

A L≣Б≣ПС≣ Company

Goodridge Public Schools Facility Assessment

March 21, 2023

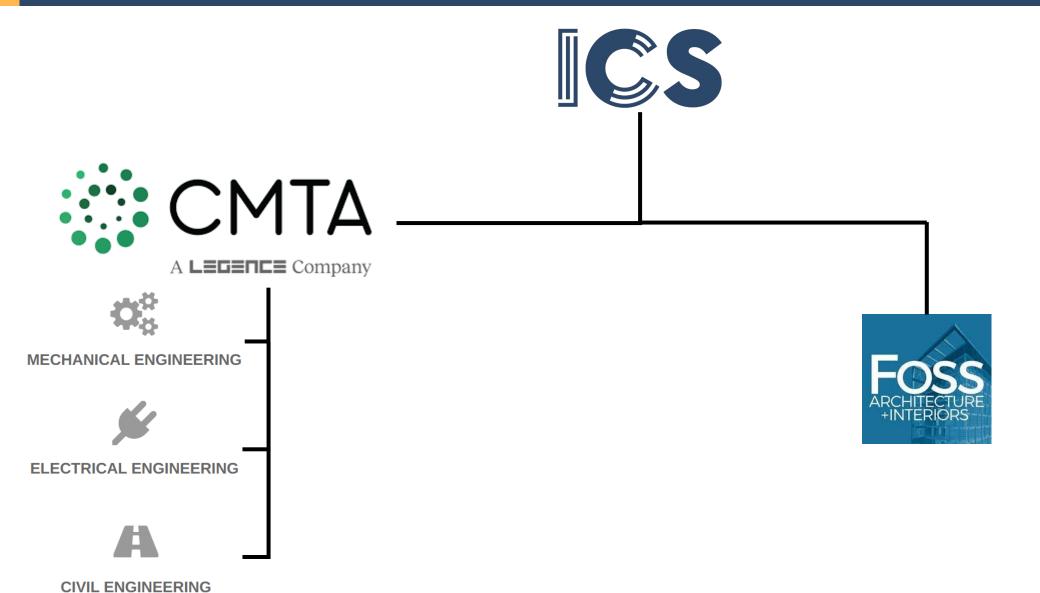


Agenda

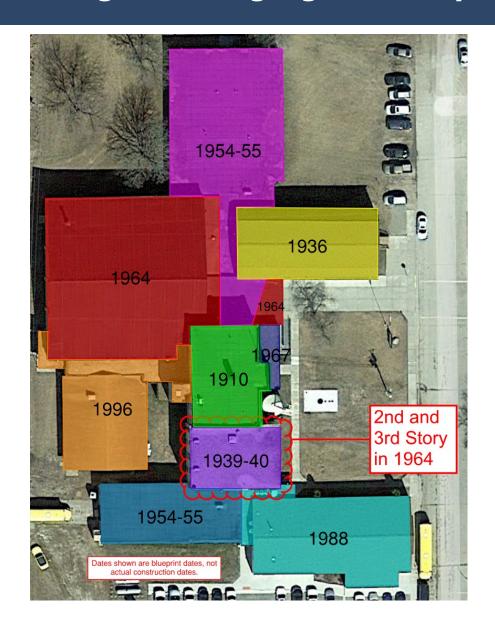
- Introductions
- Facility Assessment Results
- MN Funding Opportunities
- Next Steps
- Q&A



Industry Experts Walked Through The Facilities



Goodridge Building Ages and Square Footages



Year Constructed	Square Footage			
1910	9,887			
1936	8,448			
1939-1940	2,352			
1954-1955	9,898			
1964	21,140			
1967	499			
1988	5,826			
1996	3,835			
Total Square Footage	61,885			

ASHRAE Life Expectancy

Median Life Expectancy

Equipment Item	Median Years	Equipment Item	Median Years	Equipment Item	Median Years
Air conditioners		Air terminals		Air-cooled condensers	20
Window unit Residential single or Split	10	Diffusers, grilles, and registers Induction and fan coil units	20	Evaporative condensers	20
Package Commercial through-the wall	15 15	VAV and double-duct boxes	20	Insulation	
Water-cooled package	15	Air washers	17	Molded Blanket	20 24
Heat Pumps		Ductwork	30	Diamot	
Residential air-to-air	15	Damasa	00	Pumps	
Commercial air-to-air	15	Dampers	20	Base-mounted	20
Commercial water-to-air	19	Fans		Pipe-mounted	10
Roof-top air conditioners		Centrifugal	25	Sump and well Condensate 15	10
Single-zone Multi-zone	15 15	Axial Propeller Ventilating roof-mounted	20 15 20	Reciprocating engines	20
Dollars hat water (steem)		ventilating roof-mounted	20	Steam turbines	30
Boilers, hot water (steam) Steel water-tube	24 (30)	Coils			
Steel fire-tube	25 (25)	DX, water, or steam	20	Electric motors	18
Cast iron Electric	35 (30) 15	Electric	15	Motor starters	17
		Heat Exchangers		Electric transformers	30
Burners	21	Shell-and-tube	24	Liectric transformers	30
Furnaces				Controls	
Gas- or oil-fired	18	Reciprocating compressors	20	Pneumatic	20
	10	Packaged chillers		Electric Electronic	16 15
Unit heaters		Reciprocating	20	Licetonic	10
Gas or electric	13	Centrifugal	23	Valve actuators	
Hot water or steam	20	Absorption	23	Hydraulic	15
Radiant Heaters		Cooling towers		Pneumatic Self-contained	20 10
Electric	10	Galvanized metal	20	Self-contained	10
Hot water or steam	25	Wood Ceramic	20 34		

ASHRAE = American Society of Heating, Refrigerating and Air Conditioning Engineers

Boiler Plant

Existing Condition:

- The existing steam boiler has exceeded its life expectancy.
- There is currently not a second boiler which is recommended for redundancy if one boiler breaks down.

Proposed Solution:

- Install new high efficiency hot water boilers
- Provide (2) or more boilers to provide redundancy
- Replace steam piping with new hot water piping



Indoor Air Quality

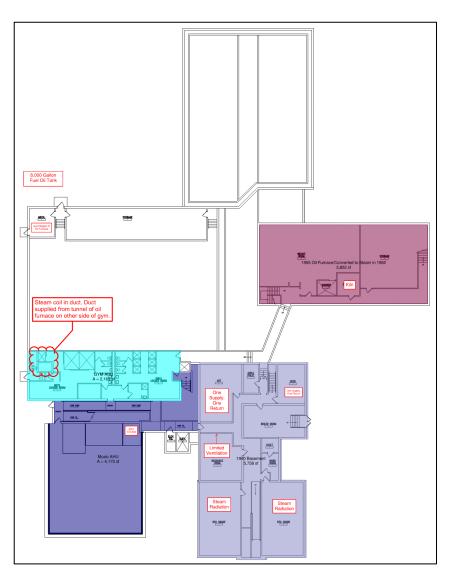
Existing Condition:

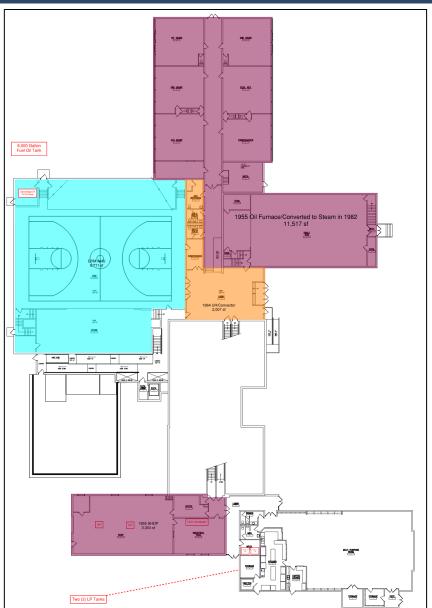
- The existing ventilation systems within the facility have exceeded their life expectancy.
- Most of the ventilation units are served by the steam boilers except for the gym air handling unit which uses fuel oil.
- Due to the age of the systems, they do not meet current code requirements to supply the required amount of outdoor air to the spaces.
- The facility utilizes pneumatics for temperature controls.
- There are only a few areas within the facility that provide air conditioning.

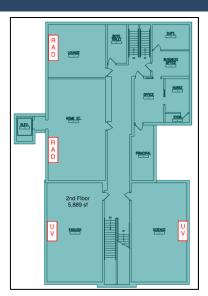
Proposed Solution:

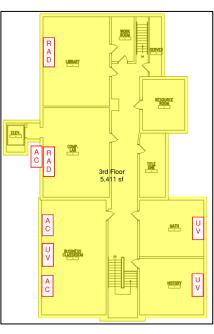
- Replace the existing ventilation systems to meet current code requirements.
- New ventilation systems will utilize hot water or gas in lieu of the current steam systems
- New units will have dehumidification (A/C)
- The replacement of the ventilation systems includes:
 - Temperature Controls (Digital)
 - Lighting (LED)
 - Ceilings (re-use the new ceiling tiles that the district has been installing).
 - Upgrading the electrical service to accommodate the additional electrical

Indoor Air Quality









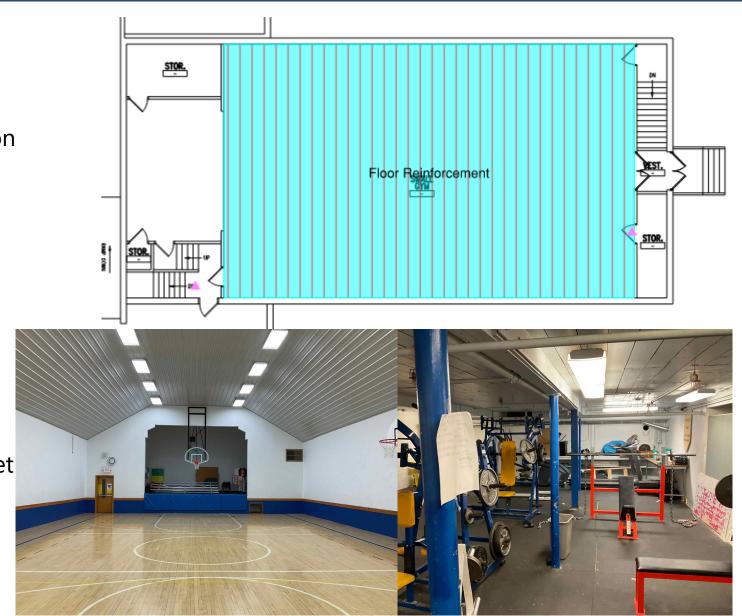
Interior Surfaces – 1936 Multi-Purpose

Existing Condition:

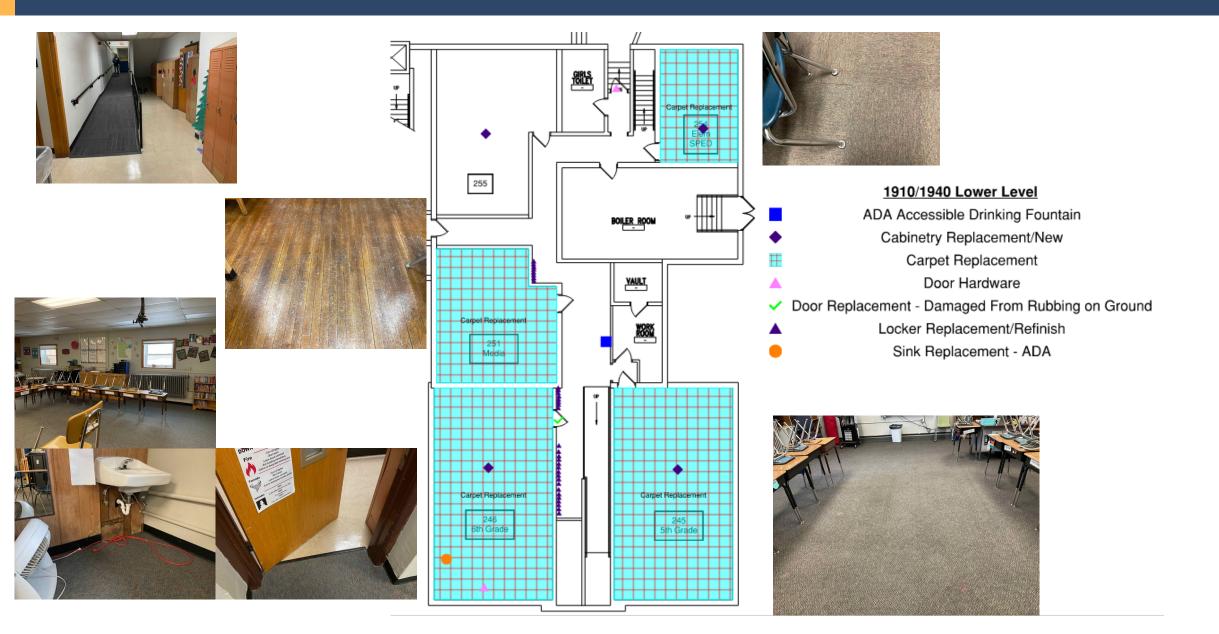
- The existing floor structure in the multipurpose has developed a noticeable deflection (bow) in the floor.
- There are several doors in this area that have door knobs that do not meet ADA code.

Proposed Solution:

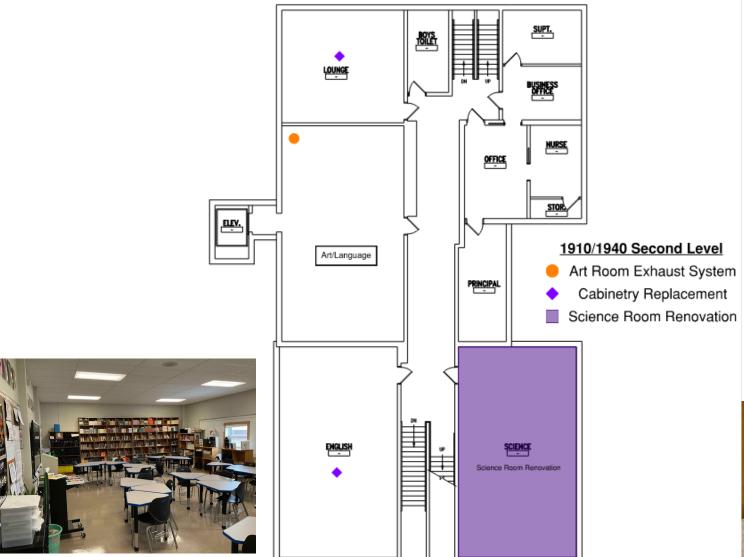
- Either replace or reinforce the existing floor structure to provide additional uses of this space.
- Replace the door hardware with levers to meet ADA code.



Interior Surfaces – 1910-1940 Lower Level



Interior Surfaces – 1910-1940 Second Level



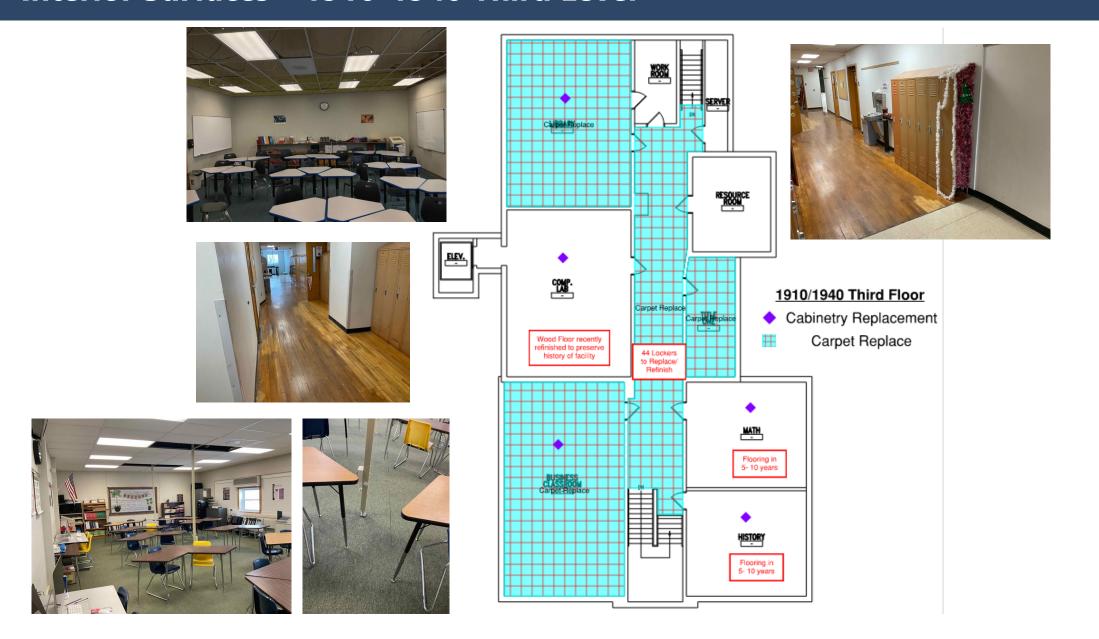
Science Room Scope:

- Install Fume Hood
- Provide Shower and Eye Wash Station
- Replace Cabinetry to gain efficiency in lab station space
- Provide gas/air for experiments
- Flooring replacement

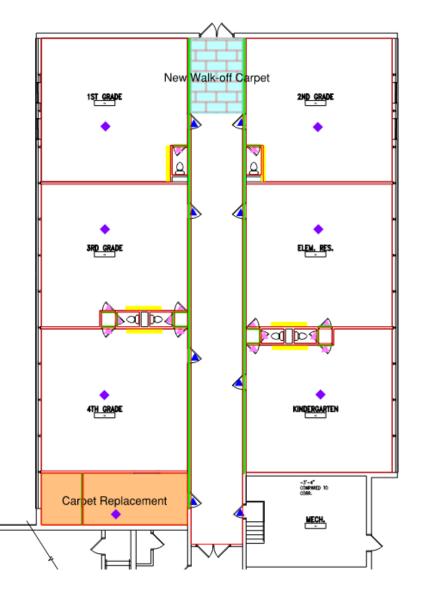




Interior Surfaces – 1910-1940 Third Level



Interior Surfaces – 1955 Elementary Classrooms



1955 Elementary CR Interior Surfaces

- Carpet Replacement
- Door Hardware
- Doors/Hardware For Transfer Grill
 - Infill Transom Windows
- Lower Cabinet With Sink Not ADA
- New Walk-off Carpet
- / Paint











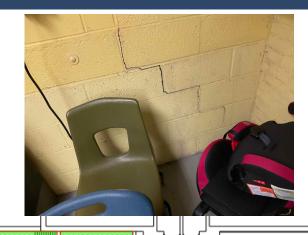


Interior Surfaces – 1955 Shop Area





Epoxy Floor

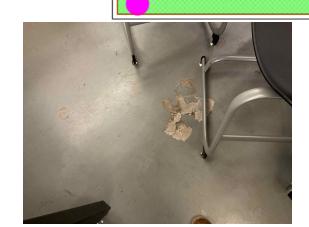




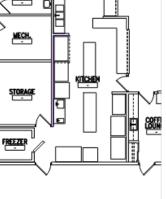
1955 Shop Area

- Cabinetry Replacement
 - Epoxy Floor
- Install Paint Booth
 - Paint
- Replace Dust Collection
- Structural Crack

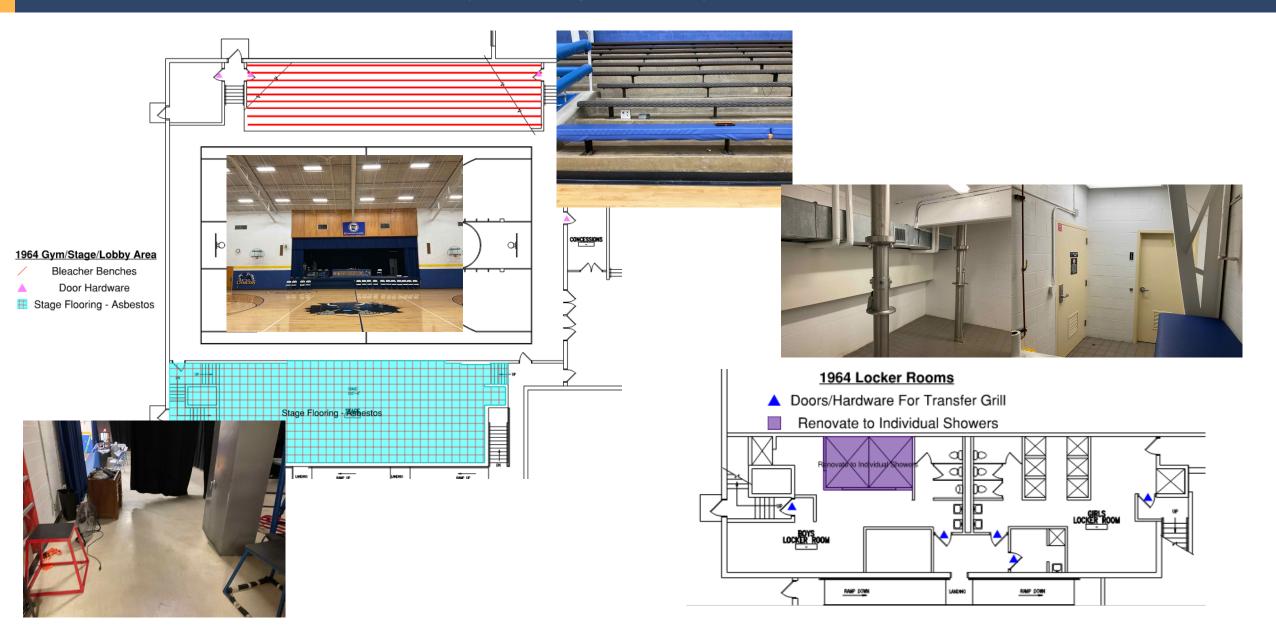








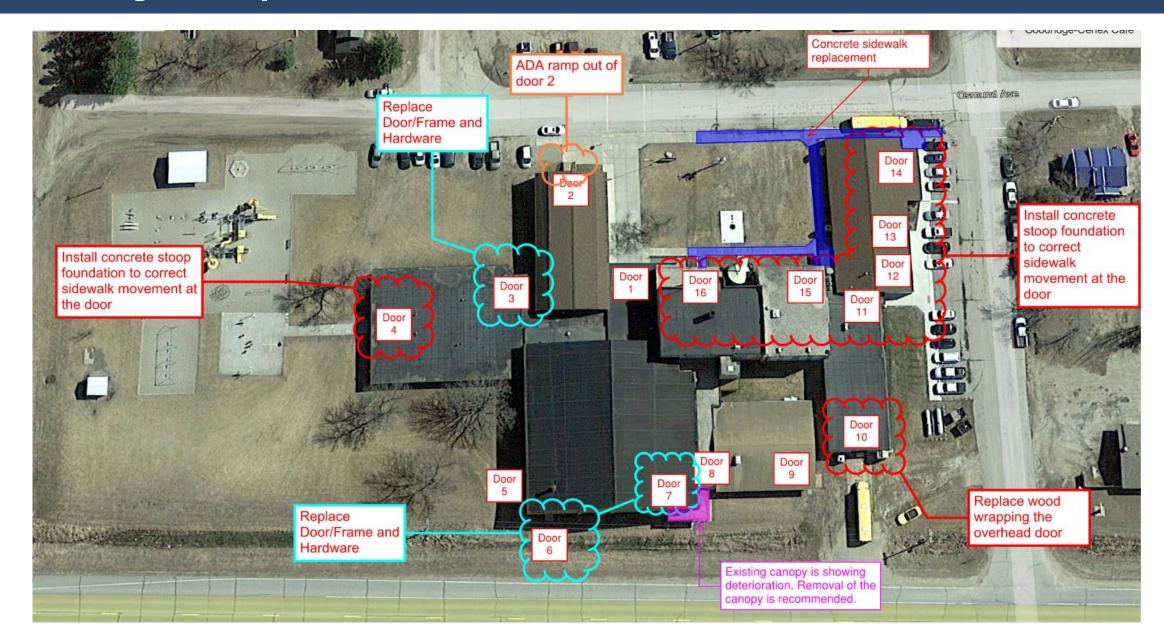
Interior Surfaces – 1964 Gym/Stage/Lobby/Locker Rooms



Interior Surfaces – 1988 Community Center



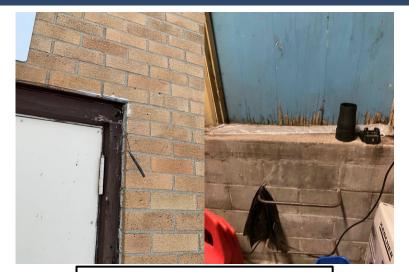
Building Envelope



Building Envelope



ADA Ramp



Door #3 Replacement



Door #7 Replacement



Door #4 Concrete Stoop



Door 7 and 8 Canopy



Door #6 Replacement

Building Envelope



Shop OH Door Trim



Door #11 Concrete Stoop



Door #12 Concrete Stoop



Door #14 Concrete Stoop



Door #15 Concrete Stoop



Door #16 Concrete Stoop



East Side Sidewalk Replacement

Roofing



Site Work



Electrical Branch Panels

Existing Condition:

- The existing electrical branch panels have exceeded their life expectancy
- These panels were installed in the period between 1950-1980

Proposed Solution:

- Replace the existing branch panels with new
- Upgrade the wiring from the main distribution panels to the branch panels



Shop Panel



1955 Elementary Panel

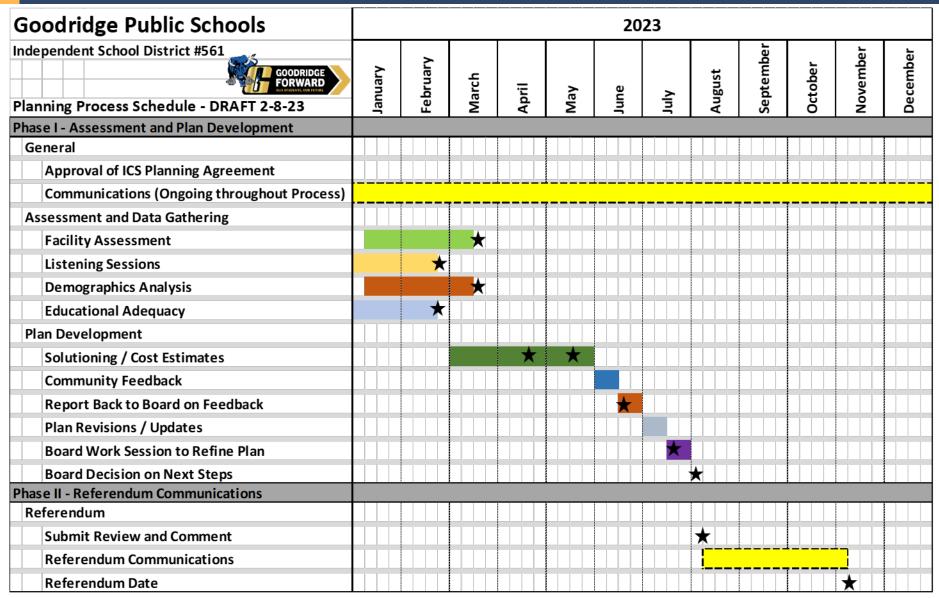


Stage Electrical Panels

MN School Funding Opportunities

Funding Options:	LTFM – Deferred maint	Performance Contracting	General Fund	Abatement Bonds - parking lots	Health & Safety LTFM - IAQ	Lease Levy - new edu. space	Bond Referendum
Plan total:							
Tax impact or no tax impact	Board Authority – No Direct Tax Impact	Board Authority – No Direct Tax Impact	Board Authority – No Direct Tax Impact	Board Authority – Direct Tax Impact	Board Authority – Direct Tax Impact	Board Authority – Direct Tax Impact	Voter Approved – Direct Tax Impact
Debt term		Cap facility bonds or lease – paid back from savings	Pay as go Or COP's or Capital facility bonds	Abatement Bonding Set by district	Alt Facility Bonding set by district	15-year lease payments	
ANNUAL TAX IMPACT ON \$200K HOME							

Next Steps



<u>April</u>

- Schedule board work session
- Invite Ehler's to present a range of tax impacts
- Board project / tax exercise to better understand priorities

