

BOARD WORK SESSION

Waconia Middle School HVAC, IAQ & Roof Discussion

Repair, rent, or replace — a practical path to protect learning environments and make fiscally responsible decisions.

Planning discussion • October 2026

Prepared by SitelogIQ | Waconia Public Schools

Repair, rent, and replace solves different problems

Alternative	What it accomplishes	Cost profile / Lifecycle	Primary implication	Can it be done?
Repair Chillers Short-life extension	Targets known failures and restores limited functionality.	Lower initial spend; reactive work remains likely. \$1,000,000 2-3 years	May defer—not eliminate—the replacement decision; difficult to guarantee performance or IAQ.	Yes. But it shouldn't be. Repairing the existing chillers will create downstream issues and delay the inevitable. Must be funded through LTFM budget
Rent Chillers Temporary continuity	Provides interim heating, cooling, or ventilation while permanent work is procured.	Mobilization, monthly rental, utilities, and removal. \$180,000 Indefinite and does not resolve issue	Necessary bridge if existing equipment cannot reliably serve spring 2027; creates no long-term asset.	Yes – but we should minimize any rental as this is a poor use of LTFM funds and does not serve as a solution. Only serves to add cooling to the system and does not resolve air quality issue throughout building
Replace Long-term reset	Renews major HVAC/IAQ components, controls, distribution, and interfaces.	Highest upfront capital; new life-cycle clock. \$12,000,000 Up to 30 years	Best opportunity to coordinate gym AC and roofing while avoiding duplicative mobilization and work. Resolves issue and new revenue funding can be utilized.	Yes – potentially in two phases. Chiller replacements first (2027) to minimize rental costs, then all up and down stream components in 2028

Interim rentals should be the minimize to protect LTFM funding

-  Confirm the service gap
-  Rent only the equipment required
-  Plan logistics before mobilization
-  Set an exit date

Estimated Rental Period	Cost
Mid-March 2027 (Initial Setup and Installation)	\$30,000
Mid-March - Mid-June (\$15,000 per month)	\$45,000
Subtotal (FY27)	\$75,000

Estimated Rental Period	Cost
Mid-August 2027 (reconnect & setup)	\$15,000
Mid-August - Mid-October 2027	\$30,000
Mid-March 2028 (reconnect & setup)	\$15,000
Mid-March - Mid-June	\$45,000
Subtotal (FY28)	\$105,000
Estimated Total (FY27 & FY28)	\$180,000

Replacement scope must renew the full chain that controls indoor conditions to qualify for new revenue funding

Plant / source

Generation, pumps, redundancy, treatment, and fuel strategy.

Air handling

Fans, coils, filters, outside air, recovery, humidity, and freeze protection.

Distribution

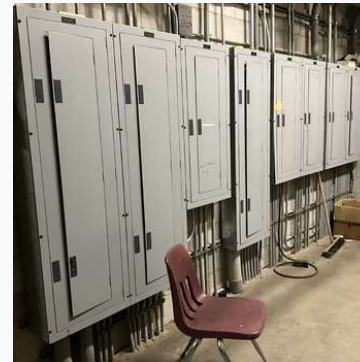
Ductwork, piping, terminal units, dampers, insulation, and balancing.

Controls / IAQ

Automation, sensors, sequences, zoning, alarms, trends, and commissioning.

Enabling work

Electrical, structure, roof curbs, penetrations, fire protection, and finishes.



Funding pathways require eligibility, legal, tax, and financial-advisor confirmation; this is a planning framework, not financing advice.

Plans and options for adding cooling to the gym

Add AC as part of the plan

Benefits

One design effort; shared electrical and controls work; coordinated sizing; fewer shutdowns.

Watch-outs

Confirm peak load, dehumidification, acoustics, condensation risk, and operating cost.

Best coordination / highest near-term capital

Currently Included in scope of work

Prepare now; add later

Benefits

Reserve plant capacity, electrical pathways, controls points, roof curbs, and space.

Watch-outs

Future mobilization and escalation remain; reserved capacity may sit unused.

Preserves option value / creates some rework

Scope reduced – estimated cost reduction \$30-45k – estimated future cost \$50-100k

Do not add AC

Benefits

Lowest capital requirement and no new cooling-energy load.

Watch-outs

Limits warm-weather use, comfort, flexibility, and resilience; later retrofit is harder.

Lowest cost / highest long-term limitation

Scope reduced – estimated cost saved \$30-45k

Coordinating roof and HVAC work can prevent paying twice



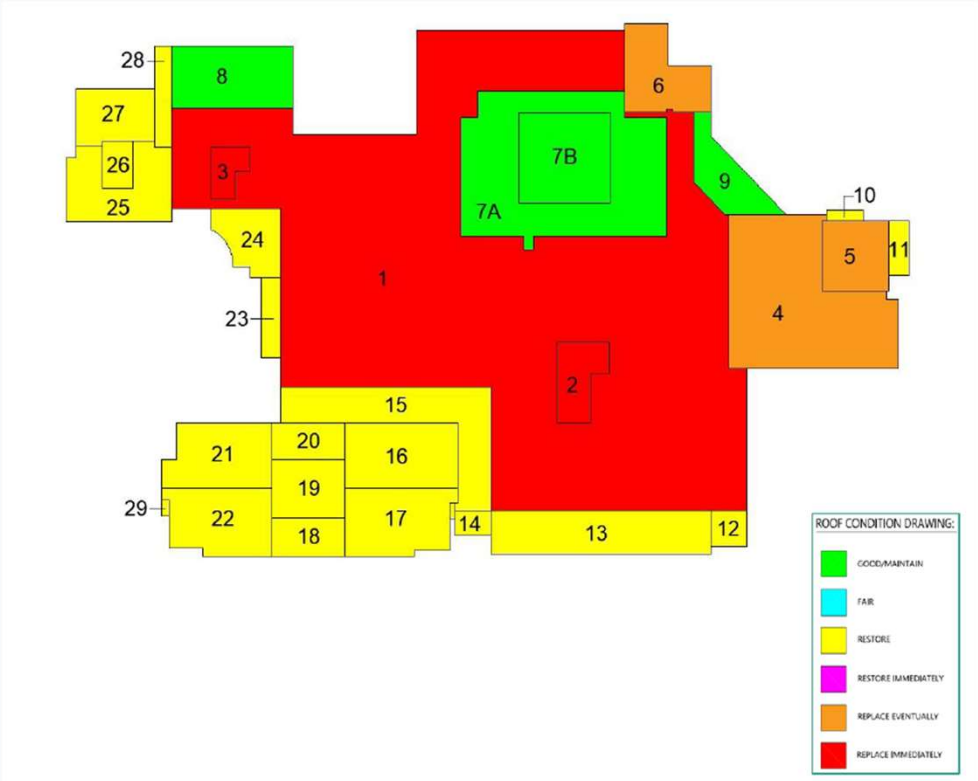
Complete together

Single mobilization and warranty strategy; coordinated curbs and penetrations; lower rework risk; one construction disruption. Requires confirmed scope and near-term funding.

Delay the roof

Reduces immediate capital if condition supports deferral. Requires temporary details and acceptance of escalation, leak, and duplicate-mobilization costs.

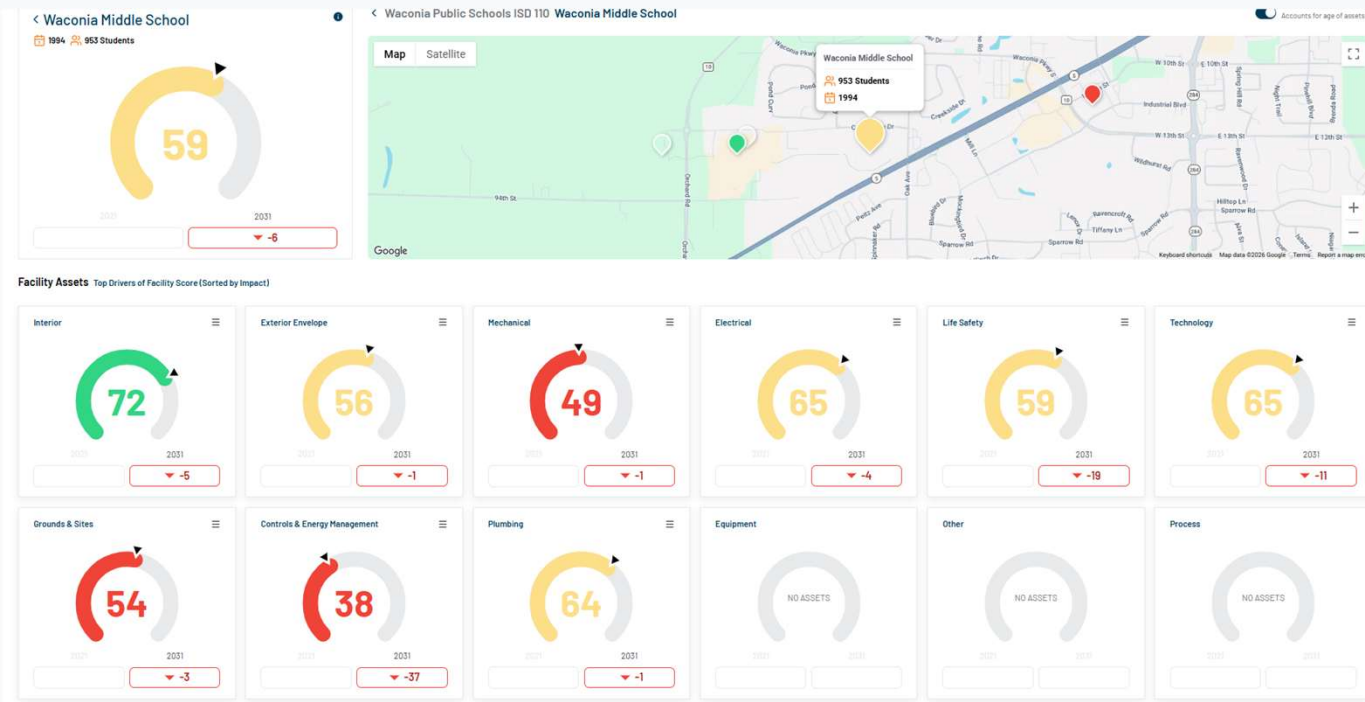
Middle School roofing is under a cyclical replacement pattern



BUILDING	ROOF SECTION	YEAR INSTALLED	CURRENT AGE	ROOF TYPE	CURRENT CONDITION	CONDITION AFTER 10-YEAR PLAN	SIZE (SQ. FT.)
Waconia Middle School	1	2008	19	Built-Up Roof	REPLACE IMMEDIATELY	GOOD	97,943
Waconia Middle School	2	2008	19	Built-Up Roof	REPLACE IMMEDIATELY	GOOD	2,266
Waconia Middle School	3	2008	19	Built-Up Roof	REPLACE IMMEDIATELY	GOOD	1,100
Waconia Middle School	4	2008	19	Built-Up Roof	REPLACE EVENTUALLY	GOOD	13,761
Waconia Middle School	5	2008	19	Built-Up Roof	REPLACE EVENTUALLY	GOOD	3,190
Waconia Middle School	6	2012	15	Built-Up Roof	REPLACE EVENTUALLY	RESTORE	3,948
Waconia Middle School	7A	2012	15	Built-Up Roof	GOOD	RESTORE	13,860
Waconia Middle School	7B	2012	15	Modified Bitumen	GOOD	RESTORE	5,550
Waconia Middle School	8	2012	15	Built-Up Roof	GOOD	RESTORE	5,100
Waconia Middle School	9	2018	9	Built-Up Roof	GOOD	RESTORE	2,873
Waconia Middle School	10	2007	20	Built-Up Roof	RESTORE EVENTUALLY	GOOD	270
Waconia Middle School	11	2007	20	Built-Up Roof	RESTORE EVENTUALLY	GOOD	765
Waconia Middle School	12	2007	20	Built-Up Roof	RESTORE EVENTUALLY	GOOD	900
Waconia Middle School	13	2007	20	Built-Up Roof	RESTORE EVENTUALLY	GOOD	6,516
Waconia Middle School	14	2007	20	Built-Up Roof	RESTORE EVENTUALLY	GOOD	630
Waconia Middle School	15	2007	20	Built-Up Roof	RESTORE EVENTUALLY	GOOD	7,248
Waconia Middle School	16	2007	20	Built-Up Roof	RESTORE EVENTUALLY	GOOD	5,022
Waconia Middle School	17	2007	20	Built-Up Roof	RESTORE EVENTUALLY	GOOD	4,794

The scope in red covers approximately 48% of the overall roof

Comparing a new system with existing building infrastructure



Impact and ROI

The mechanical, controls, exterior envelope are all the lowest segments of the middle school analysis.

The building is currently at a 59.

The scope of work proposed would move that to a 69.

There will also be some additional improvements from the scope of the work which will improve your electrical and interior finishes.

Utilizing the correct funding bucket for maximum flexibility and risk

Funding Buckets



LTFM

Routine maintenance & smaller replacements

**Annual Funding Capacity:
\$650,000**

- Routine testing, maintenance and smaller repairs/replacements
- Already constrained by prior bonding commitments
- Less than **\$0.68/sq. ft.** of interior space

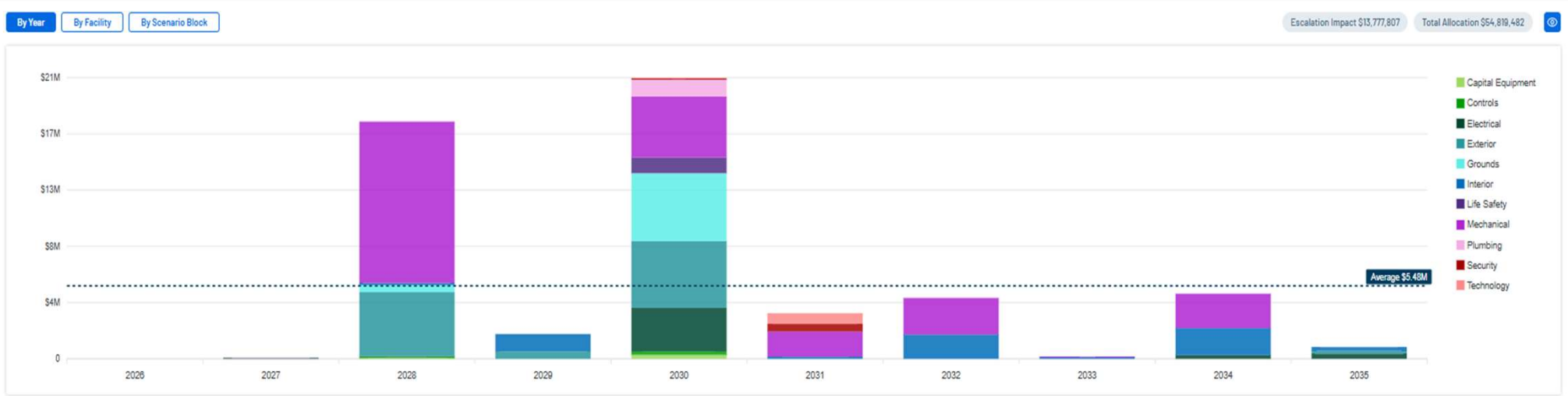
Board Authority

Essential building infrastructure

Capacity based on Tax Impact

- Indoor Air Quality / HVAC
- Roofing
- Parking lot abatement
- Provides **dry, safe and comfortable** learning environments

How the short term investment ties to longer term plans



Immediate Need

Originally planned for 2027
Unrepairable condition
Requiring you to exhaust LTFM

Reduces Future Requests

Same scope will escalate in the next years
Tax impact will be higher
Reduces the potential for student impacting options

Protects LTFM

Maintains limited LTFM budget
Allows for day to day risks to be mitigated
Can be used for tackling smaller issues
reducing overall ask down the line

Preserve operations now—then make one coordinated capital decision

1

Initiate the spring 2027 bridge

Validate rental needs, capacity, duration, extension terms, and contingency.

2

Agree IAQ Narrative 2026

Submit MDE request for approval, bonding, design stages

3

Design and Bid

Design stages through Spring of 2027 with bidding early for 2028 project

4

Explore pull through options for 2027

Potentially install new chillers 2027 and roofing to minimize LTFM rental spend

Board decisions requested

The sooner we have a preliminary direction, the more likely option 4 remains.

Recommended scope of work

IAO Middle School

Collapse All 

WACONIA MIDDLE SCHOOL



-  Air-cooled Chiller Replacement
-  1993 Air Handler Replacements - 2A, 2B, 3A, 3B, 3C, 3D, 4A, 4B, 5A, 5B
-  Roof Replacement - Areas 1,2,3
-  1993 Central System Replacements - AHU-1A, 1B, 1C, 1D, 1E, 1F, 6A
-  Rooftop Unit Replacement - RTU-1
-  Make-Up Air Unit Replacements
-  Variable Speed Drives/Pump Control

Budget Total

Approximately \$12,000,000
Re-roofing \$5,000,000

Additional Work Included

In affected areas
New lighting
New ceilings
Repainting

Funding Models

To be presented in November 2026