require replacement in subsequent biennia, with unit selection best determined by the college at time of funding based on service criticality, observed failure frequency, and operational impact.

Repair Description

Replace three end-of-life air handling units in Building H (including AHU-5 and AHU-6) as the current phase, using the established ~$300,000 (2025 dollars) JOC cost basis, and plan subsequent phases to replace three additional AHUs in the 2027 and 2029 biennia with final unit prioritization set by the college at time of funding. Replace three associated VFDs and replace/upgrade the controls serving all eight AHUs within this request to restore reliable airflow modulation, ventilation control, and maintainable operation.

D18 — Dampers, Ag Lab Greenhouse (Main Campus)

Deficiency score	71	**Budget estimate**	$608,000
Bldg condition score	202	**Status**	Deferred
System	D30 HVAC	**Deferability**	Immediate
Location	Roof	**Priorities**	Health/Safety (25%), System Use (75%)

Problem Description

The Ag Lab Greenhouse (190-ALG) has roof ventilation dampers that have been rebuilt multiple times, with some currently nonfunctional because the controls and related equipment are obsolete and no longer supported (reported 1996-era equipment). Loss of operable damper control removes the ability to reliably modulate airflow (a damper is a mechanism used to close off or regulate air flow).

Repeated rebuilds without restoring durable function is a classic sign that the failure driver is systemic (controls/actuators/integration/power/sensing) rather than isolated mechanical wear, and that the asset has crossed into an obsolescence trap: parts and expertise disappear faster than the college can maintain continuity. The 2023 facility condition survey flags this broader pattern in DDC/control systems, noting a "built-in obsolescence factor" and that manufacturers often recommend replacement on the order of ~12 years, with colleges being told systems are obsolete and unsupported.

Operationally, nonfunctional greenhouse roof dampers create high consequence variability: without dependable ventilation modulation, the greenhouse cannot consistently reject solar-driven heat gains or manage humidity, increasing the risk of overheating, condensation on glazing/structure, corrosion of adjacent components, and disruption to greenhouse use. From a maintenance and procurement standpoint, continued "rebuild" cycles are predictable budget waste because each repair is constrained by unsupported hardware, creating repeat outages and forcing emergency workarounds instead of planned lifecycle renewal.

Repair Description

Replace the Ag Lab Greenhouse roof damper control system (1996-era) with current, supported components, including damper actuators/motors as required, control hardware/controller, and necessary sensors/wiring, with programming and functional testing to restore full roof damper modulation. Repair or replace damper assemblies that fail inspection (blades, linkages, frames) and provide manufacturer documentation of support discontinuation/parts unavailability as needed to substantiate controls replacement.

D19 — Rooftop hydronic unit, Hawk Union Building (Main Campus)

Deficiency score	71	**Budget estimate**	$426,000
Bldg condition score	222	**Status**	Deferred
System	D30 HVAC	**Deferability**	Immediate
Location	Roof	**Priorities**	Health/Safety (25%), System Use (75%)

Problem Description

Building H (Hawk Union Building, BLDG 00H) is a 67,695 GSF student services facility constructed in 1976. A rooftop hydronic HVAC unit serving Building H is reported by the college to be experiencing frequent failures, reducing the reliability of space conditioning and increasing unplanned outage risk in occupied, student-facing areas.

Because the unit's nameplate was not legible at the time of the survey, the unit's manufacturer, capacity, and exact configuration could not be confirmed. Regardless of make/model, frequent failures in rooftop hydronic equipment are typically driven by age-related degradation accelerated by roof exposure (thermal cycling, wind-driven moisture, UV, and corrosion) plus hydronic-system stressors such as pump/valve wear,

control instability, coil fouling, and freeze-risk events (especially if glycol concentration, heat trace, or low-ambient protection is marginal). The primary risks of deferral are recurring loss of heating/cooling service, growing maintenance burden, and collateral damage potential if hydronic components leak or rupture (water intrusion at/near roof penetrations, ceiling/finish damage below, and localized IAQ concerns if damp materials persist).

Repair Description

Replace the rooftop hydronic HVAC unit serving Building H with a new, properly sized unit (capacity to be confirmed by the college) and reconnect to existing hydronic piping, electrical service, and BAS controls, including required isolation valves, accessories, and start-up/functional testing. Replace or rework the roof curb/flashings and any affected roof penetrations as needed to maintain a continuous, watertight roof assembly at the new installation.

D20 — Transformer, Site (Main Campus)

Deficiency score	71	**Budget estimate**	$311,000
Bldg condition score	239	**Status**	Deferred
System	D50 Electrical	**Deferability**	Immediate
Location	Building B	**Priorities**	Facility Use (50%), System Use (50%)

Problem Description

During a site visit for another effort, an engineer observed that the service transformer serving the College's Building B is seeping/leaking insulating oil. Oil leakage at a pad-mount/service transformer is a reliability, safety, and environmental concern: the insulating oil provides both dielectric strength (electrical insulation) and heat transfer (cooling). When oil loss progresses, the unit can experience reduced insulation margin, elevated operating temperatures, accelerated paper/oil aging, and increased probability of internal fault/arcing—with associated risk of equipment damage and unplanned outage.

This condition is also a compliance and site-risk issue. Leaking oil can migrate to surrounding soils/pavement, creating a spill/contamination exposure. Because the transformer is college-owned (not utility-owned), CBC bears the replacement/repair responsibility and must coordinate outages and disposal requirements. In addition, no exterior nameplate information was available at the time of observation, which prevents quick confirmation of kVA capacity, primary/secondary voltage, impedance, and cooling class.

The transformer's undocumented capacity is now an active project constraint because Building B is planning new loading (including a chiller). If the existing transformer is undersized or marginal for the post-project demand, the building can experience voltage drop under peak load, overheating, nuisance protective trips, and reduced service life of downstream equipment. Where records are incomplete, manufacturers and legacy documentation can sometimes be leveraged to identify existing equipment characteristics, but absent confirmable data, the prudent approach is to treat the leaking unit as end-of-life and advance replacement with sizing verified by a load study.

Repair Description

Replace the leaking Building B service transformer with a new, code-compliant transformer sized based on a building load study that includes the new chiller and any planned future capacity, and coordinate the planned outage with the serving utility and campus operations. Include safe de-energization, oil sampling/testing as required (e.g., for regulated constituents), removal and disposal of the existing

transformer/oil, new pad/containment and grounding/bonding as needed, new terminations, and acceptance/commissioning testing prior to energization.

D21 — Rooftop unit, Lee R Thornton Ctr (Main Campus)

Deficiency score	71	**Budget estimate**	$286,000
Bldg condition score	177	**Status**	Deferred
System	D30 HVAC	**Deferability**	Immediate
Location	Roof	**Priorities**	Health/Safety (25%), System Use (75%)

Problem Description

Building T (Lee R Thornton Center, BLDG 00T) was constructed in 2005 and is a major campus facility (≈ 155,462 GSF) where HVAC reliability directly supports scheduled instruction and lab operations.

A rooftop single-zone air handling unit (AHU) No. 6 serving a science lab is approximately 21 years old, is nearing end of service life, and has experienced multiple failures that have become a recurring burden on maintenance staff. Same-vintage rooftop AHUs typically shift from routine upkeep to reliability risk as mechanical components (fan/motor bearings, belts, sheaves), dampers/actuators, and controls age together; coil fouling/corrosion and drain-pan/condensate issues also reduce tolerance to peak and shoulder-season conditions and increase nuisance trips and unplanned outages.

For lab-served areas, loss of dependable air delivery is a safety and building-performance problem, not a comfort problem. When supply air becomes unstable or unavailable, pressure relationships and ventilation intent can be compromised, increasing the likelihood of odor/contaminant migration, humidity excursions, and condensation on cold surfaces (ductwork, diffusers, exterior walls), which can drive material deterioration and indoor air quality complaints. The college also notes that other rooftop single-zone AHUs of the same vintage are approaching replacement need; AHU-6 should be prioritized due to the criticality of the science lab, and AHU-1 should remain near the top of the queue because it serves the specialized botany courtyard/plant area, where temperature and humidity swings can damage sensitive plant environments and create persistent moisture risk.

Repair Description

Repair (recondition) Building T rooftop single-zone AHU-6 serving the science lab by replacing/renewing failure-prone internal components (fan/motor wear parts, belts/drives, dampers/actuators, sensors/safeties as needed), cleaning and restoring coil/condensate performance, and correcting electrical/control deficiencies driving recurring outages. Repair includes startup and functional testing with controls verification and airside balance/verification as needed to restore stable ventilation and conditioning pending phased replacement of the remaining same-vintage single-zone units.

D22 — Heat pump, Hawk Union Building (Main Campus)

Deficiency score	71	**Budget estimate**	$256,000
Bldg condition score	222	**Status**	Deferred
System	D30 HVAC	**Deferability**	Immediate

Location	Roof	**Priorities**	Health/Safety (25%), System Use (75%)

Problem Description

A York rooftop heat pump serving Building H is reported to be near end of service life. The unit is Model B1HA018A06B with Serial SNGLM076282 and uses R-22 refrigerant. The college reports the unit age cannot be confirmed, but the cabinet and components are visibly corroded, indicating prolonged exposure-driven material loss and elevated probability of mechanical/electrical failure. In a student services building, an unplanned rooftop unit outage is an operational risk: loss of heating/cooling can make served areas intermittently unusable, drive occupant complaints, and reduce the building's ability to maintain stable temperature and humidity during shoulder-season conditions.

The observed corrosion is a reliability multiplier. Rooftop units experience repeated wetting/drying cycles; when protective coatings fail, oxidation progresses, fasteners and base rails degrade, and dissimilar-metal interfaces can accelerate corrosion in the presence of rainwater as an electrolyte (galvanic action). This corrosion pathway increases the likelihood of cabinet seam leakage, coil deterioration, condensate pan/drain failures, and compromised electrical enclosures, all of which shorten remaining life and increase the chance of sudden shutdown rather than predictable maintenance.

Independently, R-22 is an end-of-era refrigerant: U.S. production and import of HCFC-22 ended in 2020, so ongoing service depends on reclaimed/stockpiled refrigerant, which increases long-term cost volatility and the risk that a routine leak repair becomes a procurement problem. This makes "run-to-failure" a poor risk trade: any refrigerant-side failure can force extended downtime while parts/refrigerant are sourced.

Repair Description

Replace the existing York rooftop heat pump (Model B1HA018A06B, reported R-22) with a new packaged heat pump of equivalent delivered capacity and airflow (final sizing by design), including refrigerant recovery per EPA requirements, unit removal, curb/adapter as required, electrical/controls reconnection, and start-up/functional performance testing. Repair associated roof curb flashing and roofing at the work area to restore watertightness.

D23 — Fan coil units, Library Building (Main Campus)

Deficiency score	71	**Budget estimate**	$249,000
Bldg condition score	244	**Status**	Deferred
System	D30 HVAC	**Deferability**	Immediate
Location	North side	**Priorities**	Health/Safety (25%), System Use (75%)

Problem Description

Building L (Library Building 190-00L) has 16 fan coil units serving offices on the north side of the building that the college reports are original to the building and past their design life. As these terminal units age, common failure modes (fan/motor wear, coil fouling or leakage, stuck/failed control valves and thermostats, and condensate pan/drain deterioration) reduce delivered heating and cooling capacity and degrade zone control, resulting in persistent hot/cold complaints and unstable space temperatures that undermine thermal comfort and office function.

Loss of reliable zone-level conditioning also drives operational risk: spaces can fall outside acceptable temperature ranges during peak heating/cooling periods, and degraded condensate management increases the chance of localized moisture impacts at or below units. Because these offices rely on distributed fan coils for zone control, ongoing deferral increases the probability of cascading failures, reactive maintenance, and extended comfort disruptions as parts and labor become harder to source for older equipment.

Repair Description

Replace 16 fan coil units serving the north-side offices in Building L to restore reliable zone heating/cooling and thermal comfort. Include associated piping tie-ins (isolation valves/flex connections as required), control devices/thermostats, condensate drains/pans, and testing, adjusting, balancing, and commissioning to verify proper operation and setpoints.

D24 — Unit heaters, Lee R Thornton Ctr (Main Campus)

Deficiency score	71	**Budget estimate**	$145,000
Bldg condition score	177	**Status**	Deferred
System	D30 HVAC	**Deferability**	Immediate
Location	Multiple	**Priorities**	Health/Safety (25%), System Use (75%)

Problem Description

Building T (Lee R Thornton Center, BLDG 00T) was constructed in 2005 (≈ 155,462 GSF).

Twelve unit heaters are distributed throughout the building: some are located in mechanical/pipe areas to provide freeze protection, and others serve entry vestibules to maintain occupant comfort and reduce cold-air dumping.

All twelve heaters are approximately 21 years old, placing the fleet in an end-of-life risk band where reliability becomes less predictable and failures become more disruptive. Typical age-driven mechanisms for unit heaters include heat-exchanger corrosion/cracking, burner and ignition/control failures, fan motor/bearing wear, gas valve/regulator drift, and degraded safeties/limit switches—issues that trend from “maintenance nuisance” to “no-heat event” as multiple components reach end-of-life together.

This is a risk-management project, not a comfort upgrade. Loss of freeze-protection heat increases the likelihood of pipe freezing, which can trigger burst piping, uncontrolled water release, ceiling/finish damage, localized IAQ impacts from chronic dampness, and program disruption while repairs and drying occur. Vestibule heater failures also increase cold drafts, reduce occupant comfort near entries, and can contribute to condensation at adjacent cold surfaces during winter conditions.

Repair Description

Replace the 12 Building T unit heaters with new units sized and configured to match each location’s intent (freeze protection in mechanical/pipe areas and vestibule conditioning), including associated gas/electrical connections, supports, and controls. Implement a phased replacement program targeting four unit heaters in the 2027 biennium, with remaining units sequenced by criticality (freeze-protection locations first) and verified setpoints/safeguards after installation.

D25 — Heat recovery pump, Lee R Thornton Ctr (Main Campus)

Deficiency score	71	**Budget estimate**	$70,000
Bldg condition score	177	**Status**	Deferred
System	D30 HVAC	**Deferability**	Immediate
Location	Mechanical	**Priorities**	Health/Safety (25%), System Use (75%)

Problem Description

Building T (Lee R Thornton Center, BLDG 00T) was constructed in 2005 (≈ 155,462 GSF).

A heat recovery pump (Pump No. 2) is reported to be ~21 years old. The college does not report current operational issues, but the pump is now in the end-of-life risk band for rotating equipment where failures become less predictable and more disruptive. Age-related degradation typically includes bearing wear and vibration, mechanical seal hardening/leakage, corrosion at casing/fasteners, impeller wear, motor insulation breakdown, and controls/VFD reliability issues (if applicable).

This is a building-performance risk, not a comfort-only issue. Loss of a heat recovery pump can degrade heat recovery effectiveness, increase heating energy demand, and destabilize temperature control during shoulder seasons when systems rely on recovery to temper air and water-side loads. A seal or piping failure can also create a water-release event with collateral damage potential (roof-level equipment areas, shafts, ceilings, and finishes) and downtime for repairs.

To keep this from becoming a surprise outage, the most efficient monitoring items are:

Trend pump amperage, run hours/starts, and (if available) differential pressure/flow against baseline.

Document seal condition/leaks, coupling alignment (if applicable), and vibration/noise at routine intervals.

Verify isolation valves function and that strainers (if present) are being serviced to prevent cavitation and overheating.

Repair Description

Replace Heat Recovery Pump No. 2 at end of service life with a new pump/motor assembly matched to the existing duty point, including base, isolation valves, check valve, flexible connections, electrical disconnect, and controls/BAS integration as required. Start up, verify performance, and recommission the heat recovery loop to confirm stable flow/temperature control and document new baseline operating data.

D26 — Exhaust fans, Building W (Main Campus)

Deficiency score	71	**Budget estimate**	$39,000
Bldg condition score	239	**Status**	Deferred
System	D30 HVAC	**Deferability**	Immediate
Location	Building exterior	**Priorities**	Health/Safety (25%), System Use (75%)

Problem Description

Five perimeter exhaust fans serving Building W were installed in 1995 and are now in the end-of-life risk band even though no current operational issues were reported. By the 2027–2029 biennium, these fans will be approximately 32–34 years old, when age-related degradation typically shifts from predictable maintenance to higher-probability failure (motor winding breakdown, bearing wear, corrosion at housings and fasteners, vibration-induced fatigue, degraded backdraft dampers, and deteriorated electrical connections/controls), especially for equipment exposed to wind-driven moisture, UV, and thermal cycling at exterior locations.

Exhaust fan reliability is a building-performance issue, not just a comfort issue. Loss of exhaust capacity can reduce required pollutant/moisture removal in served spaces and destabilize building pressure relationships, increasing odor transfer and moisture persistence risk. If the fans are operated intermittently, failed or leaking dampers can also leave an uncontrolled exterior opening when the fan is off, driving infiltration, energy waste, and potential moisture entry depending on exposure conditions. Final scope should confirm which fan(s) serve the most critical exhaust function and document runtime, corrosion, vibration, and amperage trends to prioritize the first replacement.

Repair Description

Replace one of the five 1995-era perimeter exhaust fans serving Building W in the 2027–2029 biennium, including associated curb/penetration weatherproofing, backdraft damper, electrical disconnect, and controls interface as required to maintain airtightness and water management at the exterior opening. Replace the remaining four fans beginning in the 2029–2031 biennium, with test-and-balance/functional verification to confirm each new fan meets required airflow and the dampers close tightly when fans are off.

D27 — Fan coil units, Hawk Union Building (Main Campus)

Deficiency score	71	**Budget estimate**	$14,000
Bldg condition score	222	**Status**	Deferred
System	D30 HVAC	**Deferability**	Immediate
Location	Mechanical	**Priorities**	Health/Safety (25%), System Use (75%)

Problem Description

Building H (Hawk Union Building, BLDG 00H) is a 67,695 GSF student services and support facility constructed in 1976.

A Vinco fan coil unit serving a portion of Building H has reached end of service life; the unit is approximately 25 years old with a documented manufacture date of February 2000.

At this age, fan coil units commonly shift from routine maintenance to reliability risk: fan/motor bearing wear and imbalance, control-valve and actuator failures, coil corrosion or fouling that reduces heat transfer, and condensate management problems (pan corrosion, drain blockages, failed traps) that can cause overflow and intermittent moisture release. The consequence is not just localized comfort complaints—loss of dependable temperature and humidity control in occupied student-facing areas increases the likelihood of condensation at cold surfaces during shoulder seasons, elevates indoor RH excursions, and increases the probability of water staining, concealed moisture, and microbial growth if condensate is not consistently captured and drained.

Because this is a single-point-of-failure component in its served zone, continued operation beyond design life increases the risk of unplanned outage and water-related damage, and it drives higher reactive maintenance costs and schedule disruption relative to a planned replacement during a controlled shutdown window.

Repair Description

Replace the end-of-life Vinco fan coil unit (manufactured February 2000) with a new unit sized to match the existing heating/cooling capacity and airflow, including new isolation valves, flexible connections, condensate pan/drain components, and electrical disconnect as required. Integrate the new unit with existing controls, then complete start-up, functional testing, and balancing/verification of delivered airflow and hydronic performance.

D28 — Boilers, Health Science Center (Richland Campus)

Deficiency score	70	**Budget estimate**	$845,000
Bldg condition score	174	**Status**	Deferred
System	D30 HVAC	**Deferability**	Immediate
Location	Multiple	**Priorities**	Health/Safety (25%), System Use (75%)

Problem Description

Boilers No. 1 and No. 2 serving the Health Science Center (190-00Rs) have reached the end of their reliable service life and are now a program-critical single point of failure for building heating. The 2023 facility condition survey already flagged the boilers as near end of expected life (Severity Score 35) and recommended continued monitoring for replacement, with a baseline MACC construction estimate of $100,000 (at that time) for the boiler deficiency.

Since that survey, the college reports the condition has progressed to frequent failures and there is evidence of leaks, which is consistent with an asset moving out of a “maintainable” band into a reliability/availability problem where outages become unpredictable and recovery time grows.

The boilers appear to be Sellers units; a representative nameplate indicates Model C-40-W (Model 15 Commodore), natural gas, ~1.674 MMBtu/h input and ~1.339 MMBtu/h output, with a manufacturing date of 12/16/2005 (consistent with the reported ~21-year age band). In hydronic boiler plants, this age band commonly coincides with heat-exchanger deterioration, burner/ignition and control failures, valve/regulator drift, and leaks at gaskets, fittings, and relief/safety components. Water-side chemistry accelerates these mechanisms: dissolved minerals drive scale (reducing heat transfer and increasing metal temperatures), and oxygen/chlorides drive corrosion, which elevates both leak risk and efficiency loss over time.

The scope is not limited to the boilers. The associated hot-water circulation pumps (Quantity 2) were also identified in the 2023 survey as near end-of-life (Assessment: “should be replaced,” with a baseline MACC construction estimate of $80,000), and pump aging is a known reliability multiplier because seal/bearing wear and casing corrosion trend toward leakage, vibration, and sudden loss of flow—turning a boiler plant into a no-heat event even if burners fire.

With leaks already evident and frequent failures reported, continuing reactive repair exposes the college to loss of heat, inability to maintain required indoor temperatures, elevated freeze risk for piping/terminal units during cold snaps, and shutdown or curtailment of health-sciences programs until heat is restored.

Repair Description

Replace Boilers No. 1 and No. 2 at the Health Science Center with new packaged high-efficiency natural-gas boilers, and replace the associated hot-water pumps and related near-end-of-life trim (isolation valves, strainers, reliefs, vents, and critical controls/safeties) required for a complete, reliable plant. Reconnect to existing distribution, integrate with campus BAS/controls, and test and commission the plant to verify redundancy, stable flow, safe combustion, and leak-free operation.

D29 — Air handling units, Health Science Center (Richland Campus)

Deficiency score	70	**Budget estimate**	$545,000
Bldg condition score	174	**Status**	Deferred
System	D30 HVAC	**Deferability**	Immediate
Location	Multiple	**Priorities**	Health/Safety (25%), System Use (75%)

Problem Description

Health Science Center (HSC), Richland Campus (constructed 2004, approx. 67,010 GSF) has four multi-zone air handling units (Multi-Zone Units 1–4) that are approximately 21 years old and at the end of their predictable reliable service life for large airside equipment.

This condition aligns with the 2023 Facility Condition Survey finding that the HSC's air handler units are near the end of their expected life but may still be operating (i.e., "function as designed") and should be monitored for replacement—a classic end-of-life reliability band where the dominant risk is unplanned outage and extended downtime, not immediate non-function.

Multi-zone units are control-intensive assets. As they age, failure and performance degradation typically concentrate in fan bearings/drives, actuators/dampers, and control valves serving coils and terminal control, along with controls/sequence stability. Loss of accurate airflow and temperature control can cascade into ventilation shortfalls, pressure instability, and humidity control drift, increasing the likelihood of IAQ complaints, odor migration, and localized condensation risk (especially in perimeter and high-load zones). In a health-science instructional building, this becomes an operational risk: a single multi-zone unit outage can disable conditioning for multiple zones at once, driving disruption to scheduled program use and increasing the probability of emergency repairs with premium cost and long lead times.

Repair Description

Repair the HSC Multi-Zone Units 1–4 through a phased reconditioning/replacement program (replace one unit per funded biennium, prioritized by the college), including replacement of internal wear components (coil control valves/actuators, bearings, drives/fan/motor components as required, and associated controls hardware) and restoration of stable operation. Include TAB as needed, controls integration, startup, and functional performance testing to verify airflow, temperature control, and sequence stability across served zones.

D30 — Chillers, Utilities Building (Main Campus)

Deficiency score	70	**Budget estimate**	$496,000

Bldg condition score	405	**Status**	Deferred
System	D30 HVAC	**Deferability**	Immediate
Location	Roof	**Priorities**	Facility Use (25%), System Use (75%)

Problem Description

Building U (Utilities Building 190-00U) has two chillers reported by the college as installed in 1995: one McQuay unit and one York unit. The college reports both chillers require resealing and replacement of multiple gaskets due to refrigerant leakage, with site-visit evidence of an active leak at the McQuay unit (priority repair). These conditions align with the facility survey's conclusion that the Utilities Building chiller assets are near end of expected life but still operating, and that two chillers are located in the basement serving this plant function.

Chiller leaks at this age are typically driven by gasket/O-ring compression set, seal hardening, joint movement from thermal cycling, and vibration—creating a loss of tightness at bolted connections and service points. Active leakage reduces refrigerant charge and oil retention, which degrades heat transfer and capacity, increases run time and energy use, and elevates risk of nuisance trips or compressor damage during peak cooling demand. Leaks also create environmental and regulatory exposure (refrigerant management and reporting) and increase the likelihood of an unplanned outage that would impair campus cooling service. The units are not R-22, but use a refrigerant category that is next in line for phase-down; that makes immediate leak repair feasible for continued service, but it does not remove the longer-term replacement risk tied to aging equipment and future refrigerant availability.

Repair Description

Repair and recondition both chillers in Building U by prioritizing the McQuay unit: isolate and recover refrigerant as required, replace failed gaskets/seals at leaking joints, reassemble, pressure test/standing vacuum test, and perform final leak verification and recommissioning. Repair the York chiller under the same scope to restore watertight/refrigerant-tight operation and extend serviceability while planning for end-of-life replacement.

D31 — Compressor, Career & Technology (Main Campus)

Deficiency score	70	**Budget estimate**	$312,000
Bldg condition score	165	**Status**	Deferred
System	D30 HVAC	**Deferability**	Immediate
Location	Mechanical	**Priorities**	Health/Safety (25%), System Use (75%)

Problem Description

The CTE Building's instructional program spaces are reportedly served by a single compressor installed in 2008. The college reports it has recently invested repair dollars into this compressor because when it fails, the building cannot support classes and instruction is effectively shut down, creating a critical single point of failure for building operations and academic continuity.

Compressors are high-duty mechanical assets with common end-of-life failure modes that can progress from nuisance trips to hard downtime (motor winding failure, bearing wear, seal/gasket leaks, oil/refrigerant

management problems, or controls/safety lockouts). With only one compressor available, any fault forces an unplanned outage window that is governed by parts availability and specialized service labor, not by the academic schedule—driving cancelled classes, emergency procurement, and reactive maintenance costs. Industry guidance also recognizes that relying on a single large compressor is generally less desirable than multiple machines for variable loads, reinforcing the reliability value of redundancy for critical cooling service.

Repair Description

Repair the CTE Building cooling-system reliability by installing a redundant compressor compatible with the existing system and refrigerant circuit, including new piping tie-ins, isolation/service valves, electrical power, controls integration (lead/lag sequencing and automatic changeover), and startup/commissioning. Locate the redundant compressor in any accessible building location (not limited to the mechanical room) and configure the connections so either compressor can be isolated for service without shutting down building conditioning.

D32 — Chiller, Career & Technology (Main Campus)

Deficiency score	70	**Budget estimate**	$311,000
Bldg condition score	165	**Status**	Deferred
System	D30 HVAC	**Deferability**	Immediate
Location	Roof	**Priorities**	Health/Safety (25%), System Use (75%)

Problem Description

The chiller plant serving the CTE Building relies on a BACnet-enabled controls/communications board that has experienced repeated failures. The college reports the board has been replaced at least four times, which indicates the board is not the root problem; it is the component failing first under a persistent stressor (electrical, environmental, network, or integration-related). Recurrent control-board failure creates an operational reliability risk because a controls fault can hard-lockout the chiller, disrupt cooling service, and drive reactive maintenance and emergency procurement rather than planned repair.

The repeated failure pattern is consistent with a systemic issue that is affecting one chiller now but may be present in the shared conditions serving both chillers (same electrical distribution, same BAS network segment, similar panel environment, similar installation practices). If uncorrected, continued “replace-the-board” cycles will keep burning money while leaving the underlying failure mechanism active, shortening the life of subsequent replacement boards and increasing the probability of in-season cooling outages.

The most likely root-cause categories to investigate are:

Power quality and protection: transient overvoltage, poor grounding/bonding, failed or missing surge protection, control transformer issues, or induced noise from VFDs/large motor starts feeding the controls power supply.

Panel environment: overheating in the controls enclosure (failed ventilation, heat soak), vibration, moisture/condensation, or liquid intrusion causing corrosion/shorting and intermittent faults.

BACnet network and wiring: RS-485 (MS/TP) polarity errors, improper shielding/drain grounding, missing/incorrect end-of-line termination, excessive trunk length or bad daisy-chain topology, duplicate MAC addresses, or network traffic/baud mismatches that crash comms and drive watchdog resets.

Integration/commissioning gaps: misconfigured points, firmware/board revision incompatibility, unstable BAS polling rates, or incorrect power-up sequencing that repeatedly stresses the board.

Repair Description

Replace the failed BACnet controller/communication board on the affected CTE chiller and restore verified chiller operation and BACnet communications, including point-to-point checkout and alarm/trend verification. Investigate and correct the underlying systemic cause of repeated board failures (power quality/grounding/surge protection, controls-panel environment, and BACnet network wiring/termination/traffic), then apply the validated corrective actions and commissioning checks to both CTE chillers.

D33 — Air handling unit, Health Science Center (Richland Campus)

Deficiency score	70	**Budget estimate**	$174,000
Bldg condition score	174	**Status**	Deferred
System	D30 HVAC	**Deferability**	Immediate
Location	Mechanical	**Priorities**	Health/Safety (25%), System Use (75%)

Problem Description

Health Science Center (HSC), Richland Campus (constructed 2004, approx. 67,010 SF) has Air Handling Unit (AHU) No. 1, a McQuay unit that is ~21 years old and at the end of its typical reliable service life. The unit identification is partially constrained because the nameplate is not legible, but the provided identifiers are Model OAH017GDDC and Serial FBOU051100637.

The 2023 Facility Condition Survey documented that the HSC has five air handler units that are near end of expected life but still function as designed, and recommended they be monitored for replacement (Deficiency F04, quantity 5 EA, MACC construction estimate $150,000 at that time). AHU-1 aligns with this end-of-life cohort: continued operation is increasingly dependent on reactive maintenance, and the probability of unplanned outage rises as wear accumulates in fans/bearings, dampers/actuators, controls, and coil/cabinet joints.

In a health-science instructional facility, AHU reliability is not a comfort-only issue. Air handlers stabilize ventilation rates, filtration performance, temperature control, and building pressurization. When an AHU degrades or fails, common outcomes include ventilation shortfalls, pressure instability (driving odor migration and uncontrolled infiltration), and moisture/condensation risk at cold surfaces during winter operation—conditions that increase IAQ complaints, disrupt occupied programs, and drive emergency repairs at premium cost.

Repair Description

Replace HSC AHU-1 (McQuay; Model OAH017GDDC, Serial FBOU051100637) with a new air-handling unit of equivalent duty, including demolition, rigging, curb/curb-adapter as required, duct and piping reconnections, electrical and controls integration, startup, TAB, and functional performance testing. Verify existing configuration (airflow setpoints, coil types, filtration, OA/RA arrangement, voltage/MCA/MOP) due to illegible nameplate and capture final basis-of-design in the submittal.

D34 — Chilled water pump, Health Science Center (Richland Campus)

Deficiency score	70	**Budget estimate**	$170,000
Bldg condition score	174	**Status**	Deferred
System	D30 HVAC	**Deferability**	Immediate
Location	Mechanical	**Priorities**	Health/Safety (25%), System Use (75%)

Problem Description

The Health Science Center (190-00Rs) (≈ 67,010 SF, constructed 2004) relies on two chilled water pumps to circulate chilled water through coils for space cooling and moisture control. The college reports both pumps are ~21 years old and at the end of their useful life, with impeller replacement needed. This aligns with the facility condition survey's end-of-life assessment for chilled-water pumping assets in the building's chilled-water system.

Chilled-water pumps are not "optional comfort" equipment. As pumps age, reliability risk concentrates in bearings, mechanical seals, couplings, and impeller/volute wear. Impeller damage or erosion (often linked to cavitation and long-term operation away from best-efficiency point) reduces flow and head, which can cascade into coil underflow, reduced cooling capacity, loss of stable dehumidification, and humidity drift. In instructional health-science spaces, loss of chilled-water circulation increases the probability of temperature excursions, IAQ/odor complaints, and condensation risk at cold surfaces during humid operating periods.

If the pumps are operated with variable speed control (consistent with the observed inverter-duty motor nameplate characteristics), degraded pump hydraulics and unstable operating points can also drive inefficient operation and abnormal vibration. The underlying physics is simple: for centrifugal pumps, flow varies with speed, head varies with speed squared, and power varies with speed cubed—so small control errors or operation in the wrong part of the curve can amplify energy use and stress while still failing to deliver required flow.

Repair Description

Replace the two chilled water pumps serving the Health Science Center with new pumps sized to the verified design duty (gpm/head), including new impellers, motors, couplings, bases, isolation valves as required, electrical reconnections, and controls integration. Test and commission the pumps (rotation, vibration, amperage), then rebalance the hydronic loop as needed to confirm design flow and coil performance.

D35 — Pumps, Health Science Center (Richland Campus)

Deficiency score	70	**Budget estimate**	$137,000
Bldg condition score	174	**Status**	Deferred
System	D30 HVAC	**Deferability**	Immediate
Location	Mechanical	**Priorities**	Health/Safety (25%), System Use (75%)

Problem Description

The Health Sciences Center (Richland Campus) (constructed 2004, ≈ 67,010 SF) has two hot-water circulation pumps (P-1 and P-2) that are ~21 years old and have moved from “maintainable” to predictable failure risk based on observed condition.

The college reports ongoing leakage at both pumps, with staining around the units and heavy corrosion concentrated at the pump collar/flange area and bolting. This condition is consistent with chronic seal and/or flange gasket leakage, where repeated wetting introduces oxygen and accelerates corrosion of fasteners and adjacent ferrous components. Once flange bolts and hardware are heavily corroded, routine service becomes high-risk (bolt shear, inability to re-torque, compromised gasket compression), which pushes a simple repair into unplanned outage work.

These pumps are 5 hp each, indicating they are primary hydronic distribution assets, not small accessory circulators. Failure would reduce or eliminate hot-water circulation, which can cause loss of space heating, unstable building temperatures, and winter-time freeze exposure in vulnerable piping and perimeter zones. Continued leakage also creates a slip hazard, can damage nearby electrical components, and can degrade housekeeping drains and housekeeping finishes from ongoing wetting and corrosion products.

Repair Description

Replace hot-water Pumps No. 1 and No. 2 (each 5 hp) serving the Health Sciences Center hydronic system in the 2027 replacement cycle, including new base/isolators, couplings, seals, flange kits/bolting, and associated isolation valves/flex connectors as required for a complete, serviceable installation. Test and commission the pumps (rotation, alignment, leakage check), then verify flows and controls interlocks to restore reliable hot-water circulation.

D36 — Unit heaters, Health Science Center (Richland Campus)

Deficiency score	70	**Budget estimate**	$80,000
Bldg condition score	174	**Status**	Deferred
System	D30 HVAC	**Deferability**	Immediate
Location	Multiple	**Priorities**	Health/Safety (25%), System Use (75%)

Problem Description

The Health Sciences Center (HSC), Richland Campus (constructed 2004, approx. 67,010 GSF) has four suspended unit heaters serving the stairwells (reported one heater per stairwell) that are ~21 years old and at the end of typical reliable service life for small mechanical heating equipment.

Although no specific failures were reported in the field notes, stairwell heat is an operational dependency: stair towers are high-infiltration zones driven by stack effect and frequent door cycling, so heater failure tends to show up as cold complaints, drafts, and localized condensation/icing risk at doors/frames during winter conditions. Given the age, continued operation is increasingly dependent on reactive maintenance and parts availability rather than predictable performance, which elevates outage risk and maintenance burden.

Repair Description

Replace the four stairwell suspended unit heaters serving the HSC stair towers with new units sized for the stairwell loads, including required electrical connections, controls integration, hangers/seismic bracing as

applicable, and startup/functional testing. Verify existing heater fuel/energy source and nameplate data during design to match capacity and connection requirements and avoid scope gaps.

D37 — Exhaust fans, Health Science Center (Richland Campus)

Deficiency score	70	**Budget estimate**	$15,000
Bldg condition score	174	**Status**	Deferred
System	D30 HVAC	**Deferability**	Immediate
Location	Roof	**Priorities**	Health/Safety (25%), System Use (75%)

Problem Description

Health Science Center (HSC), Richland Campus (constructed 2004, approx. 67,010 SF) has two roof-mounted exhaust fans that are ~21 years old and nearing the end of their reliable service life. The units are Greenheck, Model CUE-141-8-X, Serial 05L15329 (representative).

Although both fans are currently operating as designed, roof exhaust fans are exposed to weather, UV, thermal cycling, and vibration, which accelerates wear in motors, bearings, drives, and fan wheels, and increases the probability of sudden failure or persistent performance degradation (reduced airflow). Loss or underperformance of exhaust is not just a comfort issue; it drives ventilation shortfalls and building pressure instability, which can cause odor migration, moisture accumulation/condensation risk, and indoor air quality complaints—all of which are operationally disruptive in an instructional health-science facility.

Repair Description

Replace the two roof exhaust fans (Greenheck CUE-141-8-X or approved equal) with new units matched to existing duty, including curb/adapter as required, roof flashing and weatherproofing, electrical disconnect/reconnect, controls integration, and startup/functional testing. Balance/verify airflow after installation and confirm nameplate voltage/phase and any accessory requirements (backdraft damper, speed control, etc.).

D38 — Roof, Utilities Building (Main Campus)

Deficiency score	66	**Budget estimate**	$152,000
Bldg condition score	405	**Status**	Deferred
System	B30 Roofing	**Deferability**	Immediate
Location	North section of roof	**Priorities**	Health/Safety (25%), Increased Repair/Replacement Cost (75%)

Problem Description

Building U's north roof section is a TPO single-ply roof with multiple active leaks affecting an estimated 5,000 SF of roof area. Leaks in single-ply membranes are commonly driven by failure at seams, flashings/terminations, or punctures that allow bulk water to bypass the membrane and wet the roof assembly; thermal cycling and wind uplift stresses can further open marginal seams and detailing, increasing leak frequency and extent over time.

Ongoing roof leakage elevates the risk of concealed moisture accumulation within insulation and substrate/deck materials, which can degrade thermal performance, accelerate material deterioration, and create interior water impacts (staining, corrosion of supports/fasteners, and damage to equipment and finishes). Because this is a utility plant, uncontrolled roof water intrusion also increases the likelihood of service disruption and reactive maintenance due to water exposure at mechanical/electrical systems and controls.

Repair Description

Repair the north TPO roof area (~5,000 SF) by reconditioning and patching the membrane, including localized removal and replacement of wet/damaged membrane and insulation as required, and restoration of seams, flashings, and terminations to a watertight condition. Perform final water testing/verification to confirm leak cessation at repaired areas.

D39 — Heat pump, Multiple (Richland Campus)

Deficiency score	66	**Budget estimate**	$125,000
Bldg condition score	239	**Status**	Deferred
System	D30 HVAC	**Deferability**	Immediate
Location	Exterior Mechanical	**Priorities**	Health/Safety (25%), Facility Use (50%)

Problem Description

The Richland Campus RC (ROC) building is served by three packaged heat pump units installed in 2016. The college reports two of the three units are failing, creating an immediate reliability and occupancy-conditions risk for the areas each unit serves (heating, cooling, ventilation, and moisture control). When packaged units begin failing, the operational impact is not limited to comfort—loss of control over space temperature, ventilation rates, and building pressure relationships can drive IAQ complaints, odor migration, and seasonal condensation risk, and can force short-notice shutdowns or relocations when indoor conditions drift outside usable ranges.

A representative unit nameplate indicates a Trane heat pump RTU (model family WSC048) with 208–230V/60Hz/3-phase power and MCA/MOP 25.6A/40A, aligning with published electrical data for WSC048 units. The WSC048 published data indicates a typical net weight ~525 lb and a compact cabinet footprint (unit length ~69 7/8 in, width ~44 1/4 in, height ~36 1/4 in), which is important for roof loading, crane picks, and curb/adapter planning during replacement.

Repair Description

Replace the three packaged rooftop heat pump units serving the RC (Rock/ROC) building with new like-for-like capacity units, including required roof curb/adapter, rigging/crane, electrical reconnects, controls interface, condensate, and startup/functional testing. Repair associated roof and curb flashing disturbed by the work and rebalance airflow/ventilation as required to restore stable temperature, ventilation, and pressure control.

D40 — Water softener, Health Science Center (Richland Campus)

Deficiency score	64	**Budget estimate**	$47,000

Bldg condition score	174	**Status**	Deferred
System	D20 Plumbing	**Deferability**	Immediate
Location	Mechanical	**Priorities**	Facility Use (50%), Increased Repair/Replacement Cost (50%)

Problem Description

The Health Sciences Center has a domestic water softener system consisting of a brine tank and two softener (resin/mineral) tanks (reported installed ~2006). The system is heavily corroded, with obvious evidence of repeated leakage at the upper collar/head area, including rust staining around the collar and corrosion severe enough to indicate material loss and reduced reliability of the vessel and head/connection components.

This is not “cosmetic rust.” Metal corrosion accelerates when air and moisture are present together, and repeated wetting at collars/fasteners creates the exact conditions for rapid oxidation and progressive loss of section at bolts, flanges, and tank penetrations. In a softener installation, intermittent brine exposure and splash/drips can further intensify corrosion because salts increase aggressiveness and shorten protective coating life, pushing steel toward faster rust-through once coatings are compromised. Where copper piping ties into ferrous components at the softener, wet environments also raise the risk of galvanic (bimetallic) corrosion at transitions and fasteners when an electrolyte is present, which can corrode one metal “with astonishing rapidity.”

The risk profile is straightforward: these tanks operate at domestic water pressure, so advancing corrosion at the collar/head area increases the chance of sudden leakage escalation or vessel failure, which can cause flooding/brine release, collateral corrosion of adjacent equipment, and building-impacting cleanup. Chronic, repeated wetting events are also the pattern most likely to drive ongoing materials degradation versus a one-time incident, so “keep patching” is a bad bet here. The serving copper piping is reported as sound, which supports a scope focused on replacing the softener equipment itself while reusing serviceable distribution.

Repair Description

Replace the existing water softener system serving the Health Sciences Center, including the two softener (resin/mineral) tanks, brine tank, control valve/head assembly, and associated brine/regeneration piping and drain connections, reusing the sound copper supply/return piping where feasible. Provide new isolation/bypass valving, corrosion-resistant fittings at metal transitions, and startup/commissioning (leak test and verify hardness reduction and regeneration operation).

D41 — Windows, Multiple (Richland Campus)

Deficiency score	61	**Budget estimate**	$377,000
Bldg condition score	239	**Status**	Deferred
System	B20 Exterior Closure	**Deferability**	Immediate
Location	Multiple	**Priorities**	Facility Use (50%), Increased Operating Cost (50%)

Problem Description

The Roc Buildings (RA/RB/RC) have single-pane glazing in aluminum frames reported as leaking, degraded, and energy-inefficient. The predominant window type is reported as approximately 8 ft high × 18 in wide (≈ 12 SF each) with an estimated 80–100 units, plus approximately 12 additional windows in RA at roughly 5 ft × 3 ft (≈ 15 SF each). Based on these reported sizes and counts, total affected glazing area is on the order of ~1,140–1,380 SF, which is large enough that performance and leakage issues behave as a systemic enclosure problem, not isolated maintenance items.

The observed/reported performance makes sense from basic physics. Single-pane glass has high heat transfer compared to insulated assemblies, so it drives winter heat loss and summer heat gain; adding insulating airspaces (double/triple glazing) materially reduces heat flow. As window area increases, single-pane fenestration increases HVAC energy use at the steepest rate compared with multi-pane options.

Leakage and interior moisture risk are also predictable for this assembly type and age band. Aluminum frames conduct heat readily; when the frame is continuous from exterior to interior without a thermal break, the interior surface can run cold enough to drive condensation and frost, wetting adjacent finishes and accelerating deterioration. Water entry is commonly driven by wetted jamb/sill joints and failed perimeter sealants/gaskets, where even small discontinuities can leak under wind-driven rain. Air leakage at the window-to-wall transition compounds the problem: when fenestration lacks an airtight transition to adjacent wall assemblies, uncontrolled air movement increases comfort complaints, energy waste, and localized condensation risk at cold surfaces.

If left in place, these windows remain a recurring driver of water intrusion, interior finish damage, and condensation-related moisture at frames and perimeter conditions, with ongoing operational cost from poor thermal performance and uncontrolled air leakage. Given the reported extents, piecemeal resealing will not address the core deficiencies (single-pane thermal performance, aluminum thermal bridging, and aged perimeter transitions).

Repair Description

Replace the single-pane aluminum windows in Richland A, B, and C (approx. 92–112 total units, including the larger RA windows) with high-performance insulated glazing units in thermally broken frames, including full perimeter air/water-barrier transitions, head flashing/drip, sill pan/drainage, sealants, and new interior/exterior trims. Repair substrates and opening conditions discovered during removals and verify installation performance with field water testing at representative openings.

D42 — Through-wall heaters, Karchner Building (Main Campus)

Deficiency score	57	**Budget estimate**	$190,000
Bldg condition score	523	**Status**	Deferred
System	D30 HVAC	**Deferability**	Immediate
Location	Multiple	**Priorities**	Health/Safety (25%), Increased Operating Cost (75%)

Problem Description

Building K's HVAC is a patchwork of through-wall heaters and electric resistance heat, which is inherently high operating cost and delivers uneven comfort and control. The college reports the building is used primarily for storage and program demonstrations, so the heating system needs to do more than "make it

warm"—it needs to keep the space reliably usable during occupied periods and provide baseline conditioning that protects stored contents and building components.

This is a bad fit for a metal-clad enclosure, which is typically thermally bridge-dominant and more sensitive to air leakage at penetrations and interfaces. Through-wall units create repeated envelope interruptions that can become chronic air paths and localized cold surfaces; when warm, moist indoor air contacts those colder zones, it increases condensation potential, driving corrosion risk at metal components and localized moisture damage at adjacent finishes. A distributed resistance approach also multiplies points of failure and maintenance burden while locking the building into the least efficient heating option.

Repair Description

Replace all through-wall heaters and electric resistance heating with a single, ducted heat pump system serving Building K (2,400 SF), including new distribution ductwork, controls/thermostats, required electrical modifications, and testing/commissioning. Remove abandoned heaters/sleeves and patch/air-seal associated wall penetrations to restore enclosure continuity and reduce heat loss and condensation risk.

D43 — Water heaters, Multiple (Main Campus)

Deficiency score	56	**Budget estimate**	$63,000
Bldg condition score	239	**Status**	Deferred
System	D20 Plumbing	**Deferability**	Immediate
Location	Multiple	**Priorities**	Health/Safety (25%), Increased Operating Cost (75%)

Problem Description

The college has multiple aging domestic water heaters distributed across several buildings, including an active leak in the Richland RC building (age unknown). Aged water heaters are a high-consequence, low-warning failure: once tank corrosion advances past the anode's protection and steel begins to pit, leaks can shift from nuisance seepage to rapid bulk-water release, soaking adjacent finishes, insulation, and chases, and driving secondary damage (mold growth, corrosion of nearby utilities, and damage to flooring, ceilings, and electrical systems). This is why old water heaters become a "constant risk" even when they appear to be operating normally.

The affected buildings and reported water-heater vintages are:

- B (Business Building / BLDG 00BN, constructed 2009) – water heater vintage reported 2004
- P (Performing Arts / BLDG 00P, constructed 1970) – water heater vintage reported 1971
- CTE (Career & Technology / BLDG CTE, constructed 2011) – water heater vintage reported 2009
- L (Library / BLDG 00L, constructed 1964) – water heater vintage reported 2011
- V (Vocational Tech / BLDG 00V, constructed 1957) – water heater vintage reported 1993
- RC (Richland "C" / BLDG 0RC, constructed 1976) – leaking, age unknown
- J – water heater vintage reported 2010 (building ID not confirmed in the available building list)

Operationally, these units support restrooms, custodial uses, and program functions that depend on reliable hot water. Failure forces immediate workarounds and can trigger space closures if water damage affects classrooms, labs, or electrical rooms. The college provided a ROM cost estimate of $50,000 for this replacement package; prior SBCTC documentation indicates this has been treated historically as a multi-building capital need, so final budget should be validated against heater counts, capacities, fuel type, locations, and access constraints.

Repair Description

Replace the aging domestic water heaters serving Buildings B, P, CTE, J, L, RC, and V, prioritizing the leaking RC unit, including demolition/disposal, new units sized to existing demand, and reconnection to existing utilities. Provide code-typical appurtenances and damage controls (shutoff valves, expansion control, temperature mixing/scald protection as applicable, drip pans and positive drainage where feasible, seismic bracing, and startup/functional testing of temperature setpoints and recirculation).

D44 — Gutters, Administration Building (Main Campus)

Deficiency score	55	**Budget estimate**	$314,000
Bldg condition score	188	**Status**	Deferred
System	B30 Roofing	**Deferability**	Deferrable
Location	Roof	**Priorities**	Health/Safety (75%), Increased Repair/Replacement Cost (25%)

Problem Description

Building A's roof drainage system uses TPO-lined gutters with concealed leaders routed through building columns. The college reports water seeping from column sides and at column bases, which indicates the internal drainage path and gutter liner is no longer watertight and is discharging into the column assemblies instead of conveying water to grade. This failure mode creates concealed wetting at structural and finish interfaces that are not designed for repeated saturation, increasing risk of material deterioration at columns and adjacent construction and elevating maintenance burden due to the concealed leak path.

The building was constructed in 1958, with the current gutter system reportedly installed in 2001, and the affected gutter run is approximately 500 LF. The October 3, 2025 draft estimate for the campus miscellaneous roofing projects frames the Building A gutter scope as reconditioning rather than full replacement, including removal and reinstallation of existing snow guards, clean/repair of the gutter liner, and a new coating with a 10-year warranty; an alternate is carried for a new EPDM gutter liner with a 30-year warranty, including revised drain assemblies and new flashings/trims.

Separately, safe access is a constraint. Without permanent roof tie-off points, routine inspection and maintenance of gutter liners, drains, and snow guards is higher-risk and more likely to be deferred, which accelerates recurrence of drainage problems.

Repair Description

Repair Building A's existing gutter system by removing and reinstalling existing snow guards, cleaning and repairing the gutter liner, and applying a new coating system with a 10-year warranty; if full funding is not available, prioritize the west and south elevations first.

Replace the gutter liner under an alternate scope with new EPDM (30-year warranty), including revised drain assemblies and new flashings/trims, and include a structural engineering evaluation of the roof and installation of permanent roof tie-off points to support safe ongoing maintenance.

D45 — Roof, Business Building (Main Campus)

Deficiency score	54	**Budget estimate**	$137,000
Bldg condition score	154	**Status**	Deferred

System	B30 Roofing	**Deferability**	Immediate
Location	Roof	**Priorities**	System Use (50%), Increased Repair/Replacement Cost (50%)

Problem Description

Building B has extensive exterior staining and vegetation buildup immediately below the roof line. This pattern is consistent with chronic wetting from above, not isolated splash-back, and indicates the roof edge flashing/fascia assembly is not managing bulk water and runoff as intended. Water is likely reaching the wall surface at or behind the fascia due to a discontinuous or poorly configured roof-edge water-control path (missing/ineffective drip, reverse laps, failed joints/end dams, or inadequate integration between roof membrane, edge metal, and wall water-resistive barrier). Once water is present at an opening, common drivers (gravity, wind pressure, capillarity, and surface tension) can move it inward or down the face of the wall—sustaining wetting long enough to support biological growth.

Ongoing wetting at the roof edge elevates risk of concealed deterioration in fascia/substrate materials (wood rot, fastener corrosion, loss of attachment, and freeze–thaw damage where applicable), plus potential for water migration into adjacent wall assemblies. If left uncorrected, the problem typically expands in extent as materials degrade, leakage pathways enlarge, and maintenance becomes reactive instead of corrective.

Repair Description

Repair the roof-edge flashing and fascia assembly by removing the fascia to expose and investigate the roof-to-wall interface, then replace any deteriorated substrate and install a redesigned, continuous flashing/drip edge system with positive laps, end dams, and integration to the roof membrane and wall water-resistive barrier to direct water away from the exterior wall. Repair/replace fascia and exterior finishes after watertightness testing confirms the assembly sheds water as intended.

D46 — Lighting , Multiple (Main Campus)

Deficiency score	51	**Budget estimate**	$753,000
Bldg condition score	239	**Status**	Deferred
System	D50 Electrical	**Deferability**	Immediate
Location	Multiple	**Priorities**	Facility Use (25%), Increased Operating Cost (75%)

Problem Description

Multiple buildings across campus continue to rely on aging fluorescent (T8) lighting, which the college reports is energy inefficient and at end of service life. This creates an ongoing operational penalty: higher electrical use for the same light output and a growing replacement/maintenance workload as lamps, ballasts, lenses, and connections degrade.

This lighting condition also has a systems-level cost impact. Inefficient lighting converts more electrical input into internal heat gain; reducing lighting wattage reduces cooling load and associated HVAC energy and capacity pressure, which is a direct operating-cost lever in conditioned spaces.

The 2023 survey also documents fluorescent fixture types in use in at least one major instructional facility, confirming that fluorescent lighting remains part of the campus fixture inventory to be modernized.

The proposed approach is a phased, campuswide conversion so the college can target the worst-performing/highest-use areas first and scale implementation as funding allows. The initial budgeting basis is ~100,000 SF of fluorescent-to-LED conversion, with final building/area priorities established by the college at time of funding.

Repair Description

Replace existing fluorescent (T8) lamps/ballasts and associated fixtures serving approximately 100,000 SF (initial phase) with LED retrofit kits or new LED luminaires as appropriate for fixture condition and application, with priorities established by the college at time of funding. Replace/coordinate lighting controls where required to maintain functional, supportable operation (including spaces where existing controls require reprogramming or are approaching obsolescence).

D47 — Data vaults, Multiple (Main Campus)

Deficiency score	51	**Budget estimate**	$359,000
Bldg condition score	239	**Status**	Deferred
System	F10 Special Construction	**Deferability**	Immediate
Location	Multiple	**Priorities**	Facility Use (25%), Increased Operating Cost (75%)

Problem Description

The two data vaults have settled/sunk and regularly fill with water, preventing safe access and work within the vaults and effectively blocking planned extension of the campus fiber network. This is a utility distribution/site infrastructure issue consistent with the types of systems addressed in the SBCTC facility condition survey scope (utility distribution and select site elements).

Standing water in telecom vaults creates a predictable failure pathway: chronic wetting drives corrosion of metallic hardware, deterioration of conduit seals/duct-bank penetrations, and damage to splice enclosures and terminations. Over time, this increases the likelihood of network outages (intermittent faults escalating to failure) and can directly impact IT services supporting students and instruction. The condition also undermines maintainability and future adaptability—telecom distribution needs accessible, serviceable pathways to allow economical maintenance and future changes without improvised workarounds.

Repair Description

Replace the two flooded/sunken data vaults with new watertight, traffic-rated vaults set at proper elevation, including conduit/duct-bank resealing, controlled drainage (gravity to daylight or sump/pump as required), and restoration of surrounding paving/grade. Reconfigure and re-terminate affected telecom pathways as needed to enable fiber extension (including temporary bypass/splicing during cutover) and verify the vaults remain dry under seasonal groundwater and storm conditions.

D48 — Chiller, Health Science Center (Richland Campus)

Deficiency score	50	**Budget estimate**	$661,000
Bldg condition score	174	**Status**	Deferred
System	D30 HVAC	**Deferability**	Deferrable

Location	Mechanical	**Priorities**	Health/Safety (50%), System Use (50%)

Problem Description

The Health Science Center (HSC) relies on an air-cooled chilled-water chiller as a single-point-of-failure asset for building cooling (college reports it is the only chiller serving the building). The unit is now ~21 years old, and the college reports multiple leaks, difficulty obtaining replacement parts, electrical issues, and VFD issues, which is consistent with an end-of-life reliability band where failures shift from isolated repairs to recurring, unpredictable outages.

The 2023 facility condition survey documented this chiller as near end of expected life (Severity Score 35) with a construction cost estimate of $200,000, and it also flagged chilled-water pump aging at HSC, which compounds overall chilled-water system reliability risk (plant reliability is limited by the weakest component).

The operational risk is straightforward and ugly. The consequences of a chiller failure in this use-case include:

Building-wide loss of cooling and dehumidification, which can destabilize comfort and ventilation performance for instructional/lab-adjacent spaces.

Humidity excursions that increase the likelihood of condensation on cold surfaces (coils/ductwork/diffusers), elevating IAQ risk and maintenance burden.

Extended downtime driven by parts/VFD/electrical failures, with increased likelihood of program disruption because there is no practical redundancy when the plant is down.

Repair Description

Replace the existing air-cooled chilled-water chiller serving the Health Science Center with a new, fully compatible chiller sized for the building load, including new/compatible VFD(s), electrical disconnect/controls integration, required piping/valving/accessory modifications, and startup/commissioning for turnkey operation.

D49 — Air compressor, Health Science Center (Richland Campus)

Deficiency score	50	**Budget estimate**	$106,000
Bldg condition score	174	**Status**	Deferred
System	E10 Equipment	**Deferability**	Immediate
Location	Mechanical	**Priorities**	System Use (50%), Increased Operating Cost (50%)

Problem Description

The Health Science Center (Richland Campus) relies on a medical air compressor to support specialized equipment used by the nursing program. The facility is approximately 67,010 GSF and was constructed in 2004, so its original mechanical plant and adjunct systems are now in an end-of-life replacement band.

The medical air compressor is reported to be operating as designed, but it is ~21 years old and should be treated as a predictable reliability risk rather than a “repair as needed” asset. The unit includes an ~88-gallon receiver and is rated for ~206 psi, meaning it stores and delivers high-pressure compressed air; age-related degradation commonly concentrates in the compressor/motor, controls/pressure regulation, drying/filtration components, and receiver/tank fittings. As these components age out together, failures shift

from minor maintenance to unplanned outages and extended downtime, which would disrupt nursing program equipment use and force reactive repairs or emergency replacement at premium cost.

Repair Description

Replace the Health Science Center medical air compressor system, including the compressor package, ~88-gallon receiver, and associated controls/regulation and drying/filtration accessories, with a new system matched to the required ~206 psi service. Complete electrical and piping tie-ins, startup and functional testing, and provide O&M documentation for ongoing maintenance.

D50 — Medical VAC, Health Science Center (Richland Campus)

Deficiency score	45	**Budget estimate**	$433,000
Bldg condition score	174	**Status**	Deferred
System	F10 Special Construction	**Deferability**	Immediate
Location	Mechanical	**Priorities**	System Use (25%), Increased Operating Cost (75%)

Problem Description

The Health Science Center has a medical VAC (vacuum) source system (reported by the college as an “air compressor VAC system”) that provides central vacuum/suction for specialized equipment supporting the nursing program. The identified source equipment is a BeaconMedaes packaged medical vacuum system using a BUSCH (Busch Vacuum Solutions) vacuum pump with an energy-efficient (“Super-E”) motor, and it is reported to be ~21 years old. In medical vacuum applications, the vacuum plant is a reliability asset: when it fails, the result is immediate loss of suction capability at served equipment, not a comfort issue.

This system is not a conventional “air compressor” function; it is a vacuum generator. BeaconMedaes medical vacuum systems are designed to provide a reliable source of suction and are offered in multiple configurations/technologies to meet medical standards and operational needs.

The Lifeline claw platform, which aligns with the identified BUSCH MINK pump family, uses dry multi-claw technology with contact-free rotors synchronized by precision gears, and typically integrates variable speed drive control, system monitoring, and HEPA inlet filtration intended to meet NFPA 99 vacuum filtration requirements.

At ~21 years, this equipment is beyond the planning horizon for “maintain until it breaks.” Age-driven failure mechanisms for dry-claw vacuum pumps concentrate in the motor insulation system, bearings, shaft seals, gear train, and controls/sensors, plus system appurtenances like filters and valves. As these components age out together, failures shift from routine service to unplanned downtime with longer recovery, because troubleshooting becomes harder, parts availability can be constrained, and the system must be recommissioned to restore stable vacuum performance and alarms. This is the classic “unscheduled maintenance” mode that drives premium cost and program disruption compared to planned renewal.

Repair Description

Replace the Health Science Center medical vacuum source equipment (BeaconMedaes package), including the BUSCH vacuum pump/motor assembly and associated filters, isolation components, and controls interfaces required for a complete working system. Test and commission the replacement to confirm required vacuum performance, alarms/monitoring, and safe operation under occupied conditions.

D51 — Air handling unit, Lee R Thornton Ctr (Main Campus)

Deficiency score	45	**Budget estimate**	Excluded (no estimate)
Bldg condition score	177	**Status**	Excluded
System	D30 HVAC	**Deferability**	Deferrable
Location	Roof	**Priorities**	Health/Safety (25%), System Use (75%)

Problem Description

Building T includes several single-zone air handling units (identified by the college as Units 3A, 3B, 3C, 3N, and 3D) that are approximately 21 years old. The college does not report specific operational issues at this time, but the units are approaching end of design life and should be continually monitored due to increasing age-related reliability risk and parts/support constraints typical of this vintage.

Even when “working,” aging AHUs tend to lose performance margin through predictable degradation mechanisms: fan and motor bearing wear and imbalance, belt/sheave wear, coil fouling/corrosion that reduces heat transfer and increases run time, damper/actuator and sensor drift that destabilizes ventilation and temperature control, and condensate pan/drain deterioration that increases the chance of overflow and intermittent wetting. These are building-performance risks: loss of stable airflow and ventilation can destabilize pressure relationships, increase infiltration/exfiltration, and drive moisture excursions that elevate condensation and IAQ risk when humid air contacts cold surfaces or when wet materials do not dry promptly.

This concern aligns with the broader HVAC condition documented for Building T in the 2023 survey, which notes that the building has 19 air handlers and multiple other HVAC components near end of expected life that “still function as designed” but “should be monitored for replacement.”

Repair Description

Repair by continuing preventive maintenance and establishing documented condition monitoring for the identified single-zone AHUs (trend alarms, vibration/amp draw, coil and drain-pan condition, damper/actuator response) to confirm remaining service life and prioritize intervention. Repair by developing a phased replacement plan and budget trigger based on observed condition and operational criticality, consistent with Building T’s documented end-of-life HVAC backlog.

D52 — Fan coil units, Health Science Center (Richland Campus)

Deficiency score	44	**Budget estimate**	Excluded (no estimate)
Bldg condition score	174	**Status**	Excluded
System	D30 HVAC	**Deferability**	Deferrable
Location	Multiple	**Priorities**	Health/Safety (25%), System Use (75%)

Problem Description

The Health Science Center (HSC) at the College’s Richland Campus (constructed 2004, approx. 67,010 SF) includes four fan coil units (FCUs) (reported as “Panto” units), with one unit per level in mechanical spaces.

At approximately 21 years old, this FCU set is at the end of typical reliable service life and should be treated as an age-driven reliability risk rather than a “fix it when it breaks” asset.

The 2023 facility condition survey already characterized the HSC FCUs as near end of expected life, still functioning, and appropriate to continue monitoring for replacement, with a typical ~20-year average life expectancy and an estimated ~5 years remaining (at the time of that survey).

Fan coil units condition spaces by blowing air across heated/chilled-water coils supplied from a central plant, and in cooling mode they can generate condensate that must be reliably captured and drained. As these units age, the failure modes that matter shift to coil/valve leakage, condensate pan/drain problems, fan/motor/bearing wear, and controls/actuator drift—issues that can produce localized comfort loss, unplanned maintenance, and (when leaks occur) water exposure to adjacent building components with a downstream mold/IAQ risk tail.

Repair Description

Repair by establishing a documented monitoring and condition-assessment program for the four HSC fan coil units, including routine inspection for hydronic coil/valve leaks, verification of condensate capture/drainage, and trending of fan/motor vibration/noise and control performance to trigger planned renewal before failure. Replace units on a planned, condition-based schedule (or upon confirmed leakage/major component failure) with like-for-like FCUs compatible with existing piping, electrical, condensate drainage, and controls.

D53 — Irrigation pump, Site (Main Campus)

Deficiency score	41	**Budget estimate**	$750,000
Bldg condition score	239	**Status**	Deferred
System	G20 Site Improvements	**Deferability**	Immediate
Location	Pump stations	**Priorities**	Increased Operating Cost (100%)

Problem Description

The campus irrigation system depends on two primary pumps at a site pump station. The college reports the pumps are beyond their predictable service life (40+ years in field notes; ~40-year average life expectancy in the survey) and that the installation is burdened by poor maintainability, including at least one pump located in a vault/underground condition that requires significant effort to access for repair (the south pump required removal from the vault for rebuild).

This is a reliability and maintainability problem, not a comfort complaint. Large pumps approaching end-of-life concentrate failure risk in bearings, alignment/couplings, vibration-driven wear, and pressure/flow instability, and underground/vault conditions typically extend outage duration because access, rigging, dewatering, and confined-space controls slow response and complicate routine maintenance. If a pump fails without available funding, the result is loss of irrigation with severe operational and campus-appearance impacts (landscape stress, dust control issues, and rapid decline in irrigated areas). In addition, the 2023 survey notes that ~1/3 of the served area is athletic fields, which may create funding eligibility constraints and complicate phasing if the project scope is not clearly bounded to eligible service areas.

Repair Description

Replace both campus irrigation pumps and associated pump-station appurtenances needed for a complete, maintainable installation (valves, strainers, couplings, controls integration, and electrical connections),

prioritizing the underground/vault pump if phased funding is required. Repair the pump-station configuration to elevate the underground pump above grade (new above-grade skid/pad and protective enclosure as needed) to reduce repair time, improve safety/access, and limit future outage duration.

5. BUILDING PROFILES

Profiles below cover buildings with capital activity in the 2027 request, a condition score above 275, or a material concentration of deferred deficiencies, ordered worst-scored first. The best-conditioned buildings with no material capital action this cycle — the Business Building (154, a single deferred roof item) and the many scored buildings with no deficiencies — are not profiled individually; their component detail, where surveyed, is in the FCS workbook. Deficiency text is referenced by ID; the verbatim descriptions are in Section 4.2.

Karchner Building — condition score 523

Building	Campus	GSF	Built	Reno.	Predominant use
Karchner Building	Main	2,400	1979	—	Instructional support

Condition. 2025 condition score 523 (Replace or renovate); 2023 score 523. Top weighted contributors: Life/Safety (54), Fire Safety (54), HVAC (44).

Current biennium (2027 request). None.

Deferred and emerging. D42 (Through-wall heaters, $190,000)

Long-term outlook. The worst-scored building in the portfolio (523, Replace or renovate) and a master-plan replacement priority cited for poor configuration and program-functional limits. The deferred through-wall-heater item (D42) is the only identified deficiency; consistent with OFM's 13-year useful-life expectation for capital repair, no preservation funds should be committed here — the heater replacement and any further needs belong in a replacement proposal rather than the preservation request.

Vocational Tech Building — condition score 428

Building	Campus	GSF	Built	Reno.	Predominant use
Vocational Tech Building	Main	45,368	1957	1960	Instructional / administrative

Condition. 2025 condition score 428 (Needs improvement — renovation); 2023 score 373. Top weighted contributors: Fire Safety (60), Life/Safety (48), Remaining Life (36).

Current biennium (2027 request). None.

Deferred and emerging. D13 (Unit heaters, $125,000)

Long-term outlook. A 1957/1960 instructional and administrative building scoring 428 (Needs improvement — renovation), and the largest single-building condition decline in the surveyed set (373 in 2023 to 428 in 2025). The only identified deficiency is deferred unit heaters (D13). Although not on the master plan's replacement list, the building's age, declining score, and 1957 systems warrant a focused condition reassessment and a long-term renovation-versus-replacement decision in the next cycle before larger mechanical needs surface reactively.

Utilities Building — condition score 405

Building	Campus	GSF	Built	Reno.	Predominant use
Utilities Building	Main	4,811	1957	1995	Central plant / utilities

Condition. 2025 condition score 405 (Needs improvement — renovation); 2023 score 405. Top weighted contributors: Fire Safety (54), Roofing (33), Life/Safety (33).

Current biennium (2027 request). None.

Deferred and emerging. D14 (Chilled water pump, $70,000); D30 (Chillers, $496,000); D38 (Roof, $152,000)

Long-term outlook. A 1957 central-plant/utilities building scoring 405 (Needs improvement — renovation), carrying its two 1995 chillers (D30, $496,000), a chilled-water pump (D14, $70,000), and a roof (D38, $152,000), all deferred. Because this building houses central-plant equipment serving other buildings, its chiller renewal should be planned as a campus-cooling decision — coordinated with the Career & Technology and Health Science Center chiller needs — rather than as an isolated building repair.

Industrial Building I — condition score 282

Building	Campus	GSF	Built	Reno.	Predominant use
Industrial Building I	Main	7,166	1983	—	Instructional (industrial)

Condition. 2025 condition score 282 (Needs improvement — maintenance); 2023 score 282. Top weighted contributors: Fire Safety (52), Roofing (31), Doors & Hardware (19).

Current biennium (2027 request). D03 (Roof top units, $205,000)

Deferred and emerging. None.

Long-term outlook. A 1983 instructional building scoring 282 (Needs improvement — maintenance) and a master-plan replacement priority cited for poor configuration. The 2027 request funds replacement of two 1993-vintage rooftop HVAC units (D03, $205,000). Because the building is replacement-flagged, this investment should be scoped as the minimum needed to keep the space usable until replacement; larger renewal should fold into a replacement proposal. Section 7 develops this alignment point.

Library Building — condition score 244

Building	Campus	GSF	Built	Reno.	Predominant use
Library Building	Main	37,895	1964	1992	Library / instructional

Condition. 2025 condition score 244 (Adequate); 2023 score 244. Top weighted contributors: Roofing (31), Lights/Power (25), Fire Safety (21).

Current biennium (2027 request). D02 (Air handling units, $621,000)

Deferred and emerging. D23 (Fan coil units, $249,000)

Long-term outlook. A 1964 library (renovated 1992) scoring 244 (Adequate) and a master-plan replacement priority cited for poor configuration, ADA limitations, and program-functional issues. The 2027 request funds reconditioning of its three 1964-original air handlers (D02, $621,000), and a deferred fan-coil item (D23, $249,000) remains. The air-handler investment is defensible as a bridge repair that keeps a heavily used building operable, but — as a replacement-flagged building — its longer-term mechanical and configuration needs should be evaluated within the replacement track. The building also reaches the Clean Buildings Tier 2 deadline in 2027.

Hud Building — condition score 225

Building	Campus	GSF	Built	Reno.	Predominant use
Hud Building	Main	6,294	2007	—	Instructional

Condition. 2025 condition score 225 (Adequate); 2023 score 225. Top weighted contributors: Fire Safety (55), Glazing (20), HVAC (18).

Current biennium (2027 request). D04 (Heat pump, $726,000)

Deferred and emerging. None.

Long-term outlook. A 2007 instructional building scoring 225 (Adequate). The 2027 request funds replacement of seven R-22 Trane split-system heat pumps (D04, $726,000) — the single largest HVAC project in the request and a forced replacement given the R-22 phase-out. Specifying the replacement as high-efficiency or electric equipment positions the building well against future energy-use targets. No deferred items remain; near-term exposure is largely resolved with this project.

Hawk Union Building — condition score 222

Building	Campus	GSF	Built	Reno.	Predominant use
Hawk Union Building	Main	67,695	1976	2005	Student services

Condition. 2025 condition score 222 (Adequate); 2023 score 222. Top weighted contributors: Plumbing (24), HVAC (24), Roofing (20).

Current biennium (2027 request). None.

Deferred and emerging. D17 (Air handling units, $690,000); D19 (Rooftop hydronic unit, $426,000); D22 (Heat pump, $256,000); D27 (Fan coil units, $14,000)

Long-term outlook. A 1976 student-services building (renovated 2005) scoring 222 (Adequate) but carrying the fourth-largest deferred concentration in the portfolio at $1,386,000 — air handlers (D17, $690,000), a rooftop hydronic unit (D19, $426,000), a heat pump (D22, $256,000), and a fan-coil unit (D27, $14,000). At 67,695 GSF the building is Tier 1 under the Clean Buildings Standard (June 2028 deadline); its deferred mechanical package is a strong candidate for a coordinated, high-efficiency renewal in 2029–2031 rather than piecemeal replacement.

Classroom Building — condition score 212

Building	Campus	GSF	Built	Reno.	Predominant use
Classroom Building	Main	7,116	1995	2013	Instructional

Condition. 2025 condition score 212 (Adequate); 2023 score 212. Top weighted contributors: Fire Safety (33), Roofing (22), Glazing (20).

Current biennium (2027 request). D08 (Heat pump, $105,000)

Deferred and emerging. None.

Long-term outlook. A 1995 instructional building (renovated 2013) scoring 212 (Adequate). The 2027 request funds reconditioning of Building D Heat Pump 2 (D08, $105,000). No deferred items; near-term capital exposure is limited once this repair is complete.

Ag Lab Greenhouse — condition score 202

Building	Campus	GSF	Built	Reno.	Predominant use
Ag Lab Greenhouse	Main	4,007	2014	—	Instructional (agriculture)

Condition. 2025 condition score 202 (Adequate); 2023 score 187. Top weighted contributors: Fire Safety (60), Glazing (14), Roofing (12).

Current biennium (2027 request). None.

Deferred and emerging. D18 (Dampers, $608,000)

Long-term outlook. A 2014 agricultural-instruction building scoring 202 (Adequate, up from 187 in 2023). The single deferred item is the greenhouse roof-damper control system (D18, $608,000), which has been rebuilt repeatedly and runs on obsolete 1996-era controls with no manufacturer support. Despite the building's young age and good overall score, this is a substantial single-system deficiency that should be sequenced into a near-term cycle before the dampers fail outright.

Administration Building — condition score 188

Building	Campus	GSF	Built	Reno.	Predominant use
Administration Building	Main	54,111	1958	2003	Administrative / instructional

Condition. 2025 condition score 188 (Adequate); 2023 score 188. Top weighted contributors: Roofing (20), Glazing (18), HVAC (16).

Current biennium (2027 request). None.

Deferred and emerging. D44 (Gutters, $314,000)

Long-term outlook. A 1958 administrative and instructional building (renovated 2003) scoring 188 (Adequate). The single deferred item is failing TPO-lined wood gutters (D44, $314,000) causing column water intrusion. The building is Tier 1 under the Clean Buildings Standard (June 2028). The gutter repair is an envelope-integrity item worth elevating in the next cycle to prevent structural damage to the columns.

Lee R Thornton Ctr — condition score 177

Building	Campus	GSF	Built	Reno.	Predominant use
Lee R Thornton Ctr	Main	155,462	2005	—	Instructional / science labs

Condition. 2025 condition score 177 (Adequate); 2023 score 177. Top weighted contributors: Roofing (21), HVAC (17), Floor Finishes (13).

Current biennium (2027 request). D06 (Air Handling Unit, $512,000); D07 (Exhaust fans, $197,000)

Deferred and emerging. D15 (Multi zones units, $1,138,000); D16 (Boilers, $849,000); D21 (Rooftop unit, $286,000); D24 (Unit heaters, $145,000); D25 (Heat recovery pump, $70,000); D51 (Air handling unit, excluded)

Long-term outlook. The largest building in the portfolio (155,462 GSF, 2005) and, at 177, among the best-scored — yet carrying the second-largest deferred concentration at $2,488,000. The 2027 request funds the critical server-room air handler (D06, $512,000) and exhaust fans (D07, $197,000), while eight multizone units (D15, $1,138,000), three boilers (D16, $849,000), a rooftop unit (D21), unit heaters (D24), and a heat-recovery pump (D25) are deferred, plus a monitored air handler (D51, excluded). This is the original 2005 central-plant and air-handling equipment reaching end of life as a cohort. As a 155,462 GSF Tier 1 building (June 2027 deadline), it is the strongest candidate for a coordinated mechanical-and-controls renewal that doubles as Clean Buildings compliance.

Health Science Center — condition score 174

Building	Campus	GSF	Built	Reno.	Predominant use
Health Science Center	Richland	67,010	2004	2013	Instructional (health science)

Condition. 2025 condition score 174 (Superior); 2023 score 174. Top weighted contributors: Roofing (20), Glazing (18), Floor Finishes (12).

Current biennium (2027 request). D10 (Elevators, $806,000)

Deferred and emerging. D28 (Boilers, $845,000); D29 (Air handling units, $545,000); D33 (Air handling unit, $174,000); D34 (Chilled water pump, $170,000); D35 (Pumps, $137,000); D36 (Unit heaters, $80,000); D37 (Exhaust fans, $15,000); D40 (Water softener, $47,000); D48 (Chiller, $661,000); D49 (Air compressor, $106,000); D50 (Medical VAC, $433,000); D52 (Fan coil units, excluded)

Long-term outlook. A 2004 Richland-campus health-science building scoring 174 (Superior) — the best-scored building carrying capital activity — yet holding the single largest deferred concentration in the portfolio at $3,213,000. The 2027 request funds replacement of the obsolete elevator drive and braking systems (D10, $806,000, per Otis). Deferred work is a near-complete central-plant renewal: boilers (D28, $845,000), a chiller (D48, $661,000), air handlers (D29, $545,000), a medical vacuum system (D50, $433,000), and a string of pumps, an air compressor, unit heaters, exhaust fans, and a water softener; the fan coil units (D52) are excluded for monitoring. All of this is original 2004 equipment now 21 years old. At 67,010 GSF the building is Tier 1 (June 2028); coordinating its mechanical renewal with that deadline is the dominant Richland-campus capital task.

Career & Technology — condition score 165

Building	Campus	GSF	Built	Reno.	Predominant use
Career & Technology	Main	79,420	2011	—	Instructional

Condition. 2025 condition score 165 (Superior); 2023 score 165. Top weighted contributors: Roofing (21), Exterior Closure (17), Life/Safety (10).

Current biennium (2027 request). None.

Deferred and emerging. D31 (Compressor, $312,000); D32 (Chiller, $311,000)

Long-term outlook. A 2011 instructional building scoring 165 (Superior). Its deferred items are a chiller (D32, $311,000) and a compressor (D31, $312,000), both 2008-era. At 79,420 GSF the building is Tier 1 (June 2028). The chiller renewal should be coordinated with the Utilities Building and Health Science Center chiller needs as a campus-cooling decision.

6. INFRASTRUCTURE SYSTEMS

Infrastructure requests (campus utilities, distribution, and site systems) are budgeted separately from building preservation. For the 2027–2029 cycle, CBC's request includes **one infrastructure project totaling $852,000** — replacement of a potable water line (asset 3479) running north–south through the Main Campus core, beginning north of Career & Technology. The prior biennium's funded amounts are documented below for context, since they indicate the categories and scale of the college's non-preservation capital activity.

Prior biennium funded — 2025–2027 (all categories)

Funded category (2025–2027)	Amount
Facility (HVAC reconditioning/replacement across Hawk Union, Library, Lee R Thornton, Industrial 2, Carpentry, Richland B)	$1,621,000
Program (Career & Technology and Lee R Thornton science-wing renovations)	$1,599,000
URF (Unanticipated Repair Fund)	$1,040,000
Infrastructure (three-phase transformer, cooling towers, gas meters, potable water lines)	$1,019,000
Roof (Richland ROC roofing)	$228,000
Total funded (2025–2027)	**$5,507,000**

Drawn from the 2025–2027 funded-projects record in the FCS workbook. The 2025–27 infrastructure line funded a three-phase transformer, campus cooling towers, gas meters, and potable water lines — the same utility-renewal stream the 2027 potable-water-line request continues.

On the radar for 2029–2031

Three infrastructure-adjacent pressures are visible from the deficiency data. First, the **central-cooling plant:** the Utilities Building's two 1995 chillers (D30, $496,000), the Career & Technology chiller (D32, $311,000), and the Health Science Center chiller (D48, $661,000) are all deferred and all aging, implying a coordinated campus-cooling renewal rather than three isolated repairs. Second, **site utilities:** a deferred site transformer (D20, $311,000), two 40-year-old, 100+ horsepower irrigation pumps (D53, $750,000), and sunken data vaults that flood and block fiber extension (D47, $359,000) are infrastructure-scale items better carried in the infrastructure request than in building preservation. Third, **electrical capacity for electrification:** as the deferred R-22 and gas-fired HVAC is replaced with high-efficiency or electric equipment to meet the Clean Buildings Standard, the associated electrical-service and controls-infrastructure upgrades should be scoped into the 2029 infrastructure request. An infrastructure-specific scope for 2029 — chilled-water plant, electrical service, and controls networks — would strengthen the next capital cycle.

7. MASTER PLAN ALIGNMENT

The Main Campus master plan is current — a 2017 full plan with a 2023 update — so its priorities are fresh for this capital cycle. The Richland Campus plan is older (2005 full, 2017 update), but the Richland buildings in this survey are addressed below. The pre-survey reported the following capital priorities.

Master planning currency

Campus	Most recent full plan	Most recent update
Main Campus (190A)	2017	2023
Richland Campus (190B)	2005	2013

Reported capital priorities

Category	Building	Master plan note
Renovation	None	—
Replacement	Performing Arts Building (190-00P)	Poor configuration — inefficient space use
	Industrial Building 2 (190-0I2)	Poor configuration — programs cannot function in space
	Karchner Building (190-00K)	Poor configuration — programs cannot function in space
	Library Building (190-00L)	Poor configuration, ADA limitations, program functional issues
	North Campus Classrooms (190-00N)	Poor configuration — programs cannot function in space
	Richland ROC complex (RA/RB/RC)	Poor configuration, ADA limitations — programs cannot function in space
	Industrial Building I (190-0I1)	Poor configuration — programs cannot function in space
	Carpentry Complex (190-00C)	Poor configuration — programs cannot function in space
Demolition	None	—

The alignment picture has one clear concern. The master plan flags **eight buildings for replacement and none for renovation or demolition,** and two of the replacement-flagged buildings receive 2027 preservation funding this cycle: **Industrial Building I** (rooftop units, D03, $205,000) and the **Library Building** (air handlers, D02, $621,000). A third replacement-flagged building, the **Karchner Building** (the worst-scored in the portfolio at 523), carries a deferred through-wall-heater item (D42). OFM guidance expects capital-repair dollars to return at least 13 years of useful life, and capital-repair requests in buildings a college has flagged for replacement are normally scrutinized to determine whether the work should instead be folded into a replacement proposal. The Industrial Building I and Library air-handler investments are defensible as bridge repairs that keep heavily used spaces operable in the near term, but the college should document that

rationale explicitly and ensure that the buildings' larger mechanical and configuration needs are carried in the replacement track rather than addressed piecemeal through preservation.

On the positive side, the remaining replacement-flagged buildings — the Performing Arts Building, Industrial Building 2, North Campus Classrooms, the Carpentry Complex, and the Richland ROC complex — generated no 2027 deficiencies and receive no preservation funding this cycle, which is the appropriate posture for buildings slated for removal. No 2027 project invests in a demolition candidate, since none is flagged. For the 2029 cycle, the college should reconcile the replacement list against the deferred backlog so that deferred work in replacement-flagged buildings (for example, the Library fan-coil item D23) is consciously routed to either a bridge-repair or a replacement track rather than defaulting into the preservation queue.

8. MAINTENANCE CAPACITY SNAPSHOT

The in-house staffing roster below is from the 2025 pre-survey input. Contract-maintenance, materials, and APPA-rating figures were not refreshed in the pre-survey and are carried forward from the 2023 FCS cycle as noted. Ratios use the full 2025 FPMT owned-building area (988,322 GSF), consistent with the college's 2023 methodology, which used total campus area.

In-house maintenance staffing (2025 pre-survey)

Position	Hours per week	Estimated annual cost
Maintenance Specialist 4	40	$119,233
Maintenance Mechanic 2	40	$88,649
Maintenance Mechanic 2	40	$88,649
Electrician	40	$88,649
Maintenance Mechanic 2	40	$88,649
Maintenance Mechanic 2	40	$88,649
Refrigeration Mechanic	40	$88,649
Maintenance Mechanic 2	40	$88,649
Maintenance Mechanic 3	40	$104,000
Total (9 positions)	**360**	**$843,776**

Derived metrics

In-house maintenance FTEs (360 hrs/wk ÷ 40)	9.0
Estimated equivalent contract FTEs (2023 cycle)	0.7
Combined total FTEs	9.7
GSF per combined FTE (988,322 GSF owned)	101,889
State average (weighted, 2023 cycle)	74,279 GSF / FTE
Total maintenance cost	$1,052,048 ($843,776 staff + $56,571 contract + $151,701 material; contract and material from 2023)
Maintenance cost per GSF	$1.06
State average (weighted, 2023 cycle)	$1.48 / GSF
APPA self-rating (2023 cycle)	Managed Care (3 of 5)

Columbia Basin runs a **lean maintenance program relative to its building area.** At 101,889 GSF per combined FTE, the college maintains well above the state weighted average of 74,279 GSF per FTE — and the gap has widened since 2023, when the college reported 90,245 GSF per FTE, because the owned building area has grown (with additions such as the 2022 SRC) while in-house staffing rose only modestly,

from 8 to 9 positions. Maintenance cost per GSF ($1.06) sits well below the state average ($1.48), reinforcing that this is a thinly staffed program for the size of plant it covers. The composition of the deferred backlog — two-thirds HVAC, much of it central-plant equipment at end of life — is consistent with a program that is reactively keeping aging systems running rather than getting ahead of them. A program at this staffing level is unlikely to absorb the new benchmarking, energy-management-plan, and operations-and-maintenance obligations the Clean Buildings Standard imposes from 2027 (Section 9) without additional staffing or contract support.

Capital reinvestment context

Industry guidance (APPA and NACUBO) places an appropriate annual capital-reinvestment rate at roughly 2–4% of current replacement value (CRV) for a stable facilities portfolio. CBC's combined identified need this cycle — $20,124,000 of preservation deficiencies plus the infrastructure, program, and URF components — would normally be assessed against portfolio CRV to judge whether reinvestment is keeping pace with deterioration.

9. DECARBONIZATION AND CLEAN BUILDINGS COMPLIANCE

Washington's Clean Buildings Performance Standard (CBPS), administered by the Department of Commerce under RCW 19.27A, is a binding constraint on how CBC's larger buildings are operated and re-equipped. For a community college the standard is not an abstract sustainability goal — it is a compliance deadline attached to specific buildings, backed by penalties, and squarely overlapping the HVAC and lighting work already sitting in this report's deferred backlog. This section maps which CBC buildings are covered, when each must comply, and how the deferred renewal can be sequenced so that required repairs and required decarbonization are funded as one coordinated effort rather than two.

9.1 The Clean Buildings Performance Standard

The standard applies in two tiers based on gross floor area. Tier 1 covers nonresidential buildings of 50,000 GSF and larger and imposes a measured energy-use-intensity (EUI) target along with benchmarking, an energy-management plan (EMP), and an operations-and-maintenance (O&M) program. Tier 2 covers buildings between 20,001 and 50,000 GSF and, in its first compliance phase, requires benchmarking, an EMP, and an O&M program — an enforceable EUI target for Tier 2 is expected later in the rollout. Compliance dates are staggered by building size:

Tier	Building size (GSF)	First compliance date	First-phase obligation
Tier 1	Over 220,000	June 1, 2026	EUI target + benchmarking + EMP + O&M
Tier 1	90,001 – 220,000	**June 1, 2027**	EUI target + benchmarking + EMP + O&M
Tier 1	50,001 – 90,000	**June 1, 2028**	EUI target + benchmarking + EMP + O&M
Tier 2	20,001 – 50,000	**July 1, 2027**	Benchmarking + EMP + O&M (EUI target later)

The compliance dates that fall on CBC are highlighted. Non-compliance penalties run up to $5,000 plus $1.50 per square foot of floor area, assessed annually until the building conforms. Commerce has also offered early-adopter incentive payments — on the order of $0.85 per square foot for Tier 1 and $0.30 per square foot for Tier 2 buildings that demonstrate early compliance — which can partially offset the cost of qualifying upgrades.

9.2 CBC's covered buildings

Fourteen CBC buildings exceed the 20,000 GSF coverage floor — eight Tier 1 and six Tier 2. The table pairs each covered building with the deferred capital backlog already identified for it in Section 4, the figure that turns this from a compliance exercise into a capital-planning one.

Building	GSF	Tier	Compliance date	Deferred backlog in building
Lee R Thornton Ctr	155,462	1	June 1, 2027	**$2,488,000**
Wortman Medical Science Center	89,512	1	June 1, 2028	—

Building	GSF	Tier	Compliance date	Deferred backlog in building
Career & Technology	79,420	1	June 1, 2028	**$623,000**
SRC	78,189	1	June 1, 2028	—
Hawk Union Building	67,695	1	June 1, 2028	**$1,386,000**
Health Science Center	67,010	1	June 1, 2028	**$3,213,000**
Social Sciences & World Languages	66,724	1	June 1, 2028	—
Administration Building	54,111	1	June 1, 2028	**$314,000**
Vocational Tech Building	45,368	2	July 1, 2027	**$125,000**
Library Building	37,895	2	July 1, 2027	**$249,000**
Performing Arts Building	37,170	2	July 1, 2027	—
Ch2Mhill Education Ctr	35,000	2	July 1, 2027	—
RSH (Richland)	29,800	2	July 1, 2027	—
Business Building	22,500	2	July 1, 2027	**$137,000**
Covered total (14 buildings)	**865,856**			**$8,535,000**

Tier 2 buildings face the earlier deadline (July 1, 2027), but their first-phase obligation — benchmarking, an EMP, and an O&M program — is administrative rather than capital-intensive. The Tier 1 buildings have until June 2027 (Lee R Thornton) or June 2028 (the rest) but must hit a measured EUI target, which is where physical upgrades to mechanical and lighting systems become the binding requirement. Roughly $8,535,000 of the $13,703,000 deferred backlog sits directly in these 14 covered buildings; the campus-wide lighting (D46) and roof (D12) items land substantially within them as well. Deferred work in the small Utilities Building, Ag Lab Greenhouse, and Karchner Building falls below the coverage floor.

9.3 Aligning capital renewal with compliance

The central planning observation of this report is that CBC's deferred backlog and its Clean Buildings obligations are largely the same scope of work seen from two directions. Of the $13,703,000 in deferred deficiencies, roughly $8,535,000 sits inside the fourteen covered buildings, and almost all of it is exactly the equipment the standard targets: aging boilers and chillers, R-22 heat pumps and rooftop units, air handlers, and obsolete lighting and controls.

The deferred backlog is, in substance, a decarbonization backlog.

- **Central-plant and air-handling HVAC —** the Health Science Center (boilers, chiller, air handlers; D28/D48/D29, ~$2,051,000), the Lee R Thornton Center (boilers and multizone units; D16/D15, ~$1,987,000), Hawk Union (air handlers and hydronic units; D17/D19, ~$1,116,000), and the Career & Technology and Utilities chillers must be replaced regardless of the standard. Replacing them with high-efficiency electric equipment is the single most direct EUI-reducing move available, and doing it like-for-like would strand capital against the 2027–2028 deadlines.
- **R-22 equipment —** the Hud Building heat pumps funded this cycle (D04), the Lee R Thornton server unit, and multiple Richland and Pasco split systems are R-22, a refrigerant whose production has been phased out. The replacement these units already require is the natural — and lowest-cost — moment to electrify.

- **Obsolete lighting and controls —** the campus-wide lighting-controls replacement funded this cycle (D11, $681,000) and the deferred campus-wide fixture replacement (D46, $753,000) together represent the lowest-cost, highest-certainty EUI reduction in the portfolio. LED conversion with modern controls is a qualifying energy-efficiency measure and typically the first measure an energy-management plan identifies.

Planning implication for the 2029–2033 requests. Because equipment age and the R-22 phase-out force these replacements within the same window as the compliance deadlines, the efficient path is to specify the deferred mechanical and lighting scope as high-efficiency electric or LED at the point of replacement rather than as like-for-like swaps. This converts spending the college must make anyway into Clean Buildings progress and positions the covered buildings to capture the early-adopter incentive (roughly $0.85 per square foot Tier 1, $0.30 per square foot Tier 2) instead of exposure to the up-to-$5,000-plus-$1.50-per-square-foot penalty. Any of this deferred work funded as a straight like-for-like replacement — a new gas boiler, a new R-410A rooftop unit — risks being re-touched within a few years to meet the EUI target, the most expensive way to comply.

9.4 Compliance pathway — central plant versus building-by-building

Washington offers a distinct compliance route for campuses that heat and cool their buildings from a central plant through a shared thermal loop — a district energy system (DES). Under HB 1390 and RCW 19.27A.260, the owner of a participating campus DES develops a multi-year decarbonization plan (generally up to 15 years) and submits it to Commerce following the content outline in Normative Annex W of the standard, substituting a planned, phased decarbonization of the central plant for building-by-building EUI compliance.

Which pathway applies to CBC is not determinable from the survey data, and the evidence cuts both ways. The deferred record shows **both** central-plant equipment — the Utilities Building's two chillers (D30), campus cooling towers funded in 2025–27, and central boilers/chillers in the Health Science Center and Lee R Thornton Center — **and** extensive building-level equipment (rooftop package units, split-system heat pumps, and per-building air handlers). This mixed configuration means CBC may operate a partial central chilled-water plant for part of the Main Campus while other buildings (and the Richland Campus) run on distributed systems. If the campus does not operate a qualifying shared thermal loop, its covered buildings comply individually on the Tier 1 / Tier 2 schedule in Section 9.2; if it does, the DES decarbonization-plan route may be available for the buildings on that loop.

10. APPENDIX: BUILDING CONDITION DETAIL

The 20-component condition-score breakdown for each of the surveyed deficiency-bearing buildings, ordered from worst to best overall score. Each table is reference data for drilling into a building's score; there is no narrative. The Weighted Score column reflects SBCTC's adjusted component weighting, so an individual row's weighted score may not equal a simple rating × weight product, while the column total equals the building's canonical condition score. The full 2025 condition survey scored 38 buildings; the remaining scored buildings without 2025 deficiencies are in the FCS workbook.

Karchner Building — condition score 523

Component	Rating	Wt.	Wt. Score	Comment
Structure	1	8	9	Steel frame w/ concrete slab
Exterior Closure	4	8	35	Metal walls
Roofing	3	10	33	Metal roof
Floor Finishes	3	6	20	Vinyl tile
Wall Finishes	3	6	20	Gypsum board
Ceiling Finishes	2	6	13	Lay-in ceiling tile
Doors & Hardware	5	6	33	Interior wood doors/frames; exterior HM doors/frames; OH metal door
Elevators	0	6	0	
Plumbing	3	8	26	Galvanized and cast iron piping; newer porcelain fixtures
Electrical	3	8	26	2 ea. 200amp 208/120v
Lights/Power	3	8	26	Lay-in and ceiling-mount fluorescent lighting
Life/Safety	5	10	54	Exiting and corridor deficiencies
Fire Safety	5	10	54	
Modifications	3	7	23	Some modifications in 2002; layout is still poor
Maintenance	3	7	23	
Remaining Life	5	6	33	Not really suitable for use as instructional space
Appearance	5	6	33	
Insulation	3	6	20	
Glazing	0	6	0	
HVAC	5	8	44	Only small unit heaters and window HVAC-inadequate ventilation
Total weighted score			**523**	*Replace or renovate*

Vocational Tech Building — condition score 428

Component	Rating	Wt.	Wt. Score	Comment
Structure	2	8	19	
Exterior Closure	3	8	29	
Roofing	2	10	24	
Floor Finishes	3	6	22	
Wall Finishes	3	6	22	
Ceiling Finishes	3	6	22	
Doors & Hardware	3	6	22	
Elevators	0	6	0	
Plumbing	3	8	29	
Electrical	1	8	10	
Lights/Power	3	8	29	
Life/Safety	4	10	48	
Fire Safety	5	10	60	
Modifications	3	7	25	
Maintenance	3	7	25	
Remaining Life	5	6	36	planned for demolition
Appearance	null	6	0	
Insulation	null	6	0	
Glazing	null	6	0	
HVAC	1	8	10	
Total weighted score			**428**	*Needs improvement — renovation*

Utilities Building — condition score 405

Component	Rating	Wt.	Wt. Score	Comment
Structure	1	8	9	Steel frame; CMU/concrete
Exterior Closure	3	8	26	CMU walls
Roofing	3	10	33	Built-up roof with UV coating
Floor Finishes	1	6	7	Concrete floor
Wall Finishes	3	6	20	Gypsum board and CMU;
Ceiling Finishes	0	6	0	Metal roof deck
Doors & Hardware	3	6	20	Interior and exterior HM doors/frames

Component	Rating	Wt.	Wt. Score	Comment
Elevators	0	6	0	
Plumbing	3	8	26	Galvanized, cast iron, steel and copper piping; boiler blow-down drain line is cracked-funded in 2011
Electrical	1	8	9	2400v main switch
Lights/Power	1	8	9	Hanging fluorescent lighting
Life/Safety	3	10	33	
Fire Safety	5	10	54	
Modifications	1	7	8	No real modifications evident
Maintenance	3	7	23	
Remaining Life	3	6	20	15 to 20 year life
Appearance	3	6	20	"Tired" exterior; interior is adequate for current use
Insulation	5	6	33	
Glazing	5	6	33	
HVAC	3	8	26	Unit heaters; chillers and cooling tower funded 21-23
Total weighted score			**405**	*Needs improvement — renovation*

Industrial Building I — condition score 282

Component	Rating	Wt.	Wt. Score	Comment
Structure	1	8	8	Metal frame; concrete
Exterior Closure	2	8	17	Metal siding
Roofing	3	10	31	Metal roof-some deterioration; gutters need maintenance
Floor Finishes	1	6	6	Vinyl tile and carpet
Wall Finishes	1	6	6	Gypsum board; vinyl wall cover
Ceiling Finishes	2	6	13	Lay-in ceiling tile; gypsum board
Doors & Hardware	3	6	19	Interior wood doors w HM frames; exterior HM doors/frames
Elevators	0	6	0	
Plumbing	1	8	8	Copper and cast iron piping; porcelain fixtures
Electrical	1	8	8	600amp 208/120v
Lights/Power	1	8	8	Lay-in and ceiling-mount fluorescent lights
Life/Safety	1	10	10	
Fire Safety	5	10	52	No fire alarm or sprinklers

Component	Rating	Wt.	Wt. Score	Comment
Modifications	1	7	7	Comprehensive Interior renovation in 2002; well constructed
Maintenance	1	7	7	
Remaining Life	1	6	6	Interior renovation has extended life expectancy 20+ years
Appearance	3	6	19	Exterior is very dated
Insulation	3	6	19	
Glazing	3	6	19	
HVAC	2	8	17	Packaged HVAC units at grade
Total weighted score			**282**	*Needs improvement — maintenance*

Library Building — condition score 244

Component	Rating	Wt.	Wt. Score	Comment
Structure	1	8	8	CMU and concrete
Exterior Closure	2	8	17	CMU
Roofing	3	10	31	New hypalon roof on all except east and west ends which are BUR; repair & reconditining funded 21-23
Floor Finishes	2	6	13	Carpet and vinyl tile; sheet vinyl
Wall Finishes	1	6	6	CMU and Gypsum board; CMU
Ceiling Finishes	1	6	6	Lay-in tiles; gypsum board
Doors & Hardware	1	6	6	Interior wood/HM doors w HM frames; exterior aluminum doors/frames and HM doors/frames
Elevators	0	6	0	
Plumbing	2	8	17	Copper, steel, cast iron, galvanized and PVC piping; porcelain fixtures
Electrical	1	8	8	1200amp 208/120v; 500amp 208/120v
Lights/Power	3	8	25	Lay-in, ceiling-mount, wall-mount and hanging fluorescent lighting; controls funded 21-23
Life/Safety	1	10	10	
Fire Safety	2	10	21	Partial sprinklers
Modifications	1	7	7	Modifications generally well done
Maintenance	1	7	7	
Remaining Life	1	6	6	Medium term life expectancy; 20+ years; old wing has been upgraded
Appearance	1	6	6	

Component	Rating	Wt.	Wt. Score	Comment
Insulation	2	6	13	
Glazing	3	6	19	
HVAC	2	8	17	HW boilers; chiller-cooling tower; pad-mount packaged HVAC units; heat exchanger and repairs funded 21-23
Total weighted score			**244**	*Adequate*

Hud Building — condition score 225

Component	Rating	Wt.	Wt. Score	Comment
Structure	1	8	9	Wood framing; concrete slab
Exterior Closure	1	8	9	Stucco; aluminum framed storefront
Roofing	1	10	11	3-tab asphalt shingles
Floor Finishes	2	6	13	Carpet; sheet vinyl
Wall Finishes	1	6	7	Gypsum board; vinyl wall panels
Ceiling Finishes	1	6	7	Lay-in ceiling tiles
Doors & Hardware	1	6	7	Interior wood doors w HM frames; exterior aluminum glazed doors/frames
Elevators	0	6	0	
Plumbing	1	8	9	Copper, cast iron and PVC piping; porcelain fixtures
Electrical	1	8	9	350amp 208/120v
Lights/Power	1	8	9	Lay-in, recessed can and hanging strip fluorescent lights
Life/Safety	1	10	11	
Fire Safety	5	10	55	
Modifications	0	7	0	None
Maintenance	1	7	8	
Remaining Life	1	6	7	Should have 35+ yr. Life expectancy; 2,300 GSF addition built in 2007
Appearance	1	6	7	
Insulation	2	6	13	
Glazing	3	6	20	
HVAC	2	8	18	Split system heat pumps
Total weighted score			**225**	*Adequate*

Hawk Union Building — condition score 222

Component	Rating	Wt.	Wt. Score	Comment
Structure	1	8	8	Split-face CUM; concrete; wood framing; steel
Exterior Closure	1	8	8	Split-face CMU; stucco trim; Kalwall panels; aluminum window walls
Roofing	2	10	20	Hypalon single ply membrane roof; repair & reconditioning funded 21-23
Floor Finishes	2	6	12	Carpet; vinyl tile; hardwood; slate tile; concrete; mostly new in 2006
Wall Finishes	1	6	6	CMU and Gypsum board; glass block
Ceiling Finishes	1	6	6	Wood and lay-in tile; direct adhered tile; drywall
Doors & Hardware	1	6	6	Interior wood and HM doors w HM frames; exterior aluminum doors/frames
Elevators	1	6	6	2 stop
Plumbing	3	8	24	Copper, steel, cast iron, galvanized and PVC piping; porcelain fixtures
Electrical	1	8	8	1200amp 208/120v
Lights/Power	1	8	8	Ceiling-mount, recessed can and hanging fluorescent lighting
Life/Safety	1	10	10	
Fire Safety	2	10	20	
Modifications	1	7	7	Extensive interior renovation in 2006; well designed and constructed
Maintenance	1	7	7	
Remaining Life	1	6	6	Should have an additional 25 years of life
Appearance	1	6	6	
Insulation	2	6	12	
Glazing	3	6	18	Double glazing; aluminum-framed
HVAC	3	8	24	Newer HW boilers; AHU w VAVs; chilled water from central plant
Total weighted score			**222**	*Adequate*

Classroom Building — condition score 212

Component	Rating	Wt.	Wt. Score	Comment
Structure	1	8	9	Wood framing; concrete foundation
Exterior Closure	1	8	9	Masonite horizontal lap siding
Roofing	2	10	22	3-tab asphalt shingles

Component	Rating	Wt.	Wt. Score	Comment
Floor Finishes	2	6	13	Vinyl tile; carpet; sheet flooring; some cracking of vinyl tile
Wall Finishes	1	6	7	Gypsum board
Ceiling Finishes	2	6	13	Lay-in tile
Doors & Hardware	1	6	7	Interior wood doors w HM frames; exterior aluminum doors/frames
Elevators	0	6	0	
Plumbing	1	8	9	Copper, cast iron and PVC piping; porcelain fixtures
Electrical	1	8	9	2 ea. 200amp 208/120v; 2 ea. 200amp HVAC disconnects
Lights/Power	1	8	9	Lay-in and wall-mount fluorescent lights
Life/Safety	1	10	11	
Fire Safety	3	10	33	
Modifications	0	7	0	None evident
Maintenance	1	7	8	
Remaining Life	1	6	7	Medium to long term use feasible
Appearance	1	6	7	
Insulation	2	6	13	
Glazing	3	6	20	
HVAC	1	8	9	2 packaged HVAC units at grade 2013
Total weighted score			**212**	*Adequate*

Ag Lab Greenhouse — condition score 202

Component	Rating	Wt.	Wt. Score	Comment
Structure	1	8	10	
Exterior Closure	1	8	10	
Roofing	1	10	12	
Floor Finishes	1	6	7	
Wall Finishes	1	6	7	
Ceiling Finishes	0	6	0	
Doors & Hardware	1	6	7	
Elevators	0	6	0	
Plumbing	1	8	10	
Electrical	1	8	10	600 Amps

Component	Rating	Wt.	Wt. Score	Comment
Lights/Power	1	8	10	
Life/Safety	1	10	12	
Fire Safety	5	10	60	
Modifications	0	7	0	
Maintenance	1	7	8	
Remaining Life	1	6	7	
Appearance	1	6	7	
Insulation	0	6	0	
Glazing	2	6	14	
HVAC	1	8	10	
Total weighted score			**202**	*Adequate*

Administration Building — condition score 188

Component	Rating	Wt.	Wt. Score	Comment
Structure	1	8	8	Metal and wood framing; cement; good condition
Exterior Closure	1	8	8	Brick; CMU; metal panels; EIFS; exterior extensively renovated in 2003
Roofing	2	10	20	All new standing seam metal roof in 2003
Floor Finishes	1	6	6	New carpet, vinyl tile and sheet vinyl throughout in 2003
Wall Finishes	1	6	6	Gypsum board interior walls; CMU painted; vinyl wall coverings; tile; all new in 03
Ceiling Finishes	1	6	6	Lay-in ceiling tiles throughout
Doors & Hardware	1	6	6	Interior wood doors w HM frames; exterior aluminum doors/frames
Elevators	1	6	6	2 stop
Plumbing	1	8	8	Copper, steel, cast iron and PVC piping; porcelain fixtures
Electrical	1	8	8	1200amp 48/277v; 800amp 208/120v
Lights/Power	1	8	8	Lay-in, ceiling mount, hanging strip and wall mount lighting
Life/Safety	1	10	10	
Fire Safety	1	10	10	Partial sprinklers
Modifications	1	7	7	Complete interior and partial exterior renovation in 2003; well-constructed

Component	Rating	Wt.	Wt. Score	Comment
Maintenance	1	7	7	
Remaining Life	2	6	12	Well constructed building; long term life expectancy-30+ years
Appearance	1	6	6	
Insulation	2	6	12	
Glazing	3	6	18	
HVAC	2	8	16	New HW boilers in 2010; new packaged HVAC units in portion of building in 2010; chiller funded 23-25
Total weighted score			**188**	*Adequate*

Lee R Thornton Ctr — condition score 177

Component	Rating	Wt.	Wt. Score	Comment
Structure	1	8	8	CMU; concrete; steel
Exterior Closure	1	8	8	CMU; brick; EIFS
Roofing	2	10	21	New hypalon roof in 2002; skylights
Floor Finishes	2	6	13	Vinyl tile; carpet; quarry tile; sheet vinyl
Wall Finishes	1	6	6	CMU; Gypsum board; ceramic tile; vinyl wall covering
Ceiling Finishes	2	6	13	Lay-in ceiling tile; Gypsum board
Doors & Hardware	1	6	6	Interior wood doors w HM frames; exterior aluminum doors/frames
Elevators	0	6	0	
Plumbing	1	8	8	Copper, steel, cast iron and PVC piping; porcelain fixtures
Electrical	1	8	8	400amp 208/120v
Lights/Power	1	8	8	Lay-in, hanging, ceiling-mount and recessed can fluorescent fixtures
Life/Safety	1	10	10	
Fire Safety	1	10	10	
Modifications	1	7	7	Mostly larger instructional spaces; very nice renovation in 2005; minor renovation funded 21-23
Maintenance	1	7	7	
Remaining Life	1	6	6	Addition of new Diversity building in 06
Appearance	1	6	6	
Insulation	1	6	6	
Glazing	1	6	6	

Component	Rating	Wt.	Wt. Score	Comment
HVAC	2	8	17	HW boilers and chiller; AHUs and fan coils; central plant for WISE complex
Total weighted score			**177**	*Adequate*

Health Science Center — condition score 174

Component	Rating	Wt.	Wt. Score	Comment
Structure	1	8	8	Steel frame; poured concrete; CMU
Exterior Closure	1	8	8	CMU; stucco; aluminum solar shades
Roofing	2	10	20	Single ply membrane and metal panels
Floor Finishes	2	6	12	Carpet; non-slip vinyl tile; ceramic tile; concrete
Wall Finishes	1	6	6	Gypsum board; vinyl wall cover; ceramic tile; wood panels; glass block
Ceiling Finishes	1	6	6	Lay-in ceiling tile
Doors & Hardware	1	6	6	Interior wood and HM doors w HM frames; exterior aluminum doors/frames
Elevators	1	6	6	4 stop
Plumbing	1	8	8	Copper, cast iron, galvanized and PVC piping; porcelain and ss fixtures
Electrical	1	8	8	1600amp 208/120v
Lights/Power	1	8	8	Lay-in, recessed can and ceiling-mount fluorescent lights
Life/Safety	1	10	10	
Fire Safety	1	10	10	
Modifications	1	7	7	None evident; new building
Maintenance	1	7	7	
Remaining Life	1	6	6	Should have 45+ years of life
Appearance	1	6	6	
Insulation	1	6	6	
Glazing	3	6	18	Window leaks on 4th floor due to eyebrow fasteners
HVAC	1	8	8	Hot water boilers; chiller; AHUs w fan coils
Total weighted score			**174**	*Superior*

Career & Technology — condition score 165

Component	Rating	Wt.	Wt. Score	Comment
Structure	1	8	8	Structural steel; concrete; CMU

Component	Rating	Wt.	Wt. Score	Comment
Exterior Closure	2	8	17	CMU; Kalwall panels; aluminum window walls
Roofing	2	10	21	Standing seam metal roof; skylights; minor leaks - source unknown
Floor Finishes	1	6	6	Carpet, concrete, ceramic tile and terrazzo
Wall Finishes	1	6	6	Polished CMU; vinyl wall covering; ceramic tile; gypsum board
Ceiling Finishes	1	6	6	Metal roof; lay-in tile; gypsum board
Doors & Hardware	1	6	6	Interior wood and HM doors w HM frames; sidelites; exterior aluminum doors/frames; OH metal coiling doors
Elevators	0	6	0	
Plumbing	1	8	8	Copper, steel, cast iron and plastic piping; porcelain and ss fixtures
Electrical	1	8	8	800amp 208/120v; 600amp 480/277v; 1200amp 480/277v
Lights/Power	1	8	8	Hanging strip, lay-in, recessed can and ceiling-mount fluorescent lighting; hanging metal-halide lights
Life/Safety	1	10	10	
Fire Safety	1	10	10	
Modifications	1	7	7	Brand new building
Maintenance	1	7	7	
Remaining Life	1	6	6	Good quality construction; should have 40+ year life
Appearance	1	6	6	
Insulation	1	6	6	
Glazing	1	6	6	Windows include Kalwall clearstory panels
HVAC	1	8	8	HW boilers; air cooled chillers; AHUs with fan coils and energy recovery; ceiling radiant heat
Total weighted score			**165**	*Superior*

Business Building — condition score 154

Component	Rating	Wt.	Wt. Score	Comment
Structure	1	8	8	Wood frame; split-face CMU; brick
Exterior Closure	2	8	17	Split-face CMU; brick; aluminum window walls
Roofing	1	10	10	Standing seam metal
Floor Finishes	1	6	6	Carpet; sheet vinyl; ceramic tile

Component	Rating	Wt.	Wt. Score	Comment
Wall Finishes	1	6	6	Gypsum board; CMU; vinyl wall cover; wood chair rail; ceramic tile
Ceiling Finishes	1	6	6	Gypsum board and lay-in tile
Doors & Hardware	1	6	6	Exterior HM doors/frames and aluminum doors/frames; interior wood and HM doors/HM frames
Elevators	0	6	0	One story
Plumbing	1	8	8	Copper, black iron, cast iron and ABS piping; porcelain fixtures
Electrical	1	8	8	800amp 208/120v
Lights/Power	1	8	8	Hanging strip, lay-in, recessed can and ceiling mount fluorescent fixtures
Life/Safety	1	10	10	
Fire Safety	1	10	10	
Modifications	1	7	7	No modifications evident
Maintenance	1	7	7	
Remaining Life	1	6	6	Building has essentially been rebuilt from the ground up; RUL >30 years
Appearance	1	6	6	
Insulation	1	6	6	
Glazing	1	6	6	Triple glazed wood windows w aluminum exterior cladding (Pella)
HVAC	1	8	8	Hot water boilers; fan coil units; central plant chilled water; heat recovery units
Total weighted score			**154**	*Superior*