

**To:** Dr. Charles Johns  
Board of Education

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

**Date:** Monday, October 25, 2021

**Re:** Summer 2022 Capital Projects and 3-Year Master Facility Plan

### **Recommendation**

It is recommended that the Board of Education authorize the Administration to work with Arcon Associates, the District architect, to develop bid specifications for the following capital projects to be completed in the summer of 2022 as presented.

### **Background**

School and district leadership teams maintain a fluid 3-year facility master plan, including infrastructure and enhancement projects that directly impact the student experience. For ease of viewing the facility plan, it is provided in the form of a separate document. Within the summary page and each facility's project list, the following categories have been assigned:

- **Summer 2022**  
The projects with cost estimates stated in this column represent those recommended for completion during the summer of 2022. Most recommended projects are for Glenbrook South, as the summer school program is hosted at Glenbrook North this summer.
- **Summer 2023**  
The projects with cost estimates stated in this column represent those projects anticipated to be recommended for completion during the summer of 2023. The majority of projects stated are for Glenbrook North, as the summer school program is hosted at Glenbrook South this summer.
- **Summer 2024**  
The projects with cost estimates stated in this column represent those projects anticipated to be recommended for completion during the summer of 2024. The majority of projects stated are for Glenbrook North, as the summer school program is hosted at Glenbrook South this summer.
- **Deferred**  
The projects with cost estimates stated in this column represent those that will not need to be completed during the next three summers. However, we anticipate they will need to be completed or addressed within the next ten years.

It is important to note that the plan includes cost estimates based on the initial assessment performed by the school district's architect and construction manager. As the architect reviews each project, the scope will be more narrowly defined, and the financial projection modified accordingly. Additionally, the list is intended to be fluid in nature, and items will be added, adjusted, and reprioritized as necessary.

**Recommended Summer 2022 Capital Projects**

The projects recommended for completion during the Summer of 2022 are summarized in Table 1 and presented in detail on the following pages.

**Table 1**  
**Summary of Summer 2022 Capital Projects by Category**

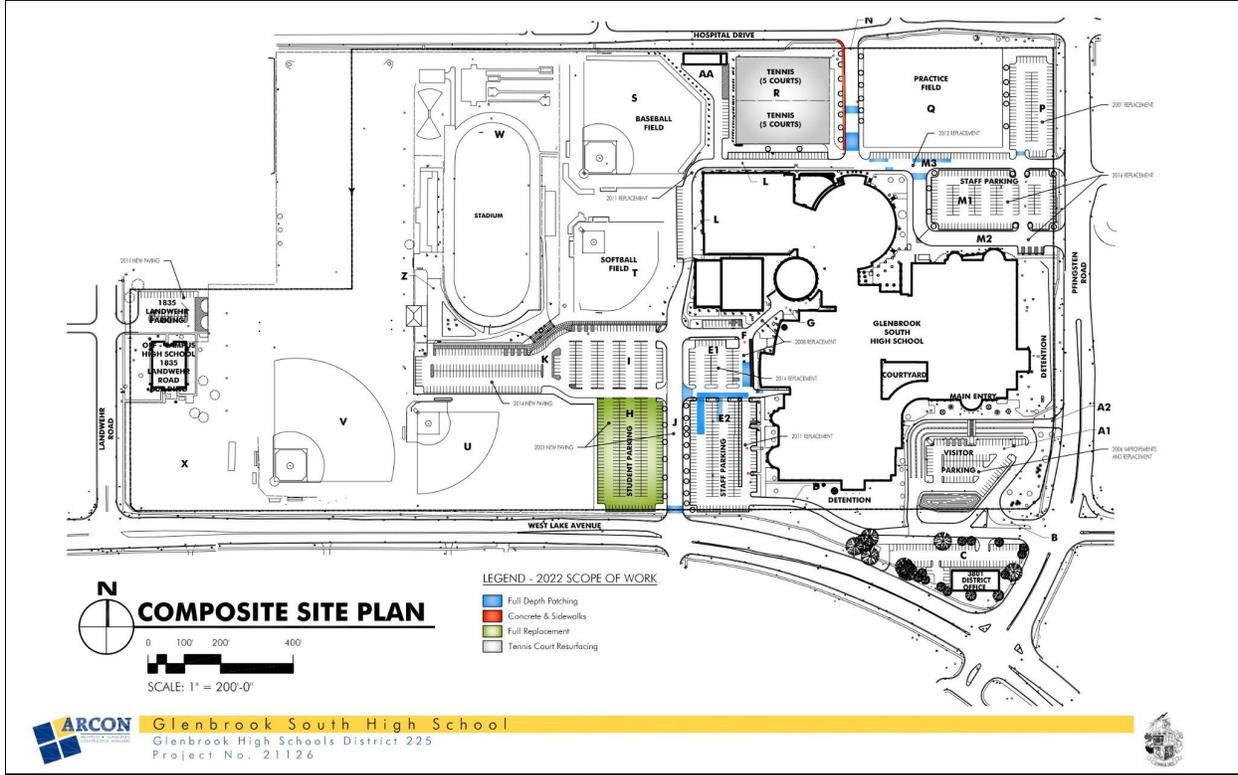
| Category                           | Location(s) | Project Description  | Financial Projection |
|------------------------------------|-------------|--|----------------------|
| Site Work                          | GBS         | West Student Lot Replacement, Deep Patching, Tennis Court Resurfacing, Sidewalk Addition | \$635,000            |
| Roofing                            | GBS         | Roof Replacement   | \$675,000            |
| Architectural                      | GBS         | Auditorium Rigging System Replacement  | \$440,000            |
| Architectural                      | GBS         | Auditorium Stage Drapery Replacement   | \$95,000             |
| Architectural                      | GBN         | East Pool Structural Repair  | \$130,000            |
| <b>Subtotal</b>                    |             |  | <b>\$1,975,000</b>   |
| Architect Fee (7.5%)               |             |  | \$148,125            |
| Construction Management Fee (7.5%) |             |  | \$148,125            |
| Contingency (2%)                   |             |  | \$39,500             |
| <b>Grand Total</b>                 |             |  | <b>\$2,310,750</b>   |

As all building and life safety bond proceeds have been exhausted, capital projects are funded on a “pay as you go” basis and built into the district’s operating budget. Within the current financial projection model, the school district allocates \$1,500,000 annually to support capital projects. These funds are secured through developer impact fees, unrestricted revenue sources (e.g., The Glen Make-Whole Payment), and approved inter-fund transfers. Should the final expense of approved capital projects exceed \$1,500,000, the school and district leadership team will need to identify additional budgetary reductions to provide for the cost.

**Table 2**  
**Site Work Projects**

| Location(s) | Project Description   | Projection       |
|-------------|---|------------------|
| GBS         | <p><b>West Student Lot Replacement</b></p> <p>The district maintains a master paving schedule that plans for parking lot replacement every 15+ years and general maintenance (crack-fill and seal coating) every 4 years. The planned summer of 2022 work includes replacing the west student lot, which was last replaced in 2001, and is well beyond its useful life and showing signs of deterioration, such as alligator cracks, potholes, and crumbling, consistent with a parking lot of this age. The scope of work is to remove the existing pavement surface and binder course, remove the existing stone base and retain it on-site for reinstallation. In addition, core samples are being conducted to determine the extent of new material needed to supplement the existing stone base.</p>   | \$335,000        |
| GBS         | <p><b>Deep Patching</b></p> <p>As part of the annual parking lot inspection, several areas are recommended for full-depth patching, which involves saw cutting and removing the affected area and modifying the existing stone base to accept the specified asphalt pavement cross-section. This will lengthen the life of the parking lots.</p>  | \$135,000        |
| GBS         | <p><b>Tennis Court Resurfacing</b></p> <p>There are ten tennis courts at GBS that were last replaced in the summer of 2015. As part of an overall preventative maintenance program, a resurfacing procedure is recommended every 5-7 years to restore the court's playability factors and extend the life of the courts by preserving the integrity of the asphalt court base. This summer marks year seven, and the court is beginning to exhibit signs such as minor cracking, fading, discoloration, and ponding which are indicators they are due for resurfacing. Resurfacing includes filling all cracks, leveling low spots with sand-filled asphalt, and installing one coat of liquid resurfacer and two color coats. Additionally, fence posts are heaving due to the annual freezing/thawing process. Therefore, the raised edge of concrete surrounding the fence posts will be ground to give a smooth and uniform appearance. The sealant will be compatible with the liquid track surfacing and color coats. It should be noted that tennis courts are typically resurfaced twice in a lifetime.</p> | \$135,000        |
| GBS         | <p><b>Sidewalk Addition</b></p> <p>Due to the limited parking capacity at GBS for students, the Glenview Ice Center sells approximately 90 parking permits to our students. In addition, there is currently a sidewalk owned and maintained by the Village that runs along hospital drive, used by students walking from the Ice Center to the GBS north entrance. However, there is currently no sidewalk connecting the Village sidewalk and the building entrance, resulting in the need for students to cut through the parking lot to enter the building. The proposed sidewalk is approximately 305 feet long and will run just east of the tennis courts, creating a safe student path.</p>  | \$30,000         |
|             |   | <b>\$635,000</b> |

### GBS Site Work Map



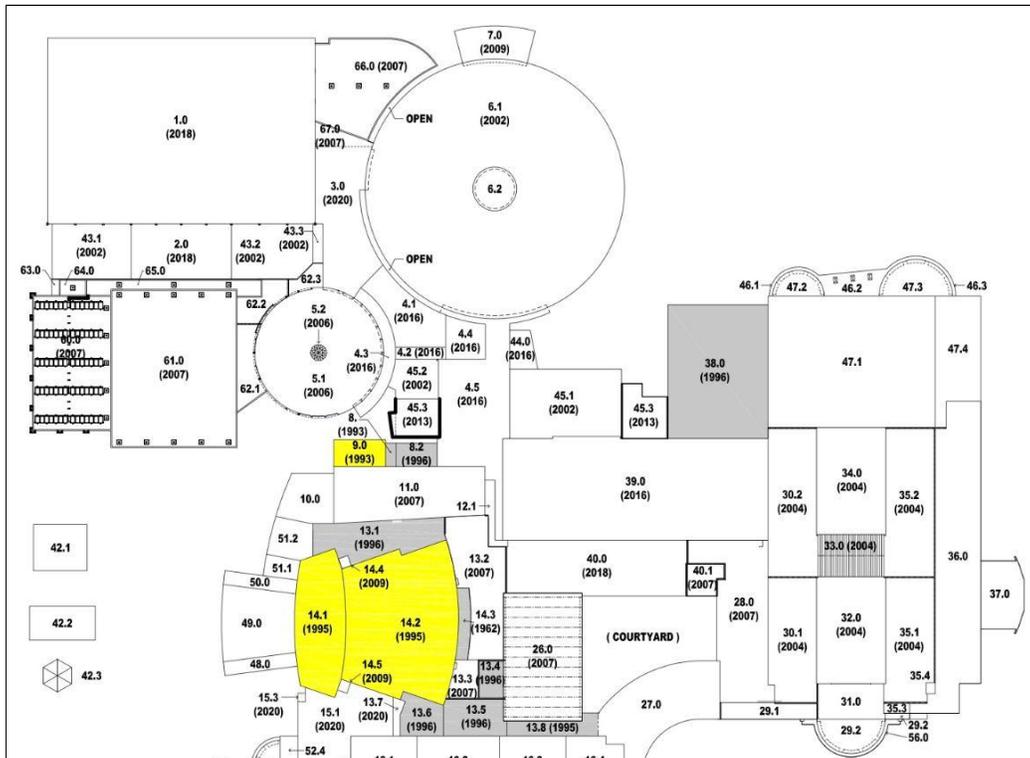
### GBS Tennis Court Images



**Table 3**  
**Roofing Projects**

| Location(s) | Project Description   | Projection       |
|-------------|---|------------------|
| GBS         | <p><b>Roof Replacement - Music (Records Room)</b></p> <p>The music records room roof is the oldest roof at GBS. It is 1,000 sq. ft. and was installed in 1993. This summer, it will be 29 years old and has reached the end of its serviceable life, demonstrating several deficiencies typical for this roof system's age. The proposed new roof system will consist of roof insulation with an R-value of 30.0 minimum and a multi-ply modified bitumen built-up roof membrane with gravel surfacing. Thus, the life expectancy of the new roof is 30+ years.</p> | \$35,000         |
| GBS         | <p><b>Roof Replacement - Auditorium Stage</b></p> <p>The Auditorium Stage roof was installed in 1995 and is 5,400 square feet. This summer, it will be 27 years old and is experiencing several deficiencies typical for this roof system's age. The proposed new roof system would consist of roof insulation with an R-value of 30.0 minimum and a multi-ply modified bitumen built-up roof membrane with gravel surfacing. The life expectancy of the new roof is 30+ years.</p>   | \$180,000        |
| GBS         | <p><b>Roof Replacement - Auditorium House</b></p> <p>The Auditorium House roof was installed in 1995 and is 13,800 square feet. This summer, it will be 27 years old and is experiencing several deficiencies typical for this roof system's age. The proposed new roof system would consist of roof insulation with an R-value of 30.0 minimum and a multi-ply modified bitumen built-up roof membrane with gravel surfacing. The life expectancy of the new roof is 30+ years.</p>  | \$460,000        |
|             |   | <b>\$675,000</b> |

**GBS Roofing Map**



**Table 4**  
**Architectural Projects**

| Location(s) | Project Description   | Projection |
|-------------|---|------------|
| GBS         | <p><b>Auditorium Rigging System Replacement</b><br/>GBS has a manual, counterweight rigging system that is original to the auditorium (1961). This system provides the ability to lower and raise pipe battens by counterbalancing the load with an arbor loaded with counterweight (steel plates). There are 25, 76-foot long pipe battens that run across the stage’s ceiling and are used to raise and lower theater equipment during a production.</p> <p><b>Breakdown of 25 pipe battens</b><br/>1 - Main Curtain batten<br/>14 - General Purpose or Utility batten (scenery, special lighting)<br/>4 - Legs (tall curtains on the side used to mask the sides of the stage)<br/>3 - Lighting<br/>2 - Travelers (full black curtains used as a backdrop for concerts etc.)<br/>1 - Cyc (white curtain at the back of the stage used to project video or color)</p> <p><b>Recommendations</b><br/>Twenty-three pipe battens are guided by a large grillage “Arbor Guide Wall” built on stage left and have a payload capacity of approximately 1,300 pounds per line set. It is recommended that these be replaced with a newer counterweight system. The grillage will remain.</p> <p>Two of the battens (Main Curtain and General Purpose) have counterweights on the opposite side of the stage. These counterweights are guided by free-strung wires, which do not comply with the newest ANSI standards and exceed the recommended travel distance. Due to the necessary placement of these line sets, they cannot be incorporated into the counterweight system on stage left. There is not proper height in this location to use a manual counterweight system. It is recommended that these be replaced with motorized battens. Rather than raising and lowering the battens through manual counterweights, these battens would be automated.</p> | \$440,000  |
| GBS         | <p><b>Auditorium Stage Drape Replacement</b><br/>The stage curtains are original to the auditorium and are of cotton construction. As such, the drapes require cleaning and re-treating with flame retardants every five years. The GBS drapes were last treated four years ago. Over time, the fabric becomes more difficult and expensive to treat and needs to be replaced. It is recommended that the drapes be replaced with a more contemporary polyester drapery which is inherently flame retardant and does not require re-treating. All of the stage drapes are included in this scope.</p>   | \$95,000   |
| GBN         | <p><b>East Pool Structural Repair</b><br/>The east pool at GBN is the smaller, original pool and has structural issues needing to be addressed. The foundation wall near the southeast corner of the pool requires repair and structural reinforcement for a length of about 25 feet. The concrete is spalling, which exposes the rebar/reinforcement and causing corrosion. The repair will consist of the removal of all loose and damaged concrete and sandblasting of exposed rebar. In addition, a new 6” deep, reinforced concrete wall will be poured behind the existing wall.</p> <p>Additionally, the pool gutter piping near the southeast corner of the pool is</p>   | \$130,000  |

|  |  |  |
|--|--|--|
|  | corroding and showing signs of potential failure. It is recommended that these be replaced at the time the foundational repairs occur. |  |
|--|--|--|

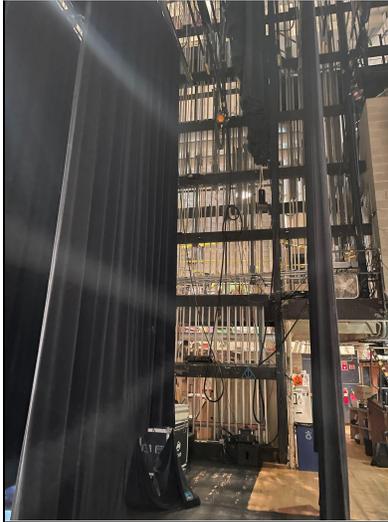
|  |  |                  |
|--|--|------------------|
|  |  | <b>\$665,000</b> |
|--|--|------------------|

**GBS Auditorium Rigging System**

***Image 1***



***Image 2***



***Image 3***



Image 1

Twenty-five pipe battens spanning the length of the stage ceiling.

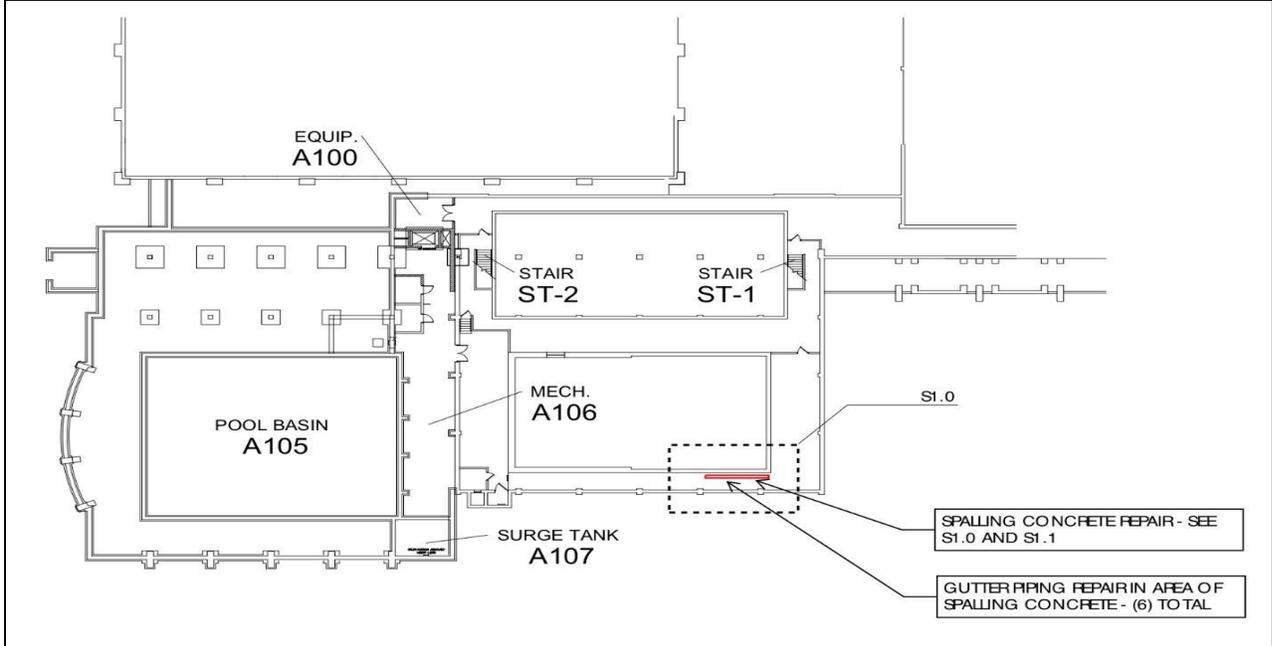
Image 2

Arbor Guide Wall with manual counterweight system controlling 23 of the 25 battens on Stage Left.

Image 3

Antiquated counterweight system controlling 2 of the 25 pipe battens on Stage Right.

**GBN Pool Map**



**GBN Pool Images**

*Image 1*



*Image 2*



**Timeline**

Typically project specifications are sent to bidders in January and are due back in February. Results are then reviewed with the Facility Committee in mid-February and awarded during a March Board meeting.

Unfortunately, the pandemic has resulted in unprecedented material lead times, especially for roof insulation estimated to be five months. As a result, the administration has asked Arcon to move forward with the bid specification for the roof replacement. Bid package requests were sent to prospective bidders on October 8, 2021, and are due on October 26, 2021. Bids will be brought to the Board for consideration in November.

This updated timeline allows for work to be completed this summer. Additionally, rigging equipment is estimated to have a 14-week lead-time for fabrication. Therefore, the rigging system and other recommended projects are following an accelerated timeline and will be released to bidders on November 30, 2021, and due on December 21, 2021. Table 5 details the proposed timeline.

**Table 5**  
***Bidding Timeline***

| <b>Task</b>                | <b>Roof Replacement Projects</b> | <b>Paving and Architectural Projects</b> |
|----------------------------|----------------------------------|--|
| Project out to Bid         | October 8, 2021                  | November 30, 2021                        |
| Bids Opened                | October 26, 2021                 | December 21, 2021                        |
| Facility Committee Meeting | Email results                    | January 5, 2022                          |
| Board Meeting - Discussion | November 8, 2021                 | January 10, 2022                         |
| Board Meeting - Award      | November 22, 2021                | January 24, 2022                         |

Glenbrook High School District 225 - Summary of Master Facility Plan

*Updated as of October 14, 2021*

| Location                               | Cost Est. Total     | Summer 2022        | Summer 2023        | Summer 2024        | Deferred            |
|--|---------------------|--------------------|--------------------|--------------------|---------------------|
| District Administration Building (GBA) | \$292,500           | \$0                | \$52,650           | \$0                | \$239,850           |
| Glenbrook North High School (GBN)      | \$18,503,550        | \$152,100          | \$1,714,050        | \$87,750           | \$16,549,650        |
| Glenbrook South High School (GBS)      | \$13,016,250        | \$2,158,650        | \$0                | \$2,006,550        | \$8,851,050         |
| Glenbrook Off Campus (GBO)             | \$292,500           | \$0                | \$46,800           | \$0                | \$245,700           |
| <b>Grand Total</b>                     | <b>\$32,104,800</b> | <b>\$2,310,750</b> | <b>\$1,813,500</b> | <b>\$2,094,300</b> | <b>\$25,886,250</b> |

Summer School Location: Glenbrook North    Glenbrook South    Glenbrook North

## Glenbrook High School District 225 - District Administration Building (GBA) Master Facility Plan

Updated as of October 14, 2021

| Location                              | Project & Area                            | Description of concern and recommended action  | Cost Est. Total  | Summer 2022 | Summer 2023     | Summer 2024 | Deferred         |
|---------------------------------------|---|--|------------------|-------------|-----------------|-------------|------------------|
| <b>Paving and Site Work</b>           |   |  |                  |             |                 |             |                  |
| GBA                                   | Paving - Parking Lot                      | According to building records, the district parking lot was installed in 1988 and has been patched and sealcoated multiple times. The lot was last sealcoated the summer of 2020. It is recommended that the lot be replaced the summer of 2026.<br><b>Parking lot replacement recommended.</b>  | \$130,000        |             |                 |             | \$130,000        |
| <b>Mechanical</b>                     |   |  |                  |             |                 |             |                  |
| GBA                                   | HVAC Replacement - 200B, 200C, 200D, 200E | This space at the district office was previously rented by a dental practice and was configured with four small exam rooms. Each exam room is heated and cooled via window units and the space is not tied into the overall building HVAC system.<br><b>Provide new heating and cooling systems for this space that is tied into the overall building systems.</b> | \$75,000         |             |                 |             | \$75,000         |
| <b>Architectural</b>                  |   |  |                  |             |                 |             |                  |
| GBA                                   | Carpeting - 2E                            | The carpeting in suite 2E is 10 years old and is expected to be replaced the summer of 2022.<br><b>Update lighting to LED.</b>   | \$35,000         |             | \$35,000        |             |                  |
| <b>Electrical</b>                     |   |  |                  |             |                 |             |                  |
| GBA                                   | Lighting Retrofit - 2E                    | The lighting in suite 2E is the remaining area at the district office with fluorescent lighting. Lighting should be upgraded to LED.<br><b>Update lighting to LED.</b>   | \$10,000         |             | \$10,000        |             |                  |
| <b>Subtotal for All Project Areas</b> |   |  | <b>\$250,000</b> | <b>\$0</b>  | <b>\$45,000</b> | <b>\$0</b>  | <b>\$205,000</b> |
| <b>Fees/Construction Contingency</b>  |   |  | <b>\$42,500</b>  | <b>\$0</b>  | <b>\$7,650</b>  | <b>\$0</b>  | <b>\$34,850</b>  |
| <b>Grand Total</b>                    |   |  | <b>\$292,500</b> | <b>\$0</b>  | <b>\$52,650</b> | <b>\$0</b>  | <b>\$239,850</b> |

## Glenbrook High School District 225 - Glenbrook North High School (GBN) Master Facility Plan

Updated as of October 14, 2021

| Location   | Project & Area   | Description of concern and recommended action   | Cost Est. Total | Summer 2022 | Summer 2023 | Summer 2024 | Deferred    |
|--|--|---|-----------------|-------------|-------------|-------------|-------------|
| <b>Roofing</b>                                   |  |   |                 |             |             |             |             |
| GBN  | Roof Replacement - Back gym, main gym balcony, art, industrial ed, cafeteria corridors, science wing, mall canopy, music, CPA lobby. | There are several roof structures reaching 26+ years old and will be closely monitored over the next 3-5 years. Summer 2021: Music, CPA Lobby and Cooridor. Summer 2023: Back Gyms  | \$1,955,000     |             | \$550,000   |             | \$1,405,000 |
| <b>Roof replacement recommended.</b>             |  |   |                 |             |             |             |             |
| <b>Paving and Site Work</b>                      |  |   |                 |             |             |             |             |
| GBN  | Paving - North and South lots  | Crack-filling and sealcoating is a preventative maintenance item that helps to maintain and extend the lifespan of an asphalt surface by preventing surface deterioration. The industry standard for this treatment is every three to four years, the district adopted a four year cycle. This preventative maintenance measure reduces weather damage and water penetration of the asphalt surface, resists effects from gas, oil and salts, seals and protects the asphalt surface from deteriorating effects, reduces freeze-thaw deterioration, and extends the service life of the pavement. Crack-filling and sealcoating involves cleaning and preparing the asphalt surface, installing joint sealant into prepared cracks, applying sealer and allowing it to cure, and applying pavement markings. The GBN south lots are scheduled for the summer of 2021 and the north lots the summer of 2023. | \$130,000       |             | \$130,000   |             |             |
| <b>Crack-fill/sealcoating recommended.</b>       |  |   |                 |             |             |             |             |
| GBN  | Paving - Staff and West Student Lot  | The staff parking lot and west student parking lot are scheduled for replacement the summer of 2025.  | \$605,000       |             |             |             | \$605,000   |
| <b>Replacement of parking lot recommended.</b>   |  |   |                 |             |             |             |             |
| GBN  | Paving - Tennis Courts   | The GBN tennis courts were replaced the summer of 2018. It is recommended that they be resurfaced every 7 years. Work should be completed the summer of 2025. Crack repair and resurfacing will involve cleaning existing cracks and court surface, installation of “crack filler”, filling cracks with granular silica sand, and applying one coat of acrylic resurfacer and two coats of fortified acrylic tennis court color coating surface.  | \$135,000       |             |             |             | \$135,000   |
| <b>Resurfacing of tennis courts recommended.</b> |  |   |                 |             |             |             |             |
| GBN  | Turf surface replacement - Stadium Field   | The artificial turf field was installed in 2013. The top layer (carpet) needs to be replaced every 12-14 years. It is estimated the surface should be replaced the summer of 2027.  | \$575,000       |             |             |             | \$575,000   |
| <b>Replacement of field surface recommended.</b> |  |   |                 |             |             |             |             |

## Glenbrook High School District 225 - Glenbrook North High School (GBN) Master Facility Plan

Updated as of October 14, 2021

| Location                   | Project & Area   | Description of concern and recommended action   | Cost Est. Total | Summer 2022 | Summer 2023 | Summer 2024 | Deferred    |
|----------------------------|--|---|-----------------|-------------|-------------|-------------|-------------|
| GBN                        | Bleacher and Press Box Replacement - Stadium                               | The bleachers were installed in the late 1970s. Although passing inspection, the underlying structure is slowly deteriorating and rusting. The recommended repairs due to wear and tear has been accumulating each year including seating replacement, welding and painting. The bleachers do not have proper capacity (home 1800 and visitor 900) and are the smallest bleachers in the 12 team conference. Additionally the bleachers are not ADA compliant making it difficult for students, staff and community members to watch events with friends and family. The press box is also much smaller for today's needs which include broadcasting, filming etc.<br><b>Replacement of bleachers, press box recommended.</b> | \$1,500,000     |             |             |             | \$1,500,000 |
| <b>Mechanical/Plumbing</b> |  |   |                 |             |             |             |             |
| GBN                        | Building Automation System Software and Component Replacement - Throughout | GBN uses a building automation system (BAS) which was installed in 2001, to automate the many building mechanical systems. The current system and component parts (field panels, controllers) are considered obsolete and no longer available or supported. Wiring is old and has the potential to fail.<br><b>Replace BAS system and components. Run new wiring.</b>   | \$900,000       |             |             |             | \$900,000   |
| GBN                        | Hydraulic Lift Replacement - CPA   | The GBN orchestra pit lift is original construction with two hydraulic rams. There is the potential for failure. The lift can drift out of level from side to side. New pit lifts are electronically driven avoiding the need for hydraulic fluid.<br><b>Replace Hydraulic Lift</b>   | \$350,000       |             |             |             | \$350,000   |
| GBN                        | Rigging System   | The GBN rigging system is a manual counter weight system that is original to the auditorium and in need of replacement.<br><b>Replace Rigging System</b>  | \$500,000       |             | \$500,000   |             |             |
| GBN                        | HVAC Replacement - Shop Classrooms Wood Shop, Auto Shop, Metal Shop        | The existing ceiling hung air handling units for the shop classrooms are the original air handling unit and are approximately 60 years old. Failure of these units will result in loss of heating and ventilation and the ability to maintain proper space temperature to the areas they serve.<br><b>Provide a new Air Handling System to service these areas.</b>   | \$350,000       |             |             |             | \$350,000   |
| GBN                        | Boiler Replacement - Boiler Room   | The existing fired steam boilers (4) are over 60 years old showing signs of deterioration. Loss of the boilers would result in loss of heat to the entire building.<br><b>Replace existing steam boilers with new gas fired hot water boilers. Extend new hot water supply and return mains to existing equipment.</b>  | \$1,800,000     |             |             |             | \$1,800,000 |
| GBN                        | HVAC Replacement - C-108 and Nurse/Student Services                        | As part of the 2016 Life Safety Bond issuance, the majority of unit ventilators were replaced. There is a remaining unit ventilator in the ceiling of room C-108 and nurses and student services are roof top units.<br><b>Replace unit ventilators with a rooftop unit.</b>  | \$130,000       |             |             |             | \$130,000   |

## Glenbrook High School District 225 - Glenbrook North High School (GBN) Master Facility Plan

Updated as of October 14, 2021

| Location          | Project & Area   | Description of concern and recommended action   | Cost Est. Total | Summer 2022 | Summer 2023 | Summer 2024 | Deferred  |
|-------------------|--|---|-----------------|-------------|-------------|-------------|-----------|
| GBN               | Water pipe and fixture replacement - Applied Tech Restrooms      | The existing domestic water piping mains are the original galvanized steel piping. The piping is deteriorated causing leaks and loss of water pressure to building. The existing plumbing fixtures in classrooms and toilet rooms are the original fixtures and are worn.<br><b>Replace piping and fixtures with new.</b>   | \$70,000        |             |             |             | \$70,000  |
| GBN               | Water pipe and fixture replacement - Girls and Boys PE Restrooms | The existing domestic water piping mains are the original galvanized steel piping. The piping is deteriorated causing leaks and loss of water pressure to building. The existing plumbing fixtures in locker room and toilet rooms are the original fixtures and are worn.<br><b>Replace piping and fixtures with new.</b>  | \$225,000       |             |             |             | \$225,000 |
| GBN               | Water pipe, fixture replacement, ADA compliance - CPA Restrooms  | The existing domestic water piping mains are the original galvanized steel piping. The piping is deteriorated causing leaks and loss of water pressure to building. The existing plumbing fixtures are the original fixtures and are worn. Additionally, the current restrooms are not ADA compliant and additional stalls are needed to support the CPA.<br><b>Replace piping and fixtures with new.</b> | \$455,000       |             |             |             | \$455,000 |
| GBN               | Piping Replacement - A-Wing                                      | The hot water piping was replaced in the late 1990s however the circulation to individual fixtures is a concern and the hot water is not effectively traveling to the individual fixing, cold water piping is now approaching the end of its useful life and is showing signs of deterioration.<br><b>Replace piping and fixtures with new.</b>   | \$180,000       |             |             |             | \$180,000 |
| <b>Electrical</b> |  |   |                 |             |             |             |           |
| GBN               | Lighting - CPA   | The current incandescent lighting in the CPA is difficult to maintain due to its height and is not energy efficient. Additionally they consume a great deal of power and burn out frequently. It is recommended that the lighting be converted to LED on both the stage and house.<br><b>LED retrofit is recommended.</b>   | \$700,000       |             |             |             | \$700,000 |
| GBN               | Lighting and Ceiling Tile Replacement - Back Gym Hall            | The back gym hall ceiling and lighting was replaced when the back gym work was completed the summer of 2018. There is a portion of old spline ceiling with surface mounted lighting that remains.<br><b>Provide a new drop ceiling and LED lighting.</b>  | \$80,000        |             | \$80,000    |             |           |
| GBN               | Lighting and Dimming System Replacement - Science Rooms          | The science rooms fluorescent lighting and dimming system is at the end of its useful life and intermittently functioning.<br><b>Replace fluorescent fixtures with new LED and control with new wall box 0-10V dimmer.</b>  | \$50,000        |             |             |             | \$50,000  |
| GBN               | Lighting - Athletic Stadium                                      | The existing athletic stadium fixtures are energy inefficient and high maintenance.<br><b>Replace 400W metal halide light fixtures with energy efficient LED fixtures.</b>  | \$180,000       |             |             |             | \$180,000 |
| GBN               | Lighting - Classrooms  | Convert general classrooms to LED lighting. There are approximately 170 classrooms.<br><b>LED retrofit recommended.</b>   | \$320,000       |             | \$25,000    | \$25,000    | \$270,000 |

Glenbrook High School District 225 - Glenbrook North High School (GBN) Master Facility Plan

Updated as of October 14, 2021

| Location               | Project & Area  | Description of concern and recommended action  | Cost Est. Total | Summer 2022 | Summer 2023 | Summer 2024 | Deferred    |
|------------------------|---|--|-----------------|-------------|-------------|-------------|-------------|
| <b>Flooring/Tiling</b> |   |  |                 |             |             |             |             |
| GBN                    | Carpeting   | Carpeting in various classrooms and corridors is 20+ years old and in need of replacement.<br><b>Carpet replacement recommended.</b>   | \$400,000       |             | \$50,000    | \$50,000    | \$300,000   |
| GBN                    | Flooring - CPA Stage  | The CPA stage flooring is a soft pine which becomes worn overtime from the various stage sets that are screwed into the floor. There are many weak spots and a great deal of deflection underfoot. There is splintering, shearing and the potential for failure under heavy loads. The flooring is original and in need of replacement.<br><b>Replacement of CPA stage flooring recommended.</b>   | \$130,000       |             | \$130,000   |             |             |
| GBN                    | Flooring - Cafeteria Hallway, Laundry Room Hallway and Main Gym Hallway | These hallways are high traffic areas and the current VCT is worn, no longer looks clean and in need of replacement.<br><b>Replace VCT</b>   | \$160,000       |             |             |             | \$160,000   |
| <b>Architectural</b>   |   |  |                 |             |             |             |             |
| GBN                    | Door Replacement - Throughout Building                                  | The Total Doors do not always properly latch and should be replaced.<br><b>Replace Hallway Total Doors</b>   | \$1,000,000     |             |             |             | \$1,000,000 |
| GBN                    | Reconfiguration and Furniture - Social Studies A208                     | A208 is an oversized social studies classroom. The room can be converted into a conference room and general classroom.<br><b>Redesign of A208 and new furniture recommended.</b>   | \$125,000       |             |             |             | \$125,000   |
| GBN                    | Reconfiguration and Appliance Replacement - Culinary Arts Room          | There are two culinary art rooms - C106 and C108. C106 was redone a few years ago, C108 is outdated and would benefit from remodeling.<br><b>Redesign of Culinary arts and new furniture recommended.</b>  | \$200,000       |             |             |             | \$200,000   |
| GBN                    | Performing Arts Space   | Performing arts consists of music, theater and dance. Scheduling the various practices, rehearsals and performances can be difficult due to the limited performance spaces; often after school dance clubs are forced into the cafeteria, hallways and classrooms which isn't ideal. Also, music and theater performances that are best suited in a medium sized venue are either scheduled into the large CPA or music and drama classrooms. Data is being collected and analyzed to determine the facility needs and recommendations.<br><b>Additional Performing Arts Space(s) recommended.</b> | \$2,000,000     |             |             |             | \$2,000,000 |

Glenbrook High School District 225 - Glenbrook North High School (GBN) Master Facility Plan

Updated as of October 14, 2021

| Location                              | Project & Area                                      | Description of concern and recommended action  | Cost Est. Total     | Summer 2022      | Summer 2023        | Summer 2024     | Deferred            |
|---------------------------------------|---|--|---------------------|------------------|--------------------|-----------------|---------------------|
| GBN                                   | Pool Structural Repair and Gutter Drain Replacement | <p>The east pool at GBN is the smaller, original pool and has structural issues needing to be addressed. The foundation wall near the southeast corner of the pool, for a length of about 25 feet, is in need of repair. The concrete is spalling which is exposing the rebar/reinforcement and causing corrosion. The repair will consist of the removal of all loose and damaged concrete and sandblasting of exposed rebar. A new 6" deep, reinforced concrete wall will be poured behind the existing wall.</p> <p>Additionally, the pool gutter piping near the southeast corner of the pool is corroding and showing signs of potential failure. It is recommended that these be replaced at the time the foundational repairs occur.</p> <p><b>Repair Structural Issues and Replace 6 Gutters</b></p> | \$130,000           | \$130,000        |                    |                 |                     |
| GBN                                   | CPA Dressing Room Renovation                        | <p>The CPA has dressing rooms that are original to the building and are not ADA compliant. The space lacks necessary storage and is in need of new flooring, ceiling tile and lighting.</p> <p><b>Renovate CPA dressing rooms</b></p>  | TBD                 |                  |                    |                 |                     |
| GBN                                   | Culinary Lab  | <p>GBN has an antiquated culinary lab used to teach several foods classes throughout the day. The scope of the project is to remodel the space to create cooking stations with updated appliances. Additionally, this space is one of the last remaining spaces to have original HVAC equipment. It is recommended that this be replaced.</p> <p><b>Renovate CPA dressing rooms</b></p>  | \$330,000           |                  |                    |                 | \$330,000           |
| <b>Larger Purchases</b>               |   |  |                     |                  |                    |                 |                     |
| GBN                                   | Furniture Purchase - IMC                            | <p>The furniture in the IMC consists of tables and chairs. To facilitate student collaboration as well as independent learning, it is recommended that modular, mobile furniture be added to these spaces.</p> <p><b>Furniture replacement recommended.</b></p>  | \$80,000            |                  |                    |                 | \$80,000            |
| GBN                                   | Furniture Purchase - Peer Group                     | <p>Peer group has a need for new chair (approximately 80). The current chairs are mismatched and not mobile.</p> <p><b>Furniture replacement recommended.</b></p>  | \$20,000            |                  |                    |                 | \$20,000            |
| GBN                                   | Furniture Purchase - Math office spaces             | <p>The desks are 30+ years old and do not accommodate the desire for collaborative and flexible space.</p> <p><b>Furniture purchase recommended.</b></p>   | \$50,000            |                  |                    |                 | \$50,000            |
| <b>Subtotal for All Project Areas</b> |   |  | \$15,815,000        | \$130,000        | \$1,465,000        | \$75,000        | \$14,145,000        |
| <b>Fees/Construction Contingency</b>  |   |  | \$2,688,550         | \$22,100         | \$249,050          | \$12,750        | \$2,404,650         |
| <b>Grand Total</b>                    |   |  | <b>\$18,503,550</b> | <b>\$152,100</b> | <b>\$1,714,050</b> | <b>\$87,750</b> | <b>\$16,549,650</b> |

## Glenbrook High School District 225 - Glenbrook Off Campus (GBO) Master Facility Plan

Updated as of October 14, 2021

| Location                              | Project & Area                     | Description of concern and recommended action  | Cost Est. Total  | Summer 2022 | Summer 2023     | Summer 2024 | Deferred         |
|---------------------------------------|------------------------------------|--|------------------|-------------|-----------------|-------------|------------------|
| <b>Paving and Site Work</b>           |                                    |  |                  |             |                 |             |                  |
| GBO                                   | Paving - Parking Lot               | According to building records, the off campus parking lot was last replaced in 1995 and is expected to be ready for replacement in 2025.<br><b>Parking lot replacement recommended.</b>  | \$130,000        |             |                 |             | \$130,000        |
| <b>Electrical</b>                     |                                    |  |                  |             |                 |             |                  |
| GBO                                   | Lighting - Throughout the Building | The current lighting at OC is fluorescent and the overall light quality and energy efficiency is less than LED lighting.<br><b>LED retrofit is recommended.</b>                          | \$40,000         |             | \$40,000        |             |                  |
| <b>Flooring/Tiling</b>                |                                    |  |                  |             |                 |             |                  |
| GBO                                   | Flooring - Throughout the building | The carpeting is showing wear and pulling up in certain areas. It should be replaced in accordance with the district carpet replacement cycle.<br><b>Carpet replacement recommended.</b> | \$80,000         |             |                 |             | \$80,000         |
| <b>Architectural</b>                  |                                    |  |                  |             |                 |             |                  |
| <b>Subtotal for All Project Areas</b> |                                    |  | \$250,000        | \$0         | \$40,000        | \$0         | \$210,000        |
| <b>Fees/Construction Contingency</b>  |                                    |  | \$42,500         | \$0         | \$6,800         | \$0         | \$35,700         |
| <b>Grand Total</b>                    |                                    |  | <b>\$292,500</b> | <b>\$0</b>  | <b>\$46,800</b> | <b>\$0</b>  | <b>\$245,700</b> |

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Glenbrook High School District 225 - Glenbrook South High School (GBS) Master Facility Plan

Updated as of October 14, 2021

| Location                    | Project & Area   | Description of concern and recommended action   | Cost Est. Total | Summer 2022 | Summer 2023 | Summer 2024 | Deferred  |
|-----------------------------|--|---|-----------------|-------------|-------------|-------------|-----------|
| <b>Roofing</b>              |  |   |                 |             |             |             |           |
| GBS                         | Roof Replacement - Music, Maintenance, CPA corridor, Dance Studio, IMC, CPA Stage, Industrial Arts | Several roof structures are 26+ years old and will be closely monitored over the next few years. Auditorium House and Stage roofs are recommended for replacement during the summer of 2022 as well as a small music records room.<br><br><b>Replacement of roofing recommended.</b>  | \$1,438,000     | \$675,000   |             |             | \$763,000 |
| <b>Paving and Site Work</b> |  |   |                 |             |             |             |           |
| GBS                         | Paving - Full Parking Lot  | Crack-filling and sealcoating is a preventative maintenance item that helps to maintain and extend the lifespan of an asphalt surface by preventing surface deterioration. The industry standard for this treatment is every three to four years, the district adopted a four year cycle. This preventative maintenance measure reduces weather damage and water penetration of the asphalt surface, resists effects from gas, oil and salts, seals and protects the asphalt surface from deteriorating effects, reduces freeze-thaw deterioration, and extends the service life of the pavement. Crack-filling and sealcoating involves cleaning and preparing the asphalt surface, installing joint sealant into prepared cracks, applying sealer and allowing it to cure, and applying pavement markings.<br><br><b>Crack-fill/sealcoating and/or full depth patching recommended.</b> | \$275,000       | \$135,000   |             | \$140,000   |           |
| GBS                         | Paving - West Student Lot  | The west student lot was last replaced in 2001 and is beginning to show significant cracking. The lot will need to be replaced the summer of 2024 at which point it will be 23 years old.<br><b>Replacement of west student lot recommended.</b>  | \$335,000       | \$335,000   |             |             |           |
| GBS                         | Sidewalk addition  | The Glenview Fire Station sells parking spots to GBS students. There is currently a sidewalk owned and maintained by the Village that runs from the firestation to the GBS north student parking lot entrance. There is not currently a sidewalk that connects the Village sidewalk and the building entrance which results in students crossing through the vehicle entrance. The sidewalk being proposed is approximately 305 feet in length and will run just east of the tennis courts.<br><b>Sidewalk Addition</b>   | \$30,000        | \$30,000    |             |             |           |
| GBS                         | Paving - Tennis Courts   | The GBS tennis courts were last resurfaced the summer of 2015. It is recommended that they be resurfaced every 7 years. Work should be completed the summer of 2022. Crack repair and resurfacing will involve cleaning existing cracks and court surface, installation of "crack filler", filling cracks with granular silica sand, and applying one coat of acrylic resurfacer and two coats of fortified acrylic tennis court color coating surface.<br><br><b>Resurfacing of tennis courts recommended.</b>   | \$135,000       | \$135,000   |             |             |           |

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## Glenbrook High School District 225 - Glenbrook South High School (GBS) Master Facility Plan

Updated as of October 14, 2021

| Location                       | Project & Area   | Description of concern and recommended action   | Cost Est. Total | Summer 2022 | Summer 2023 | Summer 2024 | Deferred    |
|--------------------------------|--|---|-----------------|-------------|-------------|-------------|-------------|
| GBS                            | Track Replacement - Stadium Track  | The stadium track was installed in 2004 and, with the resurfacing in 2020, would likely not need to be replaced until the summer of 2028.<br><b>Stadium Track Replacement Recommended.</b>  | \$507,000       |             |             |             | \$507,000   |
| GBS                            | Field Turf Replacement - Stadium Field                                     | The artificial turf field was installed in 2012. The top layer (carpet) needs to be replaced every 12-14 years. It is estimated the surface should be replaced the summer of 2026.<br><b>Replacement of field surface recommended.</b>  | \$575,000       |             |             |             | \$575,000   |
| GBS                            | Field Netting - Baseball Field   | The current fencing along the first and third baselines of the GBS baseball fields are not high enough to prevent foul balls from flying into adjacent fields and parking lots.<br><b>Add 50 foot netting behind the backstop and the first and third baselines recommended.</b>  | \$120,000       |             |             | \$120,000   |             |
| GBS                            | Field Netting - Softball Field   | The current fencing along the first and third baselines of the GBS softball field is not high enough to prevent foul balls from flying into adjacent fields.<br><b>Add 50 foot netting behind the backstop and the first and third baselines recommended.</b>   | \$90,000        |             |             | \$90,000    |             |
| GBS                            | Bleacher and Press Box Replacement - Stadium                               | The bleachers were installed in the late 1970s. Although passing inspection, the underlying structure is slowly deteriorating and rusting. The recommended repairs due to wear and tear has been accumulating each year including seating replacement, welding and painting. The bleachers are not ADA compliant making it difficult for students, staff and community members to watch events with friends and family. The press box is also much smaller for today's needs which include broadcasting, filming etc. Storage is also a concern and can be added underneath the bleachers. Bleachers have good capacity (3,400 home and 1,125 away).<br><b>Replacement of bleachers, press box recommended.</b> | \$1,200,000     |             |             |             | \$1,200,000 |
| <b>Mechanical and Plumbing</b> |  |   |                 |             |             |             |             |
| GBS                            | Building Automation System Software and Component Replacement - Throughout | GBS uses a building automation system (BAS) which was installed in 1992, to automate the many building mechanical systems. The current system and components (field panels, controllers) are considered obsolete and the system is ready for replacement. Existing wiring also needs to be rerun.<br><b>Replace BAS system and components.</b>  | \$900,000       |             |             | \$900,000   |             |
| GBS                            | Ejector Pump Replacement - Boiler Room                                     | The large ejector/sump pump in the boiler room is original to the building and ready for replacement.<br><b>Replace ejector pump.</b>   | \$60,000        |             |             |             | \$60,000    |
| GBS                            | Restroom Renovation - State and Madison                                    | The restrooms at State and Madison are original to the building and in need of renovation. The piping and fixtures are in need of replacement. The restroom space is not ADA compliant and as they are heavily utilized during the school day as well as in the evenings and on weekends they do not have adequate fixture count to handle the traffic.   | \$340,000       |             |             |             | \$340,000   |

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Glenbrook High School District 225 - Glenbrook South High School (GBS) Master Facility Plan

Updated as of October 14, 2021

| Location                                | Project & Area   | Description of concern and recommended action  | Cost Est. Total | Summer 2022 | Summer 2023 | Summer 2024 | Deferred  |
|---|--|--|-----------------|-------------|-------------|-------------|-----------|
| <b>Restroom renovation recommended.</b> |  |  |                 |             |             |             |           |
| GBS                                     | Restroom Renovation - Athletic Wing                    | The athletic restrooms are original to the building and in need of renovation. They are heavily utilized during the school day as well as in the evenings and on weekends.<br><b>Renovate restrooms and ensure ADA compliance.</b>   | \$280,000       |             |             | \$280,000   |           |
| <b>Electrical</b>                       |  |  |                 |             |             |             |           |
| GBS                                     | Lighting - Auditorium                                  | The existing house lighting is inefficient incandescent and difficult to maintain. The stage lights were converted to LED in 2014.<br><b>LED retrofit to house lighting is recommended.</b>  | \$300,000       |             |             |             | \$300,000 |
| GBS                                     | Lighting - Athletic Stadium                            | The existing athletic stadium fixtures are energy inefficient and high maintenance.<br><b>Replace 400W metal halide light fixtures with energy efficient LED fixtures.</b>   | \$180,000       |             |             |             | \$180,000 |
| GBS                                     | Lighting and Dimmer System - 12 Science Classrooms LED | The dimming system for the lights in the science classrooms is failing and consistently flickers on and off at random times during the day. It is recommended that the lights and dimming system be replaced with LED lighting and a new dimming system. Six of the science rooms have been done and twelve remain.<br><b>Upgrade 12 remaining science classrooms to LED lighting.</b> | \$50,000        |             |             |             | \$50,000  |
| GBS                                     | Lighting - Classrooms                                  | Convert general classrooms to LED lighting. There are approximately 170 classrooms.<br><b>LED retrofit recommended.</b>  | \$320,000       |             |             | \$50,000    | \$270,000 |
| GBS                                     | Auditorium Rigging System                              | The auditorium has a rigging system that is original to the building and installed in 1961. It is recommended that it be replaced with a new counter weight system to be in compliance with the most current standards.<br><b>Replace rigging system.</b>  | \$440,000       | \$440,000   |             |             |           |
| <b>Flooring/Tiling</b>                  |  |  |                 |             |             |             |           |
| GBS                                     | Carpeting  | Carpeting in various classrooms and corridors is 20+ years old and in need of replacement.<br><b>Carpet replacement recommended.</b>   | \$400,000       |             |             | \$50,000    | \$350,000 |
| GBS                                     | Flooring - Old Pit, adjacent corridors, main corridor  | The carpet in the old pit and adjacent corridors and main office corridor are next to be replaced on the building's carpet replacement cycle. The old pit carpeting will be replaced with LVT flooring to accommodate additional student seating. The corridors will be recarpeted.<br><b>Flooring replacement recommended.</b>  | \$175,000       |             |             |             | \$175,000 |
| GBS                                     | Flooring and Furniture - Social Studies Office         | The carpet in the social studies office is worn and in need of replacement. The furniture is original to the space and not conducive to team collaboration and student interaction.<br><b>Redesign of Social Studies Office and new flooring and furniture recommended.</b>  | \$75,000        |             |             |             | \$75,000  |

Glenbrook High School District 225 - Glenbrook South High School (GBS) Master Facility Plan Updated as of October 14, 2021

| Location                | Project & Area                                       | Description of concern and recommended action   | Cost Est. Total | Summer 2022 | Summer 2023 | Summer 2024 | Deferred    |
|-------------------------|--|---|-----------------|-------------|-------------|-------------|-------------|
| GBS                     | Abatement, Flooring and Renovation - Foods Classroom | The foods classroom is in need up updating as it's appliances are now over 20 years old and the teaching / presentation stations are not meeting the needs of the curriculum. Tile would also be replaced and abatement is necessary.<br><b>Abatement, Floor Replacement, Room Renovation Recommended.</b>  | \$300,000       |             |             |             | \$300,000   |
| GBS                     | Flooring - Pool Locker Rooms                         | The flooring in the boys and girls pe pool locker room is a concrete floor with an 1/8th inch epoxy coating which is constantly peeling.<br><b>Replacement of pool locker room flooring recommended.</b>  | \$60,000        |             |             |             | \$60,000    |
| GBS                     | Flooring - Girls West Pool Shower Walls              | The shower walls in the girls locker room of the new pool are painted cinder block and, due to the climate, continuously peel and need to be repainted. The shower walls need to be tiled.<br><b>Replacement of girls west pool locker room shower tile recommended.</b>  | \$60,000        |             |             |             | \$60,000    |
| GBS                     | Flooring - Auditorium Stage                          | The auditorium stage flooring is a soft pine which becomes worn overtime from the various stage sets that are screwed into the floor. There are many weak spots and a great deal of deflection underfoot. There is splintering, shearing and the potential for failure under heavy loads. The flooring is original and in need of replacement.<br><b>Replacement of auditorium stage flooring recommended.</b>  | \$85,000        |             |             | \$85,000    |             |
| <b>Architectural</b>    |  |   |                 |             |             |             |             |
| GBS                     | Door Replacement - Throughout Building               | The Total Doors do not always properly latch and should be replaced.<br><b>Replace Hallway Total Doors</b>  | \$300,000       |             |             |             | \$300,000   |
| GBS                     | Performing Arts Space                                | Performing arts consists of music, theater and dance. Scheduling the various practices, rehearsals and performances can be difficult due to the limited performance spaces; often after school dance clubs are forced into the cafeteria, hallways and classrooms which isn't ideal. Also, music and theater performances that are best suited in a medium sized venue are either scheuduled into the large CPA or music and drama classrooms. Data is being collected and analyzed to determine the facility needs and recommendations.<br><b>Additional Performing Arts Space(s) recommended.</b> | \$2,000,000     |             |             |             | \$2,000,000 |
| <b>Larger Purchases</b> |  |   |                 |             |             |             |             |
| GBS                     | Performing Arts Space                                | The stage curtains are original to the auditorium and are of cotton construction. As such, the drapes require cleaning and re-treating with flame retardants every 5 years. The GBS drapes were last treated 4 years ago. Over time, the fabric becomes more difficult and expensive to treat and needs to be replaced. It is recommended that the drapes be replaced with a more contemporary polyester drapery which is inherently flame retardant and does not require re-treating. All of the stage drapes are included in this scope.  | \$95,000        | \$95,000    |             |             |             |

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|---|----------------|---|----------------------------|------------------------|------------------------|---------------------------------------|
| Glenbrook High School District 225 - Glenbrook South High School (GBS) Master Facility Plan |                |   |                            |                        |                        | <i>Updated as of October 14, 2021</i> |
| Location  | Project & Area | Description of concern and recommended action | <b>Cost Est.<br/>Total</b> | <b>Summer<br/>2022</b> | <b>Summer<br/>2023</b> | <b>Summer<br/>2024</b>                |
|   |                | <b>Subtotal for All Project Areas</b>         | \$11,125,000               | \$1,845,000            | \$0                    | \$1,715,000                           |
|   |                | <b>Fees/Construction Contingency</b>          | \$1,891,250                | \$313,650              | \$0                    | \$291,550                             |
|   |                | <b>Grand Total</b>                            | <b>\$13,016,250</b>        | <b>\$2,158,650</b>     | <b>\$0</b>             | <b>\$8,851,050</b>                    |