

Forest Lake Area Schools

Maintenance Garage

Owner's Project Requirements & Conceptual Narrative Scope

Date: March 12, 2026



Facility Location/Address:

843 4th St. SW

Forest Lake, MN 55025

Owner:

Forest Lake Area Schools

PROJECT INTENT/REQUIREMENTS:

Forest Lake Area Schools intends to replace the degrading roofing system, fire protection system, furnaces and infrared heaters located within the district maintenance garage.

The existing metal panel roofing system has surpassed its life expectancy and currently has multiple locations of leaking. There is a fear of further failure that could cause catastrophic damage to the equipment inside. The existing assembly will be completely removed and a new metal panel roofing assembly will be installed.

The building currently has a dry suppression system installed for fire protection. The system has multiple air leaks which cause the air compressor to run frequently to pressurize the system. This can be loud and distracting along with an excessive use of energy to stay pressurized.

The building currently has three furnaces that have reached their life expectancy and need replacement. The units need to be replaced before a failure happens that would result in an expensive repair and possible damage to equipment stored within the building.

The building currently has one infrared heater along the north side of the building in the large open space. This heater does not have the capacity to fully heat the space in the cold winter months. The current design has led to issues with the concrete floor being damaged from heat/thaw cycles that force the concrete to expand and contract.

EXISTING FACILITY DESCRIPTION:

The maintenance building was originally built as a hockey rink. In 1985 a remodel was done to the facility to add locker rooms. Roughly 15 years ago when the hockey rink was no longer needed it was converted into a district storage/maintenance building and has operated as such since then. The large open space is used to store maintenance vehicles, workshop area, and storage for district supplies. The locker room spaces have been converted in offices and a break area.

DESIGN PARAMETERS:

ISG will endeavor to provide a design which meets all applicable building codes, local ordinances, and MDE standards/MN statutes for education and storage facilities in Minnesota.

ISG will review the heating and cooling load calculations and update equipment to ensure equipment is sized properly and within the building code requirements and ASHRAE Standards.



- Applicable Code is 2020 MN State Building Code and associated codes and standards
- 2024 MN Energy Code: ASHRAE 90.1-2019
- MN Energy Conservation Code Ambient Design Conditions for Minneapolis/St. Paul shall be used for design of systems and equipment
 - Summer Ambient Design Day Conditions: 88F Dry Bulb / 72 F Wet Bulb
 - Winter Ambient Design Day Conditions: -15 F Dry Bulb
 - Indoor Summer Design Conditions (where cooling is employed): 73 F Dry Bulb and 50% Relative Humidity
 - Indoor Winter Design Conditions: 69 F Dry Bulb

PROJECT REQUIREMENTS AND SCOPE OF WORK:

The existing metal panel roofing system has surpassed its life expectancy and currently has multiple locations of leaking. The existing assembly will be completely removed and a new metal panel roofing assembly will be installed. Rigid insulation will be added to the exterior structure of the building below metal panel to bring the roofing system up to 2024 MN Energy Code compliance.

The building currently has a dry suppression fire protection system. This system will be fully removed and replaced with a new dry suppression system. It was found that the building structure was not strong enough to take on the extra load requirements of a more traditional wet sprinkler system. Because of this, a new dry suppression system will be installed. The new system will allow for proper code compliant coverage within the building.

The building currently has three furnaces that have reached their life expectancy and need replacement. All three furnaces will be removed and new equipment installed. All three new furnaces will be more efficient with a potential for less energy required to operate. All three furnaces will be of similar size and weight and will not require any additional structural reinforcing.

The building currently has one infrared heater along the north side of the building in the large open space. This infrared heater will be removed and new infrared heaters will be installed along the north, south, and east walls of the open space. This will allow the space to be stabilized at a proper interior temperature.

Complete project scope is as follows:

Mechanical Scope:

- Complete removal and replacement of the fire suppression system
- Complete removal and replacement of (3) furnaces
- Complete removal and replacement of the infrared unit heater
- Commissioning of the new equipment

Architectural Scope:

- Complete removal and replacement of the metal panel roofing assembly

Electrical Scope:

- Disconnects and reconnects to all new mechanical equipment



PROPOSED SCHEDULE:

The project will be designed and bid in one package with the design taking place during the winter of 2026. Bids will be received in spring with construction starting in the late summer/fall of 2026.

- Documents Issued – Spring 2026
- Bids Due – Spring 2026
- Board Approval & Award – Spring 2026
- Start of Construction – Summer/Fall 2026