



1201 Cedar Lane | Northbrook, IL 60062
847-272-6224 | www.northbrook.info

Request for Proposal (RFP)

**Outsourced Building Management Services for Northbrook
Public Library**

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Introduction

The Northbrook Public Library (“Library”) is seeking proposals to contract with a vendor or vendors (“Vendor”) with experience providing building management and support services to public buildings. Services will include but are not limited to the responsibilities outlined in the Scope of Services section below.

Background

The Library serves a community of 35,222 with 114 staff in an 87,000 square foot building originally built in the 1960s that has undergone various renovations and additions over the past 25 years. Detailed floor plans and building system specifications are included in Attachment B.

Open 69 hours per week, the Library averages 1,200 visitors a day. The Library’s operating hours are:

- Monday-Thursday 9am-9pm
- Friday 9am-6pm
- Saturday 9am-5pm
- Sunday 1pm-5pm

The library has 11 holiday closures:

- New Year's Eve
- New Year's Day
- Easter
- Memorial Day
- Fourth of July
- Labor Day (Sunday before and Monday)
- Thanksgiving Eve (close at 6pm)
- Thanksgiving
- Day after Thanksgiving
- Christmas Eve
- Christmas Day

Our 5 meetings rooms and 225-person auditorium have a variety of equipment for staff and public use. We average 1,000 programs hosted and sponsored by the Library and about 350 room bookings from organizations outside the Library annually. The Vendor would be responsible for being familiar with meeting room equipment and providing room set-up and take down, along with the other services outlined in the Scope of Services.

The library sits on a corner lot and does not contain a significant amount of landscaping. We have a parking lot for patrons with spots and another for staff next door to the library with

Building History

Year	Project
2021	1st Floor Circulation Renovation
2020	Addition of 13 study rooms
2018	1st floor Maintenance & Technical Services Renovation
2017	Makerspace Construction Project
2015	Meeting Room & Auditorium Renovations
1999	2nd & 3rd floor addition of 35,000 sq. ft.
1975	20,500 sq. ft. addition
1959	Building Constructed (31,500 sq. ft.)

Building Systems History

Year	Project
2024	Chiller Repair, Parking Lot Maintenance (Sealing & Striping)
2022	Steam Humidification Boiler Replacement
2021	Fire Panel Replacement, Fire Pump Replacement
2020	Boiler Ventilation Upgrade, Fire sprinkler replacement, Exterior Facade Coating & Sealant Project
2019	Roof repair work (Penthouse), Fire Sprinkler replacement
2018	Recabling, Catch Basin, Manhole and Asphalt Resurfacing
2015	HVAC Upgrade

Scope of Services

The Northbrook Public Library is seeking quotations from qualified Vendors with experience providing building management and support services to public buildings. Services will include but are not limited to:

- Manage ongoing maintenance and upkeep of the building and grounds to ensure a clean, attractive, and safe environment for staff and patrons. Ensure effective operation of building systems including heating, cooling, and ventilation (“HVAC”).
- Assist in planning, implementing, and completing building and grounds capital projects. Oversee repair and preventive maintenance tasks, including HVAC systems, plumbing, electrical, and carpentry work.
- Develop and implement strategic goals, processes, and procedures for the Facilities Department to enhance operational efficiency and service quality.
- Participate in budget preparation and administration. Monitor inventory of tools and supplies to ensure availability and cost-effectiveness.
- Identify safety hazards and implement remediation to maintain a safe environment for building occupants. Ensure compliance with regulatory laws and guidelines related to building operations.
- Oversee and coordinate activities of contractors working within the building, ensuring they meet performance standards and adhere to safety regulations.
- Be prepared to respond to after-hours site emergencies as needed, ensuring swift and effective resolution of urgent issues.

Library Ongoing Needs & Expectations

The ideal Vendor will demonstrate the following qualities and capabilities:

Responsiveness

- Guarantee a maximum response time for emergency situations (e.g., within 1 hour)
- Provide a clear escalation process for maintenance issues of varying urgency
- Offer 24/7 availability for critical systems support
- Ensure timely communication and follow-up on all requests and inquiries

Customer Service Excellence

- Assign a dedicated account manager to serve as the primary point of contact for the Library
- Provide regular check-ins and proactive communication to address potential maintenance and facilities issues
- Offer training and support to identified Library staff on relevant building systems and

procedures

- Demonstrate a commitment to understanding and meeting the needs of the Library

Strong Project Management Skills

- Assign experienced project managers to oversee all major projects
- Develop detailed project plans, including timelines, milestones, and resource allocation
- Provide regular progress reports and updates to library leadership
- Demonstrate the ability to manage multiple projects simultaneously while meeting deadlines
- Proactively identify and mitigate potential project risks and issues

Building Infrastructure Expertise

- Demonstrate a deep understanding of public building systems and requirements
- Provide a comprehensive preventive maintenance plan to ensure optimal system performance
- Offer recommendations for energy efficiency improvements and cost-saving measures
- Stay current with industry best practices and emerging technologies
- Maintain all necessary certifications and licenses for building management services

Proactive Communication and Reporting

- Provide regular reports on building performance, maintenance activities, and project status
- Conduct regular meetings with Library leadership to discuss ongoing operations and future plans
- Proactively communicate potential maintenance or facility issues or concerns and provide recommended solutions
- Maintain detailed documentation of all building systems, maintenance records, and project plans

Partnership and Long-Term Planning

- Demonstrate a commitment to understanding the Library's long-term goals and objectives
- Offer strategic guidance and recommendations for capital improvements and budgeting
- Collaborate with Library leadership to develop a long-term building management plan
- Provide insights and analysis on industry trends and best practices
- Act as a trusted partner in ensuring the long-term success and sustainability of the Library's facilities

Safety and Security Expertise

- Demonstrate a deep understanding of safety and security best practices for public buildings
- Conduct regular safety audits and risk assessments to identify potential hazards
- Develop and implement comprehensive safety and security protocols, including emergency response plans

- Partner with Library leadership to provide ongoing training and support to Library staff on safety and security procedures
- Partner with Library leadership to maintain a comprehensive emergency preparedness plan
- Provide input and support to the Assistant Director and Emergency Services Consultant in the development of long-term safety and security strategies
- Ensure compliance with all relevant safety and security regulations and standards

By demonstrating these qualities and capabilities, the ideal Vendor will serve as a reliable and proactive partner in maintaining and enhancing the Library's physical infrastructure. The successful Vendor will work collaboratively with Library leadership to ensure that the building remains a safe, comfortable, and welcoming environment for patrons and staff alike while optimizing operational efficiency and long-term sustainability.

Projects

In addition to the ongoing maintenance and support, the Library has several major projects that need attention in upcoming fiscal years.

List of Projects for 2025-2027:

1. Upgrade Security Camera, Alarm panel, and Access doors
2. Building Automation System Upgrades
3. Elevator Modernization
4. Landscaping Remodel
5. Masterplan Development

Staffing Requirements

The Vendor must have a building operating engineer on staff and ensure facilities coverage in the building during all hours the Library is open.

The Vendor must agree to offer existing library facilities staff an opportunity to be hired on within the plan (1 full-time Facilities Assistant, 1 part-time Facilities Worker/Custodian). As part of this plan, the existing security monitors (2 part-time monitors) will remain as Library employees and will report to the Operating Engineer. Copies of the Library's job descriptions for facilities and security monitors are included in Attachment C.

The Vendor should propose a staffing plan that meets the Library's needs, including information on the qualifications and experience of key personnel.

Performance Standards and Quality Control

The Vendor will be expected to meet agreed-upon performance metrics and quality standards, which will be monitored through regular reporting and communication with library leadership. Detailed performance standards will be established in the final contract.

Communication and Reporting

The Vendor maintains regular communication with Library leadership and provide reports on building operations, maintenance activities, and project status on a mutually agreed-upon schedule. The provider should specify their proposed communication plan and reporting formats in their proposal.

Technology and Equipment

The Vendor will be responsible for providing and maintaining any necessary technology or equipment to perform the required services. Proposals should specify what technology and equipment will be used and include associated costs.

Proposal Submission Requirements

Proposals must be submitted electronically in PDF format to Anna Amen, Finance and Operations Director, at aamen@northbrook.info by Friday, December 23, 2024 at 9:00am. All questions regarding this proposal should be sent to Anna Amen, Finance and Operations Director, aamen@northbrook.info.

Proposals should include the following and follow the attached Proposal template:

1. Name of Company
2. Contact name and title
3. Address
4. Phone number
5. Email
6. Number of employees and titles of all employees
7. Number of contracted workers (if any)
8. Company background and qualifications
9. Any additional information demonstrating the company's capabilities and value proposition
10. Proposed approach to meeting the Scope of Services including breakdown of what support will be provided on-site, off-site, and in emergency situations
11. Staffing plan, including qualifications of key personnel and specifying what level of staff would be responsible for each type of support
12. Detailed budget breakdown including cost and hour breakdown for support, Proposed

communication and reporting plan

13. Proof of insurance.

14. References as outlined above, which should include:

- a. Names and contact information of three libraries or similar agencies currently under contract
- b. A full list of any libraries or similar agencies the firm has worked with in the past three years, either on an ongoing basis or for special projects, clearly indicating which clients received ongoing support and which were single projects

RFP Review

Based upon the quotations received, the Library will select several Vendors based on the criteria outlined below to come in for interviews either the week of January 13 or 20, 2025. Once the interviews are completed, a Vendor will be recommended to the board of trustees. Upon approval by the board, the Library will enter into a two or three year agreement with an option for renewal. The Agreement will be in a form provided by the Library and will incorporate this RFP and the Vendor's proposal, among other contractual terms. A sample agreement is included as attachment E.

The Vendor that is ultimately awarded the contract will have a proven track record of supporting local government facilities and will need to demonstrate an ability to provide a high level of project management skills, service, and expertise in a variety of building management areas.

Proposals will be evaluated based on the following criteria:

- Demonstrated understanding of the Library's needs
- Qualifications and experience of the firm and key personnel
- Feasibility and effectiveness of proposed approach
- Cost effectiveness and value
- Communication and reporting capabilities
- References

Estimated Timeline

RFP Release Date: Nov 25, 2024

Deadline for Questions: December 10, 2024

Question Responses Provided: by 5pm Friday, December 13, 2024

Proposal Submission Deadline: Dec 23, 2024 by 9:00am

Interviews: January 13-24, 2025

Reference Checks: February 2025

Selection Decision: February 20, 2025

Contract Start Date: TBD

Pricing and Payment

Proposals must include detailed pricing for all proposed services, including any necessary staffing, equipment, and materials costs. The library prefers a fixed-fee pricing structure, with payment terms to be negotiated as part of the final contract.

Insurance and Liability

Vendor shall procure and maintain for the duration of the Agreement, insurance against claims for injuries to persons or damages to property, which may arise from or in connection with the performance of Services hereunder by the Vendor, Vendor's agents, representatives, employees or subcontractors. The cost of such insurance shall be borne by the Vendor.

Indemnification

To the fullest extent permitted by law, the Vendor shall indemnify, defend and hold harmless the Library and its officers, officials, employees, volunteers and agents from and against all claims, damages, losses, investigations, and expenses, including, without limitation, legal fees (attorney's and paralegals' fees, court costs, and costs of appeals), arising out of or resulting, or allegedly arising out of or resulting from, from the Vendor's services performed for the Library. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this Paragraph. Vendor shall similarly protect, indemnify, defend and hold and save harmless the Library, its officers, officials, employees, volunteers and agents against and from any and all claims, costs, causes, actions and expenses including but not limited to legal fees, incurred by reason of Vendor's breach of any of its obligations under, or Vendor's default of, any provision of the Agreement.

Warranty

The Vendor must warrant that the services to be provided shall be performed in accordance with the highest standards of professional practice, care, and diligence practiced by recognized firms in performing services of a similar nature in existence at the time of performing the Services, This warranty shall be in addition to any other warranties expressed in the Agreement, or expressed or implied by law, which are reserved unto the Library

Compliance with Laws

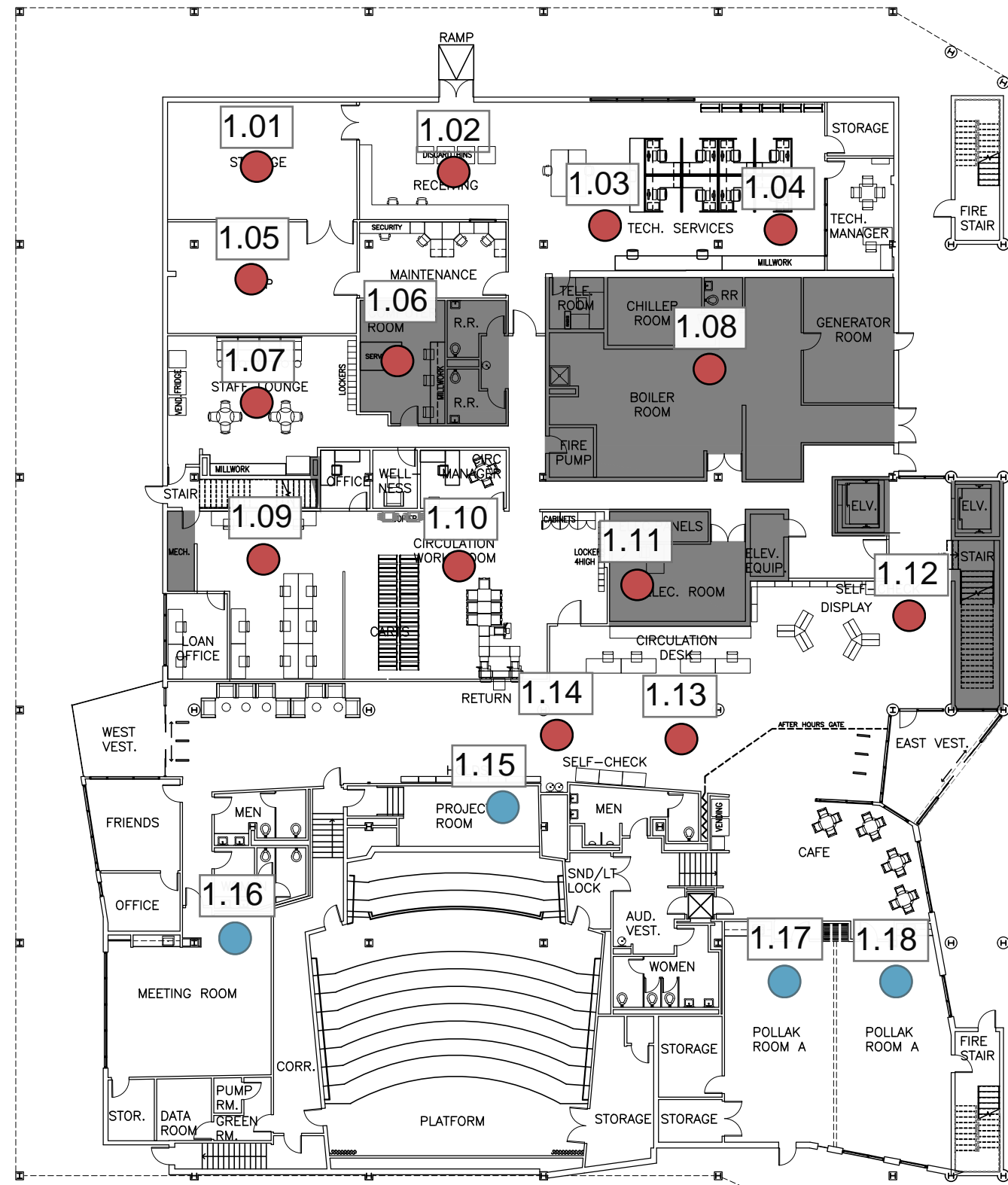
Vendor shall give all notices, pay all fees, and take all other action that may be necessary to ensure that the services are provided, performed, and completed in accordance with all required governmental permits, licenses, or other approvals and authorizations that may be required in connection with providing, performing, and completing the services, and with all

applicable statutes, ordinances, rules, and regulations, including without limitation the Fair Labor Standards Act; any statutes regarding qualification to do business; any statutes prohibiting discrimination because of, or requiring affirmative action based on, race, creed, color, national origin, age, sex, or other prohibited classification, including, without limitation, the Americans with Disabilities Act of 1990, 42 U.S.C. §§ 12101 et seq., and the Illinois Human Rights Act, 775 ILCS 5/1-101 et seq. Vendor shall be solely liable for any fines or civil penalties that are imposed by any governmental or quasi-governmental agency or body that may arise, or be alleged to have arisen, out of or in connection with Vendor's, or its subcontractors', performance of, or failure to perform, the services or any part thereof.

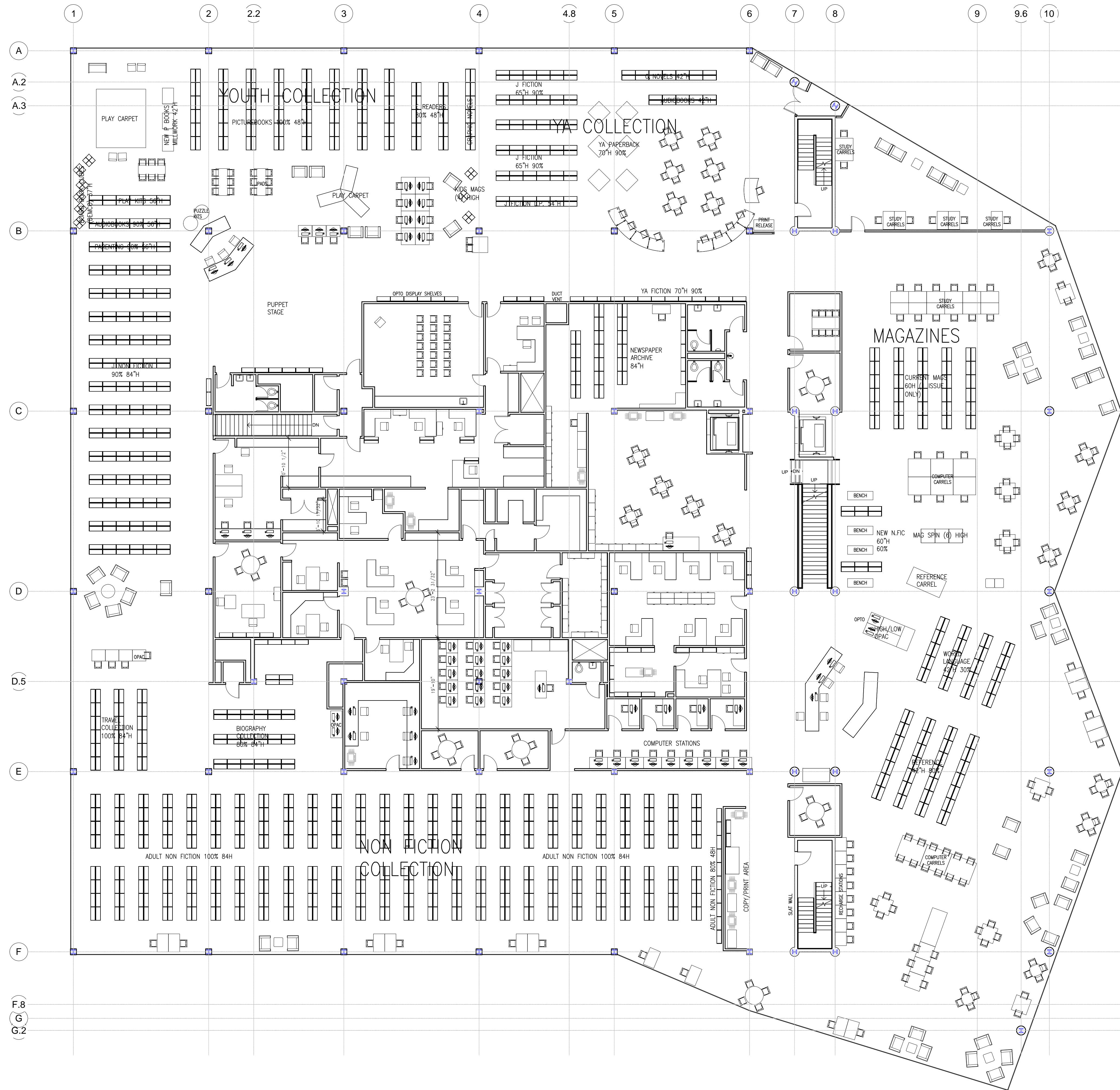
To the extent any of the Vendor's work is subject to the Prevailing Wage Act, Vendor must pay, and require every subcontractor to pay, prevailing wages as established by the Illinois Department of Labor for each craft or type of work needed to execute the contract in accordance with 820 ILCS 130/.01 et seq. The Consultant shall prominently post the current schedule of prevailing wages at the contract site and shall notify immediately in writing all of its subcontractors, of all changes in the schedule of prevailing wages. Any increases in costs to the Vendor due to changes in the prevailing rate of wage during the terms of any contract shall be at the expense of the Vendor and not at the expense of the Library. The change order shall be computed using the prevailing wage rates applicable at the time the change order work is scheduled to be performed. The Vendor shall be solely responsible to maintain accurate records as required by the prevailing wage statute and to obtain and furnish all such certified records to the State. The Vendor shall be solely liable for paying the difference between prevailing wages and any wages actually received by laborers, workmen and/or mechanics engaged in the services and in every way defend and indemnify the Library against any claims arising under or related to the payment of wages in accordance with the Prevailing Wage Act. The Illinois Department of Labor publishes the prevailing wage rates on its website at: <https://www.illinois.gov/idol/Laws-Rules/CONMED/Pages/Rates.aspx> Vendor is advised that the Department revises the prevailing wage rates and the Vendor has an obligation to check the Department's website for revisions.

Attachments

- A. Proposal Template
- B. Building & Emergency Map floor plans
- C. Building systems documentation
- D. Facilities Job Descriptions
- E. Sample Agreement

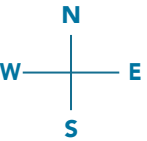


- Existing**
- 1.01 - Storage Room
 - 1.02 - Receiving
 - 1.03 - TS West
 - 1.04 - TS East
 - 1.05 - Shop
 - 1.06 - Server Room
 - 1.07 - Staff Room
 - 1.08 - Boiler Room
 - 1.09 - Circ West
 - 1.10 - Circ East
 - 1.11 - Electrical Room
 - 1.12 - Lobby East
 - 1.13 - Circulation Desk
 - 1.14 - Lobby West
- Additions**
- 1.15 - Projection Booth
 - 1.16 - Civic Room
 - 1.17 - Pollak Room A
 - 1.18 - Pollak Room B





First Floor Emergency Map



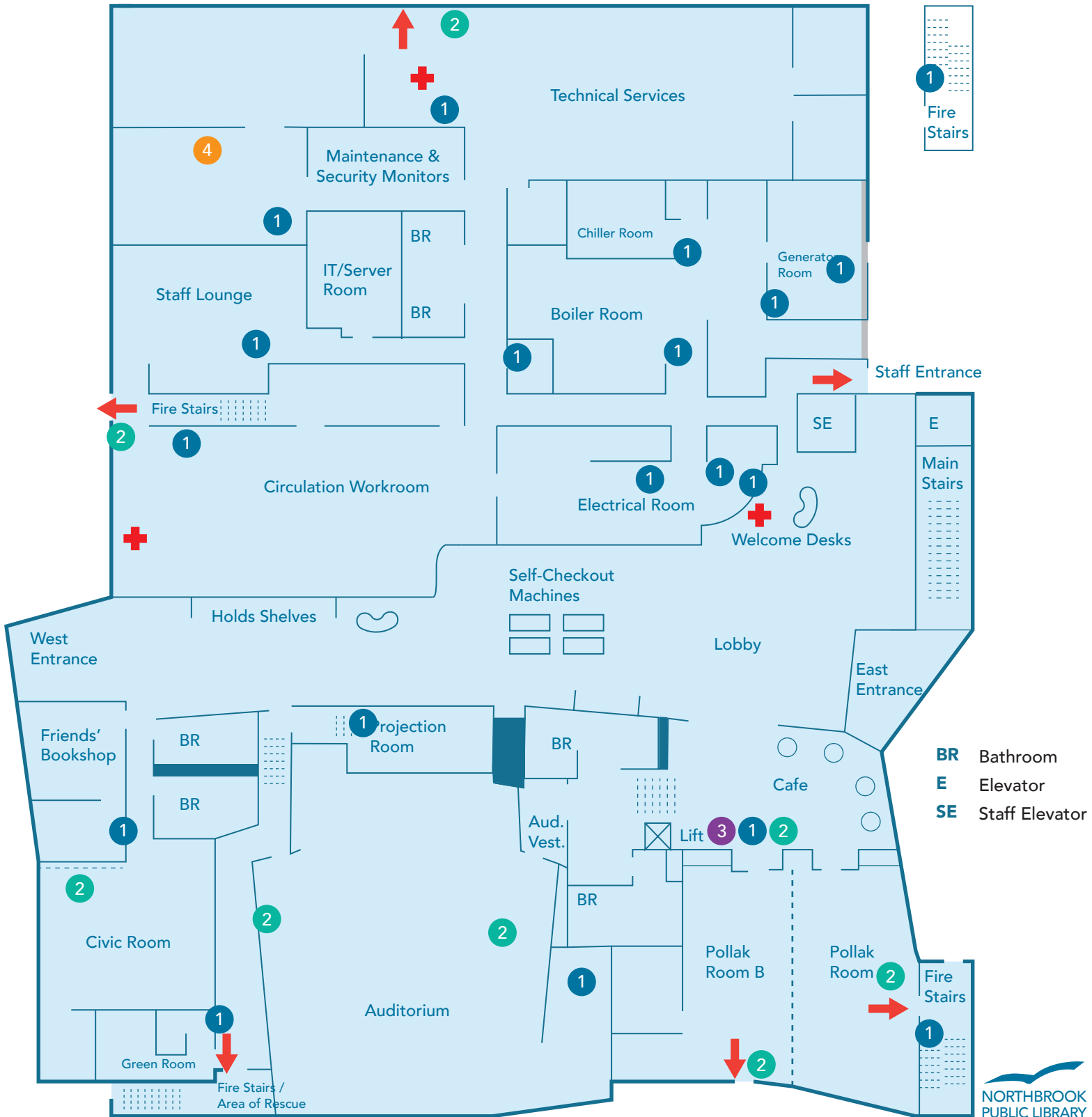
Contact Maintenance if they are in the building. After hours, contact:

Anna Amen: 847-508-9713

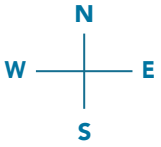
Kate Hall: 708-860-8217

Kelly Durov: 630-915-1692

- 1 Fire Extinguisher
- 2 Fire alarm pull-station
- 3 AED
- 4 Waterproof tarp
- BR** Bathroom
- E** Elevator
- SE** Staff Elevator
- + First Aid Supplies
- ➔ Emergency Exit



Second Floor Emergency Map



Contact Maintenance if they are in the building. After hours, contact:

Anna Amen: 847-508-9713

Kate Hall: 708-860-8217

Kelly Durov: 630-915-1692

1 Fire Extinguisher

2 Fire alarm pull-station

3 AED

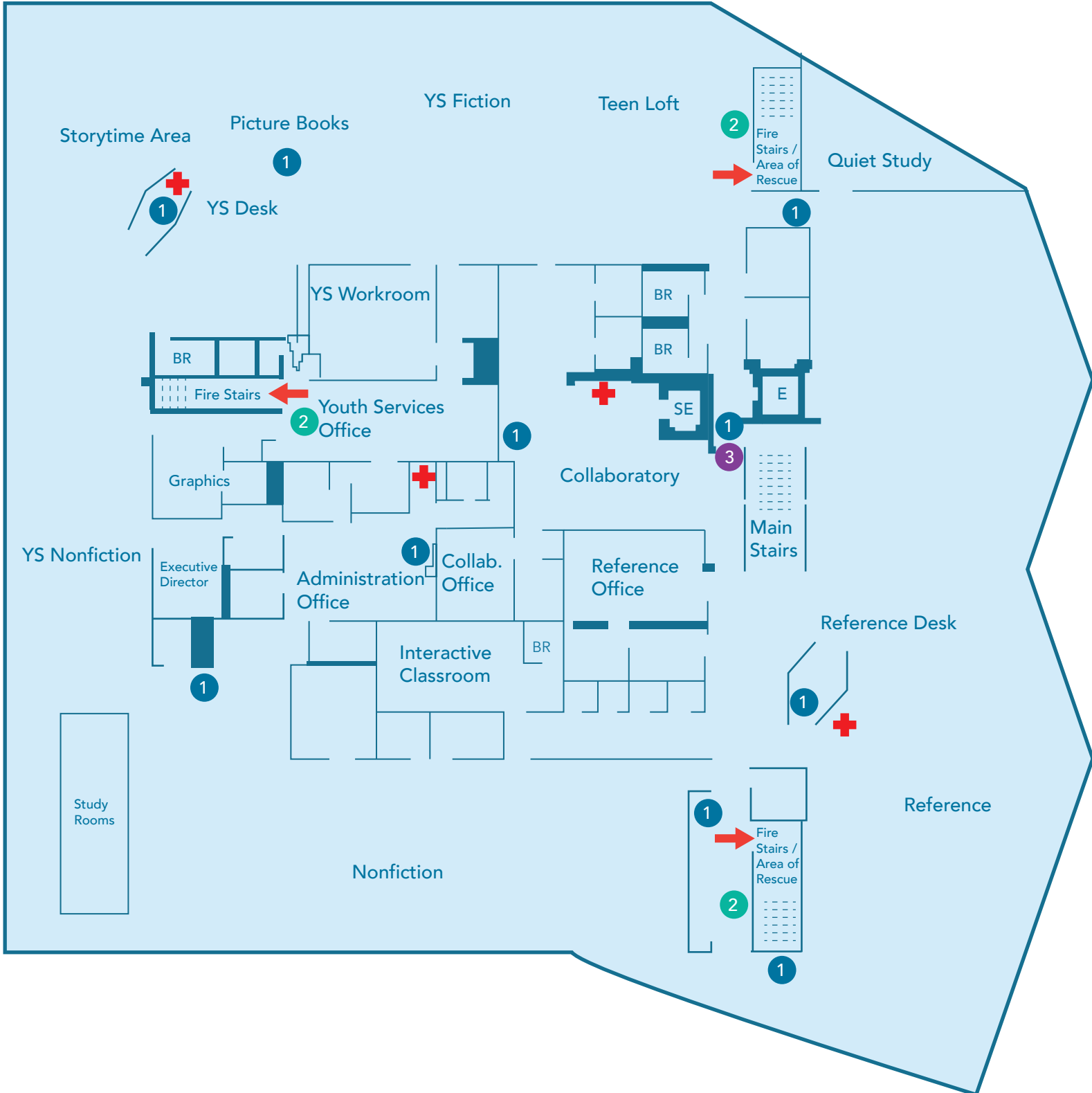
BR Bathroom

E Elevator

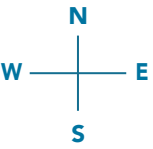
SE Staff Elevator

+ First Aid Supplies

➔ Emergency Exit



Third Floor Emergency Map



Contact Maintenance if they are in the building. After hours, contact:

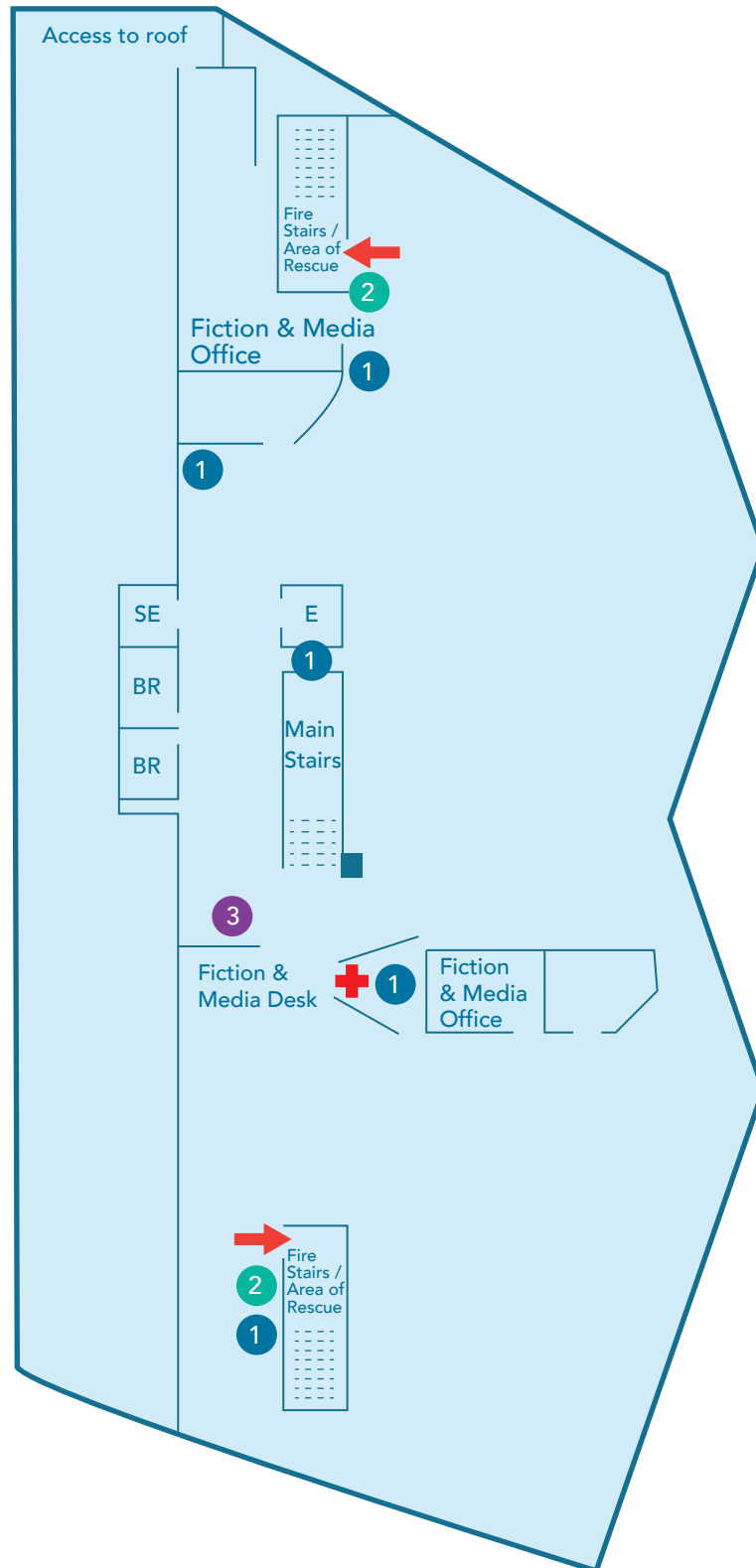
Anna Amen: 847-508-9713

Kate Hall: 708-860-8217

Kelly Durov: 630-915-1692

- 1 Fire Extinguisher
- 2 Fire alarm pull-station
- 3 AED

- BR** Bathroom
- E** Elevator
- SE** Staff Elevator
- + First Aid Supplies
- ➔ Emergency Exit



Report To

**Northbrook Public Library
1201 Cedar Lane
Northbrook, Illinois 60062**

**Capital Asset Study
Northbrook Public Library
Northbrook, Illinois**



By:
Christopher R. Kottra
Kami Farahmandpour

BTC Project No. 19-472
June 14, 2019



1845 East Rand Road, Suite L-100
Arlington Heights, Illinois 60004

Building Technology Consultants, Inc.

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Appendix A – Component Category Summary Reports

Appendix B – Financial Analysis



June 14, 2019

Via E-Mail: aamen@northbrook.info

Ms. Anna Amen
Northbrook Public Library
1201 Cedar Lane
Northbrook, Illinois 60062

Re: Capital Asset Study, Northbrook Public Library
BTC Project No. 19-472

Dear Ms. Amen:

As authorized by execution of our proposal dated November 11, 2018, Building Technology Consultants, Inc. (BTC) has performed a capital asset study for the Northbrook Public Library. This report outlines the findings of our study.

1 BACKGROUND INFORMATION

The Northbrook Public Library was originally constructed as a 27,000 square foot, 2-story, library facility in 1969. A 20,500 square foot addition was constructed in the mid-1970's. The Library was expanded again in 1999 when a 35,000 square foot addition was completed. Original heating, ventilating, and cooling equipment were replaced, and exterior components were rehabilitated as well during the 1999 expansion. Several interior renovation projects have been performed including the most recent in 2015.

A master plan for future rehabilitation of interiors spaces was developed by Product Architecture + Design in 2017. The purpose of the master plan was to map out the Library's goals for future growth and accommodate the needs of the community. The Library has also obtained a detailed inventory of fixed assets over \$500 in value for purposes of future planning. Wiss, Janney, Elstner Associates, Inc. (WJE) has reportedly been involved with evaluating building envelope components including water leakage issues. The Library has Other consultants were retained in recent years to evaluate mechanical, electrical, plumbing, and fire protection systems.



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2 OBJECTIVES AND SCOPE OF WORK

The objective of BTC's work was to develop a capital asset program for the Library that sets out anticipated expenditures for the next 20 years. Our scope of work was as follows:

2.1 Background Review

1. Reviewed pertinent historical documents related to the subject property including maintenance records, repair or replacement bid documents, original construction documents, and prior reports (i.e., master plan, fixed asset list, MEP/FP systems evaluation, water leakage evaluations, etc.).
2. Interviewed the Library's engineering staff and Finance and Operations Manager to obtain information regarding maintenance history of all major building components covered in the capital asset program.
3. Reviewed the Library's annual budget to become familiar with items that are covered under operating budget, contributions to the capital improvement fund, and current status of those funds.

2.2 Field Assessment

We performed a field assessment to evaluate existing conditions. Field observations were documented with notes and photographs. Our field assessment included the following:

2.2.1 Site Elements

Performed a visual review of site elements to evaluate their overall condition and remaining service life. Our review included the following:

- Asphalt pavement parking lot and driveways
- Concrete sidewalks, walkways, stairs, ramps, and curbs
- Retaining walls
- Railings and guardrails
- Landscaping



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2.2.2 Roofing

Performed a visual review of the low-slope and barreled roof surfaces to evaluate type of roofing systems used and to assess their current condition. Our review included the following:

- EPDM roofing membranes
- Roof drains
- Flashing and roof penetrations
- Equipment curbs

2.2.3 Facade

Performed a visual review of the facade surfaces from the ground and roofs to evaluate the overall condition of the facade and the need for repairs. Our visual review included the following:

- Metal wall cladding and projecting ornamental features
- Brick masonry
- Overhang soffits
- Storefront windows and doors
- Automatic sliding doors

2.2.4 Interior Finishes

Performed a visual review of interior finishes and furnishings to evaluate if any major rehabilitation is needed. Our review included the following:

- Flooring
- Wall finishes
- Ceiling tiles



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- Shelving
- Storage racks
- Restroom finishes and fixtures
- Library staff offices

2.2.5 Elevators

1. Reviewed the existing elevator equipment and evaluate the general condition of the equipment.
2. Evaluated long-term needs for elevator modernization and repairs.
3. Reviewed existing elevator maintenance agreements to evaluate the scope of services and costs for such services.

2.2.6 Mechanical, Electrical, Plumbing, and Fire Protection Systems (MEP/FP):

Performed a visual review of accessible MEP/FP equipment to evaluate changes in their condition since an evaluation was performed by Calor Design Group, Ltd. in 2015.

2.3 Analysis and Report

Based on the information obtained during our field assessment, we evaluated the anticipated service life of the components included in our condition evaluation. This information was used to develop a capital asset funding report indicating the required funding for replacement of the components included in our condition evaluation. This report covers replacement of these components over the next 20 years.

2.4 Meeting

If requested, we will meet with the Library's Board of Trustees to present our findings and conclusions.



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3 FINDINGS

Our field assessment involved a visual review of the property to assess the general condition of the major components that will likely require repair or replacement over the next 20 years. A description of each major component and assessment of overall conditions are included in the component category summary reports in Appendix A. A summary of the property data is as follows:

Property Data			
Description	No. of Stories	Approx. Floor Area	Year Opened
Original Library	2	27,000 SF	1969
Addition	2	20,500	1975
3 rd Floor Addition	1 (above 2-story addition)	35,000	1999

3.1 Financial Analysis

We performed an analysis of the future repair or replacement expenses for each qualifying component over the next 20 years. In addition to quantifying the components during the field assessment, information was gathered regarding materials used and their configuration for each of the component assemblies. The estimated costs were developed for each component's repair/replacement based on 1 or more of the following methods:

1. Where appropriate, the component configurations were matched with the assemblies in a national cost data source¹.
2. Where available, costs were estimated using historical competitive bids obtained by BTC for similar assemblies.
3. In some cases, costs were estimated using estimated labor and materials costs.
4. When applicable, costs were estimated based on cost information provided by Owner.

¹ Gordian R.S. Means “*Facilities Repair and Remodeling Cost Data*”; and BNi Building News “*General Construction 2017 Costbook*”



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Unit price costs for each component were derived from the above sources. The total present-day expenses were then calculated by multiplying the total units by the unit expenses as indicated in **Table 1**. The established unit costs generally account for materials, labor, overhead, and profit. For each assembly, allowances for contingencies and engineering costs were also added when we believed that engineering design and oversight may be required for the project.

Based on the general condition, age, and average life expectancy of each component, a long-term repair and replacement expense schedule was established. To determine these future repair or replacement expenses, the present day expenses have been inflated at an annual rate of 2.20%². This rate of inflation has been incorporated into the analysis to account for historical increases in construction costs. The inflation rate used in our analysis was based on the following:

Given the present day expense, the future expense is calculated using the following formula:

$$F = P (1 + IR)^n$$

where

F = future expense

P = present day expense

IR = annual inflation rate expressed as a decimal

n = number of years until future expense occurs

The future repair or replacement expenses for each of the components that are anticipated over the next 20 years are illustrated in **Table 2** and **Table 3**. **Table 2** illustrates the yearly anticipated expenditures at present-day costs, while **Table 3** illustrates these same expenditures at the inflated costs expected in the future.

To prepare for future expenses that will be incurred, an annual levelized series of contributions can be placed in an interest-bearing account that will ensure that future reserves are available when needed. The future expenses are aggregated on an annual basis to determine the recommended funding plan. The recommended funding plan has been compiled using financial information provided by the Library's Finance and Operations

² For comparison purposes, an average general inflation rate over the last 20 years was calculated to be approximately 2.13% based on data obtained from www.inflationdata.com.



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Manager. The information has been deemed reliable and has not been verified. The following table summarizes the status of the current capital improvement fund (CIF).

Summary of Financial Information	
Projected Year End CIF Balance (As of April 30, 2019)	\$2,238,459
Current Annual CIF Contribution	\$563,000
CIF Interest Rate	2%

Based on the projected year-end CIF balance, the current CIF fund interest rate, and the estimated inflation rate, an iterative analysis was performed to determine a recommended funding plan. The intent of the plan is to have adequate funds available for future expenditures required for major repairs or replacements so that the potential need of a loan can be avoided. The analysis concluded that the CIF fund with a 2018/2019 fiscal year-end balance of \$2,238,459, is currently under-funded to finance projects in Years 5 through 12 of this study period. This is based on a contribution of \$563,000 to the CIF fund in Year 1 followed by an annual contribution of \$1,040,000 in Years 2 through 5 (and beyond).

The following table summarizes the recommended annual CIF fund contributions over the next 5 years:

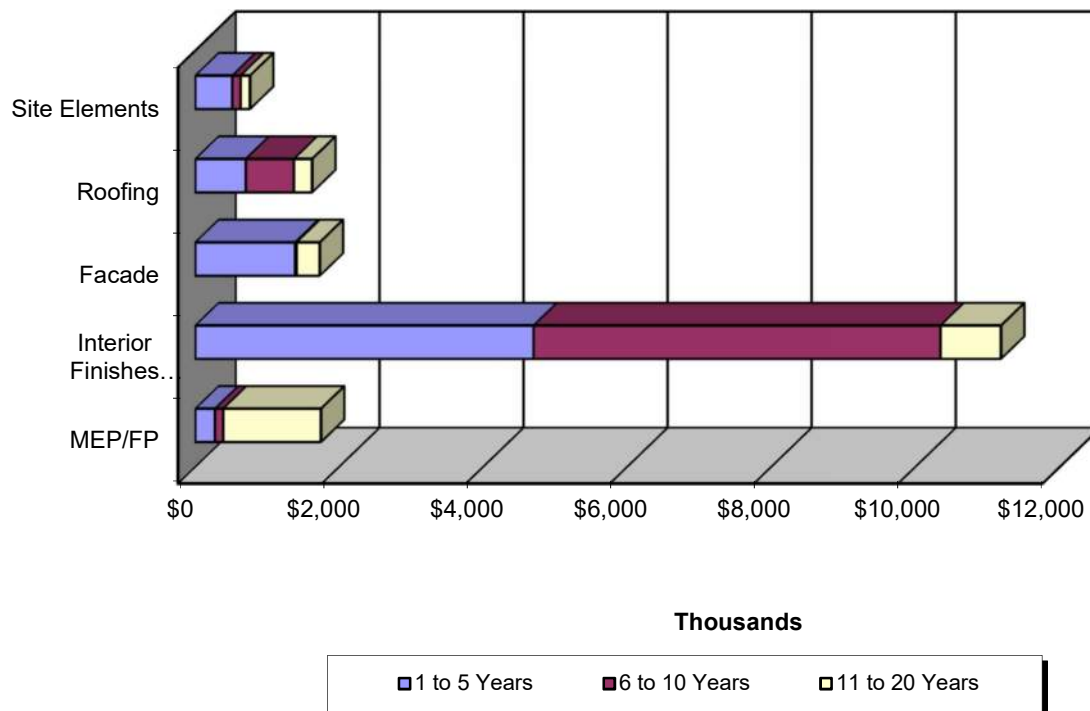
Recommended Annual Reserve Contribution		
Year	Calendar Year	Interest = 2.00% Inflation = 2.20% (Summary of Exhibits 2 & 3)
1	2019 / 2020	\$563,000
2	2020 / 2021	\$1,040,000
3	2021 / 2022	\$3,000,000
4	2022 / 2023	\$750,000
5	2023 / 2024	\$750,000
6+	2024 / 2025 +	See Exhibits 2 & 3

The funding plan for the full 20-year period is illustrated in tabular form in **Table 4**, and in graphical form in **Table 5**. It is emphasized that the recommended reserve funding plan presented is only one of many possible economic scenarios to meet the future reserve requirements.

Table 6 compares the future status of the reserve funds based on recommended contributions versus current contributions.

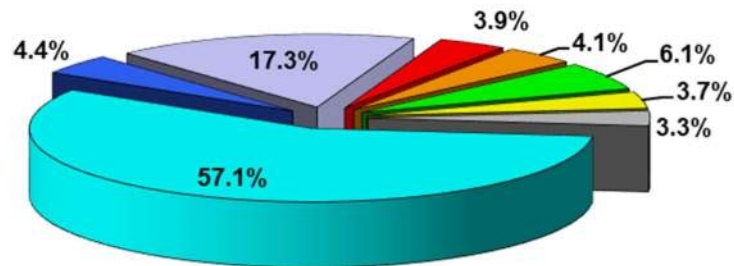
The following bar chart illustrates the expenses that will be incurred for each of the component categories over the 20-year study period. These expenses are divided into 5- and 10-year segments to provide a graphical summary that assists the user in identifying the amount of funding that will be required for each component category over a period of time, whether it is short-term or long-term.

Inflated Capital Expenses over 20 Years



The following pie chart illustrates which components will have the highest percentage of expenses over the 20-year study period.

% of Future Expenses Accumulated Over Life of Study



- Main Roof
- Barreled Roof
- Exterior Facade Repairs
- Flooring
- Technology and Communications
- Master Plan Rehabilitation
- Air Handlers
- Other

3.2 Long-Term Review

The annual contributions made to the reserve fund are a means to compensate for the difference between the ongoing deterioration of a property and its finances. Since components deteriorate at varying rates and the finances of the property are typically changing on an annual basis, the need to maintain balance between the 2 is an ongoing process. Therefore, to maintain this balance, periodic updates to the capital asset study are recommended. When considering an update to a study, the following questions should be considered:



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- Has there been a significant departure (i.e. more than 1%) from the anticipated rates for interest, inflation, and construction cost increases previously assumed?
- Have any major components been added or replaced since the previous study?
- Have any components sustained premature deterioration due to unseasonable weather, lack of maintenance, or latent defects since the previous study?
- Have any repairs or replacements been accelerated or deferred from the estimated schedule previously generated?
- Have there been any changes to the long-term plans for the future of the development such as major rehabilitation, additions, or technology changes?

If the answer is “yes” to 1 or more of the above questions, then an update to the capital asset study should be strongly considered.

Generally, a property that is relatively new in age and is not undergoing any major repairs or replacements should have the capital asset study updated approximately every 3 years to maintain the validity of the estimates. However, if the property is older and is experiencing major repairs or replacements, the study should be updated on an annual or bi-annual basis.

An update to a previous capital asset study can typically be performed for a fraction of the original cost of the study. The re-evaluation can include a brief field assessment of the property, or simply an update to the financial analysis.

3.3 Assumptions

Several general assumptions have been made for the completion of this study. These assumptions are as follows:

1. The components will be replaced with like kind unless otherwise noted or directed by a representative of the property to use alternate materials.
2. There are currently no outstanding building violations.
3. All new installations will comply with current city, state and local building code requirements.
4. The building structure has a remaining useful life greater than 20 years.



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5. There are currently no formal plans for major additions to the building.
6. A maintenance program will be implemented to ensure that all building components, systems, and equipment are maintained and operated at or near optimum capacities. Costs associated with such maintenance program are not included in this capital asset study and should be budgeted for in the Library's operating funds.
7. Since cash flow takes place at frequent and varying time intervals within an interest period, a simplified method of assuming that all cash flow occurs at the midpoint of the interest period is used in the reserve analysis.
8. The reserve analysis was performed using the baseline funding method by maintaining a reserve balance above zero for the duration of the study.
9. The study has been limited to include only components that, within reasonable predictability, will likely require major repair or replacement during the study period and will also have a significant impact on the financial results of the study. If the component has an indefinite or unpredictable life expectancy, or can function indefinitely with minor ongoing maintenance or repair, then there is no major capital expense to plan for.
10. The following are repair or replacement expenses that are assumed to be funded from the operating and maintenance budget based on the above-mentioned criteria. The expenses are associated with, but not limited to the following:
 - a. Irrigation system
 - b. Annual roof inspections and repairs
 - c. Electrical repair and maintenance
 - d. Painting and decorating
 - e. Landscaping maintenance
 - f. Professional services



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4 DISCLOSURES

This study and report is based on observations of the visible and apparent conditions of a reasonable representative sampling of the property's components at the time of inspection. Although due diligence was performed during the field assessment phase, we make no representations regarding latent or concealed defects that may exist. Our visual review did not constitute any invasive investigations and was not intended to determine whether applicable building components, systems, or equipment are adequate or in compliance with any specific or commonly accepted design requirement, building code, or specification. Such tasks as material testing, engineering analysis, destructive testing, or performance testing of building systems, components, or equipment are not considered as part of the scope of work, nor are they considered standard by the reserve study industry.

Judgments in this study are based on estimates of the age and typical useful life of the various components included in this study. The predictions of useful life and remaining useful life are based on industry and/or statistical comparisons, along with our general assessment of each component's condition. It is necessary to recognize that the actual conditions can alter the useful life of any component. The methods of installation, deferral of maintenance, or other unforeseen conditions make it virtually impossible to predict precisely when each component will require major repair or replacement. The tabulated values for expected useful life and remaining useful life are estimates, as noted, and should not be construed as a guarantee or warranty, either expressed or implied, as to the performance of products, materials, or workmanship.

If the Library representative has not disclosed any known issues or problems with materials, components, or systems, the validity of this study may be impacted. Where applicable, comments regarding the general condition of the property and any significant deficiencies as observed at the time of our review have been documented. A qualified contractor or building engineer should be retained to repair, replace, or adjust defective components to ensure optimum performance or efficiency. In the case of major repair/replacement projects, an engineering or architectural firm should be retained to design the repairs, and provide oversight during construction.

The material and labor pricing provided are estimates and have been augmented, as necessary, to account for specific site conditions (i.e. material handling, scaffolding, etc.). The total expenses represent a useful guideline whereby reserve funds can be accumulated for future repairs and replacements. The estimated repair and replacement expenses, unless otherwise noted, include allowances for architectural and/or engineering fees for major repair/replacement projects.



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The information provided by the Library representative regarding the financial, physical, or historical data is deemed reliable. The capital asset study is intended to be a reflection of the information provided and is not for the purpose of performing an audit, quality analysis, forensic analysis, or background check of historical records.

The Library's Board of Trustees assumes full responsibility for determining that the list of components is complete. We have not reviewed any documents or declarations as part of this capital asset study and assume no responsibility for the completeness of the inventory.

We appreciate the opportunity to be of service to you and the Northbrook Public Library. If you have any questions, or if we can be of further assistance, please do not hesitate to call.

Sincerely,

Building Technology Consultants, Inc.

A handwritten signature in black ink, appearing to read 'Chris R. Kottra'.

Christopher R. Kottra, PE, CCCA
Associate Principal

A handwritten signature in black ink, appearing to read 'Kami Farahmandpour'.

Kami Farahmandpour, PE, FRCI, FNAFE, REWC, RRC, RWC, CCS, CCCA
Principal

Attachments: Appendix A – Component Category Summary Reports
Appendix B – Financial Analysis

Copy to: Ms. Kate Hall



APPENDIX A

COMPONENT CATEGORY SUMMARY REPORTS

Project:

Northbrook Public Library
Northbrook, Illinois

Capital Asset Component:

Site Elements

Asset Description:

Site elements that the library is responsible for maintaining include asphalt pavement with concrete curbs, concrete driveways and sidewalks, retaining walls, and site lighting. There are also several landscaped and hardscaped areas throughout the site.

An asphalt pavement parking lot and driveway along the perimeter of the building serve as primary parking areas for library patrons (Photo 1). Some of the parking spaces are located under the 2nd floor overhang (Photo 2). Employees utilize an asphalt pavement parking lot northeast of the Library (Photo 3).

A concrete driveway along the east side of the 1975 expansion provides access to the east entrance to the building (Photo 4).

Concrete sidewalks abut the perimeter of the building (Photo 5). A concrete ramp and stairs are located on the west side of the site providing pedestrian access to the west entrance to the Library (Photo 6). The stairs have steel handrails along both sides with railing posts embedded into the concrete. The ramp has aluminum handrails and railings with embedded railing posts. Another set of stairs with steel pipe handrails is located near the northeast corner of the site providing pedestrian access to and from the employee parking lot.

Concrete retaining walls line the ramp on the west side of the site, and the outside perimeter of the parking lot on the east side of the site (Photo 7).

The east parking lot and employee parking lot are illuminated by pole-mounted dual-fixture lights (Photo 8).



Photo 1



Photo 2



Photo 3

Other site elements the Library is responsible for include bike racks, pipe bollards, signage, parking space wheel stops, and furniture.

Approximate Asset Quantities:

- Asphalt pavement
 - Perimeter parking/driveway: 44,000 square feet
 - Employee parking lot: 10,500 square feet
- Concrete driveway: 6,300 square feet
- Concrete sidewalks and stairs: 17,800 square feet
- Railings and handrails: 220 linear feet
- Retaining walls: 1,060 linear feet
- Pole-mounted light fixtures: 14 each
- Miscellaneous site elements:
 - Bike racks: 8 each
 - Pipe bollards: 3 each
 - Curb stops: 136 each

Condition:

Asphalt Pavement: Asphalt pavement was generally observed to be in poor condition (Photo 9). Wide-spread cracking was observed throughout the paved areas.

Concrete Driveway: The concrete driveway generally appeared to be in fair condition. Observed deficiencies were localized and included cracking and pitting likely from exposure to deicing salts.

Concrete Sidewalks and Stairs: Concrete walkways were generally observed to be fair condition. The observed deficiencies were localized and included the following:

- Cracking;
- Localized spalling (Photo 10);
- Heaved or settled sections;
- Pitting (Photo 11);
- Evidence of corroding reinforcing steel in stairs at west side of site (Photo 12);

Railings and Handrails: Corrosion was observed at embedded railing posts at the west side stairs (Photo 13). The railings and handrails along the ramp on the west side of the site generally



Photo 4



Photo 5



Photo 6

appeared to be in good condition. Handrails at the north stairs were in poor condition.

Retaining Walls: Typical shrinkage cracking was observed on both sides of the concrete retaining walls. Such cracking is not usually an indication of a structural issue. However, the retaining wall reinforcing steel is susceptible to corrosion, which can eventually lead to spalling of the concrete.

Concrete Curbs: Concrete curbs were generally observed to be in good condition. Localized damage and/or deterioration was observed at some locations.

Landscaping and Hardscape: In general, the landscaping and hardscape components were in good condition with little sign of deterioration. Many of these components have an indefinite life expectancy. A landscaping rehabilitation project is reportedly being planned for in 2020.

Site Lighting: Pole-mounted light fixtures in the parking lots generally appeared to be in fair condition. Surface corrosion was observed at the base of some light fixtures (Photo 14).

Miscellaneous Site Elements: Other components such as the flag pole, bike racks, and pipe bollards were generally in fair condition. Corrosion was observed at the base of some of these components.

Rehabilitation:

Asphalt Pavement: A parking lot rehabilitation project is reportedly being planned for later in 2019. Rehabilitation for this project should include full replacement of the asphalt pavement. Subsequent rehabilitation should include periodic full-depth patch repairs where cracking occurs, and seal-coating every 2 to 3 years.

Concrete Repairs: Rehabilitation of concrete components throughout can be performed together as a single project. Such rehabilitation will likely consist of the following:

- Localized patch repairs at concrete driveway;
- Replace concrete at west stairs;
- Concrete patch repairs at other stairs as necessary;



Photo 7



Photo 8



Photo 9

- Replace concrete sidewalk sections as necessary;
- Replace deteriorated sections of concrete curbs as necessary;
- Repair cracks in retaining walls;

Metal site components: Rehabilitation of metal components throughout the site will likely consist of preparing surfaces and recoating steel railings at stairs, bollards, bike racks, and light fixture poles. No significant rehabilitation to the aluminum railings is anticipated during this study period.

Site Lighting: Site lighting fixtures should be replaced as they reach the end of their useful life.

Approximate Rehabilitation Cost and Schedule:

The following are estimated costs and schedule for the recommended rehabilitation of the site elements:

- 2019/2020: Replace asphalt pavement
Actual Cost: \$252,000
- 2020/2021: Landscaping rehabilitation
Approximate Cost: \$150,000
- 2022/2023:
 - Seal coat asphalt pavement
Approximate Cost: \$30,000
 - Perform localized concrete repairs (driveway, sidewalks, stairs, curbing)
Approximate Cost: \$15,000
- 2023/2024:
 - Replace select handrails
Approximate Cost: \$5,000
 - Replace site lighting fixtures
Approximate Cost: \$42,000
- 2025/2026: Seal coat asphalt pavement
Approximate Cost: \$30,000
- 2028/2029:
 - Full-depth asphalt pavement repairs;
Seal coat asphalt pavement
Approximate Cost: \$50,000
 - Perform localized concrete repairs (driveway, sidewalks, stairs, curbing)
Approximate Cost: \$15,000
- 2031/2032: Seal coat asphalt pavement
Approximate Cost: \$30,000



Photo 10



Photo 11



Photo 12

- 2034/2035: Seal coat asphalt pavement
Approximate Cost: \$30,000
- 2037/2038: Seal coat asphalt pavement
Approximate Cost: \$30,000

Maintenance Recommendations:

The following maintenance items can extend the service life of some of the site elements.

- Carefully wash the engraved pavers between the concrete driveway and east parking area.
- In lieu of replacing the concrete stairs along the south elevation, partial depth concrete patch repairs can be performed at significantly less cost. However, such patches will not likely match adjacent concrete and will not address potential deterioration of the adjacent concrete.
- Apply touch-up paint to railing and guardrail component scratches.
- Maintain a yearly allowance for landscaping maintenance and minor upgrades in the operating budget.

Additional Comments:

Embedded railing posts will require more frequent maintenance. We recommend considering surface mounted railing posts when the railings are replaced.



Photo 13



Photo 14

Project:

Northbrook Public Library
Northbrook, Illinois

Capital Asset Component:

Roofing

Asset Description:

The main low-slope roof consists of an EPDM roofing system (Photo 1). Elevated mechanical platforms and penthouses also have an EPDM roofing system (Photos 2 and 3). A similar EPDM roofing system exists on the barreled roof over the 1999 addition (Photo 4).

A full-building expansion joint separates the original 1969 structure from the 1975 expansion. The EPDM membrane is continuous over the roof divider along the expansion joint.

Aluminum gutters are located along the low sides of the barreled roof and at the mechanical penthouse. The gutters deliver water to aluminum downspouts that drain on to the elevated mechanical or main low-slope roofs (Photo 5).

The main roof drains to internal roof drains (Photo 6). The roof membrane is terminated under edge-metal flashing along the outside perimeter of the main roof. The roof membrane is terminated with termination bars at transitions to vertical surfaces such as the mechanical penthouse walls (Photo 7).

Wall-mounted steel ladders provide access to the elevated mechanical platforms (Photo 8).

The barreled roof overhangs are supported by exposed structural steel members. Refer to the facade component category summary report for more information regarding the condition of the exposed steel framing.

Approximate Asset Quantities:

- Main roof: 23,000 square feet
- Elevated mechanical roofs: 6,000 square feet
- Barreled roof: 21,000 square feet



Photo 1



Photo 2



Photo 3

Condition:

The roofing systems generally appeared to be in good condition. The Library has a maintenance agreement with Olsson Roofing, which includes 2 inspections per year with minor repairs. The November 13, 2018 inspection report from Olsson roofing indicated that multiple punctures and tears were found and repaired. Olsson's report also indicated that flashings and perimeter edge details were in good condition.

The main roof was reportedly last replaced in 2006. The mechanical platform roofs were replaced in 2014. The barreled roof EPDM system has not been replaced since the 1999 addition was constructed. Many of the repairs performed by Olsson Roofing in November of 2018 were on the barreled roof. Given the age of the roof and the number of repairs performed, the roof may be approaching the end of its useful life.

Rehabilitation:

Rehabilitation of the roofs will likely consist of the following:

- Remove the existing roofing system down to the structural deck.
- Provide new roofing system complete with all necessary components including vapor retarder, insulation, cover board, EPDM membrane, and sheet metal flashings.
- Salvaging gutters and downspouts during a roof replacement project is not practical. As such, replacement should be planned for in conjunction with a roof rehabilitation project.

Approximate Rehabilitation Cost and Schedule:

The following are estimated costs and schedule for the recommended rehabilitation of the roofing components:

- 2023/2024: Replace roofing system at barreled roof
Approximate Cost: \$630,000
- 2025/2026: Replace roofing system at main roof
Approximate Cost: \$575,000
- 2033/2034: Replace roofing system at elevated mechanical platforms/penthouses
Approximate Cost: \$180,000



Photo 4



Photo 5



Photo 6

Maintenance Recommendations:

The following maintenance items can extend the service life of the existing roofing systems. However, it is not anticipated that the recommended routine maintenance can significantly delay the anticipated replacement time frame for the roofs.

- Continue current program for routine maintenance inspections and repairs.
- Periodically remove debris from roof drains, gutters, and downspouts.
- Clean all drains and ensure they provide unobstructed flow.
- Check all drain screens and ensure that they are secured.



Photo 7



Photo 8

Project:

Northbrook Public Library
Northbrook, Illinois

Capital Asset Component:

Facade

Asset Description:

The facade on the 1st floor of the Library consists of a combination of brick masonry, corrugated metal panels, and full-height storefront windows (Photos 1 and 2). Most of the 1st floor facade is set back from the overhanging 2nd floor.

The Library was originally constructed in 1969 and expanded in 1975. The facade on the 2nd floor along the 1969 and 1975 portions of the building consist of floor-to-ceiling steel-framed windows with steel plate spandrel panels above and below (Photo 3).

The 2nd and 3rd floor facade along the 1999 expansion consists of an aluminum and glass window wall system (Photo 4). Ornamental louver sunscreen elements project outward at some locations. Portions of the window wall system are sloped (Photo 5).

The mechanical penthouse walls and mechanical platform screen walls are clad with metal panels (Photo 6).

The main entrance on the west side of the building has 2 sets of automatic sliding storefront doors (Photo 7). A similar configuration exists on the east side. Other doors are outswing storefront or steel doors used by employees or for emergencies only.

Soffits along the underside of the 2nd floor overhangs have an exterior plaster finish on the north, south, and west sides of the building (Photo 8). The soffit over the concrete driveway along the east side of the building is finished with ceiling tiles.

There are several exposed steel components other than the metal panel cladding discussed above. These components include the following:



Photo 1



Photo 2



Photo 3

- Vertically oriented ornamental steel wide flange sections between 2nd floor windows;
- Columns supporting the 2nd floor overhangs;
- Underside of 1999 addition barreled roof overhangs (Photo 9)

Approximate Asset Quantities:

- Brick masonry: 1,400 square feet
- Metal panel cladding:
 - Corrugated panels: 2,700 square feet
 - Spandrel panels: 3,800 square feet
 - Penthouse walls: 1,800 square feet
- 2nd floor windows (1969 & 1975): 94 each
- Window wall system (1999): 9,600 square feet
- Projecting sunscreens: 420 linear feet
- Storefront system: 1,700 square feet
- Exterior doors: 9 each
- Soffits: 19,800 square feet

Condition:

The 1st floor facade components were generally observed to be fair condition. Brick masonry mortar joints appeared to be in good condition. Deteriorated sealant was observed at some expansion joints.

Metal panel cladding was exhibiting corrosion at some locations (Photo 10). Corrosion observed at the base of corrugated metal panel cladding on the 1st floor may be related to prolonged exposure to moisture such as standing water. Evidence of corrosion was also observed at other exposed steel components (Photo 11). Chipped paint and debonded sealant were observed at the penthouse wall cladding. Significant leaks have been reported behind and below the metal panels. In order to address this, both Product Architecture and Pepper Construction have recommended replacing the penthouse wall cladding.

The Library has reportedly been experiencing water leakage issues at the 2nd floor windows along the 1969/1975 portions of the building. Wiss, Janney, Elstner Associates, Inc. (WJE) performed an up-close review of the windows and metal panel cladding. In their preliminary report dated



Photo 4



Photo 5



Photo 6

December 18, 2018, WJE identified significant deterioration in steel and sealant components that have contributed to the reported leaks. WJE is reportedly preparing a more detailed report with recommendations for repairs.

No significant deficiencies were observed in the window wall system along the 1999 addition during our cursory review. Given the age of window wall system, an up-close review of some areas from the exterior is recommended to evaluate the condition of the sealant and gaskets in the system. Some of the sealant and/or gaskets may be reaching the end of their useful life especially at the more critical areas such as the sloped glazing portions of the window wall system. As gaskets age, they can lose elasticity, which can leave the window wall system susceptible to water infiltration.

The projecting louver sunscreen elements generally appeared to be in good condition. No significant rehabilitation is anticipated at the projecting sunscreens.

The automatic sliding doors were installed during the 2015 rehabilitation project and appeared to be operating well. Other exterior doors were generally in good condition. No significant rehabilitation is anticipated at exterior doors.

Soffits at the 1st floor were generally in fair condition along the north and west elevations. Missing, damaged, or dislodged ceiling tiles were observed at the soffit along the east elevation (Photo 12).

Rehabilitation:

Future facade rehabilitation will likely consist of the following:

- Miscellaneous masonry repairs including repointing deteriorated mortar joints, replacement of expansion joint sealant, routing and sealing cracks, etc.;
- Replacement of glazing sealant and gaskets;
- Repair deteriorated soffit finishes. This may require localized patching at some locations. Other locations may require replacing entire panels.
- Remove corrosion products and recoat exposed steel components.



Photo 7



Photo 8



Photo 9

The extent of future rehabilitation at the 2nd floor windows along the 1969/1975 portions of the building will depend on the results of WJE's investigation and their recommendations. We recommend addressing the corrosion along the base of the corrugated metal wall panels in conjunction with the 2nd floor window repairs to minimize overall costs. Repairs would likely include replacing the base-of-wall flashing with a corrosion-resistant material.

Approximate Rehabilitation Cost and Schedule:

The following are estimated costs and schedule for the recommended facade rehabilitation:

- 2020/2021:
 - Replace mechanical penthouse metal panel wall cladding
Approximate Cost: \$275,000
 - Facade repairs to address deficiencies outlined in WJE report
Approximate Cost: \$1,000,000
- 2021/2022: Repair base of corrugated metal panels
Approximate Cost: \$10,000
- 2023/2024: Replace sealant and gaskets at 1999 addition 2nd floor window wall system
Approximate Cost: \$40,000
- 2024/2025:
 - Miscellaneous brick masonry and sealant repairs
Approximate Cost: \$10,000
 - Repair/replace soffit finishes
Approximate Cost: \$10,000
- 2029/2030: Recoat exposed steel components and miscellaneous repairs at 2nd floor windows
Approximate Cost: \$250,000

Maintenance Recommendations:

The following maintenance items can extend the service life of some components listed above:

- Move standing water away from the bottom of corrugated metal facade panels.
- Perform localized patch repairs at soffits.
- Apply touch-up paint to exposed steel component surfaces.



Photo 10



Photo 11



Photo 12

Project:

Northbrook Public Library
Northbrook, Illinois

Capital Asset Component:

Interior Finishes and Fixtures

Asset Description:

Interior finishes and fixtures in the building are comprised of various elements, which include the following:

- Flooring
- Ceiling finishes
- Restroom finishes and fixtures
- Elevator cab finishes and controls
- Computer equipment
- Furniture and Shelving
 - Bookshelves
 - Chairs, tables, miscellaneous furniture, etc.
 - Cabinets and countertops
- Office equipment
- Technology and communications

For evaluation purposes, the following rooms/areas were reviewed:

1st Floor:

- Lobby and circulation desk (Photo 1)
- Auditorium and backstage areas (Photo 2)
- Pollak Room
- Technical Services and associated staff offices
- Circulation Workroom and associated staff offices (Photo 3)
- Staff lounge (Photo 4)
- Mechanical spaces (generator room, chiller room, boiler room, utility closets, etc.)
- Restrooms (public and employee)

2nd Floor:

- Youth Services and associated workrooms and activity rooms (Photos 5 and 6)
- Biographies



Photo 1



Photo 2



Photo 3

- Non-fiction (Photo 7)
- Main Street
- Atriums One and Two (Photo 8)
- Quiet study rooms (Photo 9)
- Interactive classroom (Photo 10)
- Collaboratory (Photo 11)
- Staff offices
- Restrooms

3rd Floor:

- Atriums One and Two (Photo 12)
- Staff offices
- Restrooms

Approximate Asset Quantities:

Flooring:

- Carpeting: 67,000 square feet total
 - 1st Floor: 12,000 square feet
 - 2nd Floor: 40,000 square feet
 - 3rd Floor: 15,000 square feet
- Tile: 6,500 square feet total
 - 1st Floor: 6,000 square feet
 - 2nd Floor: 250 square feet
 - 3rd Floor: 250 square feet
- Vinyl composition tile: 6,500 square feet
 - 1st Floor: 4,500 square feet
 - 2nd Floor: 2,000 square feet

Ceiling Finishes:

- Acoustical ceiling tiles: 36,000 square feet
- Gypsum sheathing: 6,000 square feet
- Exposed steel framing: 15,000 square feet

Inventory Valuation:

According to the "Replacement Cost Appraisal" report prepared by Gallagher Basset dated May 21, 2018, the Library's inventory of furnishings and equipment have the following values:

- Computer equipment: \$525,000
- Furniture and shelving: \$1,410,000
- Office equipment: \$561,000



Photo 4



Photo 5



Photo 6

Condition:

Flooring: Much of the carpeting was replaced during the 2015 auditorium addition and interior remodeling project. The carpeting on all 3 levels was generally in fair condition. Localized wearing was observed in high traffic areas (Photo 13).

Flooring in public areas on the 1st floor was installed in 2015 and generally appeared to be in good condition.

Vinyl composition tile in service areas was generally appeared to be outdated. Rehabilitation of the 1st floor service areas is reportedly planned for in spring of 2019.

Ceiling Finishes: Acoustical ceiling tiles were generally in good condition. No major rehabilitation is anticipated during this study. We recommend replacing ceiling tiles in conjunction with remodeling projects.

Restroom Finishes and Fixtures: The public restroom on the 1st floor were rehabilitated in 2015 and are generally in good condition (Photo 14). The finishes and fixtures in the 2nd and 3rd floor restrooms are assumed to be several years older but appeared to be in good condition as well (Photo 15).

Elevator Finishes and Controls: The elevators were added with the 3rd floor addition in 1998. The elevators appeared to be operating well and the cab finishes were generally in fair condition (Photos 16 and).

The condition of the computer equipment, furniture and shelving, and office equipment varied throughout the Library.

Rehabilitation:

A master plan for future rehabilitation of interiors spaces was developed by Product Architecture + Design in the fall of 2017. The mast plan included a breakdown of specific projects and estimated costs. The following is a summary of the areas covered by each project:

- Project 1A: First floor Circulation desk, Circulation work areas, staff lounge
Estimated Construction Cost: \$350,000
Estimated Furnishings Cost: \$75,000



Photo 7

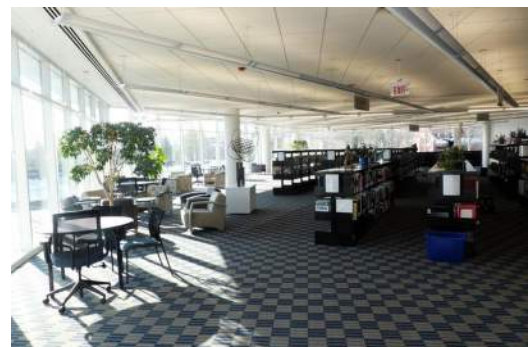


Photo 8

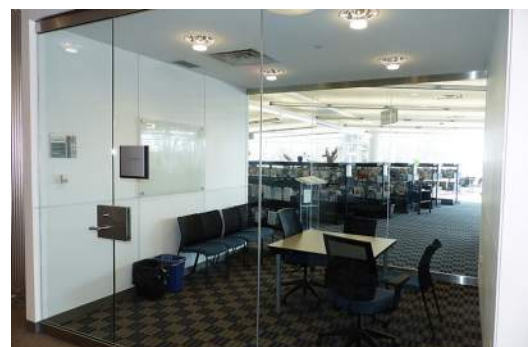


Photo 9

- Project 1B: First Floor Technical Services and Maintenance areas
Estimated Construction Cost: \$695,000
Estimated Furnishings Cost: \$160,000
- Project 2: Second Floor Youth Services
Estimated Construction Cost: \$955,000
Estimated Furnishings Cost: \$525,000
- Project 3: Public areas on Second Floor other than Youth Services
Estimated Construction Cost: \$1,246,000
Estimated Furnishings Cost: \$367,000
- Project 4: Second Floor staff offices, conference rooms, and multi-purpose rooms
Estimated Construction Cost: \$2,025,000
Estimated Furnishings Cost: \$252,000
- Project 5: Third Floor
Estimated Construction Cost: \$732,000
Estimated Furnishings Cost: \$418,000

After the rehabilitation projects are complete, replacement of carpeting should be planned for every 8 to 10 years. We recommend installing tiled carpeting for easier replacement in localized high traffic areas.

Elevator Finishes and Controls: Elevator cab finishes typically have useful life of approximately 20 to 30 years. We did not observe any significant deterioration that would accelerate the need to modernize the elevators.

Furniture and Shelving: Although furnishings and shelving typically have a longer useful life than carpeting, replacing some or all of these items at the same time as the carpeting aids in coordination efforts. As such, we have included an allowance for replacing some furniture and shelving in the same years as carpet replacement for planning purposes.

We have assumed that upgrades in computer equipment, furniture and shelving, and office equipment are included in the master plan projects.

Technology and Communications (Tech/Comm): Upgrades will include replacing the current phone system, security cameras, alarm system, and adding an RFID system and automatic material handling equipment.



Photo 10



Photo 11



Photo 12

Approximate Rehabilitation Cost and Schedule:

Based on information provided by the Library, and our financial analysis, the following is a recommended schedule for the interior rehabilitation projects:

- 2019/2020:
 - *Tech/Comm*: Replace phone system
Approximate Cost: \$100,000
 - *Master Plan Rehabilitation*:
 - Project 1A
Approximate Cost: \$425,000
 - Add study rooms in Reference (Part of Project 3)
Approximate Cost: \$400,000
- 2020/2021:
 - *Tech/Comm*: Replace security cameras
Approximate Cost: \$75,000
 - *Master Plan Rehabilitation*: Marketplace (Part of Project 3)
Approximate Cost: \$340,000
- 2021/2022:
 - *Tech/Comm*:
 - Replace alarm system
Approximate Cost: \$75,000
 - RFID system
Approximate Cost: \$150,000
 - Automated materials handler
Approximate Cost: \$130,000
 - *Master Plan Rehabilitation*: Project 1B
Approximate Cost: \$855,000
- 2022/2023:
 - *Master Plan Rehabilitation*: Fiction & Media staff space rehabilitation (assumed 50% of Project 5)
Approximate Cost: \$575,000
- 2023/2024:
 - *Master Plan Rehabilitation*: Middle & high school space on 2nd floor (assumed 50% of Project 2)
Approximate Cost: \$740,000



Photo 13



Photo 14



Photo 15

- 2024/2025:
 - *Master Plan Rehabilitation: Youth Services rehabilitation (remainder of Project 2)*
Approximate Cost: \$740,000
- 2025/2026:
 - *Master Plan Rehabilitation: Project 5*
Approximate Cost: \$1,150,000
- 2026/2027:
 - *Master Plan Rehabilitation: Reference rehabilitation (remainder of Project 3)*
Approximate Cost: \$533,000
- 2027/2028:
 - *Master Plan Rehabilitation: Project 4*
Approximate Cost: \$2,277,000
- 2028/2029: Elevator cab refurbishment
Approximate Cost: \$50,000
- 2029/2030:
 - Replace 1st floor carpeting
Approximate Cost: \$96,000
 - Allowance for furniture and shelving
Approximate Cost: \$50,000
- 2034/2035:
 - Replace 2nd floor public area carpeting
Approximate Cost: \$240,000
 - Allowance for furniture and shelving
Approximate Cost: \$50,000
- 2036/2037:
 - Replace 3rd floor public area carpeting
Approximate Cost: \$112,000
 - Allowance for furniture and shelving
Approximate Cost: \$50,000



Photo 16



Photo 17

Maintenance Recommendations:

The appearance of interior finishes will rely greatly on routine maintenance. Such maintenance should include carpet cleaning, localized painting, replacing damaged or discolored flooring and ceiling tiles, etc. Additionally, we recommend the following items be addressed from the Library's operating budget:

- Replace kitchen appliances as needed.
- Replace computer hardware as necessary to ensure availability of parts and functionality.

Project:

Northbrook Public Library
Northbrook, Illinois

Capital Asset Component:

Mechanical, Electrical, Plumbing, and Fire Protection (MEP/FP)

Asset Quantities:

- Air handlers: 5 each (Photos 1 and 2)
- Roof-top units (RTUs): 2 each (Photo 3)
- Split-system air conditioners: 4 each (Photo 4)
- Chiller (Photo 5)
- Cooling tower
- Boilers: 3 each (Photo 6)
- HVAC pumps: 17 each (Photo 7)
- Exhaust fans: 15 each (Photo 8)
- Fire pump (Photo 9)
- Domestic water heater
- Sewage ejector pump: 2 each
- Sump pumps: 2 each (Photo 10)
- Emergency generator (Photo 11)
- Temperature control air compressors: 2 each

Condition:

Calor Design Group, Ltd. (Calor) established an inventory and assessed the condition of the Library's mechanical equipment in 2008. Calor's "Mechanical Equipment Inventory Update" report dated February 16, 2018 included recommendations for future rehabilitation of some of the mechanical equipment. Based on the report, the central heating and air conditioning equipment were given the highest priority for repairs.

Chiller C-1 (used as a back-up for Chiller C-2) Cooling Tower CT-2 were removed in 2016. Chiller C-2 was repaired, and the corresponding Cooling Tower CT-2 was replaced in 2018.

Most of the air handling units have either been replaced or rehabilitated in recent years. Air Handling Unit S-3A was installed in 1968 during the original construction of the Library. The Calor



Photo 1



Photo 2



Photo 3

report recommended replacement in 2024. However, based on conversations with Library staff regarding the performance of the equipment, replacement is recommended sooner.

Two of the split-system air conditioning units were installed in 2014 and are in good condition. The remaining 2 are nearing the end of their anticipated useful life. As such, replacement should be planned for within 5 years.

The boilers are nearing the end of their useful life. As such, replacement should be planned for within the next few years.

Pumps and exhaust fans have been replaced at various times. Their remaining useful lives also vary significantly depending on their function. The estimated cost and schedule for replacing the pumps and exhaust fans is based solely on the expected remaining lives indicated in the Calor report.

Approximate Rehabilitation Cost and Schedule:

The following are estimated costs and schedule for the recommended MEP/FP equipment rehabilitation:

- 2019/2020:
 - Replace chilled water pump (P-1) and condensate pump (P-6)
Approximate Cost: \$12,000
 - Replace 2 exhaust fans (E-4 and E-6)
Approximate Cost: \$5,000
 - Replace domestic water heater
Approximate Cost: \$3,000
 - Boiler room ventilation
Approximate Cost: \$30,000
 - Replace fire sprinklers (first phase)
Approximate Cost: \$20,000
- 2020/2021:
 - Replace air handling unit (S-3A)
Approximate Cost: \$12,000
 - Replace exhaust fan (CE-1)
Approximate Cost: \$3,000
 - Replace fire sprinklers (second phase)
Approximate Cost: \$15,000



Photo 4



Photo 5



Photo 6

- 2021/2022:
 - Replace boilers (B-1 and B-2)
Approximate Cost: \$80,000
- 2023/2024:
 - Replace split-system air conditioners (CU-3/CRU-3 and CU-4/CRU-4)
Approximate Cost: \$30,000
 - Replace humidifier boiler
Approximate Cost: \$20,000
 - Replace condensate water pump (P-12)
Approximate Cost: \$8,000
 - Replace 4 exhaust fans (E-5, E-7, E-8, E-10)
Approximate Cost: \$12,000
 - Replace temperature control air compressor
Approximate Cost: \$8,000
- 2027/2028:
 - Replace hot water pump (P-4)
Approximate Cost: \$5,000
 - Replace domestic water heater
Approximate Cost: \$3,000
- 2028/2029:
 - Replace 6 pumps (P-3, P-11, P-13, P-14, P-15, and pressure fill system)
Approximate Cost: \$33,000
 - Replace 4 exhaust fans (SF-1/2/3/4)
Approximate Cost: \$12,000
 - Replace emergency generator
Approximate Cost: \$40,000
- 2029/2030:
 - Replace ejector pumps
Approximate Cost: \$5,000
 - Replace sump pumps
Approximate Cost: \$5,000
- 2030/2031: Replace air handlers (S-3 and S-4)
Approximate Cost: \$240,000
- 2031/2032: Replace 3 pumps (P-5, P-7, P-8)
Approximate Cost: \$13,000
- 2032/2033: Replace condensate pump (P-16)
Approximate Cost: \$4,000
- 2034/2035: Replace split-system air conditioners (CU-1/CRU-1 and CU-2/CRU-2)
Approximate Cost: \$30,000



Photo 7



Photo 8



Photo 9

- 2035/2036:
 - Replace 3 exhaust fans (EF-1, EF2, EF-3)
Approximate Cost: \$9,000
 - Replace domestic water heater
Approximate Cost: \$3,000
- 2036/2037:
 - Replace air handlers (S-1 and S-2)
Approximate Cost: \$240,000
 - Replace exhaust return fans (ER-1, ER-2)
Approximate Cost: \$50,000
- 2038/2039
 - Replace HVAC units (RTU-1 and RTU-2)
Approximate Cost: \$300,000
 - Replace fire pump
Approximate Cost: \$35,000



Photo 10

Maintenance Recommendations:

The following maintenance items can extend the service life of some of the existing MEP/FP equipment. However, it is not anticipated that the recommended routine maintenance can significantly delay the anticipated replacement time frame for the equipment.

- Inspect operating motors routinely. Repair or replace motors or motor bearings when needed.
- Replace belts and other miscellaneous items as necessary to maintain a functioning system.
- Remove and replace malfunctioning or defective switch gear or circuit breakers on an as-needed basis.
- It is our understanding that sprinkler heads for the dry sprinkler system hanging from the soffits along the underside of the 2nd floor overhangs are being replaced systematically. As such, this is not considered a capital expense. We recommend continuing the replacement process until 100% of the sprinkler heads have been replaced.



Photo 11



APPENDIX B

FINANCIAL ANALYSIS TABLES

Table 1
Element Expense Summary

Northbrook Public Library
Project #: 19-472
Version #: DRAFT 2.0

Component	General Current Condition	Life Analysis (Years)		Total	Quantities		Expenses				
		Typical Useful Life	Remaining Useful Life		Units	% of Total Repaired / Replaced Over 20 Year Period	Present Day		Future (Inflated)		
							Unit Costs	Expenses	Total for 20 Year Period	Total for 20 Year Period	% of Total for 20 Year Period
Site Elements											
Asphalt Pavement	Poor	15-20	0	54,500	Square Feet	179.4%	\$4.62	\$252,000	\$452,000	\$515,029	3.0%
Concrete Driveway	Fair	Up to 60	10+	6,300	Square Feet	10.6%	\$15.00	\$94,500	\$10,000	\$11,671	0.1%
Concrete Sidewalks and Stairs	Fair	Up to 60	10+	17,800	Square Feet	3.7%	\$15.00	\$267,000	\$10,000	\$11,671	0.1%
Concrete Curbing	Good	Up to 60	10+	800	Linear Feet	15.6%	\$80.00	\$64,000	\$10,000	\$11,671	0.1%
Landscaping and Hardscape	Good	Varies	Varies	7,500	Square Feet	100.0%	\$20.00	\$150,000	\$150,000	\$156,673	0.9%
Railings and Handrails	Good / Poor	15	Varies	220	Linear Feet	100.0%	\$22.73	\$5,000	\$5,000	\$5,575	0.0%
Retaining Walls	Good	40+	20+	1,060	Linear Feet		\$250.00	\$265,000			
Pole-mounted Light Fixtures	Fair to Poor	20-25	5	14	Each	100.0%	\$3,000	\$42,000	\$42,000	\$46,828	0.3%
Miscellaneous Site Elements	Varies	Varies	Varies	1	Allowance		\$10,000	\$10,000			
Roofing											
Main Roof	Good	15-20	7	23,000	Square Feet	100.0%	\$25.00	\$575,000	\$575,000	\$669,613	3.9%
Elevated Mechanical Equipment Roofs	Good	15-20	15	6,000	Square Feet	100.0%	\$30.00	\$180,000	\$180,000	\$249,480	1.5%
Barreled Roof	Fair	15-20	3-5	21,000	Square Feet	100.0%	\$30.00	\$630,000	\$630,000	\$702,417	4.1%
Facade											
Brick Masonry	Good	30-50	Varies	1,400	Square Feet	23.8%	\$30.00	\$42,000	\$10,000	\$11,395	0.1%
Corrugated Metal Panels	Fair	25-35	15+	2,700	Square Feet	24.7%	\$15.00	\$40,500	\$10,000	\$10,675	0.1%
Mechanical Penthouse Wall Cladding	Fair	25-35	15+	1,800	Square Feet	100.0%	\$152.78	\$275,000	\$275,000	\$287,233	1.7%
2nd Floor Windows (Original Structure)	Poor	30-50	0	94	Each	6.6%	\$8,000	\$752,000	\$50,000	\$63,523	0.4%
Window Wall System (1999 Addition)	Good	30-50	20+	9,600	Square Feet	1.7%	\$250.00	\$2,400,000	\$40,000	\$44,598	0.3%
Projecting Sunshades	Good	30-50	20+	420	Linear Feet		\$200.00	\$84,000			
Storefront System	Good	30-50	20+	1,700	Square Feet		\$100.00	\$170,000			
Exterior Doors	Good	Varies	Varies	9	Each		\$3,000	\$27,000			
Soffits	Fair	25-30	10+	19,800	Square Feet	10.1%	\$5.00	\$99,000	\$10,000	\$11,395	0.1%
Exposed Steel Framing	Poor	Varies	Varies	1	Allowance	100.0%	\$200,000	\$200,000	\$200,000	\$254,091	1.5%
Exterior Facade Repairs	N/A	N/A	N/A	1	Allowance	100.0%	\$1,000,000	\$1,000,000	\$1,000,000	\$1,044,484	6.1%
Interior Finishes and Fixtures											
Flooring	Varies	Varies	Varies	80,300	Square Feet	69.7%	\$8.00	\$642,400	\$448,000	\$627,626	3.7%
Ceiling Finishes	Varies	Varies	Varies	42,000	Square Feet						
Restroom Finishes and Fixtures	Varies	Varies	Varies	1,300	Square Feet						
Elevator Finishes and Controls	Good	20-30	10	2	Each	100.0%	\$25,000	\$50,000	\$50,000	\$62,155	0.4%
Computer Equipment	Varies	Varies	Varies	1	Allowance		\$525,000	\$525,000			
Furniture and Shelving	Good	Varies	Varies	1	Allowance	10.6%	\$1,410,000	\$1,410,000	\$150,000	\$208,323	1.2%
Office Equipment	Good	N/A	Varies	1	Allowance		\$561,000	\$561,000			
Technology and Communications	Varies	Varies	Varies	1	Allowance	530.0%	\$100,000	\$100,000	\$530,000	\$559,485	3.3%
Master Plan Rehabilitation	N/A	N/A	N/A	1	Allowance	109.9%	\$7,800,000	\$7,800,000	\$8,575,000	\$9,726,164	57.1%
Mech., Elect., Plumbing, & Fire Protection											
Air Handlers	Varies	20-40	5 / 12 / 18	5	Each	90.3%	\$120,000	\$600,000	\$542,000	\$753,208	4.4%
RTUs	Good	20-25	20	2	Each	100.0%	\$150,000	\$300,000	\$300,000	\$463,595	2.7%
Split System Air Conditioners	Varies	15-20	5 / 16	4	Each	100.0%	\$15,000	\$60,000	\$60,000	\$75,943	0.4%
Chillers	Good	20-25	22	1	Each						
Cooling Towers	Good	20-25	22	1	Each						
Boilers	Poor	25-30	1 / 3	3	Each	100.0%	\$33,333	\$100,000	\$100,000	\$107,696	0.6%
HVAC and Plumbing Pumps	Varies	15-20	Varies	17	Each	88.2%	\$5,000	\$85,000	\$75,000	\$90,965	0.5%
Exhaust Fans	Varies	15-20	Varies	15	Each	91.1%	\$3,000	\$45,000	\$41,000	\$49,568	0.3%
Fire Pump	Good	25-30	20	1	Each	100.0%	\$35,000	\$35,000	\$35,000	\$54,086	0.3%
Domestic Water Heater	Poor	8-10	0	1	Each	300.0%	\$3,000	\$3,000	\$9,000	\$11,058	0.1%
Sewage Ejector Pump	Good	15	11	2	Each	100.0%	\$2,500	\$5,000	\$5,000	\$6,352	0.0%
Sump Pump	Good	15	11	2	Each	100.0%	\$2,500	\$5,000	\$5,000	\$6,352	0.0%
Emergency Generator	Good	20-30	9	1	Each	100.0%	\$40,000	\$40,000	\$40,000	\$49,724	0.3%
Temperature Control Air Compressor	Fair	25-30	5	1	Each	100.0%	\$8,000	\$8,000	\$8,000	\$8,920	0.1%
Boiler Room Ventilation	Poor	N/A	N/A	1	Allowance	100.0%	\$30,000	\$30,000	\$30,000	\$30,660	0.2%
Fire Sprinklers	Poor	20-25	Varies	1	Allowance	100.0%	\$35,000	\$35,000	\$35,000	\$36,107	0.2%
								Totals	\$14,697,000	\$17,036,009	100.0%

Table 2

Present Day Annual Expense Summary (Years 1 thru 5)

Northbrook Public Library

Project #: 19-472

Version #: DRAFT 2.0

Component	1	2	3	4	5	Years 1 thru 5	
	2019 / 2020	2020 / 2021	2021 / 2022	2022 / 2023	2023 / 2024	Totals	% of Totals
Site Elements							
Asphalt Pavement	\$252,000			\$30,000		\$282,000	4.0%
Concrete Driveway				\$5,000		\$5,000	0.1%
Concrete Sidewalks and Stairs				\$5,000		\$5,000	0.1%
Concrete Curbing				\$5,000		\$5,000	0.1%
Landscaping and Hardscape		\$150,000				\$150,000	2.1%
Railings and Handrails					\$5,000	\$5,000	0.1%
Retaining Walls							
Pole-mounted Light Fixtures					\$42,000	\$42,000	0.6%
Miscellaneous Site Elements							
Roofing							
Main Roof							
Elevated Mechanical Equipment Roofs							
Barreled Roof					\$630,000	\$630,000	8.9%
Facade							
Brick Masonry							
Corrugated Metal Panels			\$10,000			\$10,000	0.1%
Mechanical Penthouse Wall Cladding		\$275,000				\$275,000	3.9%
2nd Floor Windows (Original Structure)							
Window Wall System (1999 Addition)					\$40,000	\$40,000	0.6%
Projecting Sunshades							
Storefront System							
Exterior Doors							
Soffits							
Exposed Steel Framing							
Exterior Facade Repairs		\$1,000,000				\$1,000,000	14.1%
Interior Finishes and Fixtures							
Flooring							
Ceiling Finishes							
Restroom Finishes and Fixtures							
Elevator Finishes and Controls							
Computer Equipment							
Furniture and Shelving							
Office Equipment							
Technology and Communications	\$100,000	\$75,000	\$355,000			\$530,000	7.5%
Master Plan Rehabilitation	\$825,000	\$340,000	\$1,395,000	\$575,000	\$740,000	\$3,875,000	54.5%
Mech., Elect., Plumbing, & Fire Protection							
Air Handlers		\$12,000				\$12,000	0.2%
RTUs							
Split System Air Conditioners					\$30,000	\$30,000	0.4%
Chillers							
Cooling Towers							
Boilers			\$80,000		\$20,000	\$100,000	1.4%
HVAC and Plumbing Pumps	\$12,000				\$8,000	\$20,000	0.3%
Exhaust Fans	\$5,000	\$3,000			\$12,000	\$20,000	0.3%
Fire Pump							
Domestic Water Heater	\$3,000					\$3,000	0.0%
Sewage Ejector Pump							
Sump Pump							
Emergency Generator							
Temperature Control Air Compressor					\$8,000	\$8,000	0.1%
Boiler Room Ventilation	\$30,000					\$30,000	0.4%
Fire Sprinklers	\$20,000	\$15,000				\$35,000	0.5%
Present Day Expense Totals	\$1,247,000	\$1,870,000	\$1,840,000	\$620,000	\$1,535,000	\$7,112,000	100.0%
Inflation Rate (1+IR)ⁿ	1.0220	1.0445	1.0675	1.0909	1.1149		
Future Expense Totals (Inflated)	\$1,253,994	\$1,953,185	\$1,964,131	\$676,387	\$1,711,445	\$7,579,582	100.0%
Beginning Reserve Fund Balance	\$2,238,459	\$1,585,324	\$694,714	\$1,754,836	\$1,864,282		
Recommended Reserve Fund Contribution	\$563,000	\$1,040,000	\$3,000,000	\$750,000	\$750,000		
Future Expenses (Inflated)	(\$1,253,994)	(\$1,953,185)	(\$1,964,131)	(\$676,387)	(\$1,711,445)		
Interest	\$37,859	\$22,575	\$24,253	\$35,833	\$27,671		
Ending Reserve Fund Balance	\$1,585,324	\$694,714	\$1,754,836	\$1,864,282	\$930,508		

Table 2

Present Day Annual Expense Summary (Years 6 thru 10)

Northbrook Public Library

Project #: 19-472

Version #: DRAFT 2.0

Component	6	7	8	9	10	Years 6 thru 10	
	2024 / 2025	2025 / 2026	2026 / 2027	2027 / 2028	2028 / 2029	Totals	% of Totals
Site Elements							
Asphalt Pavement		\$30,000			\$50,000	\$80,000	1.4%
Concrete Driveway					\$5,000	\$5,000	0.1%
Concrete Sidewalks and Stairs					\$5,000	\$5,000	0.1%
Concrete Curbing					\$5,000	\$5,000	0.1%
Landscaping and Hardscape							
Railings and Handrails							
Retaining Walls							
Pole-mounted Light Fixtures							
Miscellaneous Site Elements							
Roofing							
Main Roof		\$575,000				\$575,000	10.4%
Elevated Mechanical Equipment Roofs							
Barreled Roof							
Facade							
Brick Masonry	\$10,000					\$10,000	0.2%
Corrugated Metal Panels							
Mechanical Penthouse Wall Cladding							
2nd Floor Windows (Original Structure)							
Window Wall System (1999 Addition)							
Projecting Sunshades							
Storefront System							
Exterior Doors							
Soffits	\$10,000					\$10,000	0.2%
Exposed Steel Framing							
Exterior Facade Repairs							
Interior Finishes and Fixtures							
Flooring							
Ceiling Finishes							
Restroom Finishes and Fixtures							
Elevator Finishes and Controls					\$50,000	\$50,000	0.9%
Computer Equipment							
Furniture and Shelving							
Office Equipment							
Technology and Communications							
Master Plan Rehabilitation	\$740,000	\$1,150,000	\$533,000	\$2,277,000		\$4,700,000	84.9%
Mech., Elect., Plumbing, & Fire Protection							
Air Handlers							
RTUs							
Split System Air Conditioners							
Chillers							
Cooling Towers							
Boilers							
HVAC and Plumbing Pumps				\$5,000	\$33,000	\$38,000	0.7%
Exhaust Fans					\$12,000	\$12,000	0.2%
Fire Pump							
Domestic Water Heater				\$3,000		\$3,000	0.1%
Sewage Ejector Pump							
Sump Pump							
Emergency Generator					\$40,000	\$40,000	0.7%
Temperature Control Air Compressor							
Boiler Room Ventilation							
Fire Sprinklers							
Present Day Expense Totals	\$760,000	\$1,755,000	\$533,000	\$2,285,000	\$200,000	\$5,533,000	100.0%
Inflation Rate (1+IR)ⁿ	1.1395	1.1645	1.1902	1.2163	1.2431		
Future Expense Totals (Inflated)	\$866,003	\$2,043,776	\$634,358	\$2,779,357	\$248,622	\$6,572,116	100.0%
Beginning Reserve Fund Balance	\$930,508	\$831,955	\$1,814,380	\$2,118,966	\$81,395		
Recommended Reserve Fund Contribution	\$750,000	\$3,000,000	\$900,000	\$720,000	\$720,000		
Future Expenses (Inflated)	(\$866,003)	(\$2,043,776)	(\$634,358)	(\$2,779,357)	(\$248,622)		
Interest	\$17,450	\$26,201	\$38,944	\$21,786	\$6,342		
Ending Reserve Fund Balance	\$831,955	\$1,814,380	\$2,118,966	\$81,395	\$559,115		

Table 2

Present Day Annual Expense Summary (Years 11 thru 15)

Northbrook Public Library
Project #: 19-472
Version #: DRAFT 2.0

Component	11	12	13	14	15	Years 11 thru 15	
	2029 / 2030	2030 / 2031	2031 / 2032	2032 / 2033	2033 / 2034	Totals	% of Totals
Site Elements							
Asphalt Pavement			\$30,000			\$30,000	3.4%
Concrete Driveway							
Concrete Sidewalks and Stairs							
Concrete Curbing							
Landscaping and Hardscape							
Railings and Handrails							
Retaining Walls							
Pole-mounted Light Fixtures							
Miscellaneous Site Elements							
Roofing							
Main Roof							
Elevated Mechanical Equipment Roofs					\$180,000	\$180,000	20.6%
Barreled Roof							
Facade							
Brick Masonry							
Corrugated Metal Panels							
Mechanical Penthouse Wall Cladding							
2nd Floor Windows (Original Structure)	\$50,000					\$50,000	5.7%
Window Wall System (1999 Addition)							
Projecting Sunshades							
Storefront System							
Exterior Doors							
Soffits							
Exposed Steel Framing	\$200,000					\$200,000	22.9%
Exterior Facade Repairs							
Interior Finishes and Fixtures							
Flooring	\$96,000					\$96,000	11.0%
Ceiling Finishes							
Restroom Finishes and Fixtures							
Elevator Finishes and Controls							
Computer Equipment							
Furniture and Shelving	\$50,000					\$50,000	5.7%
Office Equipment							
Technology and Communications							
Master Plan Rehabilitation							
Mech., Elect., Plumbing, & Fire Protection							
Air Handlers		\$240,000				\$240,000	27.5%
RTUs							
Split System Air Conditioners							
Chillers							
Cooling Towers							
Boilers							
HVAC and Plumbing Pumps			\$13,000	\$4,000		\$17,000	1.9%
Exhaust Fans							
Fire Pump							
Domestic Water Heater							
Sewage Ejector Pump	\$5,000					\$5,000	0.6%
Sump Pump	\$5,000					\$5,000	0.6%
Emergency Generator							
Temperature Control Air Compressor							
Boiler Room Ventilation							
Fire Sprinklers							
Present Day Expense Totals	\$406,000	\$240,000	\$43,000	\$4,000	\$180,000	\$873,000	100.0%
Inflation Rate (1+IR)ⁿ	1.2705	1.2984	1.3270	1.3562	1.3860		
Future Expense Totals (Inflated)	\$515,805	\$311,618	\$57,060	\$5,425	\$249,480	\$1,139,388	100.0%
Beginning Reserve Fund Balance	\$559,115	\$776,534	\$1,204,531	\$1,898,191	\$2,657,876		
Recommended Reserve Fund Contribution	\$720,000	\$720,000	\$720,000	\$720,000	\$720,000		
Future Expenses (Inflated)	(\$515,805)	(\$311,618)	(\$57,060)	(\$5,425)	(\$249,480)		
Interest	\$13,224	\$19,615	\$30,720	\$45,110	\$57,863		
Ending Reserve Fund Balance	\$776,534	\$1,204,531	\$1,898,191	\$2,657,876	\$3,186,259		

Table 2 Present Day Annual Expense Summary (Years 16 thru 20)

Northbrook Public Library
Project #: 19-472
Version #: DRAFT 2.0

Component	16	17	18	19	20	Years 16 thru 20		Years 1 thru 20	
	2034 / 2035	2035 / 2036	2036 / 2037	2037 / 2038	2038 / 2039	Totals	% of Totals	Totals	% of Totals
Site Elements									
Asphalt Pavement	\$30,000			\$30,000		\$60,000	5.1%	\$452,000	3.1%
Concrete Driveway								\$10,000	0.1%
Concrete Sidewalks and Stairs								\$10,000	0.1%
Concrete Curbing								\$10,000	0.1%
Landscaping and Hardscape								\$150,000	1.0%
Railings and Handrails								\$5,000	0.0%
Retaining Walls									
Pole-mounted Light Fixtures								\$42,000	0.3%
Miscellaneous Site Elements									
Roofing									
Main Roof								\$575,000	3.9%
Elevated Mechanical Equipment Roofs								\$180,000	1.2%
Barreled Roof								\$630,000	4.3%
Facade									
Brick Masonry								\$10,000	0.1%
Corrugated Metal Panels								\$10,000	0.1%
Mechanical Penthouse Wall Cladding								\$275,000	1.9%
2nd Floor Windows (Original Structure)								\$50,000	0.3%
Window Wall System (1999 Addition)								\$40,000	0.3%
Projecting Sunshades									
Storefront System									
Exterior Doors									
Soffits								\$10,000	0.1%
Exposed Steel Framing								\$200,000	1.4%
Exterior Facade Repairs								\$1,000,000	6.8%
Interior Finishes and Fixtures									
Flooring	\$240,000		\$112,000			\$352,000	29.9%	\$448,000	3.0%
Ceiling Finishes									
Restroom Finishes and Fixtures									
Elevator Finishes and Controls								\$50,000	0.3%
Computer Equipment									
Furniture and Shelving	\$50,000		\$50,000			\$100,000	8.5%	\$150,000	1.0%
Office Equipment									
Technology and Communications								\$530,000	3.6%
Master Plan Rehabilitation								\$8,575,000	58.3%
Mech., Elect., Plumbing, & Fire Protection									
Air Handlers			\$290,000			\$290,000	24.6%	\$542,000	3.7%
RTUs					\$300,000	\$300,000	25.4%	\$300,000	2.0%
Split System Air Conditioners	\$30,000					\$30,000	2.5%	\$60,000	0.4%
Chillers									
Cooling Towers									
Boilers								\$100,000	0.7%
HVAC and Plumbing Pumps								\$75,000	0.5%
Exhaust Fans		\$9,000				\$9,000	0.8%	\$41,000	0.3%
Fire Pump					\$35,000	\$35,000	3.0%	\$35,000	0.2%
Domestic Water Heater		\$3,000				\$3,000	0.3%	\$9,000	0.1%
Sewage Ejector Pump								\$5,000	0.0%
Sump Pump								\$5,000	0.0%
Emergency Generator								\$40,000	0.3%
Temperature Control Air Compressor								\$8,000	0.1%
Boiler Room Ventilation								\$30,000	0.2%
Fire Sprinklers								\$35,000	0.2%
Present Day Expense Totals	\$350,000	\$12,000	\$452,000	\$30,000	\$335,000	\$1,179,000	100.0%	\$14,697,000	100.0%
Inflation Rate (1+IR)ⁿ	1.4165	1.4477	1.4795	1.5121	1.5453				
Future Expense Totals (Inflated)	\$495,773	\$17,372	\$668,735	\$45,362	\$517,681	\$1,744,923	100.0%	\$17,036,009	100.0%
Beginning Reserve Fund Balance	\$3,186,259	\$3,476,453	\$4,255,636	\$4,392,526	\$5,161,761				
Recommended Reserve Fund Contribution	\$720,000	\$720,000	\$720,000	\$720,000	\$720,000				
Future Expenses (Inflated)	(\$495,773)	(\$17,372)	(\$668,735)	(\$45,362)	(\$517,681)				
Interest	\$65,967	\$76,555	\$85,625	\$94,597	\$105,258				
Ending Reserve Fund Balance	\$3,476,453	\$4,255,636	\$4,392,526	\$5,161,761	\$5,469,338				

Table 2a

Technology and Communications Breakdown (Years 1 thru 5)

Northbrook Public Library

Project #: 19-472

Version #: DRAFT 2.0

Component	1	2	3	4	5	Years 1 thru 5	
	2019 / 2020	2020 / 2021	2021 / 2022	2022 / 2023	2023 / 2024	Totals	% of Totals
Technology and Communications							
Phone Sytem	\$100,000					\$100,000	18.9%
Security Cameras		\$75,000				\$75,000	14.2%
Alarm System			\$75,000			\$75,000	14.2%
RFID			\$150,000			\$150,000	28.3%
Automated Material Handler			\$130,000			\$130,000	24.5%
Present Day Expense Totals	\$100,000	\$75,000	\$355,000			\$530,000	100.0%

Printed on 14-Jun-19

Table 3

Inflated Annual Expense Summary (Years 1 thru 5)

Northbrook Public Library

Project #: 19-472

Version #: DRAFT 2.0

Component	1	2	3	4	5	Years 1 thru 5	
	2019 / 2020	2020 / 2021	2021 / 2022	2022 / 2023	2023 / 2024	Totals	% of Totals
Site Elements							
Asphalt Pavement	\$257,544			\$32,728		\$290,272	3.8%
Concrete Driveway				\$5,455		\$5,455	0.1%
Concrete Sidewalks and Stairs				\$5,455		\$5,455	0.1%
Concrete Curbing				\$5,455		\$5,455	0.1%
Landscaping and Hardscape		\$156,673				\$156,673	2.1%
Railings and Handrails					\$5,575	\$5,575	0.1%
Retaining Walls							
Pole-mounted Light Fixtures					\$46,828	\$46,828	0.6%
Miscellaneous Site Elements							
Roofing							
Main Roof							
Elevated Mechanical Equipment Roofs							
Barreled Roof					\$702,417	\$702,417	9.3%
Facade							
Brick Masonry							
Corrugated Metal Panels			\$10,675			\$10,675	0.1%
Mechanical Penthouse Wall Cladding		\$287,233				\$287,233	3.8%
2nd Floor Windows (Original Structure)							
Window Wall System (1999 Addition)					\$44,598	\$44,598	0.6%
Projecting Sunshades							
Storefront System							
Exterior Doors							
Soffits							
Exposed Steel Framing							
Exterior Facade Repairs		\$1,044,484				\$1,044,484	13.8%
Interior Finishes and Fixtures							
Flooring							
Ceiling Finishes							
Restroom Finishes and Fixtures							
Elevator Finishes and Controls							
Computer Equipment							
Furniture and Shelving							
Office Equipment							
Technology and Communications	\$102,200	\$78,336	\$378,949			\$559,485	7.4%
Master Plan Rehabilitation	\$843,150	\$355,125	\$1,489,110	\$627,294	\$825,061	\$4,139,740	54.6%
Mech., Elect., Plumbing, & Fire Protection							
Air Handlers		\$12,534				\$12,534	0.2%
RTUs							
Split System Air Conditioners					\$33,448	\$33,448	0.4%
Chillers							
Cooling Towers							
Boilers			\$85,397		\$22,299	\$107,696	1.4%
HVAC and Plumbing Pumps	\$12,264				\$8,920	\$21,184	0.3%
Exhaust Fans	\$5,110	\$3,133			\$13,379	\$21,622	0.3%
Fire Pump							
Domestic Water Heater	\$3,066					\$3,066	0.0%
Sewage Ejector Pump							
Sump Pump							
Emergency Generator							
Temperature Control Air Compressor					\$8,920	\$8,920	0.1%
Boiler Room Ventilation	\$30,660					\$30,660	0.4%
Fire Sprinklers	\$20,440	\$15,667				\$36,107	0.5%
Future Expense Totals (Inflated)	\$1,253,994	\$1,953,185	\$1,964,131	\$676,387	\$1,711,445	\$7,579,582	100.0%
Reciprocal of Inflation Rate 1/(1+IR)ⁿ	0.9785	0.9574	0.9368	0.9166	0.8969		
Present Day Expense Totals	\$1,247,000	\$1,870,000	\$1,840,000	\$620,000	\$1,535,000	\$7,112,000	100.0%
Beginning Reserve Fund Balance	\$2,238,459	\$1,585,324	\$694,714	\$1,754,836	\$1,864,282		
Recommended Reserve Fund Contribution	\$563,000	\$1,040,000	\$3,000,000	\$750,000	\$750,000		
Future Expenses (Inflated)	(\$1,253,994)	(\$1,953,185)	(\$1,964,131)	(\$676,387)	(\$1,711,445)		
Interest	\$37,859	\$22,575	\$24,253	\$35,833	\$27,671		
Ending Reserve Fund Balance	\$1,585,324	\$694,714	\$1,754,836	\$1,864,282	\$930,508		

Table 3

Inflated Annual Expense Summary (Years 6 thru 10)

Northbrook Public Library

Project #: 19-472

Version #: DRAFT 2.0

Component	6	7	8	9	10	Years 6 thru 10	
	2024 / 2025	2025 / 2026	2026 / 2027	2027 / 2028	2028 / 2029	Totals	% of Totals
Site Elements							
Asphalt Pavement		\$34,936			\$62,155	\$97,091	1.5%
Concrete Driveway					\$6,216	\$6,216	0.1%
Concrete Sidewalks and Stairs					\$6,216	\$6,216	0.1%
Concrete Curbing					\$6,216	\$6,216	0.1%
Landscaping and Hardscape							
Railings and Handrails							
Retaining Walls							
Pole-mounted Light Fixtures							
Miscellaneous Site Elements							
Roofing							
Main Roof		\$669,613				\$669,613	10.2%
Elevated Mechanical Equipment Roofs							
Barreled Roof							
Facade							
Brick Masonry	\$11,395					\$11,395	0.2%
Corrugated Metal Panels							
Mechanical Penthouse Wall Cladding							
2nd Floor Windows (Original Structure)							
Window Wall System (1999 Addition)							
Projecting Sunshades							
Storefront System							
Exterior Doors							
Soffits	\$11,395					\$11,395	0.2%
Exposed Steel Framing							
Exterior Facade Repairs							
Interior Finishes and Fixtures							
Flooring							
Ceiling Finishes							
Restroom Finishes and Fixtures							
Elevator Finishes and Controls					\$62,155	\$62,155	0.9%
Computer Equipment							
Furniture and Shelving							
Office Equipment							
Technology and Communications							
Master Plan Rehabilitation	\$843,213	\$1,339,227	\$634,358	\$2,769,626		\$5,586,424	85.0%
Mech., Elect., Plumbing, & Fire Protection							
Air Handlers							
RTUs							
Split System Air Conditioners							
Chillers							
Cooling Towers							
Boilers							
HVAC and Plumbing Pumps				\$6,082	\$41,023	\$47,105	0.7%
Exhaust Fans					\$14,917	\$14,917	0.2%
Fire Pump							
Domestic Water Heater				\$3,649		\$3,649	0.1%
Sewage Ejector Pump							
Sump Pump							
Emergency Generator					\$49,724	\$49,724	0.8%
Temperature Control Air Compressor							
Boiler Room Ventilation							
Fire Sprinklers							
Future Expense Totals (Inflated)	\$866,003	\$2,043,776	\$634,358	\$2,779,357	\$248,622	\$6,572,116	100.0%
Reciprocal of Inflation Rate 1/(1+IR)ⁿ	0.8776	0.8587	0.8402	0.8221	0.8044		
Present Day Expense Totals	\$760,000	\$1,755,000	\$533,000	\$2,285,000	\$200,000	\$5,533,000	100.0%
Beginning Reserve Fund Balance	\$930,508	\$831,955	\$1,814,380	\$2,118,966	\$81,395		
Recommended Reserve Fund Contribution	\$750,000	\$3,000,000	\$900,000	\$720,000	\$720,000		
Future Expenses (Inflated)	(\$866,003)	(\$2,043,776)	(\$634,358)	(\$2,779,357)	(\$248,622)		
Interest	\$17,450	\$26,201	\$38,944	\$21,786	\$6,342		
Ending Reserve Fund Balance	\$831,955	\$1,814,380	\$2,118,966	\$81,395	\$559,115		

Table 3

Inflated Annual Expense Summary (Years 11 thru 15)

Northbrook Public Library

Project #: 19-472

Version #: DRAFT 2.0

Component	11	12	13	14	15	Years 11 thru 15	
	2029 / 2030	2030 / 2031	2031 / 2032	2032 / 2033	2033 / 2034	Totals	% of Totals
Site Elements							
Asphalt Pavement			\$39,809			\$39,809	3.5%
Concrete Driveway							
Concrete Sidewalks and Stairs							
Concrete Curbing							
Landscaping and Hardscape							
Railings and Handrails							
Retaining Walls							
Pole-mounted Light Fixtures							
Miscellaneous Site Elements							
Roofing							
Main Roof							
Elevated Mechanical Equipment Roofs					\$249,480	\$249,480	21.9%
Barreled Roof							
Facade							
Brick Masonry							
Corrugated Metal Panels							
Mechanical Penthouse Wall Cladding							
2nd Floor Windows (Original Structure)	\$63,523					\$63,523	5.6%
Window Wall System (1999 Addition)							
Projecting Sunshades							
Storefront System							
Exterior Doors							
Soffits							
Exposed Steel Framing	\$254,091					\$254,091	22.3%
Exterior Facade Repairs							
Interior Finishes and Fixtures							
Flooring	\$121,964					\$121,964	10.7%
Ceiling Finishes							
Restroom Finishes and Fixtures							
Elevator Finishes and Controls							
Computer Equipment							
Furniture and Shelving	\$63,523					\$63,523	5.6%
Office Equipment							
Technology and Communications							
Master Plan Rehabilitation							
Mech., Elect., Plumbing, & Fire Protection							
Air Handlers		\$311,618				\$311,618	27.3%
RTUs							
Split System Air Conditioners							
Chillers							
Cooling Towers							
Boilers							
HVAC and Plumbing Pumps			\$17,251	\$5,425		\$22,676	2.0%
Exhaust Fans							
Fire Pump							
Domestic Water Heater							
Sewage Ejector Pump	\$6,352					\$6,352	0.6%
Sump Pump	\$6,352					\$6,352	0.6%
Emergency Generator							
Temperature Control Air Compressor							
Boiler Room Ventilation							
Fire Sprinklers							
Future Expense Totals (Inflated)	\$515,805	\$311,618	\$57,060	\$5,425	\$249,480	\$1,139,388	100.0%
Reciprocal of Inflation Rate 1/(1+IR)ⁿ	0.7871	0.7702	0.7536	0.7374	0.7215		
Present Day Expense Totals	\$406,000	\$240,000	\$43,000	\$4,000	\$180,000	\$873,000	100.0%
Beginning Reserve Fund Balance	\$559,115	\$776,534	\$1,204,531	\$1,898,191	\$2,657,876		
Recommended Reserve Fund Contribution	\$720,000	\$720,000	\$720,000	\$720,000	\$720,000		
Future Expenses (Inflated)	(\$515,805)	(\$311,618)	(\$57,060)	(\$5,425)	(\$249,480)		
Interest	\$13,224	\$19,615	\$30,720	\$45,110	\$57,863		
Ending Reserve Fund Balance	\$776,534	\$1,204,531	\$1,898,191	\$2,657,876	\$3,186,259		

Table 3

Inflated Annual Expense Summary (Years 16 thru 20)

Northbrook Public Library

Project #: 19-472

Version #: DRAFT 2.0

Component	16	17	18	19	20	Years 16 thru 20		Years 1 thru 20			
	2034 / 2035	2035 / 2036	2036 / 2037	2037 / 2038	2038 / 2039	Totals	% of Totals	Totals	% of Totals		
Site Elements											
Asphalt Pavement	\$42,495				\$45,362			\$87,857	5.0%	\$515,029	3.0%
Concrete Driveway										\$11,671	0.1%
Concrete Sidewalks and Stairs										\$11,671	0.1%
Concrete Curbing										\$11,671	0.1%
Landscaping and Hardscape										\$156,673	0.9%
Railings and Handrails										\$5,575	0.0%
Retaining Walls											
Pole-mounted Light Fixtures										\$46,828	0.3%
Miscellaneous Site Elements											
Roofing											
Main Roof										\$669,613	3.9%
Elevated Mechanical Equipment Roofs										\$249,480	1.5%
Barreled Roof										\$702,417	4.1%
Facade											
Brick Masonry										\$11,395	0.1%
Corrugated Metal Panels										\$10,675	0.1%
Mechanical Penthouse Wall Cladding										\$287,233	1.7%
2nd Floor Windows (Original Structure)										\$63,523	0.4%
Window Wall System (1999 Addition)										\$44,598	0.3%
Projecting Sunshades											
Storefront System											
Exterior Doors											
Soffits										\$11,395	0.1%
Exposed Steel Framing										\$254,091	1.5%
Exterior Facade Repairs										\$1,044,484	6.1%
Interior Finishes and Fixtures											
Flooring	\$339,958		\$165,704					\$505,662	29.0%	\$627,626	3.7%
Ceiling Finishes											
Restroom Finishes and Fixtures											
Elevator Finishes and Controls										\$62,155	0.4%
Computer Equipment											
Furniture and Shelving	\$70,825		\$73,975					\$144,800	8.3%	\$208,323	1.2%
Office Equipment											
Technology and Communications										\$559,485	3.3%
Master Plan Rehabilitation										\$9,726,164	57.1%
Mech., Elect., Plumbing, & Fire Protection											
Air Handlers			\$429,056					\$429,056	24.6%	\$753,208	4.4%
RTUs					\$463,595			\$463,595	26.6%	\$463,595	2.7%
Split System Air Conditioners	\$42,495							\$42,495	2.4%	\$75,943	0.4%
Chillers											
Cooling Towers											
Boilers										\$107,696	0.6%
HVAC and Plumbing Pumps										\$90,965	0.5%
Exhaust Fans		\$13,029						\$13,029	0.7%	\$49,568	0.3%
Fire Pump					\$54,086			\$54,086	3.1%	\$54,086	0.3%
Domestic Water Heater		\$4,343						\$4,343	0.2%	\$11,058	0.1%
Sewage Ejector Pump										\$6,352	0.0%
Sump Pump										\$6,352	0.0%
Emergency Generator										\$49,724	0.3%
Temperature Control Air Compressor										\$8,920	0.1%
Boiler Room Ventilation										\$30,660	0.2%
Fire Sprinklers										\$36,107	0.2%
Future Expense Totals (Inflated)	\$495,773	\$17,372	\$668,735	\$45,362	\$517,681	\$1,744,923	100.0%	\$17,036,009	100.0%		
Reciprocal of Inflation Rate 1/(1+IR)ⁿ	0.7060	0.6908	0.6759	0.6614	0.6471						
Present Day Expense Totals	\$350,000	\$12,000	\$452,000	\$30,000	\$335,000	\$1,179,000	100.0%	\$14,697,000	100.0%		
Beginning Reserve Fund Balance	\$3,186,259	\$3,476,453	\$4,255,636	\$4,392,526	\$5,161,761						
Recommended Reserve Fund Contribution	\$720,000	\$720,000	\$720,000	\$720,000	\$720,000						
Future Expenses (Inflated)	(\$495,773)	(\$17,372)	(\$668,735)	(\$45,362)	(\$517,681)						
Interest	\$65,967	\$76,555	\$85,625	\$94,597	\$105,258						
Ending Reserve Fund Balance	\$3,476,453	\$4,255,636	\$4,392,526	\$5,161,761	\$5,469,338						

Table 4

Recommended Reserve Funding Plan (2.00% Interest and 2.20% Inflation)

Northbrook Public Library

Project #: 19-472

Version #: DRAFT 2.0

Year	Fiscal Year	Beginning Balance of Reserve Fund	Annual Reserve Fund Contribution	Annual Reserve Fund Increase	Annual Expenses	Annual Interest	Ending Balance of Reserve Fund
0	2018 / 2019						\$2,238,459
1	2019 / 2020	\$2,238,459	\$563,000	0.0%	\$1,253,994	\$37,859	\$1,585,324
2	2020 / 2021	\$1,585,324	\$1,040,000	84.7%	\$1,953,185	\$22,575	\$694,714
3	2021 / 2022	\$694,714	\$3,000,000	188.5%	\$1,964,131	\$24,253	\$1,754,836
4	2022 / 2023	\$1,754,836	\$750,000	-75.0%	\$676,387	\$35,833	\$1,864,282
5	2023 / 2024	\$1,864,282	\$750,000	0.0%	\$1,711,445	\$27,671	\$930,508
6	2024 / 2025	\$930,508	\$750,000	0.0%	\$866,003	\$17,450	\$831,955
7	2025 / 2026	\$831,955	\$3,000,000	300.0%	\$2,043,776	\$26,201	\$1,814,380
8	2026 / 2027	\$1,814,380	\$900,000	-70.0%	\$634,358	\$38,944	\$2,118,966
9	2027 / 2028	\$2,118,966	\$720,000	-20.0%	\$2,779,357	\$21,786	\$81,395
10	2028 / 2029	\$81,395	\$720,000	0.0%	\$248,622	\$6,342	\$559,115
11	2029 / 2030	\$559,115	\$720,000	0.0%	\$515,805	\$13,224	\$776,534
12	2030 / 2031	\$776,534	\$720,000	0.0%	\$311,618	\$19,615	\$1,204,531
13	2031 / 2032	\$1,204,531	\$720,000	0.0%	\$57,060	\$30,720	\$1,898,191
14	2032 / 2033	\$1,898,191	\$720,000	0.0%	\$5,425	\$45,110	\$2,657,876
15	2033 / 2034	\$2,657,876	\$720,000	0.0%	\$249,480	\$57,863	\$3,186,259
16	2034 / 2035	\$3,186,259	\$720,000	0.0%	\$495,773	\$65,967	\$3,476,453
17	2035 / 2036	\$3,476,453	\$720,000	0.0%	\$17,372	\$76,555	\$4,255,636
18	2036 / 2037	\$4,255,636	\$720,000	0.0%	\$668,735	\$85,625	\$4,392,526
19	2037 / 2038	\$4,392,526	\$720,000	0.0%	\$45,362	\$94,597	\$5,161,761
20	2038 / 2039	\$5,161,761	\$720,000	0.0%	\$517,681	\$105,258	\$5,469,338
		Totals	\$19,393,000		\$17,015,569	\$853,448	

Projected Reserve Fund Balance of \$2,238,459 as of April 30, 2018 / 2019.

Table 5
Recommended Reserve Funding Plan
 (2.00% Interest and 2.20% Inflation)

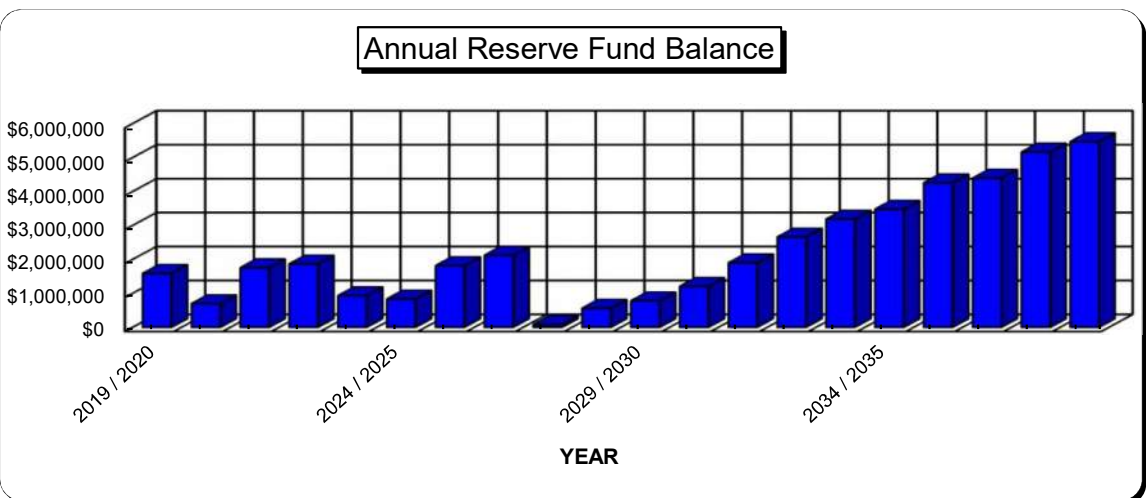
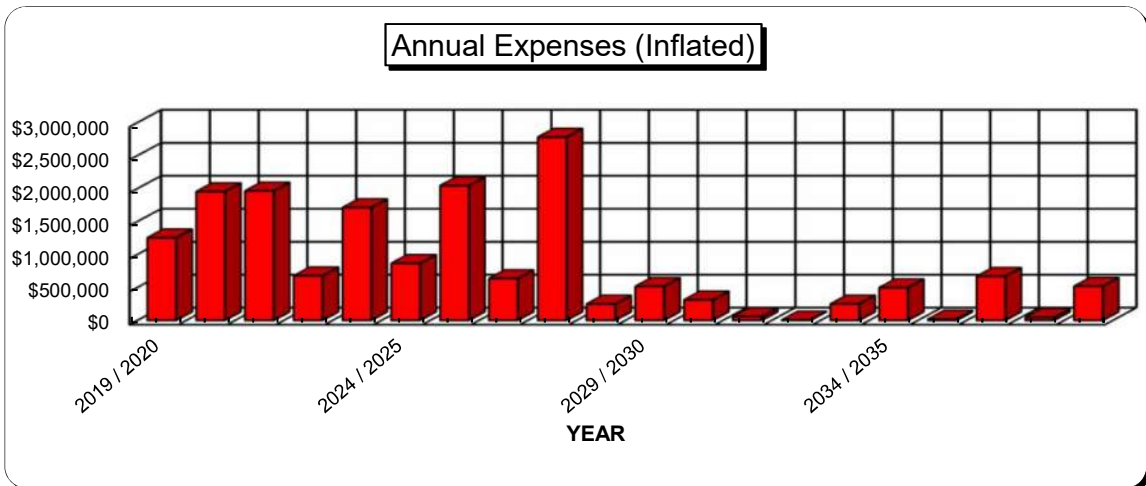
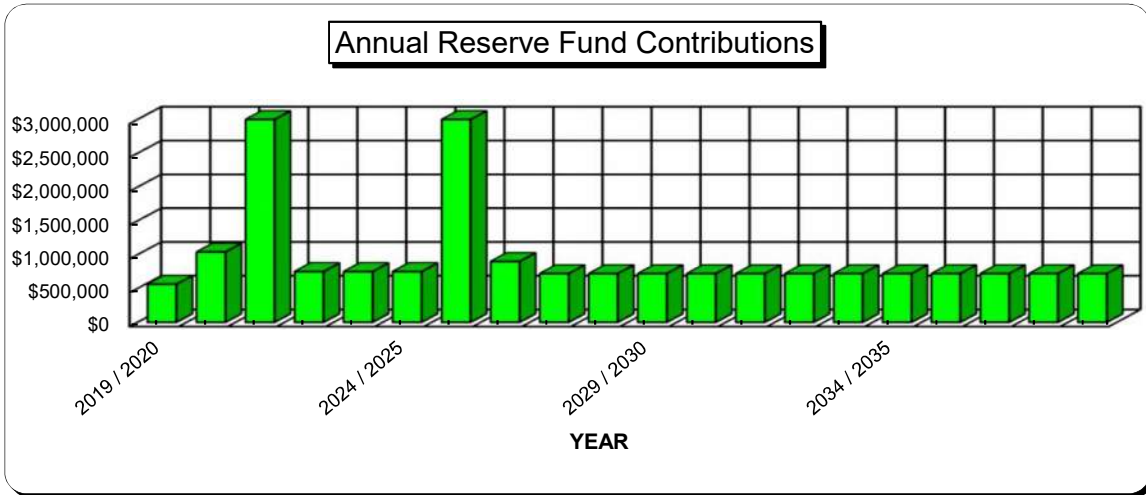
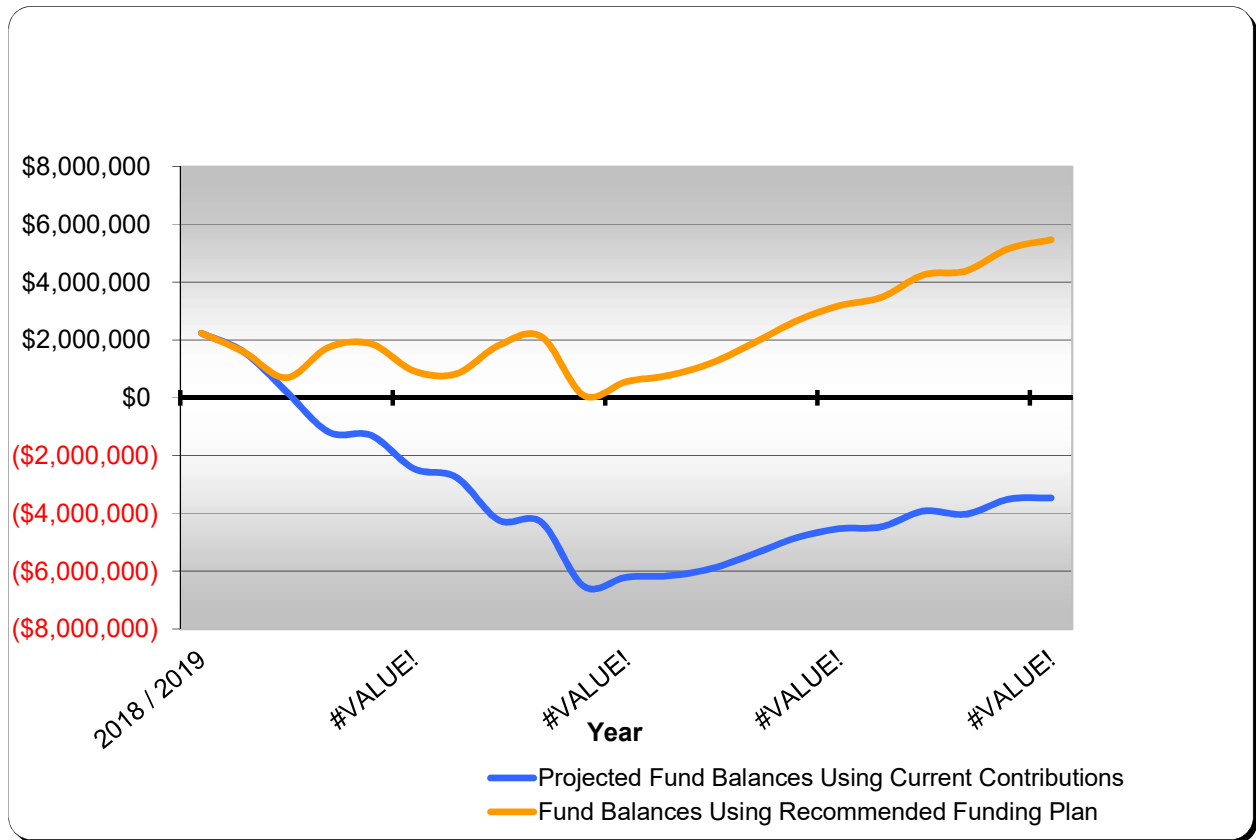


Table 6
Current Fund Status
 (2.00% Interest and 2.20% Inflation)



Building Equipment & Preventative Maintenance 2024

Service	Frequency	Last performed	Next needed	Company
Irrigation sprinkler winter blowout and shutdown	1x/fall	10/23/2023	10/23/2024	Halloran and Yauch, Inc
Irrigation sprinklers spring startup	1x/spring	4/1/2023	4/1/2024	Halloran and Yauch, Inc
Fire extinguishers	1x year	10/1/2023	10/1/2024	Henrichsons
Automatic sliding doors PM	1x year	5/18/2023	2024	Tee Jay
Trailblazer carwash with underbody wash	every fuel up	2/1/2024	various	
Trailblazer oil change and service checks	1x year	2/1/2024	2/1/2025	North Town Auto Service
Trailblazer visual inspection, fluid levels and check lights	4x/year	2/1/2024	5/1/2024	Facilities
Fire alarm wireless transmitter	1x year	2/1/2024	2/1/2025	Fox Valley
Fire alarm and NAC boxes backup batteries	every 2 years	4/19/2022	4/24/2024	Facilities
Annual Fire Alarm Inspection and Testing of Wet Fire Sprinkler Systems	1x year	10/11/2023	2024	FE Moran
Annual Fire Alarm Inspection and Testing of Dry Fire Sprinkler Systems	1x year	10/11/2023	2024	FE Moran
Annual Testing of Fire Pump	1x year	10/11/2023	2024	FE Moran
Annual Testing of Fire Alarm System	1x year	10/11/2023	2024	FE Moran
3 year Air Leakage test of Dry Fire Sprinkler System	every 3 years	12/6/2023	2026	FE Moran
5 Year Internal Inspections	every 5 years	8/5/2019	2024	FE Moran
Security alarm and keycard controller backup batteries	every 2 years	11/1/2020	4/1/2024	Facilities
Bullhorn replace batteries	every year	2/1/2024	2/1/2025	Security monitors
Fire sprinkler wet system	1x year	10/11/2023	10/11/2024	FeMoran
Fire sprinkler wet gauge replacement (3 fire pump room)	every 5 years	3/1/2021	3/1/2026	FeMoran
Fire pump wet system. Discharge, bypass, 2 check valves	every 5 years	10/11/2023	10/11/2028	FeMoran
Fire sprinkler internal obstruction	every 5 years	6/28/2019	6/28/2024	FeMoran
Annual fire pump full flow test	1/year	10/11/2023	10/11/2024	FeMoran
Fire sprinkler dry system gauge replacement (4) in boiler rm	every 5 years	1/1/2020	1/1/2025	FeMoran
Fire sprinkler dry system send heads for UL testing	every 3 years	8/1/2023	8/1/2026	FeMoran
Fire sprinkler dry system partial trip canopy	every year	10/11/2023	10/11/2024	FeMoran
Fire sprinkler dry system partial trip roof	every year	10/11/2023	10/11/2024	FeMoran
Fire sprinkler dry system full trip test canopy	every 3 years	11/1/2023	10/11/2026	FeMoran
Fire sprinkler dry system full trip test roof	every 3 years	10/11/2023	10/11/2026	FeMoran
Fire sprinkler dry system obstruction test	every 5 years	6/28/2019	6/28/2024	FeMoran
Fire sprinkler dry system air leakage test	every 3 years	12/6/2023	12/6/2026	FeMoran
Elevator Monthly preventative maintenance	1x month	5/1/2023	5/1/2024	Colley
Elevator West CAT 1	1x year	4/5/2023	2024	Colley & Thompson - scheduled by Colley
Elevator East CAT 1	1x year	4/5/2023	2024	Colley & Thompson - scheduled by Colley
Elevator West Northbrook inspection	1x year	1/31/2024	2025	Village of Northbrook
Elevator East Northbrook inspection	1x year	1/31/2024	2025	Village of Northbrook
Elevator West FAID test (Fire Alarm Initiating Device)	every 5 years	4/5/2023	2028	Colley, Thompson & FE Moran - scheduled by Colley
Elevator East FAID test (Fire Alarm Initiating Device)	every 5 years	4/5/2023	2028	Colley, Thompson & FE Moran - scheduled by Colley

Auditorium lift preventative maintenance	2x year	9/22/2023	3/15/2024	Garaventa
Auditorium lift CAT 5 pressure test	every 5 years	4/13/2021	2026	Garaventa
Auditorium lift CAT 1	1x year	4/14/2023	2024	Garaventa
Auditorium lift backup batteries				Garaventa
Hot water heater tank anode rod	every 5th year	3/1/2024	3/1/2029	in house
HVAC automation system mainteance	4x year	3/1/2024	6/1/2024	Siemens
HVAC spring PM	1x year	5/1/2024	5/1/2025	Thermo Mechanical
HVAC winter PM	1x year	10/1/2023	10/1/2024	Thermo Mechanical
HVAC mid summer PM	1x year			Thermo Mechanical
HVAC mid winter PM	1x year			Thermo Mechanical
Water treatment	12x year	3/1/2024	4/1/2024	Wet solutions
State Boiler inspection (4 boiler pressure vessels) Hydrotherm	every 2 years	2/1/2024	2/1/2026	State Fire Marshall
State pressure vessels (air compressor) Manchester	every 3 years	9/8/2022	9/8/2025	State Fire Marshall
Stat pressure vessels (steam boiler) Columbia	every 2 years	4/1/2023	4/1/2025	State Fire Marshall
Backflow preventers	1x year	6/9/2023	6/1/2024	Chicago Backflow
Sealcoating				
Roofing PM and inspection report	2x year	12/1/2023	6/1/2024	Olsson Roofing
Lechner entry rugs and cleaning	every other week			Lechner
Uniform rental and cleaning	1x week	4/26/2022		Cintas
Washroom deep cleaning	12x year	2/1/2024	3/1/2024	Cintas Uniforms
Window washing	1x year	8/1/2023	8/1/2024	Service building services
Upholstery cleaning (auditorium, patron, staff)	every 5 years	3/1/2024	3/1/2029	Hang n Shine
Carpet cleaning	4x year	2/1/2024	6/1/2024	Sterling Systems
Janitorial Services	every day	5/1/2023		Best Quality
Auditorium concrete machine scrubbing	as needed	8/1/2023		Best Quality
EM generator				
Pollack folding partition	2x year	2/1/2023	2/1/2024	Folding Partion Services (FPS)
Paper curtter	1x year	2/5/2020		Schlesinger Machinery
Snow and ice handling	as needed	as needed		Snow Systems
Plant rental and maintenance	as needed	3/1/2024	4/1/2024	Yellowstone Landscaping (Moore)
Mobile Lift (MEWP) safety certification	1x/year	4/1/2024	4/1/2025	Burris equipment
Exterminators	as needed			Quick kill
FCC Licensce	10 years	6/1/2019	6/1/2029	The Fit Coordinator
Fish Tank Mainteance	2x month			Aquatic Works

Attachment C: Facilities Job Descriptions

Job Description

Position Title: Facilities Department Manager
Classification: K (\$40.88-\$59.05/hr)
Supervisor Title: Finance & Operations Director
FLSA Status: Non-Exempt

REQUIREMENTS FOR ALL EMPLOYEES

Ability to openly and respectfully engage with staff, patrons, supervisor and others.
Ability to work accurately in a changing and varied environment, and with frequent interruptions.

Ability to maintain patron privacy and confidentiality of patron records.

Ability to communicate clearly.

Ability to use various technologies to complete work.

Ability to follow library policies and procedures.

Ability to understand, practice and demonstrate the library's Service Standards and Equity, Diversity, and Inclusion values.

POSITION SUMMARY

Under the direction of the Finance & Operations Director, this position facilitates superior library service to patrons through administration of the Facilities Department, overseeing the maintenance, repair and cleaning of the building and grounds.

REQUIREMENTS FOR THIS POSITION

- Knowledge, skill, and development in the following areas which are often gained through a post-secondary degree (e.g. Bachelor's Degree) or experience:
 - **Communication Skills** include accurately comprehending, assessing, and conveying written and verbal information to individuals and groups in a variety of settings.
 - **Computer Skills** include using word processing and spreadsheet applications including MS Office Suite and Google Workspace, effectively using email and Google calendar, performing internet searching, using cloud-based communication tools such as Google Chat and Zoom, and maintaining and organizing digital files.

- **Critical Thinking & Problem Solving** includes analyzing and evaluating information in order to assess an issue, make a decision, and take action.
- **Time Management** includes prioritizing tasks, meeting deadlines, and managing time independently.
- **Research Skills** include understanding the information needed, performing internet searches, evaluating the results and sources, and synthesizing the data to present findings and recommend an action.
- Thorough knowledge of general library philosophy, including the Library Bill of Rights and the ability to transform that knowledge into daily practice in the fulfillment of responsibilities.
- Thorough knowledge of basic maintenance and facility materials, tools, and equipment.
- Thorough knowledge of the repair and maintenance of heating and cooling systems.
- Working knowledge of painting, carpentry, electrical and plumbing methods and techniques.
- Working knowledge of library and facility related technology and software with the ability to problem solve and troubleshoot.
- Working knowledge of budget preparation, administration, project planning, and supervisory methods and techniques.
- Knowledge of architectural blueprints and construction codes.
- Five years of experience in general building maintenance and repair including maintaining building systems.
- Three years of supervisory experience.
- Valid driver's license.

ESSENTIAL FUNCTIONS

1. Oversees the ongoing maintenance and upkeep of the building and grounds to keep the facility clean, attractive, and safe for staff and patrons.
2. Hires, trains, coaches, schedules, disciplines, evaluates, and supervises assigned staff; coordinates and monitors work flow to determine staffing needs.
3. Assists in the project planning, implementation, and completion of building and grounds capital projects.
4. Develops strategic goals, processes, and procedures for the Facilities Department.
5. Prepares and maintains departmental records, statistics and reports.
6. Works closely with the security monitor to resolve issues.
7. Performs building maintenance, repair and/or alteration projects including minor plumbing, carpentry, painting, and electrical repairs.
8. Actively participates in the management team and management team initiatives by attending department managers and all staff meetings and serving as a liaison between other managerial staff and department staff.

9. Contributes to planning and goal setting processes for the entire library.
10. Sets up meeting rooms and auditorium while using room booking software.
11. Participates in appropriate local, state and national organizations.
12. Participates in relevant training, continuing education and/or staff development.
13. Performs other duties as assigned.

WORK ENVIRONMENT

Work is regularly performed around moving mechanical parts and occasionally in outside conditions that include inclement weather, heat and humidity. Noise level may be loud at times. Some remote work may be available.

PHYSICAL REQUIREMENTS

- Constantly moves about the building floors and grounds.
- Frequently monitors internal and external conditions for temperature and inclement weather.
- Frequently retrieves, transports, and places objects up to 125 lbs.
- Frequently ascends/descends by mechanical lift and ladders up to 20 feet.
- Frequently positions self to inspect, service, place and remove objects and equipment.
- Frequently operates a computer or tablet and inspects and operates tools and machinery with buttons or a touch pad.
- Frequently exchanges information with staff and vendors.
- Occasionally uses chemicals for building maintenance.
- Occasionally operates a vehicle to deliver or retrieve objects.

Job Description

Position Title: Facilities Assistant
Classification: E (\$40.88-\$59.05/hr)
Supervisor Title: Facilities Department Manager
FLSA Status: Non-Exempt

REQUIREMENTS FOR ALL EMPLOYEES

Ability to openly and respectfully engage with staff, patrons, supervisor and others.
Ability to work accurately in a changing and varied environment, and with frequent interruptions.

Ability to maintain patron privacy and confidentiality of patron records.

Ability to communicate clearly.

Ability to use various technologies to complete work.

Ability to follow library policies and procedures.

Ability to understand, practice and demonstrate the library's Service Standards and Equity, Diversity, and Inclusion values.

POSITION SUMMARY

Under the supervision of the Facilities Manager, this position facilitates superior library service by performing building maintenance, handling repair and/or alteration projects, cleaning areas of the building, and maintaining the library grounds while using the online ticketing system to track issues.

Specific responsibilities will be assigned by the Facilities Manager on the basis of experience, skills, and specific needs of the department and number of hours worked.

REQUIREMENTS FOR THIS POSITION

- Knowledge, skill, and development in the following areas which are often gained through a secondary degree (e.g. High School Diploma) or experience:
 - **Communication Skills** include conveying, receiving, responding, and expressing communication of written and verbal information.
 - **Computer Skills** include accessing word processing and spreadsheet applications including MS Office Suite and Google Workspace, effectively using email and Google calendar, performing basic internet searching, and using cloud-based communication tools such as Google Chat and Zoom.

- **Critical Thinking** includes analyzing and evaluating information in order to assess an issue and make a decision within the scope of the position.
- **Time Management** includes prioritizing tasks, meeting deadlines, and managing time with minimal guidance.
- Working knowledge of basic maintenance and facility materials, tools, and equipment.
- Working knowledge of painting, carpentry, electrical and plumbing methods and techniques.
- Working knowledge of the repair and maintenance of heating and cooling systems.
- Knowledge of library and facility related technology and software with the ability to problem solve and troubleshoot.
- Experience in general building maintenance and repair.
- Valid driver's license.

ESSENTIAL FUNCTIONS

1. Performs ongoing maintenance and upkeep of the building and grounds to keep the facility clean, attractive, and safe for staff and patrons.
2. Sets up meeting rooms and auditorium while using room booking software
3. Performs building maintenance, repair and/or alteration projects including minor plumbing, carpentry, painting, and electrical repairs.
4. Assists with other maintenance tasks including delivery of materials and emptying book drops and assists with security when security monitors are not in the building.
5. Participates in relevant training, continuing education and/or staff development.
6. Performs other duties as assigned.

WORK ENVIRONMENT

Work is regularly performed around moving mechanical parts and occasionally in outside conditions that include inclement weather, heat, and humidity. Noise level may be loud at times.

PHYSICAL REQUIREMENTS

- Constantly moves about the building floors and grounds.
- Frequently monitors internal and external conditions for temperature and inclement weather.
- Frequently retrieves, transports, and places objects up to 125 lbs.
- Frequently ascends/descends by mechanical lift and ladders up to 20 feet.
- Frequently positions self to inspect, service, place and remove objects and

equipment.

- Frequently operates a computer and inspects and operates tools and machinery with buttons or a touch pad.
- Frequently exchanges information with staff and vendors.
- Occasionally uses chemicals for building maintenance.

JOB DESCRIPTION

Position Title: Facilities Worker
Classification: C (\$16.48-\$23.80/hr)
Supervisor Title: Facilities Department Manager
FLSA Status: Non-Exempt

REQUIREMENTS FOR ALL EMPLOYEES

Ability to openly and respectfully engage with staff, patrons, supervisor and others.
Ability to work accurately in a changing and varied environment, and with frequent interruptions.

Ability to maintain patron privacy and confidentiality of patron records.

Ability to communicate clearly.

Ability to use various technologies to complete work.

Ability to follow library policies and procedures.

Ability to understand, practice and demonstrate the library's Service Standards and Equity, Diversity, and Inclusion values.

POSITION SUMMARY

Under the supervision of the Facilities Manager, this position facilitates superior library service by performing detailed cleaning of public areas, work rooms, and offices and assisting with meeting room setups and emptying book drops.

Specific responsibilities will be assigned by the Facilities Manager on the basis of experience, skills, and specific needs of the department and number of hours worked.

REQUIREMENTS FOR THIS POSITION

- Knowledge, skill, and development in the following areas which are often gained through a secondary degree (e.g. High School Diploma) or experience:
- **Communication Skills** include conveying, receiving, responding, and expressing communication of written and verbal information.
- **Computer Skills** include accessing word processing and spreadsheet applications including MS Office Suite and Google Workspace, effectively using email and Google calendar, performing basic internet searching, and using cloud-based communication tools such as Google Chat and Zoom.
- **Critical Thinking** includes analyzing and evaluating information in order to assess an issue and make a decision within the scope of the position.
- **Time Management** includes prioritizing tasks, meeting deadlines, and managing time with minimal guidance.

- Knowledge of routine library functions and procedures.
- Ability to use power and manual tools and machinery indoors and outdoors.
- Ability to work with detail, precision and accuracy.
- Ability to perform continuous, repetitive work.

ESSENTIAL FUNCTIONS

1. Along with the daily cleaning service, cleans building by dusting, wiping, sweeping, mopping, scrubbing or vacuuming to ensure a tidy appearance of the library.
2. Maintains and replenishes restroom supplies.
3. Serves as a back-up for meeting room setups, emptying exterior book drops, emergency clean ups and assisting with exterior grounds maintenance.
4. Participates in relevant training, continuing education and/or staff development.
5. Performs other duties as assigned.

WORK ENVIRONMENT

Work is regularly performed around moving mechanical parts and occasionally in outside conditions that include inclement weather, heat and humidity. Noise level may be loud at times.

PHYSICAL REQUIREMENTS

- Constantly moves about the building floors and grounds.
- Frequently retrieves, transports, and places objects up to 125 lbs.
- Frequently positions self to inspect, service, place and remove objects and equipment.
- Frequently operates a computer or tablet and inspects and operates tools and machinery with buttons or a touch pad.
- Frequently exchanges information with staff and vendors.
- Occasionally uses chemicals for building maintenance.

Job Description

Position Title: Security Monitor

Classification: D

Supervisor Title: Facilities Manager

FLSA Status: Non-Exempt

REQUIREMENTS FOR ALL EMPLOYEES

1. Ability to openly and respectfully engage with staff, patrons, supervisor and others.
2. Ability to work accurately in a changing and varied environment, and with frequent interruptions.
3. Ability to maintain patron privacy and confidentiality of patron records.
4. Ability to communicate clearly.
5. Ability to use various technologies to complete work.
6. Ability to follow library policies and procedures.
7. Ability to understand, practice and demonstrate the library's Service Standards and Equity, Diversity, and Inclusion values.

POSITION SUMMARY

Under the supervision of the Assistant Director, this position facilitates superior library service to patrons by maintaining the safety and security of the public and staff in the building and on the grounds.

Specific responsibilities will be assigned by Assistant Director on the basis of experience, skills, and specific needs of the department and number of hours worked.

REQUIREMENTS FOR THIS POSITION

1. Knowledge, skill, and development in the following areas which are often gained through a secondary degree (e.g. High School Diploma) or experience:
 - **Communication Skills** include conveying, receiving, responding, and expressing communication of written and verbal information.
 - **Computer Skills** include accessing word processing and spreadsheet applications including MS Office Suite and Google Workspace, effectively using email and Google calendar, performing basic internet searching, and using cloud-based communication tools such as Google Chat and Zoom.

- **Critical Thinking** includes analyzing and evaluating information in order to assess an issue and make a decision within the scope of the position.
 - **Time Management** includes prioritizing tasks, meeting deadlines, and managing time with minimal guidance.
2. Working knowledge of security and emergency safety procedures and practices including de-escalation techniques, mental health first aid, conflict resolution, and mediation.
 3. Working knowledge of library and security related technology and software with the ability to problem solve and troubleshoot.
 4. Knowledge of general library philosophy, including the Library Bill of Rights and the ability to transform that knowledge into daily practice in the fulfillment of responsibilities.
 5. Experience working security.

ESSENTIAL FUNCTIONS

1. Maintains safety for staff and patrons by making the rounds within the building and using trauma informed de-escalation techniques, crisis intervention procedures, and mediation to prevent or resolve incidents.
2. Works closely with the Person in Charge to assist patrons and staff during an incident including evaluating and assessing their level of safety, helping stabilize them in a crisis situation, listening and empathizing with them and helping them connect with family, friends or a community resource.
3. Effectively communicate issues and incidents to Person in Charge and Administration and provide feedback about library security and safety.
4. Assists maintenance staff with minor building and grounds issues or handles maintenance tasks when maintenance staff is not in the building.
5. Participates in relevant training, continuing education and/or staff development.
6. Performs other duties as assigned.

WORK ENVIRONMENT

Work is normally performed in a typical interior/office environment and occasionally in outside conditions that include inclement weather, heat and humidity. Noise level may vary from quiet to loud. The employee is required to work evening and weekend hours.

PHYSICAL REQUIREMENTS

1. Constantly moves about building to assess and address security concerns.

2. Constantly communicates with staff and patrons
3. Constantly discerns items near and far.
4. Frequently transports items weighing up to 35 lbs.
5. Occasionally operates a computer and other office machinery, such as printers and copiers.

Service	Frequency	Last performed	Next needed	Company
Irrigation sprinkler winter blowout and shutdown	1x/fall	10/23/2023	10/23/2024	Halloran and Yauch, Inc
Irrigation sprinklers spring startup	1x/spring	4/1/2023	4/1/2024	Halloran and Yauch, Inc
Fire extinguishers	1x year	10/1/2023	10/1/2024	Henrichsons
Automatic sliding doors PM	1x year	5/18/2023	2024	Tee Jay
Trailblazer carwash with underbody wash	every fuel up	2/1/2024	various	
Trailblazer oil change and service checks	1x year	2/1/2024	2/1/2025	North Town Auto Service
Trailblazer visual inspection, fluid levels and check lights	4x/year	2/1/2024	5/1/2024	Facilities
Fire alarm wireless transmitter	1x year	2/1/2024	2/1/2025	Fox Valley
Fire alarm and NAC boxes backup batteries	every 2 years	4/19/2022	4/24/2024	Facilities
Annual Fire Alarm Inspection and Testing of Wet Fire Sprinkler Systems	1x year	10/11/2023	2024	FE Moran
Annual Fire Alarm Inspection and Testing of Dry Fire Sprinkler Systems	1x year	10/11/2023	2024	FE Moran
Annual Testing of Fire Pump	1x year	10/11/2023	2024	FE Moran
Annual Testing of Fire Alarm System	1x year	10/11/2023	2024	FE Moran
3 year Air Leakage test of Dry Fire Sprinkler System	every 3 years	12/6/2023	2026	FE Moran
5 Year Internal Inspections	every 5 years	8/5/2019	2024	FE Moran
Security alarm and keycard controller backup batteries	every 2 years	11/1/2020	4/1/2024	Facilities
Bullhorn replace batteries	every year	2/1/2024	2/1/2025	Security monitors
Fire sprinkler wet system	1x year	10/11/2023	10/11/2024	FeMoran
Fire sprinkler wet gauge replacement (3 fire pump room)	every 5 years	3/1/2021	3/1/2026	FeMoran
Fire pump wet system. Discharge, bypass, 2 check valves	every 5 years	10/11/2023	10/11/2028	FeMoran
Fire sprinkler internal obstruction	every 5 years	6/28/2019	6/28/2024	FeMoran
Annual fire pump full flow test	1/year	10/11/2023	10/11/2024	FeMoran
Fire sprinkler dry system gauge replacement (4) in boiler rm	every 5 years	1/1/2020	1/1/2025	FeMoran
Fire sprinkler dry system send heads for UL testing	every 3 years	8/1/2023	8/1/2026	FeMoran
Fire sprinkler dry system partial trip canopy	every year	10/11/2023	10/11/2024	FeMoran
Fire sprinkler dry system partial trip roof	every year	10/11/2023	10/11/2024	FeMoran
Fire sprinkler dry system full trip test canopy	every 3 years	11/1/2023	10/11/2026	FeMoran
Fire sprinkler dry system full trip test roof	every 3 years	10/11/2023	10/11/2026	FeMoran
Fire sprinkler dry system obstruction test	every 5 years	6/28/2019	6/28/2024	FeMoran
Fire sprinkler dry system air leakage test	every 3 years	12/6/2023	12/6/2026	FeMoran
Elevator Monthly preventative maintenance	1x month	5/1/2023	5/1/2024	Colley
Elevator West CAT 1	1x year	4/5/2023	2024	Colley & Thompson - scheduled by Colley
Elevator East CAT 1	1x year	4/5/2023	2024	Colley & Thompson - scheduled by Colley
Elevator West Northbrook inspection	1x year	1/31/2024	2025	Village of Northbrook
Elevator East Northbrook inspection	1x year	1/31/2024	2025	Village of Northbrook
Elevator West FAID test (Fire Alarm Initiating Device)	every 5 years	4/5/2023	2028	Colley, Thompson & FE Moran - scheduled by Colley
Elevator East FAID test (Fire Alarm Initiating Device)	every 5 years	4/5/2023	2028	Colley, Thompson & FE Moran - scheduled by Colley

Auditorium lift preventative maintenance	2x year	9/22/2023	3/15/2024	Garaventa
Auditorium lift CAT 5 pressure test	every 5 years	4/13/2021	2026	Garaventa
Auditorium lift CAT 1	1x year	4/14/2023	2024	Garaventa
Auditorium lift backup batteries				Garaventa
Hot water heater tank anode rod	every 5th year	3/1/2024	3/1/2029	in house
HVAC automation system mainteance	4x year	3/1/2024	6/1/2024	Siemens
HVAC spring PM	1x year	5/1/2024	5/1/2025	Thermo Mechanical
HVAC winter PM	1x year	10/1/2023	10/1/2024	Thermo Mechanical
HVAC mid summer PM	1x year			Thermo Mechanical
HVAC mid winter PM	1x year			Thermo Mechanical
Water treatment	12x year	3/1/2024	4/1/2024	Wet solutions
State Boiler inspection (4 boiler pressure vessels) Hydrotherm	every 2 years	2/1/2024	2/1/2026	State Fire Marshall
State pressure vessels (air compressor) Manchester	every 3 years	9/8/2022	9/8/2025	State Fire Marshall
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Backflow preventers	1x year	6/9/2023	6/1/2024	Chicago Backflow
Sealcoating				
Roofing PM and inspection report	2x year	12/1/2023	6/1/2024	Olsson Roofing
Lechner entry rugs and cleaning	every other week			Lechner
Uniform rental and cleaning	1x week	4/26/2022		Cintas
Washroom deep cleaning	12x year	2/1/2024	3/1/2024	Cintas Uniforms
Window washing	1x year	8/1/2023	8/1/2024	Service building services
Upholstery cleaning (auditorium, patron, staff)	every 5 years	3/1/2024	3/1/2029	Hang n Shine
Carpet cleaning	4x year	2/1/2024	6/1/2024	Sterling Systems
Janitorial Services	every day	5/1/2023		Best Quality
Auditorium concrete machine scrubbing	as needed	8/1/2023		Best Quality
EM generator				
Pollack folding partition	2x year	2/1/2023	2/1/2024	Folding Partion Services (FPS)
Paper curtter	1x year	2/5/2020		Schlesinger Machinery
Snow and ice handling	as needed	as needed		Snow Systems
Plant rental and maintenance	as needed	3/1/2024	4/1/2024	Yellowstone Landscaping (Moore)
Mobile Lift (MEWP) safety certification	1x/year	4/1/2024	4/1/2025	Burris equipment
Exterminators	as needed			Quick kill
FCC Licensce	10 years	6/1/2019	6/1/2029	The Fit Coordinator
Fish Tank Mainteance	2x month			Aquatic Works

NORTHBROOK PUBLIC LIBRARY
FACILITIES MANAGEMENT AGREEMENT

This **AGREEMENT** is dated as of the ____ day of _____, 2024 ("**Agreement**"), and is by and between the **NORTHBROOK PUBLIC LIBRARY ("**Library**")**, an Illinois local library, and _____ ("**Vendor**"). The Library and Vendor may be referred to individually as "**Party**" or jointly as "**Parties**" throughout this Agreement.

IN CONSIDERATION OF the recitals and the mutual covenants and agreements set forth in the Agreement, and pursuant to the Library's authority, the Parties agree as follows:

SECTION 1. VENDOR AND SCOPE OF SERVICES.

A. Engagement of Vendor. The Library desires to engage the Vendor to perform and provide the services described in the Vendor's proposal, a copy of which is attached as **Exhibit A** to this Agreement ("**Proposal**"). The Vendor represents it is financially solvent, has the necessary financial resources, and is sufficiently experienced and competent to perform and complete the services set forth in the Proposal ("**Services**") in accordance with the standards of practice, care, and diligence practiced by recognized companies or firms performing services of a similar nature in existence at the time of performance. The representations and certifications expressed are in addition to any other representations and certifications expressed in this Agreement, or expressed or implied by law, which are reserved to the Library.

B. Commencement; Time of Performance. The Vendor must commence the Services immediately upon receipt of written notice that this Agreement has been fully executed by the Parties ("**Commencement Date**"). The Vendor must diligently and continuously prosecute the Services until the completion of the Services or upon the termination of this Agreement by the Library ("**Time of Performance**"), unless extended by the Library in its discretion.

C. Agreement Amount. The total amount billed for the Services during the term of this Agreement shall not exceed the amount identified in the Proposal without the prior express written authorization of the Library. The Vendor must submit invoices in an approved format to the Library for costs incurred by the Vendor in performing the Services. The amount billed in these invoice must be based on the rates set forth in the Proposal. The Library agrees to pay to the Vendor the amount billed within 30 days after receiving a proper invoice.

D. Term. The term of this Agreement is three (3) years, beginning on the Commencement Date. Notwithstanding any other provision hereof, the Library may terminate this Agreement, with or without cause, at any time upon 15 days' prior written notice to the Vendor. In the event this Agreement is terminated, the Vendor will be paid for Services actually performed and reimbursable expenses actually incurred, if any, prior to termination, not exceeding the value of the Services completed determined on the basis of the rates set forth in the Proposal.

SECTION 2. INDEMNIFICATION; INSURANCE.

A. Indemnification. The Vendor proposes and agrees that the Vendor will indemnify, save harmless, and defend the Library against all damages, liability, claims, losses, and expenses (including attorneys' fee) that may arise, or be alleged to have arisen, out of or in

connection with the Vendor's performance of, or failure to perform, the Services or any part thereof, or any failure to meet the representations and certifications set forth in this Agreement.

B. **Insurance.** The Vendor will, at its sole cost, obtain and keep in force at all times during the performance of any work referred to above, Workers Compensation and Employer's Liability Insurance, Commercial General Liability Insurance, and Automobile Insurance in at least the type and amounts as follows:

1. Workers' Compensation:
 - (a) State: Statutory
 - (b) Employer's Liability
 - \$1,000,000.00 Per Accident
 - \$1,000,000.00 Disease, Policy Limit
 - \$1,000,000.00 Disease, Each Employee
2. Commercial General Liability: \$2,000,000.00 General Aggregate
3. Business Automobile Liability (including owned, non-owned and hired vehicles):
 - i. Bodily Injury:
 - \$1,000,000.00 Per Person
 - \$1,000,000.00 Per Accident
 - ii. Property Damage
 - \$1,000,000.00 Per Occurrence
 - iii. Umbrella Excess Liability: \$2,000,000.00 over Primary Insurance

The Vendor must name the Library as an additional insured and provide Library with Certificates of Insurance and applicable policy endorsement(s), executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements set forth above. Failure of Library to demand any certificate, endorsement or other evidence of full compliance with these insurance requirements or failure of Library to identify a deficiency from evidence that is provided shall not be construed as a waiver of Vendor's obligation to maintain such insurance. The Vendor agrees that the obligation to provide the insurance required by these documents is solely its responsibility and that this is a requirement which cannot be waived by any conduct, action, inaction or omission by the Library. Upon request, the Vendor will provide copies of any or all policies of insurance maintained in fulfillment hereof. Failure to maintain the required insurance may result in termination of this Agreement at Library's option.

SECTION 3. DEFAULT.

If it should appear at any time that the Vendor has failed or refused to prosecute, or has delayed in the prosecution of, the Services with diligence at a rate that assures completion of the Services in full compliance with the requirements of this Agreement, or has otherwise failed, refused, or delayed to perform or satisfy the Services or any other requirement of this Agreement ("**Event of Default**"), and fails to cure any such Event of Default within 10 business days after the Vendor's receipt of written notice of such Event of Default from the Library, then the Library will have the right, without prejudice to any other remedies provided by law or equity, to pursue any one or more of the following remedies:

1. **Cure by Vendor.** The Library may require the Vendor, within a reasonable time, to complete or correct all or any part of the Services that are the subject of the Event of Default; and to take any or all other action necessary to bring the Vendor and the Services into compliance with this Agreement.

2. Termination of Agreement by Library. The Library may terminate this Agreement without liability for further payment of amounts due or to become due under this Agreement after the effective date of termination.

3. Withholding of Payment by Library. The Library may withhold from any payment, whether or not previously approved, or may recover from the Vendor, any and all costs, including attorneys' fees and administrative expenses, incurred by the Library as the result of any Event of Default by the Vendor or as a result of actions taken by the Library in response to any Event of Default by the Vendor.

SECTION 4. SPECIAL PROVISIONS.

A. Relationship of the Parties. The Vendor acts as an independent contractor in providing and performing the Services. Nothing in, nor done pursuant to, this Agreement shall be construed (1) to create the relationship of principal and agent, employer and employee, partners, or joint venturers between the Library and Vendor; or (2) to create any relationship between the Library and any subcontractor of the Vendor.

B. Conflict of Interest. The Vendor represents and certifies that, to the best of its knowledge, (1) no Library employee or agent is interested in the business of the Vendor or this Agreement; (2) as of the date of this Agreement neither the Vendor nor any person employed or associated with the Vendor has any interest that would conflict in any manner or degree with the performance of the obligations under this Agreement; and (3) neither the Vendor nor any person employed by or associated with the Vendor shall at any time during the term of this Agreement obtain or acquire any interest that would conflict in any manner or degree with the performance of the obligations under this Agreement.

C. No Collusion. The Vendor represents and certifies that the Vendor is not barred from contracting with a unit of state or local government as a result of (1) a delinquency in the payment of any tax administered by the Illinois Department of Revenue unless the Vendor is contesting, in accordance with the procedures established by the appropriate revenue act, its liability for the tax or the amount of the tax, as set forth in Section 11-42.1-1 *et seq.* of the Illinois Municipal Code, 65 ILCS 5/11-42.1-1 *et seq.*; or (2) a violation of either Section 33E-3 or Section 33E-4 of Article 33E of the Criminal Code of 1961, 720 ILCS 5/33E-1 *et seq.* The Vendor represents that the only persons, firms, or corporations interested in this Agreement as principals are those disclosed to the Library prior to the execution of this Agreement, and that this Agreement is made without collusion with any other person, firm, or corporation. If at any time it shall be found that the Vendor has, in procuring this Agreement, colluded with any other person, firm, or corporation, then the Vendor shall be liable to the Library for all loss or damage that the Library may suffer, and this Agreement shall, at the Library's option, be null and void.

D. Compliance With Laws and Grants. Vendor must give all notices, pay all fees, and take all other action that may be necessary to ensure that the Services are provided, performed, and completed in accordance with all required governmental permits, licenses, or other approvals and authorizations that may be required in connection with providing, performing, and completing the Services, and with all applicable statutes, ordinances, rules, and regulations, including without limitation the Fair Labor Standards Act; any statutes regarding qualification to do business; any statutes prohibiting discrimination because of, or requiring affirmative action based on, race, creed, color, national origin, age, sex, or other prohibited classification, including, without limitation, the Americans with Disabilities Act of 1990, 42 U.S.C. §§ 12101 *et seq.*, and the Illinois Human Rights Act, 775 ILCS 5/1-101 *et seq.* Vendor must also

comply with all conditions of any federal, state, or local grant received by the Library or Vendor with respect to this Agreement or the Services. Vendor is solely liable for any fines or civil penalties that are imposed by any governmental or quasi-governmental agency or body that may arise, or be alleged to have arisen, out of or in connection with Vendor's, or its subcontractors, performance of, or failure to perform, the Services or any part thereof. Every provision of law required by law to be inserted into this Agreement is deemed to be inserted.

To the extent that the Prevailing Wage Act applies, the Vendor must pay, and require every subcontractor to pay, prevailing wages as established by the Illinois Department of Labor for each craft or type of work needed to execute the contract in accordance with 820 ILCS 130/01 et seq. The Vendor shall prominently post the current schedule of prevailing wages at the contract site and shall notify immediately in writing all of its subcontractors, of all changes in the schedule of prevailing wages. Any increases in costs to the Vendor due to changes in the prevailing rate of wage during the terms of any contract shall be at the expense of the Vendor and not at the expense of the Library. The change order shall be computed using the prevailing wage rates applicable at the time the change order work is scheduled to be performed. The Vendor shall be solely responsible to maintain accurate records as required by the prevailing wage statute and to obtain and furnish all such certified records to the State. The Vendor shall be solely liable for paying the difference between prevailing wages and any wages actually received by laborers, workmen and/or mechanics engaged in the Work and in every way defend and indemnify the Library against any claims arising under or related to the payment of wages in accordance with the Prevailing Wage Act. The Illinois Department of Labor publishes the prevailing wage rates on its website at: <https://www.illinois.gov/idol/Laws-Rules/CONMED/Pages/Rates.aspx> Vendor is advised that the Department revises the prevailing wage rates and the Vendor has an obligation to check the Department's web site for revisions.

F. Mutual Cooperation. The Library agrees to cooperate with the Vendor in the performance of the Services, including meeting with the Vendor and providing the Vendor with such information that the Library may have that may be relevant and helpful to the Vendor's performance of the Services. The Vendor agrees to cooperate with the Library in the performance of and the completion of the Services and with any other vendors engaged by the Library.

G. Ownership. Designs, drawings, plans, specifications, photos, reports, information, observations, calculations, notes, and any other documents, data, or information, in any form, prepared, collected, or received by the Vendor in connection with any or all of the Services to be performed under this Agreement ("**Documents**") are deemed the exclusive property of the Library. At the Library's request, or upon termination of this Agreement, the Vendor will cause the Documents to be promptly delivered to the Library.

H. Freedom of Information Act. The Vendor agrees to maintain, without charge to the Library, all records and documents for projects of the Library in compliance with the Freedom of Information Act, 5 ILCS 140/1 et seq. In addition, Vendor must produce records which are responsive to a request received by the Library under the Freedom of Information Act so that the Library may provide records to those requesting them within the time frames required. If additional time is necessary to compile records in response to a request, then Vendor must notify the Library and if possible, the Library will request an extension so as to comply with the Act. In the event that the Library is found to have not complied with the Freedom of Information Act due to Vendor's failure to furnish documents or otherwise appropriately respond to a request under the Act, then Vendor will indemnify and hold the

Library harmless, and pay all amounts determined to be due including but not limited to fines, costs, attorneys' fees and penalties.

SECTION 5. GENERAL PROVISIONS.

A. Amendment. No amendment or modification to this Agreement shall be effective unless and until the amendment or modification is in writing, properly approved in accordance with applicable procedures, and executed.

B. Assignment. This Agreement may not be assigned by the Library or by the Vendor without the prior written consent of the other Party.

C. Binding Effect. The terms of this Agreement will bind and inure to the benefit of the Parties to this Agreement and their agents, successors, and assigns.

D. Notice. All notices required or permitted to be given under this Agreement shall be in writing and shall be delivered (1) personally, (2) by a reputable overnight courier, (3) by certified mail, return receipt requested, and deposited in the U.S. Mail, postage prepaid, or (4) by email. Unless otherwise expressly provided in this Agreement, notices shall be deemed received upon the earlier of (a) actual receipt; (b) one business day after deposit with an overnight courier as evidenced by a receipt of deposit; (c) three business days following deposit in the U.S. mail, as evidenced by a return receipt; (d) time-stamp email was sent. By notice complying with the requirements of this Section, each Party shall have the right to change the address or the addressee, or both, for all future notices and communications to the other Party, but no notice of a change of addressee or address shall be effective until actually received.

Notices and communications to the Library shall be addressed to, and delivered at, the following address:

Northbrook Public Library
Attn: Executive Director
1201 Cedar Lane
Northbrook, IL 60062
khall@northbrook.info

Notices and communications to the Vendor shall be addressed to, and delivered at, the following address:

E. Third Party Beneficiary. No claim as a third party beneficiary under this Agreement by any person, firm, or corporation shall be made or be valid against the Library.

F. Governing Laws. This Agreement will be governed by, construed and enforced in accordance with the internal laws, but not the conflicts of laws rules, of the State of Illinois. Any suit or action arising under this Agreement shall be commenced in the Circuit Court of Cook County, Illinois.

G. Entire Agreement. This Agreement constitutes the entire agreement between the Parties to this Agreement and supersedes all prior agreements and negotiations between the Parties, whether written or oral relating to the subject matter of this Agreement.

H. Waiver. Neither the Library nor the Vendor shall be under any obligation to exercise any of the rights granted to them in this Agreement except as it shall determine to be in its best interest from time to time. The failure of the Library or the Vendor to exercise at any time any such rights shall not be deemed or construed as a waiver of that right, nor shall the failure void or affect the Library's or the Vendor's right to enforce such rights or any other rights.

I. Severability. The invalidity of any section, paragraph, or subparagraph of this Agreement shall not impair the validity of any other section, paragraph, or subparagraph. If any provision of this Agreement is determined to be invalid or otherwise unenforceable, such provision shall be deemed severable.

J. Exhibits. Exhibit A is attached to this Agreement, and by this reference incorporated in and made a part of, this Agreement. In the event of a conflict between the Exhibit and the text of this Agreement, the text of this Agreement shall control.

ATTEST:

By: _____

Title: _____

ATTEST:

By: _____

Title: _____

NORTHBROOK PUBLIC LIBRARY

By: _____

Its: _____

VENDOR

By: _____

Its: _____

EXHIBIT A
PROPOSAL