

Capital Projects Planning

June 10, 2025

KENOSHA UNIFIED SCHOOL DISTRICT



- 1. Background Information
- 2. Building Infrastructure Projects
- 3. Special Type Projects
 - Security/Life Safety Projects
 - One-Time Projects
 - Infrequent but Cyclical/Recurring Projects
- 4. Questions & Answers

TYPES OF PROJECTS

- Major Maintenance roof replacement, flooring replacement, etc.
- Energy Efficiency lighting upgrade, new control system, etc.
- Security/Safety camera system, card access system, etc.
- **Enhancement** conversion of a space to meet new educational needs, upgrading technology, synthetic turf, etc.
- Building new construction, additions, major remodeling

PROJECT PRIORITIZATION

Determine impact of project on District:

- ✓ Safety/Security/Regulatory Compliance
- Major Maintenance Need
 - Could system/component failure cause building to be closed for a period of time?
 - Overall impact of system/component on operation of the school
- ✓ Improve/Maintain Learning Environment
 - Adding portable classrooms
 - Converting space to provide program, e.g. culinary lab @ Tremper, etc.

BUILDING INFRASTRUCTURE PROJECTS

- Roofs/Exterior Envelope
- Parking Lots/Asphalt/Concrete
- HVAC
- Plumbing Water Mains, etc.
- Electrical Main Service, Panels
- Lighting
- ADA
- Remediation/Environmental
- Flooring
- Etc.

ROOFING PROJECT PLANNING

KENOSHA UNIFIED SCHOOL DISTRICT ROOFING SUMMARY

Total Number of Schools: 30

Total Number of Roof Areas: 357

Total Square Footage: 2,001,471

Total Replacement Value: \$66,610,000.00

Roofing Type	%	Area (Sq Ft)
EPDM-Ballast	45%	900,662
EPDM-Fully Adhered	35%	700,515
MOD-BIT	10%	200,147
TPO/PVC	5%	100,074
BUR	3%	60,044
Asphalt Shingles	2%	40,029

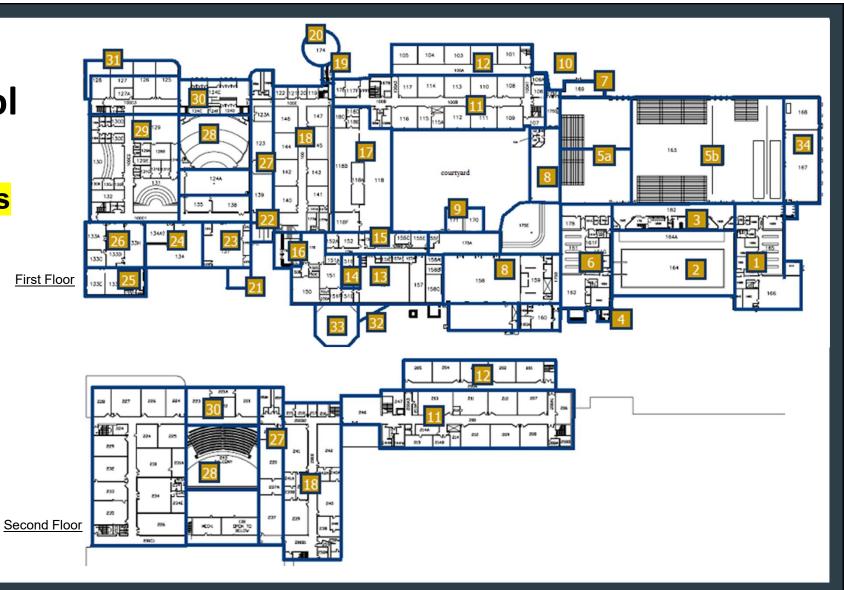
Roof Areas					
Bradford	35				
Lance	18				
Whittier	13				

EPDM	Ethylene Propylene Diene Monomer
MOD-BIT	Modified Bitumen
TPO	Thermoplastic Polyolefin
PVC	Polyvinyl Chloride
BUR	Built-Up Roofing

Bradford High School Roof

35 Roof Areas





Reuther Central High School – Floor & Roof Plans



To use: Click on the roof area numbers to activate building management tools

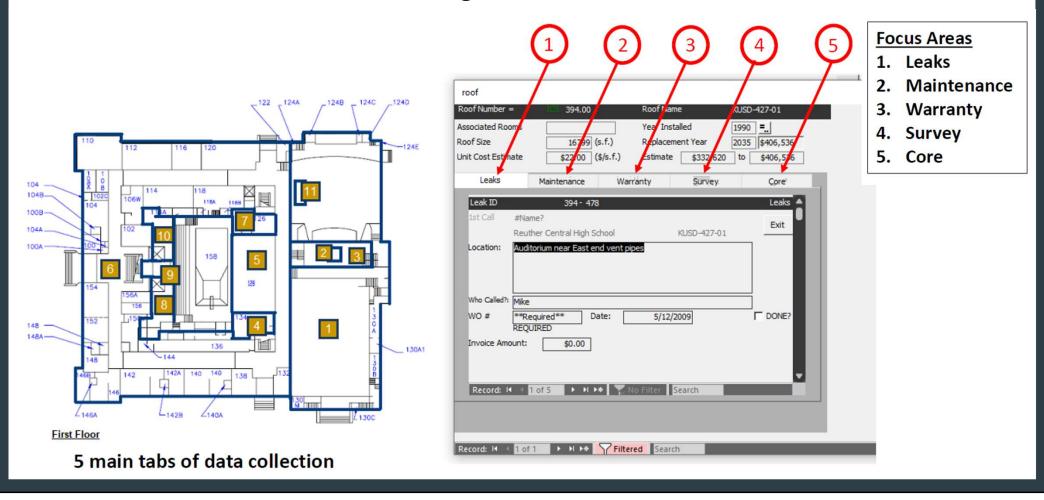
Exit

Second Floor

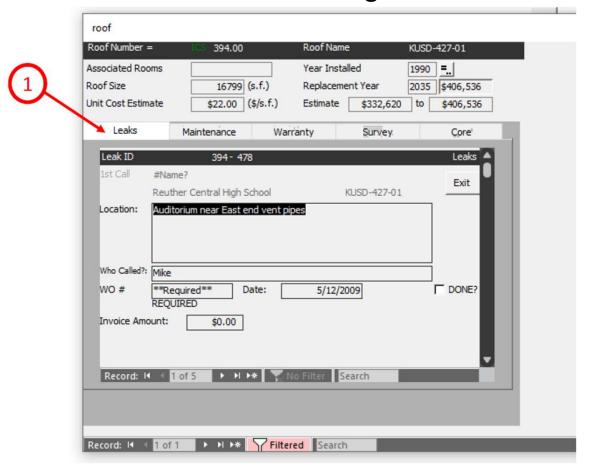
Roof area click for more information

* Room numbers are underlayed for quick leak reference

Reuther Central High School – Leak Information



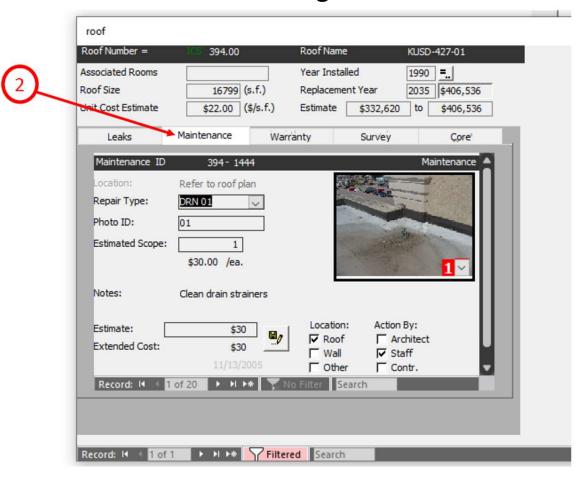
Reuther Central High School – Leak Information



Leak Recording

- Leak histories help to focus on areas of greatest need
- Impact condition scores to point to service life/performance
- Follow up with school and contractor

Reuther Central High School – Maintenance Information



Preventative Maintenance

- Areas of concern identified before a leak
- Feeds into condition score
- Packages together as a district- wide plan
- Project economy of scale and competitive bids saves 30-50%

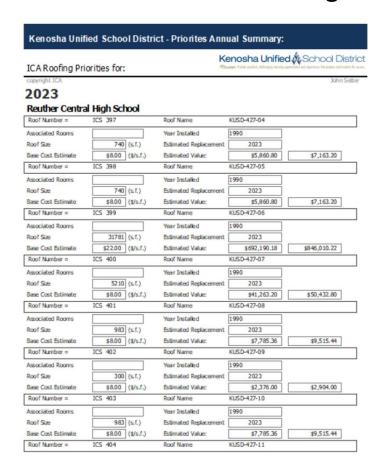
Reuther Central High School – Survey Information

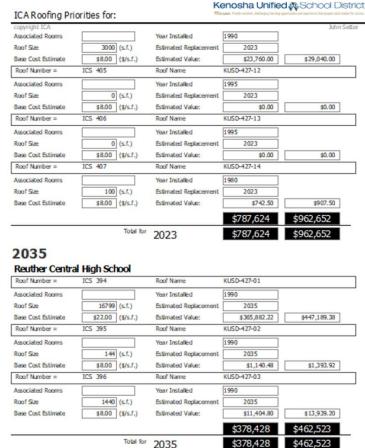
roof Roof Name Roof Number = 394.00 KUSD-427-01 Associated Rooms Year Installed 1990 Roof Size 16799 (s.f.) Replacement Year 2035 \$406,536 \$22.00 (\$/s.f.) Unit Cost Estimate Estimate \$332,620 \$406,536 Survey Leaks Maintenance Warranty Core Survey ID 394 - 390 Survey ▼ Interview? ICS on Site: 4 Years 10/31/2021 Staff Condition Good Notes: Estimate: The masonry at the interior of this area needs to be evaluated and repaired this year. The coating is deteriorating and # of Leaks Reported: will need recoating within the next year or two. 81.08 81.08 ▶ ► No Filter Search

Survey Data

- Areas of concern identified before a leak
- Feeds into condition score
- Packages together as a district- wide plan
- Project economy of scale and competitive bids saves 30-50%

Reuther Central High School – Recommended Annual Roof Priorities





Sample Report customizable to meet the requirements of the program

ASPHALT PROJECT PLANNING

KENOSHA UNIFIED SCHOOL DISTRICT

EXECUTIVE MANAGEMENT SUMMARY FOR HARDSCAPE

Total Number of Properties Surveyed:	30
Total Number of Hardscape Areas:	171
Total Square Footage:	4,828,455
Total Hardscape Asset Value (Est. \$7.50 sf):	\$ 36,213,412.50
Total Recommended Construction Cost (Paser 3-5)	\$ 6,275,000.00
Recommended Recurring Maintenance Budget:	\$ 254,975.00
Current Year Maintenance Budget: (Paser 6-7)	\$ 1,017,500.00
Current Year Safety Budget:	\$ 20,000.00
Anticipated Yearly Maintenance Budget:	\$ 274,975.00

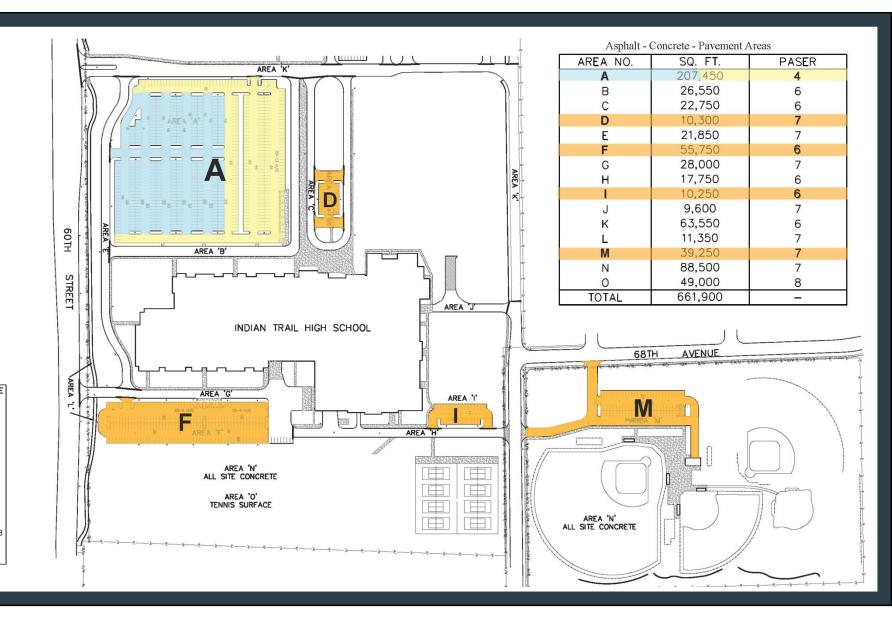
Pavement Surface Evaluation & Rating										
PASER Summary										
KUSD Aver	KUSD Average									
PASER 1:	Failed	Reconstruction	0							
PASER 2:	Very Poor	Reconstruction	0							
PASER 3:	Poor	Overly / Recycle	8							
PASER 4:	Fair	Overly / Recycle	10							
PASER 5:	Fair	Preventative Treatment	19							
PASER 6:	Good	Preventative Treatment	26							
PASER 7:	Good	Routine Maintenance	50							
PASER 8:	Very Good	Routine Maintenance	39							
PASER 9:	Excellent	No Maintenance	12							
PASER 10:	Excellent	No Maintenance	7							

Indian Trail HS Parking Lots

323,000 sq. ft.

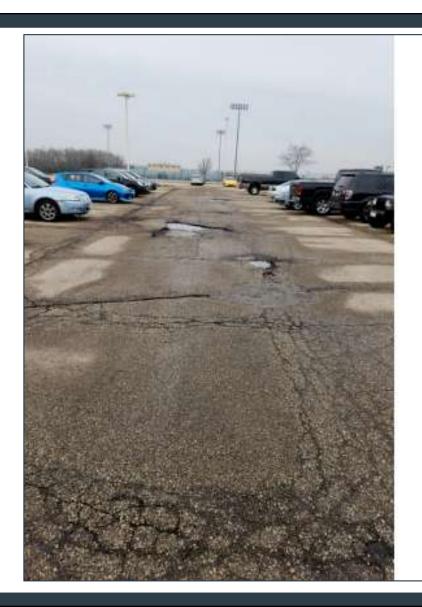


- AREA BOUNDARY LINE
- BENCH MARK
- CORE
- MAIL BOX
- FLAG POLE
- IRON PIN
- SIGN
- BOLLARD
- LIGHT POLE
- UTILITY POLE
- SANITARY SEWER MH
- STORM SEWER MH/CB
- HYDRANT
- VALVE



Indian Trail HS Parking Lots

Current Condition





Indian Trail HS Parking Lots

Current Condition





NEXT 10 YEARS

Boilers

- Lakeview K-8
- 1990's Boilers

Chillers

Six (6) schools without full central A/C

Controls

 Handful of schools to move to Tridium platform

HVAC SYSTEM PROJECTSHeating-Boiler Replacements

HIGH SCHOOLS	System Type	Model	HW/STM	Manufacturer	Qty	Size	Install Date
Bradford	MB	SC-3000	HW	PK	4	3,000,000	2019
Indian Trail	WT	GP 700	HW	Cleaver Brooks	2		1998
	МВ	EVA 1500	HW	TherSolu	2	1,500,000	2009
	MB	EVA 2000	HW	TherSolu	5	2,000,000	2009
Lakeview Tech	RTU		Gas	York	8	Varies	2024
Reuther/Harborside	ST	CFH-80-HSP	Steam	Cleaver Brooks	3	2,678,000	2022
Tremper	MB	SC-3000	HW	PK	5	3,000,000	2018

MIDDLE SCHOOLS	System Type	Model	HW/STM	Manufacturer	Qty	Size	Install Date
Bullen	MB	PK-SC-2000	HW	PK	3	2,000,000	2017
Lakeview K-8	ST	CB-200-200	Steam	Cleaver Brooks	2	8,369,000	1979
Lance	MB	PK-SC-2000	HW	PK	3	2,000,000	2017
Mahone	МВ	SC-3000	HW	PK	3	2,000,000	2023
Washington	МВ	N-2000-2	HW	PK	4	2,000,000	2003

OTHER	System Type	Model	HW/STM	Manufacturer	Qty	Size	Install Date
ESC	MB	C-750	HW	PK	2	750,000	2017

CIS - Cast Iron Sectional MB - Modular Boiler ST - Shell & Tube WT - Water-Tube Fire-Tube

Furnace RTU – Rooftop Unit

	11		(A	87			0
ELEMENTARY	System Type	Model	HW/STM	Manufacturer	Qty	Size	Install Date
Bose	MB	C-1500H	HW	PK	2	1,500,000	2014
Brass	МВ	EVAM-2000	HW	Ther Solu1	3	1,760,000	2007
Chavez	RTU		Gas		7	Varies	Var.
Forest Park	MB	C-1500	HW	PK	2	1,500,000	2014
Frank	CIS	688	HW	Weil-McLain	4	1,703,000	1997
Grant	MB	C-2000	HW	PK	2	2,000,000	2014
Grewenow	WT	H9-1802	HW	Raypak	4	1,800,000	2002
Harvey	МВ	C-2000	HW	PK	2	2,000,000	2014
Hillcrest	ST	HFR-40-P-G	Steam	NES	2		2020
Jeffery	MB	C-1500H	HW	PK	2	1,500,000	2015
KSOL	ST	CBH-700-40	HW	Cleaver Brooks	2	1,675,000	1992
Nash	МВ	MB-2000	HW	RBI	3		2007
Pleasant Prairie	ST	CBH-700-40	HW	Cleaver Brooks	2	1,675,000	1994
Prairie Lane	МВ	SNM-1500	HW	PK	3	1,275,000	2005
Roosevelt	MB	C-1500H	HW	PK	2	1,500,000	2015
Ruth Harman	МВ	C-2500	HW	PK	2	2,500,000	2015
Somers	МВ	SC-2000	HW-Glycol	PK	2	2,000,000	2023
Carabaran	ST	CB 700 50	Steam	Cleaver Brooks	1	2,095,000	1995
Southport	ST	CB 700 80	Steam	Cleaver Brooks	1	3,500,000	1995
C. Strange	MB	BMK-2000	HW-Glycol	Aerco	2	2,000,000	2023
Whittier	МВ	SC-2000	HW-Glycol	PK	2	2,000,000	2024

Air Conditioning - Six Schools

HIGH SCHOOLS	System Type	Manufacturer	Qty	% of School	Install Date
Bradford	CW	Daikin	2	100	2019
Indian Trail	cw	Daikin	2	100	2024
	CW	York	2	100	2010
Lakeview Tech	RTU	York	8	100	2024
Reuther/Harborside	CW	York	1	100	2019
Tremper	cw	Daikin	2	100	2018

MIDDLE SCHOOLS	System Type	Manufacturer	Qty	% of School	Install Date
Bullen	CW	Daikin	1	100	2017
Lakeview K-8	CW	York	2	100	2020
Lance	CW	Daikin	1	100	2017
Mahone	CW	York	1	100	2024
Washington	CW	York	1	100	2024

OTHER	System Type	Manufacturer	Qty	% of School	Install Date
ESC	Ice Storage	Trane	1	100	2017

CW – Cold Water-Glycol DX Ice Storage RTU – Rooftop Unit Split – Split System

Non-Central A/C Buildings

ELEMENTARY	System Type	Manufacturer	Qty	% of School	Install Date
Bose	CW	Daikin	1	100	2023
Brass	CW	McQuay	1	100	2008
Chavez	RTU		7	100	Var.
Forest Park				10	
Frank	CW	Daikin	1	100	2024
Grant				10	
Grewenow				10	
Harvey	CW	Daikin	1	100	2022
Hillcrest	Split	Val		50	
Jeffery	CW	Daikin	1	100	2023
KSOL	CW	Daikin	1	100	2020
Nash	CW	McQuay	1	100	2007
Pleasant Prairie	CW	Daikin	1	100	2020
Prairie Lane	CW	Trane	1	100	2006
Roosevelt	CW	Daikin	1	100	2022
Ruth Harman				20	
Somers	Ice CW	Trane	1	100	2021-22
Southport	Split/RTU			65	2024
C. Strange	CW	Daikin	1	100	2023
Whittier	CW	Daikin	1	100	2019

Temperature Controls

HIGH SCHOOLS	System Type	Manufacturer	Install Date
Bradford	DOC	Tridium	2019
Indian Trail	DDC	JCI	1998
	DDC	TAC	2009
Lakeview Tech	DDC	Tridium	2024
Reuther/Harborside	DDC	Tridium	2022
Tremper	DDC	Tridium	2018

MIDDLE SCHOOLS	System Type	Manufacturer	Install Date
Bullen	DDC	TAC	2017
Lakeview K-8	DDC	Tridium	2022
Lance	DDC	Tridium	2017
Mahone	DDC	Tridium	2022
Washington	DDC	JCI	2004

OTHER	System Type	Manufacturer	Install Date
ESC	MET / PN	JCI/Tridium	VAR

DDC Electronic T-Stat MET/PN – Metasys/Pneumatic Pneumatic

ELEMENTARY	System Type Manufacturer		Install Date
Bose	DDC	Tridium	2014
Brass	DDC	TAC	2008
Chavez	Electronic T-Stat		
Forest Park	DDC	Tridium	2014
Frank	DDC	JCI	1997
Grant	DDC	Tridium	2014
Grewenow	DDC	Tridium	2014
Harvey	DDC	Tridium	2014
Hillcrest	Pneumatic/DDC	JCI	
Jeffery	DDC	Tridium	2015
KSOL	DDC	Tridium	
Nash	DDC	TAC	2007
Pleasant Prairie	DDC	Tridium	2022
Prairie Lane	DDC	Tridium	2007
Roosevelt	DDC	Tridium	
Ruth Harman	DDC	DDC Tridium	
Somers	DDC Tridium		2022
Southport	Pneumatic/DDC JCI		2000
C. Strange	DDC	Tridium	2023
Whittier	DDC	TAC	2009

Ventilation

HIGH SCHOOLS	System Type	Manufacturer	Qty	Install Date
Bradford	AHU			2019-21
Indian Trail	BUILT UP			1998
	AHU			2009
Lakeview Tech	RTU			2024
Reuther/Harborside	RTU			
	AHU			1926
Tremper	PD			2018-20

MIDDLE SCHOOLS	System Type	Manufacturer	Qty	Install Date
Bullen	UV			2017
Lakeview K-8	AHU			2020
Lance	UV			2017
Mahone	AHU			2002
Washington	AHU			2004

OTHER	System Type	Manufacturer	Qty	Install Date
ESC	AHU			1985

ELEMENTARY	System Type	Manufacturer	Qty	Install Date
Bose	AHU			2014
Brass	AHU			2008
Chavez	RTU			VAR
Forest Park	AHU			2014
Frank	AHU			1997
Grant	UV			2014
Grewenow	UV			2014
Harvey	AHU			2014
Hillcrest	UV			1954
Jeffery	AHU			2015
KSOL	AHU			1993
Nash	AHU			2007
Pleasant Prairie	AHU			1994
Prairie Lane	AHU			1994/2005
Roosevelt	AHU			2015
Ruth Harman	AHU			2015
Somers	AHU			1992
	UV			1992
Southport	RTU			2024
	UV			1954
C. Strange	AHU			2023
Whittier	AHU			1990
	UV			2024

RTU – Rooftop Unit UV – Unit Ventilator AHU – Air Handling Unit Built-Up Forced Air PD – Positive Displacement

SPECIAL TYPE PROJECTS

- Security/Life Safety Projects
- One-Time Projects
- Infrequent but Cyclical/Recurring Projects

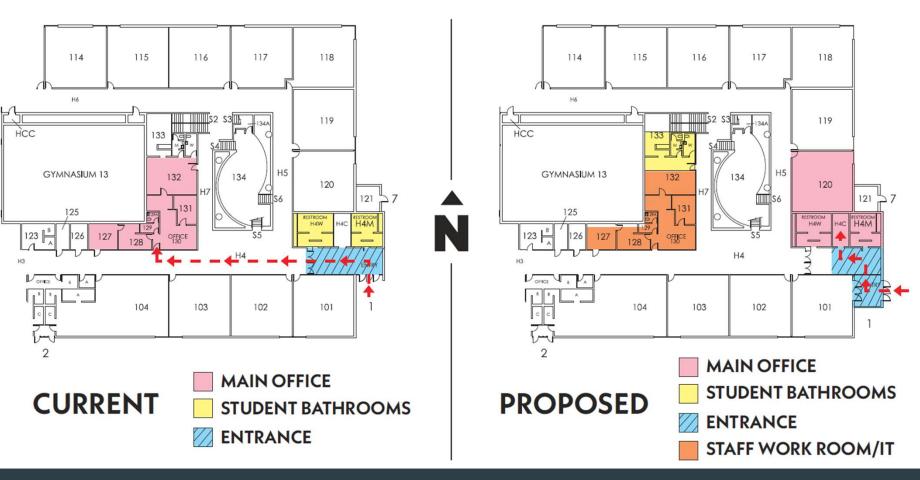
SECURITY/LIFE SAFETY PROJECTS

Controlled Entrances

(7) Schools Remaining

- Bose
- Curtis Strange
- Forest Park
- Jeffery
- Harvey
- Lance
- Whittier

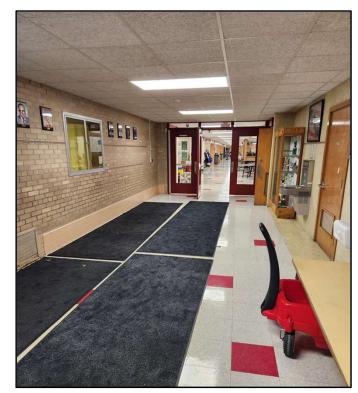
SECURITY/LIFE SAFETY PROJECTS Proposed Controlled Entrance at Curtis Strange



SECURITY/LIFE SAFETY PROJECTSControlled Entrance at Curtis Strange



Distance from office to controlled entry vestibule



Restrooms are located in the controlled vestibule

Controlled Entrance at Somers



Controlled entry to the office from vestibule



Controlled entry to the school from the office

SECURITY/LIFE SAFETY PROJECTS Miscellaneous Security Updates

- Update 10-year-old DVR System
- Update Cameras (analog to digital, exterior & panoramic cameras)
- Exterior Door Replacements
- Shatter-Proof Security Film on Exterior Glass
- Keycard Readers
- Main Entrance Doorbells/Buzzers

ONE-TIME PROJECTS

- Windows
- Masonry
- Other

WINDOW REPLACEMENT PROJECTS





- "Energy-saving" insulated panels were installed as part of the Energy Savings Projects in the late 1970s.
- Exterior metal panels are rusting and windows are difficult to maintain; some are inoperable.
- Panels reduced natural light in classrooms by 85% → Always need the classroom lights on = Not energy efficient
- Panels detract from the building appearance.

Window Replacement Project at Roosevelt



Before: Energy-savings insulated panels (1979)



After: Energy-efficient insulated glass (2016)

- Full window bank in classrooms allowing natural light
- Energy efficient, thermally insulated glass windows
- Exterior façade returned to its original historic appearance

Window Replacement Project at Roosevelt



Before: Energy-savings insulated panels (1979)

- Room had lack of natural daylight
- Classroom lights needed to be on all day



After: Energy-efficient insulated glass (2016)

- Full window bank in classrooms allowing natural light
- Energy efficient, thermally insulated glass windows

MASONRY REHABILITATION PROJECTS

Masonry Façade at Tremper







- Brick veneer is spauling due to original mortar mix specification
- Face brick is porous and will expand with moisture and freeze-thaw cycles
- Cooper wall flashing at precast panel bottom allows water to enter wall cavity

Masonry Rehabilitation Project at Reuther





- 2008 Reuther Masonry Façade Restoration Project
- Two-Year Project Duration

OTHER PROJECTS

Boiler House Demolition & Parking Lot Reconstruction at Reuther



 Boiler house building is vacant and no longer in use by the Facilities Department.



- Parking lot is built on former Bradford Annex site
- Resurfacing will be difficult due to existing foundation of annex below the surface

OTHER PROJECTS

Boiler House Demolition & Parking Lot Reconstruction at Reuther



- Boiler house exterior deterioration
- Building has been vandalized and broken into



 Underground tunnel that links boiler house to the main school building



- Boilers have been decommissioned
- New boiler room in basement of school building

ATHLETICS PROJECTS

Tennis Court Resurfacing & Maintenance





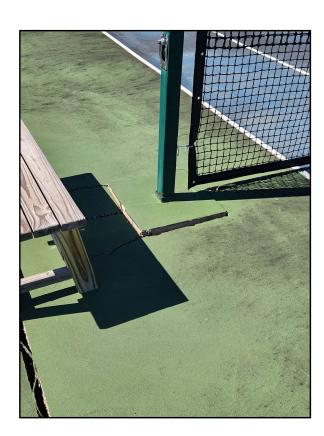


- Each high school has 8 courts
- Surface "Armor" Crack Repair
- Net standard replacement/repairs
- New play surface coating
- Resurfacing costs between \$8,000-\$12,000 per court, based on needs

Tennis Courts at Indian Trail







Current condition of 16-year-old tennis courts

ATHLETICS PROJECTSStadium Turf Replacement

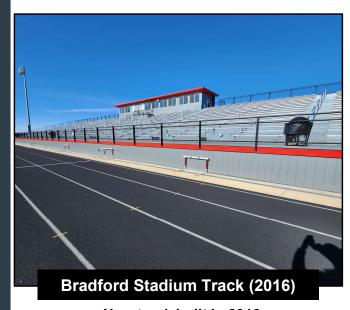






- Jaskwhich Field was originally constructed in 2008 with full turf replacement in 2023 (15 years old)
- Bradford Stadium and Ameche Field turf installed as part of KUSD Athletics Referendum in 2016
- Turf fibers will wear down in length over time
- Turf fibers will pull out seams open up build-up of rubber over time
- Replacement timeframe for Bradford & Ameche turf = 2030-2031
- Also have synthetic turf infields at varsity baseball and softball fields at all 3 high schools

ATHLETICS PROJECTSOutdoor Track Surfaces



-New track built in 2016



- -Original track built in 2004
- -Recoated in 2016



-New track built in 2016

- Rubberized surface can delaminate from asphalt causing cracks, rips, or holes in the surface.
- Subsurface asphalt cracks develop, causing tears in the running surface.
- Running surface wears off at finish lines or exchange zones due to high traffic use.

Outdoor Track Surface at Jaskwhich Field (Indian Trail)







ATHLETICS PROJECTS Fieldhouse Wood Floor Sanding & Refinishing









QUESTIONS & ANSWERS

KENOSHA UNIFIED SCHOOL DISTRICT