# Table of Contents

## Facility Assessment Report

- Overview .................................................. 2
- Project Team .............................................. 3
- Introduction .............................................. 4
  - Building History ......................................
  - Building Description ...............................
- Summary of Findings .................................. 7
  - Historic Designation ............................... 7
  - Building Functionality ............................ 8
  - Zoning & Building Codes ........................ 9
  - Facility Condition ................................. 10
- Conclusion & Recommendations ................... 12

## Appendix A: Site & Building Documentation

- ALTA Survey ............................................ A1
- Site and Floor Plans ................................. A2
Overview

In the spring of 2013, Hennepin County Property Services and Hennepin County Library undertook a facility assessment of the Southeast Library. Located at 1222 4th Street SE in the commercial area known as Dinkytown, the Southeast Library serves the Minneapolis neighborhoods of Como, Marcy Holmes, Prospect Park-East River Road and the University of Minnesota. It functions as a traditional neighborhood library with collections for children, teen and adult users.

The purpose of the assessment was to provide a thorough understanding of the current facility conditions, and to identify critical infrastructure concerns and other substantial improvements that would be necessary to renovate the facility.

The project team featured a consultant group led by Paul Gates Architect, and included staff from both Hennepin County Property Services and Hennepin County Library. The assessment was completed in September, 2013. The following documentation summarizes the key assessment findings, conclusions and recommendations reached during this process.
Project Team

The Southeast Library Facility Assessment was conducted by Hennepin County Property Services and Hennepin County Library with the assistance of a consulting team of architects, engineers, designers and construction industry professionals. Project team members included the following:

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Introduction

Building History
The Southeast Library building, at 1222 4th St. SE in Minneapolis’s Dinkytown area, was first opened in 1963 as the University branch of the State Capitol Credit Union. The building was designed by renowned Minneapolis architect Ralph Rapson, and is considered a pre-eminent example of Mid-Century Modern architecture.

In 1967, the building was adapted for library use and re-opened as the Southeast Library branch of the Minneapolis Public Library. The design of the renovation was also conducted by Rapson.

The library closed at the end of 2006 due to budget shortfalls in the Minneapolis system, but re-opened in 2008 following the merger with Hennepin County Library.

Public use of the building’s Lower Level and parking garage was discontinued with the 2008 re-opening, due in part to significant water penetration into sub-grade spaces. The facility has operated as a single-story library for the past 5 years. The Lower Level and garage are currently used as general storage space.

Building Description

General
The Southeast Library is a one story concrete structure with a full basement and a one-level underground parking garage. Its powerful roof geometry, board-form concrete finishes, exposed structural components and exterior expression of interior functional elements mark it as an example of the Brutalist architecture prevalent in the mid-twentieth century.

Gross floor areas are 5,789 sf on the First Floor and 7,131 sf on the Lower Level, for a total enclosed area of 12,960 sf. The parking garage adds 5,265 sf, for a total constructed area of 18,225 sf.

Site Development
The building occupies the southwest corner of 4th St. SE and 13th Avenue SE, on a parcel of 21,841 sf. The First Floor is raised above the nominal sidewalk elevation approximately 4 feet, with much of the site enclosed by exposed concrete retaining walls. A small paved court with integral concrete benches and stair leads from 4th St. to the main building entry.

At the rear of the site, an outdoor parking deck, accessed via vehicle ramps from both 4th St. and 13th Avenue, sits above the underground garage. Vehicular access to the garage is from 13th Avenue and is controlled by a sliding gate at the bottom of the speed ramp. The garage is fully enclosed except at the entry gate, but is not heated.
The site development is marked by a continuous concrete plaza that wraps the building on 4 sides. Though the plaza sits at the level of the raised, landscaped surfaces enclosed by the retaining walls, and appears as a conventional grade-supported concrete slab, it is cantilevered from the building foundation.

All permeable site surfaces are sodded, without trees or shrubbery, except for the west side yard, which is gravel.

**Building Envelope**

The building is characterized by a prominent concrete roof deck and 4-foot parapet walls supported by cruciform columns on both interior and exterior sides of the building enclosure. The roof deck, square in plan and measuring approximately 100 feet on a side, cantilevers above irregular building walls composed alternately of brick masonry and a wood-framed glass window wall system. A continuous ribbon of frameless clerestory glazing separates the masonry and glass walls from the roof deck, which is punctuated by approximately 20 skylights that illuminate the public interior spaces.

**Structural System**

All major structural elements are poured-in-place concrete, and include spread footings, foundation walls, two-way flat slabs at the first floor and parking deck, and interior and exterior columns. The roof deck is an exposed, two-way waffle slab supporting concrete parapets.

**Roofing & Waterproofing**

The roof system is a 4-ply asphalt built-up roof that dates to 1980. Skylights are unitized double-dome acrylic set on curbs clad in sheet metal.

The concrete plaza assembly includes a pitch-based waterproofing membrane separating the concrete structural and wearing slabs. Construction documents indicate foundation waterproofing at the building foundation walls. It is not known whether a waterproofing membrane is installed between the structural slab and wearing surface of the upper parking deck.

**Mechanical and Electrical Systems**

The building is served by two constant-volume air handlers, a water-cooled chiller, and a boiler, all located in the Lower Level, with a cooling tower located on the roof. Temperature controls are pneumatic. All supply and return ductwork for both levels is located in the ceiling of the Lower Level. All equipment is original to the building.
Building Description (cont.)

The parking structure is ventilated by a single exhaust fan and ductwork, all of which appears to be original to the building. Since the garage is now used only for storage and the exhaust system is not operating, its functionality is not known.

Plumbing fixtures throughout the building are in serviceable condition, though dated. Fixtures in the Lower Level have been de-commissioned. No restrooms in the building meet current accessibility codes. Access to the Lower Level women's room was significantly compromised by the installation of a sewage ejector located in front of the toilet stalls.

The building has no fire suppression or fire alarm system.

The electrical service is 120/208 volt, 3-phase, 4-wire, 800 amp. Switchgear is original to the building. Lighting is a combination of fluorescent and incandescent.

Interior Finishes
First Floor interior finishes include a durable palette of exposed concrete columns, brick walls, and brick pavers. Carpet and resilient flooring are used in limited areas. Door and window frames and trim are typically painted wood. Doors are primarily flush oak with transparent finish.

Lower Level finishes have been substantially removed in the former meeting room and kitchenette due to excessive water damage. Remaining finishes in the public corridors and workroom include decorative concrete masonry, wood doors and resilient flooring. Restrooms have ceramic tile floors and walls, with marble countertops.
Summary of Findings

Historic Designation

A review of available media suggests that there is a degree of public and professional opinion that the Southeast Library is a work of high architectural merit and may be worthy of historic designation. Examples include:

- The building is listed in the American Institute of Architects’ AIA Guide to the Twin Cities, where it is described by author and historian Larry Millet as a “crisp, convincing period piece from the 1960s by Minnesota’s leading architectural modernist.”
- The building was listed on the Preservation Alliance of Minnesota’s 2007 list of Ten Most Endangered buildings.
- Minneapolis Councilmember Gary Schiff is on record as opposing any effort to remove the building. “Any demolition will require a permit by city council, and there is no interest on city council in demolishing a Rapson gem like the Southeast Library.”
- Architect Phillip Koski, a former chairman of the Minneapolis Heritage Preservation Commission (HPC), has identified the Southeast Library as “one of his (Rapson’s) best works.”
- The Hennepin County 2013-2017 Capital Improvement Program states that “there have been local efforts to have the building receive a historic designation by the Minneapolis Heritage Preservation Commission.”

Section 599.210 of the Minneapolis Heritage Preservation Regulations establishes 7 criteria to be considered in determining whether a property may be designated a landmark. A property may be eligible for designation by meeting only one of the 7 criteria. Based on the public record cited above, it is possible or even likely that the building would be found to meet the requirements of the following criteria:

(4) The property embodies the distinctive characteristics of an architectural or engineering type or style, or method of construction.

(6) The property exemplifies works of master builders, engineers, designers, artists, craftsmen or architects.

An application for a demolition permit or major building alteration would likely trigger an internal review by Minneapolis CPED staff. A positive finding of compliance with one of the 7 criteria would initiate a process that would begin with a public hearing and could potentially lead to nomination for designation as a City of Minneapolis landmark.

If the property were ultimately to be designated by HPC, the building could not be legally removed or modified without review and approval of HPC and CPED.
Summary of Findings (cont.)

Building Functionality

Due largely to its age, its architectural style and its original construction as a financial institution, the building has a number of physical deficiencies that limit its function as a public library. Some of these liabilities (the lack of accessibility, for example, and the remote location of the parking garage to the library public areas) can be remedied with a thorough building renovation. Other limitations are likely to remain even after such a remodeling. These include:

1. **First Floor plan configuration.** The large concrete columns at the center of the First Floor restrict site lines from the service desk to the perimeter public spaces. This problem is exacerbated by the irregular configuration of the exterior wall and the small cellular rooms on the building’s south and east sides. The large number of these rooms relative to the central open area require that public program functions such as the children and teen areas be located within them, thus prohibiting library staff from monitoring these spaces from the service desk.

2. **Small footprint.** The very limited area of the First Floor central public room requires that high shelving be used in order to maximize the size of the collection. This shelving further restricts the already limited site lines.

3. **Massive and inflexible construction.** The thick, exposed concrete and brick masonry construction that makes this building a distinctive example of Mid-Century Modern architecture also limits both its functionality as a library and its adaptability. The interior partitions enclosing the perimeter rooms, while not structural, are sufficiently massive as to make their alteration or removal impractical, and their presence is so inherent to the architectural expression of the building that to modify them in any significant way would compromise the very qualities that make the building a distinguished piece of architecture.

4. **Remoteness of the Lower Level.** While both a credit union and a library, the public spaces of the Lower Level have always been limited to ancillary functions as meeting room, kitchen and restrooms, rather than serving as extensions of the primary programmatic functions of the First Floor. This programmatic separation is reinforced through the building design, which isolates the basement using enclosed stairs, a lack of natural light and a thick floor slab with no visual opening to the main level. Altering the building to alleviate this separation, if not restricted by the building code or other technical factors, may be limited by the same issues of architectural heritage cited above.

5. **Small First Floor staff work area.** Aside from a staff break room and two private offices, staff work space on the main floor is limited to a single room – the former credit union vault – of 182 sq. ft. Installation of a new elevator in this room (one of the...
two most feasible locations in the building) would reduce the usable area to just 87 sq. ft.

6. **One-lane drive ramp to garage.** The single-lane drive ramp allows cars traveling in opposing directions to meet on the ramp, potentially forcing the entering vehicle to back across the sidewalk and into traffic on 13th Avenue South.

7. **Limited parking.** Following a building renovation that would include removal of code violations in the parking garage, total on-site parking including both parking levels will be 15 spaces. This number is smaller than the ordinance requirement and potentially smaller than the actual demand following the renovation.

### Zoning Ordinance

The present facility is in compliance with the major requirements of the Minneapolis Zoning Ordinance, including land use, lot size, floor area ratio, height and yard requirements. Other site plan requirements, including landscaping and screening, can likely be met with a building renovation.

The present facility is also in compliance with ordinance parking requirements (4 spaces required, 7 available), but only because the Lower Level is used as inactive storage. If the Lower Level is returned to public use—including reinstatement of the original meeting room—the total on-site parking requirement would likely increase to 18 spaces, and would exceed the 15 spaces available on the 2 levels of the parking structure. Official relief in the form of a zoning variance may be required.

### Building Codes

The present facility is out of compliance with numerous provisions of current codes. Some of these requirements (e.g. stair nosings, open risers, handrails) may not be applicable due to technical infeasibility and the building’s age. Others (e.g. fire alarm, lack of fire rated stairs and corridors, separation of garage and boiler room) will likely be mandated as part of a comprehensive building renovation.

A building renovation is likely to trigger a requirement for an automatic sprinkler system under any re-use scenario that returns the Lower Level or garage to active use - and may do so even if the present storage use of these spaces is maintained.

The garage suffers from numerous building code violations related to occupant egress, ceiling height, ventilation and drainage. All such violations can be corrected in a thorough building renovation, but doing so is expected to reduce the number of on-site parking spaces to 15.
Summary of Findings (cont.)

Facility Condition

The condition of the various components and building systems of the Southeast Library varies widely. Some elements, including major portions of the exterior building envelope, are in remarkably good condition for their age, and likely have a significant service life remaining. Others, including site paving, roofing, and the entirety of the mechanical and electrical systems, have exceeded their life expectancy and require full replacement. A summary of findings related to each of the major building components follows.

Items numbered in bold text correspond with photos at left.

Stormwater Management

1.1 East side stormwater is trapped in a "bathtub" created by the perimeter retaining walls.

1.2 West side stormwater discharges onto the driveway, where it ponds due to lack of positive pitch to a functioning drainage system.

1.3 The perimeter of the building and retaining walls has no functioning drain tile system.

1.4 The trench drain at the base of the drive ramp is located inside rather than outside the garage.

1.5 The upper parking deck drains and the trench drain are routed to the sanitary sewer instead of a storm system.

Site Utilities

2.1 The cast iron and clay tile sanitary sewer is stable but has minor cracking that can admit sediment and ultimately clog.

2.2 The 3 inch water service is not sufficient to support an automatic sprinkler system.

Site Paving

3.1 Curbs and pavement are substantially deteriorated and require full replacement.

3.2 Poured concrete sidewalks, stairs and benches near the north entry are in poor condition, with cracking and spalling due to settlement, corrosion and heaving.

3.3 Site retaining walls exhibit minor cracking, dislocation and surface damage but remain in serviceable condition.

Accessibility

4.1 A single-level library can be made compliant with accessibility codes at modest expense by converting the First Floor women's restroom to a unisex accessible restroom.
4.2 A multi-level library can accommodate an elevator within the current building envelope, with minimal disruption to present library functioning.

Structural System
5.1 Concrete spalling and exposure of reinforcing steel is evident in numerous locations, including the underside of the parking deck slab, the underside of the east drive ramp to the upper parking deck, and the top of roof parapet walls.

5.2 Minor deterioration of the concrete roof slab appears due to water penetration through the roof membrane. Other observable elements of the structure are in good to very good condition.

Building Envelope
6.1 The exterior masonry walls, wood windows, and the clerestory glazing system are all in very good condition, due largely to the extensive overhangs of the concrete roof deck.

6.2 Roof skylights are at the end of their service life and should be fully replaced.

6.3 Roof access is achieved via a series of 2 ladders that requires a difficult transfer within the confined plenum space above the janitor’s closet. Such access is not code compliant and is not satisfactory for the maintenance of rooftop mechanical equipment.

Roof Assembly
7.1 The built-up roof membrane is well beyond its service life. Sporadic leaking over many years has saturated large areas of insulation and resulted in some corrosion of the concrete roof deck.

Waterproofing Systems
8.1 Extensive water damage is evident in the Lower Level and in the parking garage. Water damage is likely due to the failure or absence of waterproofing systems, but may also be due to high humidity in the basement ceiling plenum.

8.2 Water infiltration at the Lower Level is likely occurring through the failed pitch membrane at the cantilevered plaza slabs, and/or through HVAC penetrations near the exterior wall.

8.3 Water infiltration at the garage and east access ramp is likely due to the total absence of a waterproofing membrane between the structural slab and wearing surface.

Mechanical and Electrical Systems
9.1 The existing HVAC system (air handlers, boiler, chiller, cooling tower, pneumatic controls, ductwork, garage exhaust fans) is all original to the building, is approximately 50 years old and has reached the end of its service life.

9.2 The recent (circa 2007) separation of the roof drainage from the sanitary sewer system did not extend to the parking garage, so the upper and lower level parking surfaces and trench drain all connect to the sanitary sewer. The code-required separation of storm and sanitary systems should be completed.

9.3 The building lacks a sprinkler system and fire alarm. The present water service is not sufficient to service a sprinkler system.

9.4 The electrical service switchboard and branch circuit panelboards in the Lower Level appear original to the building and are at the end of their service life. Lighting is fluorescent and incandescent, and includes some custom fixtures in Lower Level public spaces.

Interior Finishes
10.1 The primary First Floor finishes - brick pavers, brick walls, concrete ceilings - are durable and in very good condition, capable of many years of continued service.

10.2 Secondary First Floor finish components - painted surfaces, doors and hardware, and the limited carpeted areas - are in need of refinishing or replacement.

10.3 With the exception of some wood doors and decorative concrete masonry, the Lower Level finishes have either been previously removed or should be replaced.

Furniture & Fixtures
11.1 Building furniture ranges in age, style and condition. Most is functional but outdated by current Hennepin County standards. Some items may be salvageable for back-of-house use.

11.2 Some items are of Mid-Century Modern style, are collectable and may be valuable. These items should be reviewed by a furniture expert before designation.
Conclusion & Recommendations

Conclusion

This assessment concludes the following:

- **Renovation is feasible.** The building structure is generally in sound condition, and exterior wall systems have aged well. While major components and systems require complete replacement — site paving and drainage, roof, plaza waterproofing, mechanical and electrical systems, and all Lower Level improvements — this work can be accomplished with appropriate investment and the building could continue to serve, as a library or in other capacities, for years to come.

- **The building can be made functional to 21st century standards** without compromising the original architectural intent. The major components of accessibility — an entry route, an elevator, restrooms — as well as updated building systems can be integrated without modifying the building envelope, degrading the interior expression or resulting in significant loss of program space.

- **Certain inherent limitations cannot be remedied** without altering the structure in ways that may destroy its character. The small footprint, restricted sight lines and inflexible spaces which would survive a sensitive renovation would also limit the type and size of library the building can support. Potential for seeking a zoning variance on parking requirement can be explored, due to site limitations.

- **The Southeast Library is unique among the 41 branches of the Hennepin County Library system, as the only building designed by a renowned twentieth century modernist architect.** This unique quality is an important factor in consideration of future renovation or redevelopment plans.

Notwithstanding the building’s renovation capacity, this analysis has also made evident that the site has clear redevelopment potential and could readily support construction of a new library, either stand-alone or as a component of a larger mixed-use facility.

Recommendations

1. Prior to further consideration of the future of the Southeast Library facility, Hennepin County and library stakeholders should develop a library program with clear goals and detailed requirements for the type of facility that will best serve the community.

2. Prior to further consideration of a facility renovation, the technical conclusions of this assessment, where subject to the interpretation of authorities having jurisdiction, should be
reviewed by appropriate public officials. This includes the
findings related to zoning and site plan review (to be reviewed
with Minneapolis CPED), historic status (CPED), building code
(Minneapolis Code Construction Services & Minneapolis Fire
Department), and stormwater management (Minneapolis Public
Works).

3. Renovation should be undertaken with due sensitivity to the
historic integrity of the building. Consideration should be
given to the integration of new systems, and the alteration or
expansion of programmatic functions, without compromis-
ing the original architectural intent. Examples include:

- Installation of an elevator without modification to the original
  envelope or alteration of primary public spaces;
- Potential overframing of the roof deck to allow for the integra-
tion of new electrical and fire protection systems without visu-
ally exposing new piping and conduit to the First Floor interior.

4. Prior to further consideration of site redevelopment, fully
explore the likelihood that legal protection in the form of
historic designation may prohibit removal or major alteration
of the building.