

To: Dr. Charles Johns
Board of Education

From: Dr. Kim Ptak
Dr. R.J. Gravel

Date: Monday, November 14, 2022

Re: Recommended 2023 Exterior Door Replacement and 10-year Exterior Door Replacement Plan

Background

District and building leadership conducted a comprehensive exterior door inspection with the support of the district’s architect and construction manager, and several door and hardware consultants. The inventory focused on identifying doors needing repair or total replacement. As a result of this inspection:

1. Maintenance, including the replacement of appropriate hardware, was performed on any door identified with a critical operational need (e.g., not closing efficiently, not properly latching).
2. A 10-year door replacement plan was created, structured similarly to the district’s parking lot and roofing replacement plans.

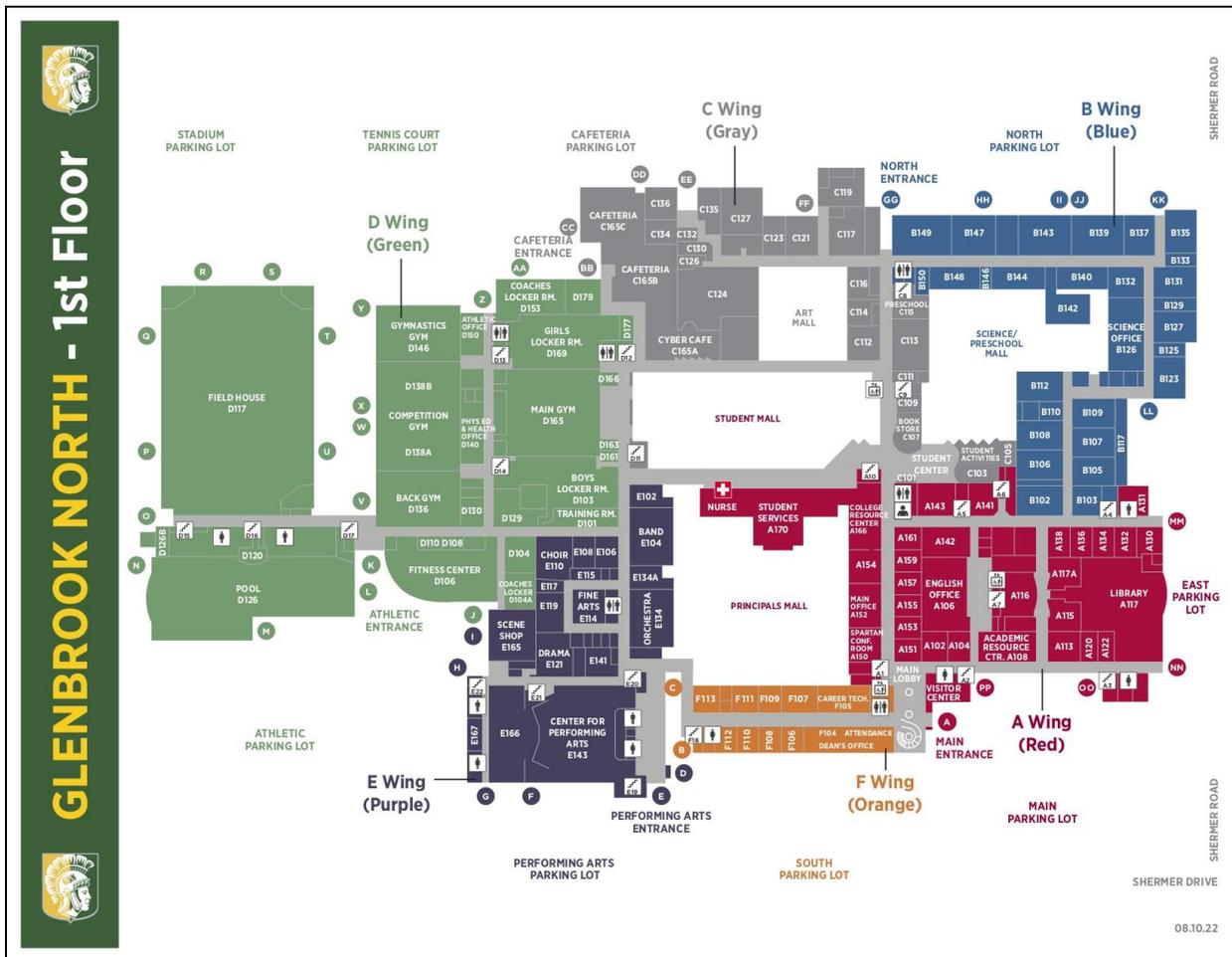
As part of establishing a door replacement plan, each door was assigned to a planned or estimated replacement date of either 1-year, 5-years, or 10-years. It should be noted that a door assigned to the 5 or 10-year cycle may be replaced sooner if deemed necessary. Table 1 summarizes the total replacement cost estimates for each replacement cycle.

Table 1
Door Replacement Plan

	Summer 2023	Summer 2027	Summer 2032	Total
Glenbrook North	\$384,000	\$169,500	\$627,500	\$1,181,000
Glenbrook South	\$288,000	\$438,500	\$576,000	\$1,302,500
Subtotal	\$672,000	\$608,000	\$1,203,500	\$2,483,500
Door Hardware	\$168,000	\$152,000	\$300,000	\$620,000
Grand Total	\$840,000	\$760,000	\$1,503,500	\$3,103,500

As illustrated in the exterior door maps below, Glenbrook North has 42 openings (Doors A-PP), and Glenbrook South has 46 openings (Doors A-VV; II and KK are not in use at GBS). Although the number of openings is similar between the two schools, Glenbrook South has approximately 40% more doors than Glenbrook North (146 compared to 105).

GBN Exterior Door Map



There are two main exterior door types throughout our buildings:

1. Aluminum; and
2. Hollow metal.

Door Types

Image 1 - Aluminum - Athletic Entrance (GBN)



Image 2 - Hollow Metal - Fieldhouse Doors (GBS)



The aluminum doors are typically part of an overall glazing system and are used in places to provide architectural detail, primarily at the main entrances. Hollow metal doors are usually found at utility entrances and doors going into specific building areas, such as music rooms, gymnasiums, natatoriums, fieldhouses, scene shops, automotive classrooms, etc.

Aluminum and hollow metal doors are typical exterior door applications since both are generally not affected by the weather and are energy efficient, secure, and durable. A challenge with hollow metal doors is that they require routine maintenance and must be regularly painted to avoid rusting. Over the years, however, many of our hollow metal doors are deteriorating despite regular maintenance and showing high degrees of rust. When replaced, it is recommended that they be replaced with fiberglass doors which are maintenance-free and rust-resistant.

The aluminum doors, as a whole, are not impacted by the outdoor elements. Any deterioration of the aluminum doors is typically seen at the base of the door caused by ice and salt (see images below). The doors in the worst condition are the ones at GBS (22 years old) with a northern exposure. It is recommended that the doors be replaced with new ones since they are part of the overall aluminum glazing system. Options for stronger glazing will be reviewed as part of the scope.

Aluminum Door Corrosion

Image 1 - West Tower (GBS)



Image 2 - West Tower (GBS)



Attached are the door inventories for Glenbrook North and Glenbrook South, showing images of all doors, the replacement cycle, and repair notes. The repair work will be funded by the operating budget and billed on a time and material basis. (Please Note: All doors at Glenbrook Off Campus and the District Administration Building are in like-new condition and not requiring replacement in the next ten years.)

Table 2
Bidding Timeline

Task	Date
Project out to Bid	Thursday, January 26, 2023
Bids Opened	Tuesday, February 14, 2023
Facility Committee Meeting	Tuesday, February 21, 2023
Board Meeting - Discussion	Monday, February 27, 2023
Board Meeting - Award	Monday, March 13, 2023

