



Saint Paul Public Library

HAYDEN HEIGHTS



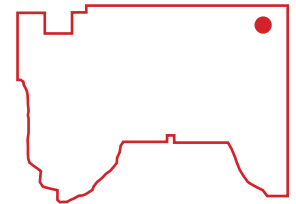
Pre-Design Report

May 13, 2022



HAYDEN HEIGHTS LIBRARY

1456 White Bear Avenue
Saint Paul, Minnesota



Hayden Heights library began in 1955 and has been in its current building since 1977.

Hayden Heights serves the Greater East Side neighborhood, one Saint Paul's densest and most diverse neighborhoods and is directly adjacent to White Bear Avenue. The library is within walking distance of several schools and the planned redevelopment of Hillcrest Golf course.

The structure is modernist in design, featuring long spans and a large skylight. There have been no significant renovations to the building since the mid 1990s and much of the finishes are original.

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Mission

We welcome all people to connect, learn, discover and grow.

Vision

We imagine a Saint Paul where all people feel seen, safe, and welcome. We imagine a city where libraries bring people together to experience hope, joy, and creativity through learning.

Our Values

The Library belongs to the people of Saint Paul. We are your Library and you — our library users — shape our work. The following values guide our work.

We believe that learning is a human right.

To live, adapt, and thrive in a constantly changing world, all people need supportive learning environments and free access to information and ideas from diverse points of view.

We believe in curiosity.

Curiosity can change the world and the path of one's life. We believe in igniting its spark through discovery and creative exploration.

We believe in connection.

The Library is a place for quiet reflection and boisterous activity; for likeness and for difference. It is comfortable, inclusive, and vital to creating healthy, strong communities.

We believe in the power of belonging.

When people feel they belong, they are able to learn and grow. The Library brings people together to access knowledge, information, and connection. We actively work to ensure that all people see themselves and our city's rich diversity reflected in our libraries.

Owner
City of Saint Paul

Melvin Carter, Mayor
Michael Burnett, Construction Project Manager, Design & Construction Group
Kelly Wilcox - Construction Project Manager, Design & Construction Group

Owner
Saint Paul Public Library

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Executive Summary

Hayden Heights Library
Saint Paul Public Library

Purpose

Purpose of this Pre-Design Report is to provide a recommended design concept and a summary of the information and work that has led to a recommendation for a singular design for the Hayden Heights Library Facility Transformation.

Project Overview

LSE Architects and a team of engineering consultants and Artist were selected in October of 2021 to provide design, community engagement and construction services for the Hayden Heights Library. The scope of the project was identified as being a renovation of the existing 1970 building to support the needs of the Saint Paul Public Library Mission to deliver:

- Safe, inviting, affirming, and comfortable libraries for people of all cultures, abilities, and communities

- Improved accessibility
- Additional spaces and study rooms for communities to gather, work, study, and collaborate
- Separation of quiet & loud spaces
- Enhanced play & learn space
- Technology-rich environments

The Hayden Heights project is currently funded through design. Construction funding is not yet secured. As funding is secured, a construction schedule will be determined.

The design team was provided background information which included four previous years of study and engagement.

- 2018 Imagine | Deliver SPPL Community Engagement
- 2019-2022 Strategic Direction – included engagement with nearly 3,000 people
- 2020 Facility Direction Study – Holzman Architecture, LLC
- 2021 St. Paul Public Library Youth Engagement Project Recommendations
- Existing building construction documents
- Library collection and usage data

This Pre-Design report and Appendix serve as the summary of the Pre-Design Phase and establishes a singular design direction that will be further studied and developed during Schematic Design and Design Development.

Robust Community Engagement will continue through the end of Phase 1.

Process

Over the last six months, the design team has conducted facility assessments, facilitated a multi-layered engagement process with the Artist Cohort, and has developed responsive design options.

Engagement

The engagement process has been robust and for transparency has adhered to the IAP2 Spectrum for Engagement.

The Layers of engagement have been inclusive of:

- Library Design Project Ambassadors - IAP2 Level Involve|Collaborate
Comprised of invited neighborhood groups, associations and youth leadership teens - Four meetings to date with approximately 34 participants
- All Inclusive Community Engagement - IAP2 Level Involve
Series of progressive Open House Meetings and Listening Sessions - Three Meetings/Sessions to date
- All Inclusive Community and Library Users - IAP2 Level Involve
Series of progressive Surveys – One Survey and One Questionnaire to date with 182 respondents
- Artist Advisory Cohort - IAP2 Level Collaborate | Embedded in the Design

Co Facilitators of Engagement, lead ideation on engagement sessions and create creative encounters within the community, including Pop-Ups and Interactive tools

- Library Staff Input – IAP2 Level Collaborate
- Interviews and listening sessions – Two all Library staff Meetings to date

Design Options

The expansion options were distilled down to three strategies for expansion. From the three strategies it was further narrowed down to two design concepts based on engagement input received from community members, Library staff, and the ability and degree to meet the project criteria.

Project Criteria

- Delivers Saint Paul Public Library commitments to provide spaces that are safe, inviting, affirming and comfortable for people of all cultures, abilities, and communities
- Responds to what was heard in the community engagement process: Surveys, Open Houses, Listening Sessions, Pop-Ups, Creative Encounters, Staff Interviews
- Improves the safety and security of staff and library users by incorporating Crime Prevention through Environmental Design Guidelines
- Meets the Saint Paul Overlay, Saint Paul Climate Action & Resiliency Plan and the SB 2030 which calls for an Energy use reduction of 80% through 2024, and 90% in 2025 and carbon neutrality by 2050
- Exemplifies the intent and requirements of the American Disabilities Act (ADA)
- Looks to the future, providing Transformational Equity to meet the needs of the community today and for the next 50 to 100 years

Option A

Visibility along White Bear Avenue is enhanced in both options with expanded windows and framed views into the library. The approach on option A breaks the rigid geometry with organic forms and movement that lead to connections to the new outdoor program spaces. Both the Children's and Teen spaces, extend out to an enclosed outdoor space. Key to this option is a central Community room, which doubles as a Storytime room and expands the library with an operable wall.

Option B

Option B maintains the original geometry. The flex Partner space is located near the front door. As an Option the Community room is located in the North adjacent to the existing staff parking lot and had an opportunity for an exterior entrance for extended use. Outdoor program spaces are located adjacent to the Children's area and as an extension to the Community Room. In this option, the Teen space occupies the corner view to White Bear Ave.

Throughout the engagement process there has been community support for both Option A and Option B. There are elements of each that are easily blended together. Further study will carry into the Schematic Design Phase.

Recommendation

After six months of work focused on delivering options that meet the many criteria determined for this important project, the Design Team and Artist Cohort recommend that SPPL proceed into the Schematic Design phase with Option A. We feel this option best meets the needs of the broader community for transformative equity and an expanded, efficient, safe and sustainable library prepared to meet the needs of the community for the future.



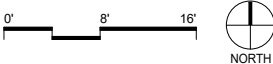
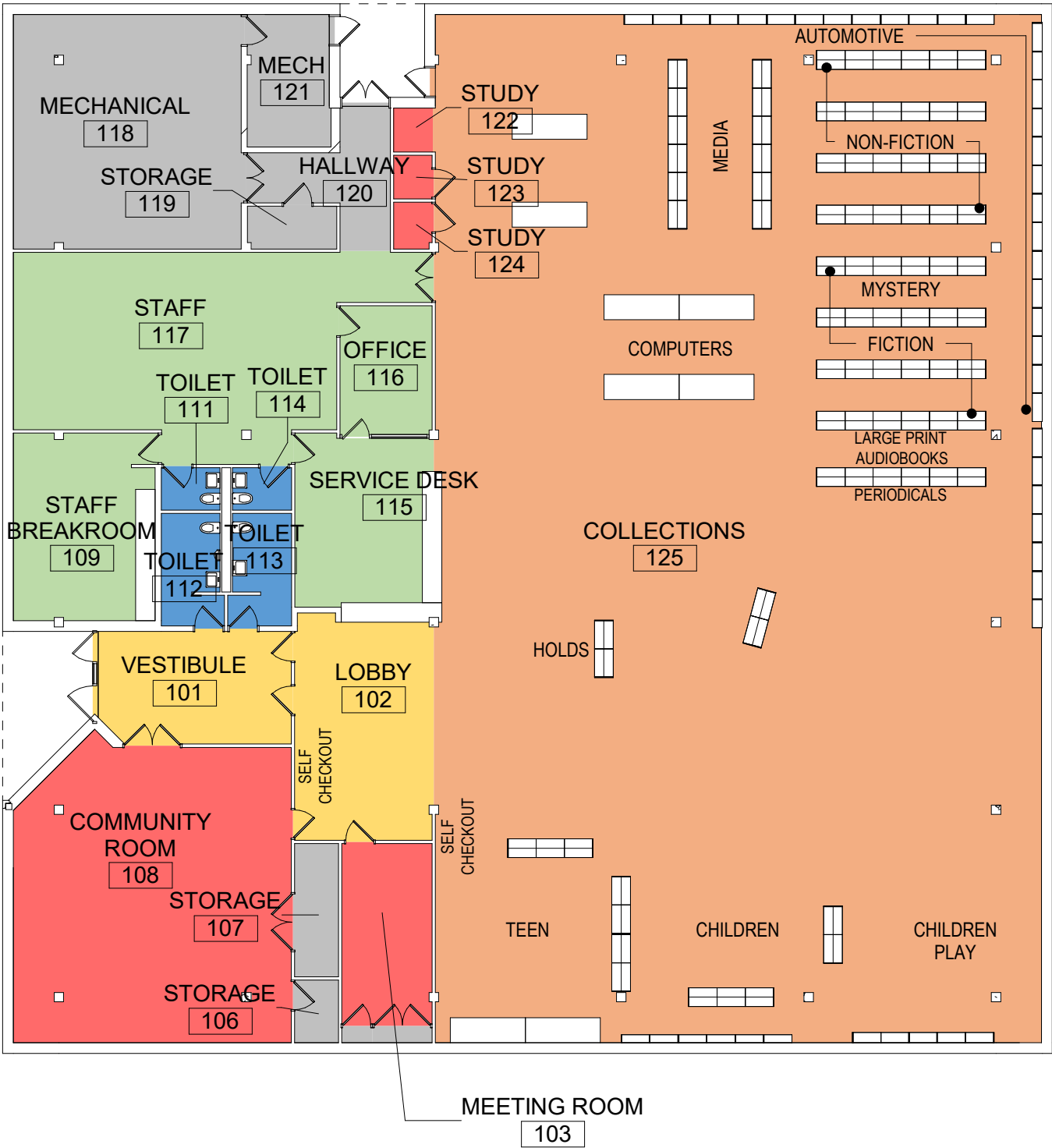


BUILDING ASSESSMENT

Hayden Heights Library
Saint Paul Public Library

Intent of the Building Assessment is to determine work required to maintain the existing building and identify deficiencies in the building systems as they currently stand and elements that have reached the end of their usable life. Assessment assumes no change with building use or form despite known deficiencies.

Additionally building assessment identifies issues with code, safety, security, and equity to be addressed in design concepts.



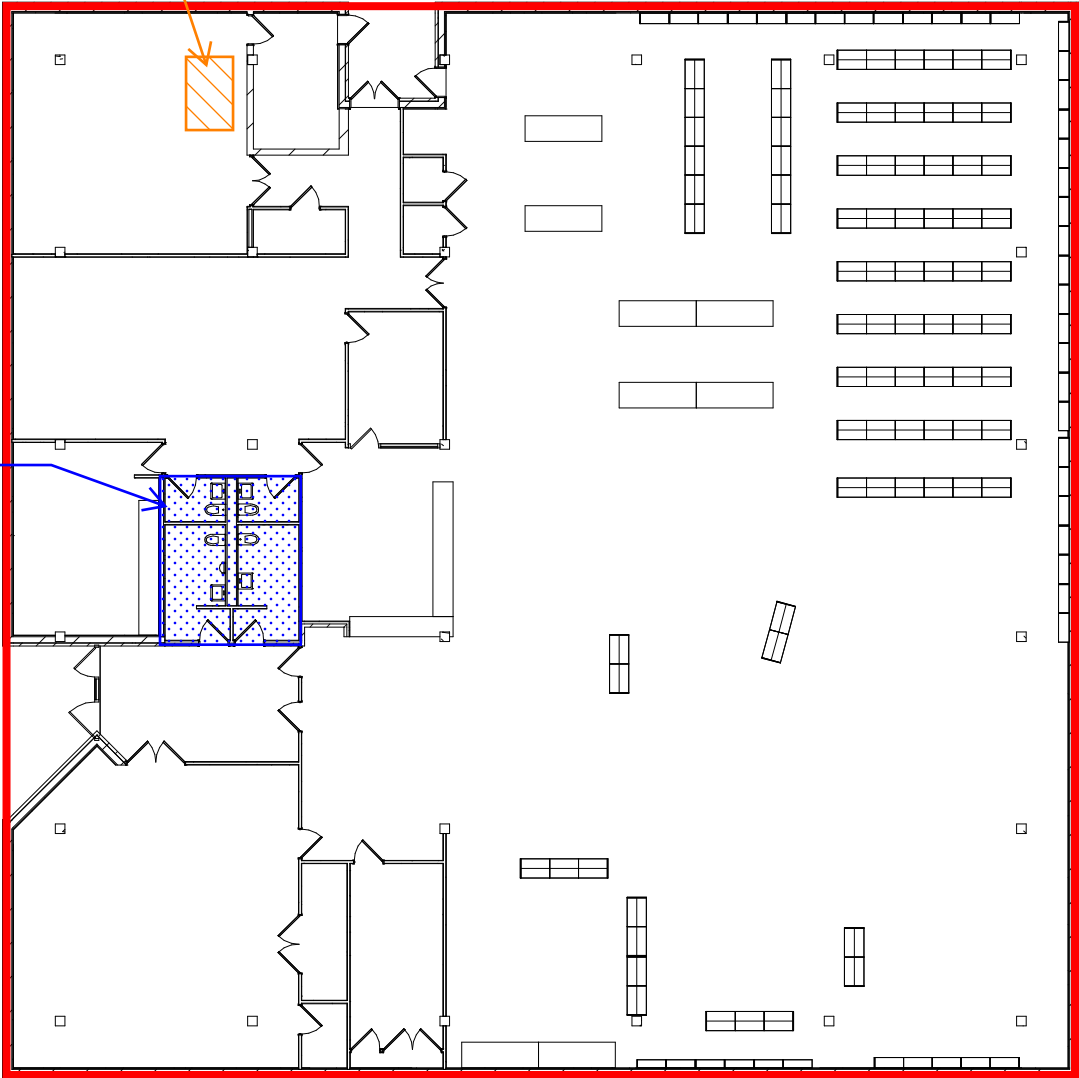
SPPL Libraries		Hayden Heights			
		Quantity	Size	Subtotal	Total Notes
0	Circulation	601			
	Vestibule	1	250	250	
	Lobby	1	351	351	
	Stairs	-	-	-	
	Elevator	-	-	-	
	Elevator Lobby	-	-	-	
	Corridor	-	-	-	
1	Administration	1,491			
	Staff Workroom	1	762	762	5 computer stations
	Staff Office	1	135	135	
	Breakroom	1	309	309	
	Service Desk	1	285	285	
	Book Drop	-	-	-	Exterior Drop
	Staff Kitchen	-	-	-	Part of Breakroom
	Self Check	2			2 Self check part of service desk
2	Collections	6,231			
Shelving	Collections	1	920	920	Circulation / Holds
	Nonfiction	1	490	490	
	Fiction	1	400	400	
	Large Print	1	70	70	
	Periodicals	1	70	70	
	Audiobooks	1	70	70	
	Media	1	370	370	
	Children	1	560	560	
	Teen	1	200	200	
	Foreign Language			-	Confirm any foreign language material
	Automotive	1	370	370	Unique program to Hayden Heights
	Seating	1	1,400	1,400	
	Children Play	1	550	550	
	Teen				
Computers	General	1	1,571	1,571	16 comp, 2 auto repair catalog, 3 scan print, 1 wd
	Children	1			1 family computer - part of Child Play
	Teen	1	110	110	2 computers
3	Community & Breakout Spaces	1,172			
	Community Room	1	927	927	
	Meeting Room	1	185	185	
	Study Room	3	20	60	Two partially enclosed one open
	Stage	-	-	-	
4	Toilets / Mothers Rooms / Quiet Rooms	208			
Toilets	Public Multiuser Toilet	2	75	150	Not Accessible
	Public Single User Toilet				
	Staff Toilet	2	29	58	Not Accessible
5	Partner Spaces	-			
	Neighborhood Office				None Currently
	Neighborhood Office Kitchenette				
6	Services / Storage	1,010			
	Storage	5	25	125	
	Mechanical	1	620	620	
	Boiler	1	130	130	
	Hallway / Receiving	1	135	135	
	Janitor				
	Facility Office				
	Elevator Equipment				
Sub Total				10,713	Net Square Feet
Gross Factor			6%	643	Walls & Partitions
Building Total Area				11,356	Gross Square Feet
7	Exterior	0.69 Acres			
	Book Drop	0			Near main entrance
	Parking Lot	2			Approximately 28 stalls, 1 Accessible
	Exterior Storage	-			No exterior Storage
	Mechanical Enclosure	-			No Enclosure

Library Special Collections:

- Automotive Collection
- Children's Interactive Art Exhibit

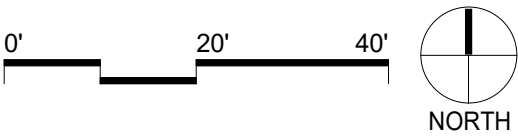
Boiler Replacement: 2020

Toilet Upgrades:
1996



Original Building: 1978

Roof Replacement: 1978

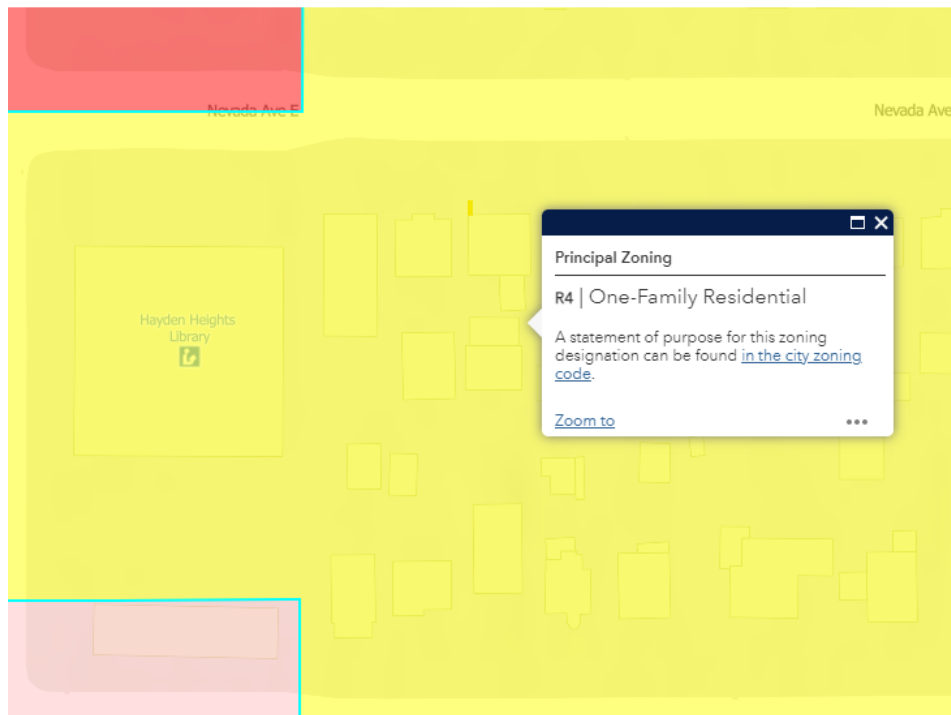


Zoning Requirements:



Parking Requirements: (For reference only, reflects existing conditions only)

Uses	Minimum Parking Spaces (No parking minimums)	Maximum Parking Spaces (1 per 350 SF)	Existing Parking	Required Bike Parking (1 per 500 SF)
Library, Public	0 Spaces	33 Spaces	0 Spaces	17 Spaces



Zoning District	Lot Size Minimum		Building Height Maximum		Yard Setback Minimum (feet)		
R4 one-family	Area (Sq ft)	Width (ft)	Stories	Feet	Front	Side	Rear
	5000	40	3	30	25	4	25

Principal use: public library

This use is permitted in this zoning district

Zoning District Actual	Lot Size Actual		Building Height Maximum		Yard Setback Minimum (feet)		
R4 one-family	Area (Sq ft)	Width (ft)	Stories	Feet	Front	Side	Rear
	~30,000	~200	1	14	10	40	0

Site Information:

Neighborhood: Hayden Heights (Greater Eastside) Neighborhood

Community Organization: Greater Eastside Council

Council Ward: 6

Watershed District: Ramsey Washington Metro Watershed

Code Review:

Applicable Codes: 2020 Minnesota Building Code
 2020 Minnesota Fire Code
 2020 Minnesota Energy Code
 2020 Minnesota Accessibility Code
 Saint Paul Zoning Code

Construction Type: II-B (Not sprinkled)

Occupancy Type: (A3), Equipment Storage (S1)

Base Allowable Building Area: 9,500 SF (Not Sprinkled)

Frontage Increase: $9,500 \times .75 = 7,125$ SF (Increase for open area on three sides of building)

Total Allowable Area 16,625 GSF

Actual Area: 11,356 GSF

Parking Requirements: (For reference only, reflects existing conditions only)

Uses	Minimum Parking Spaces (No parking minimums)	Maximum Parking Spaces (1 per 350 SF*)	Existing Parking	Bike Parking (1 per 500 SF)
Library, Public	0 Spaces	33 Spaces	28 Spaces (1 ADA)	17 Spaces

*Parking maximum assumes planned BRT.

Occupant Load Factors: (For reference only, reflects existing conditions, MNBC 1004)

Uses	GSF	Factor	Occupancy
Library Stacks (A-3)	2,020	100	20.2
Library Reading/Study Areas (A-3)	5,100	50	102
Storage/Mechanical (S-1)	1019	300	10
Assembly (A-3)	1,115	15	74.3
Office (B)	1,520	150	10.1
Total			217 People

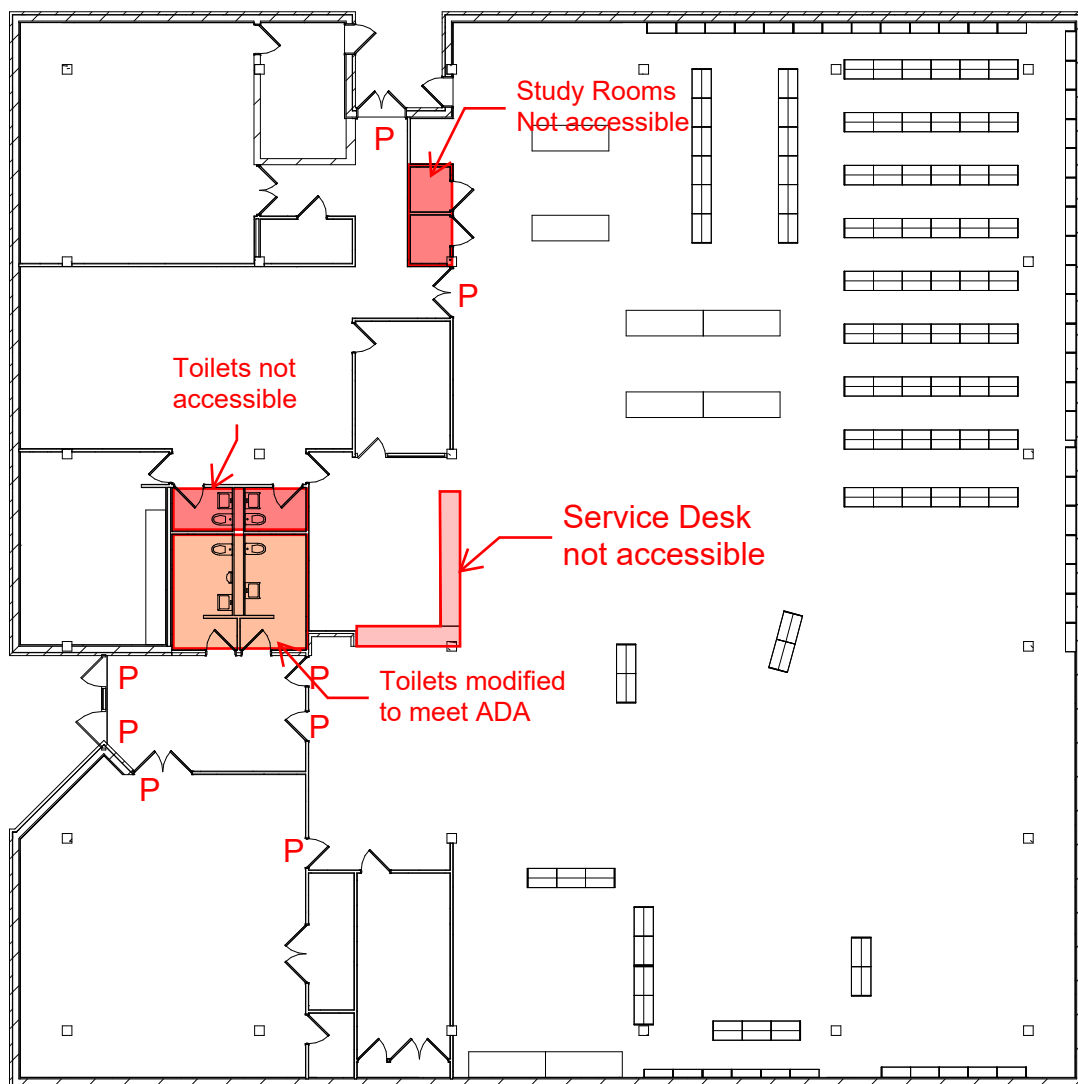
Toilet Review: (For reference only, reflects existing conditions, MNBC 2902.1)

		Water Closets		Lavatories		Drinking Fountains		Service Sinks	
		Required	Provided	Required	Provided	Required	Provided	Required	Provided
Men	109	1	0	1	2				
Women	109	2	0	1	2				
Unisex		0	3*	0	4	1	2	1	1
Total	34	3	3	2	8	1	2	1	1

1 Staff toilet not in count due to lack of public access to these facilities.

CODE RECOMMENDATIONS;

- Add Sprinkler system to entire building
- Rework service desk to provide accessible approach to some or all of desk
- Provide accessible toilet
- Provide additional public access toilet facility (staff could be reduced by one toilet)
- Replace hardware at emergency exits to include panic hardware
- Replace hardware at community room to include panic hardware
- Enlarge study rooms to provide accessible access



Safety & Security:

Building is a single story building with a single entry.

Entries:

Main entry is visible from street and provides access from sidewalk and transit, but requires walking on sidewalk from the parking lot, consider a second entrance near parking lot.

Toilet:

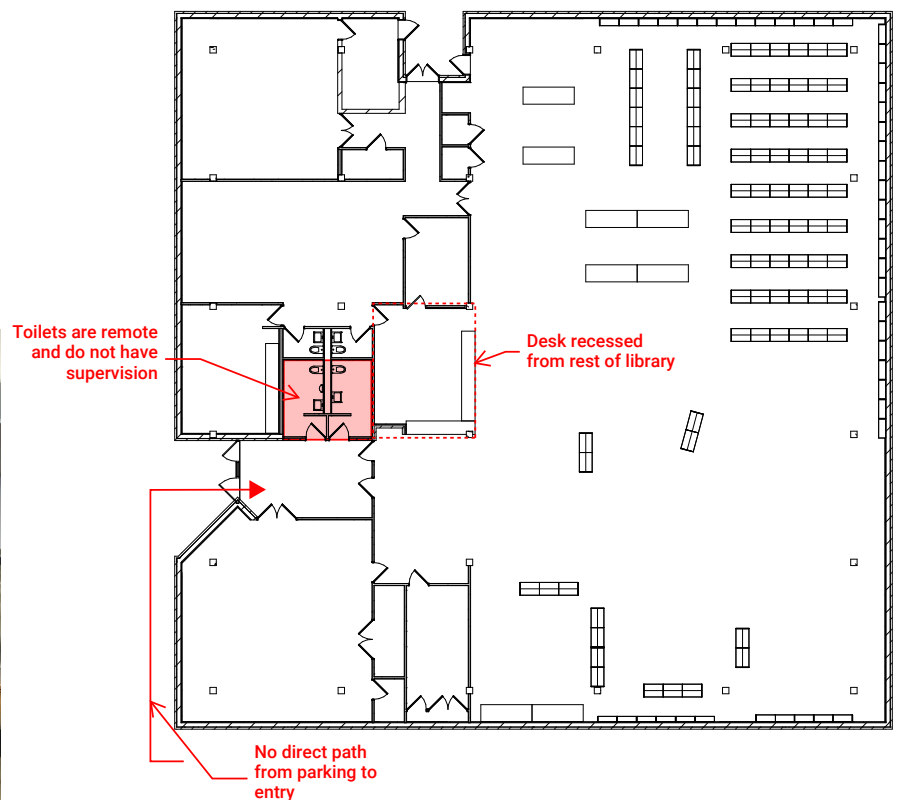
Toilets are off vestibule and not visible from service desk. Keys are required to use toilets which require patrons to enter library, exit with key, and re-enter library.

Service desk:

Service desk is monolithic and set back, does not provide complete vision of library, however is oriented to see entrance.



View from Service Desk



0' 20' 40'



Accessibility:

Accessible entrance is through the clearly marked main entrance. Service desk is not accessible.

Air Quality:

Building provides ventilation that improves air quality. Ventilation is old and should be replaced but with a similar system that provides an exchange of air.

Auditory:

Space is a single large open space, however with effective materials and distinction of spaces for small group use, could provide loud activity space and quiet reading and study spaces in the current footprint. Community room is separated acoustically however hard surfaces provide echo that could make some activities difficult for people with hearing loss.

Reading Level Distinction:

Library uses some distinction of spaces to promote small group activities and quiet study. Further material and spatial distinction could promote more loud activities without disrupting quiet spaces.



Main Entrance

Pierce Pini & Associates, Civil Engineer

Site Location and Layout

The existing Hayden Heights Library site is located on the east side of White Bear Avenue in St. Paul and is bounded by Nevada Avenue to the north and alleys on the east and south.

There is currently approximately 20 standard parking stalls and 1 ADA parking stall immediately south of the building that is accessible using White Bear Avenue or the alley east of the site. There is also a staff parking lot with approximately 8 parking stalls north of the building that is accessible from Nevada Avenue. There is a small landscaped area to the east and west of the staff parking lot.



The ADA access for the building is located at the main entry along White Bear Avenue. The ADA parking stall is located closest to the entry door and appears to have flush sidewalk that does not require any pedestrian ramps.

Sanitary Sewer

A Gopher One Call utility map request was placed in early January, but the city of St. Paul has not provided any sewer maps to date. It is anticipated that there is an existing sanitary sewer located in White Bear Avenue. There is also an existing 30" sanitary sewer in Nevada Avenue.

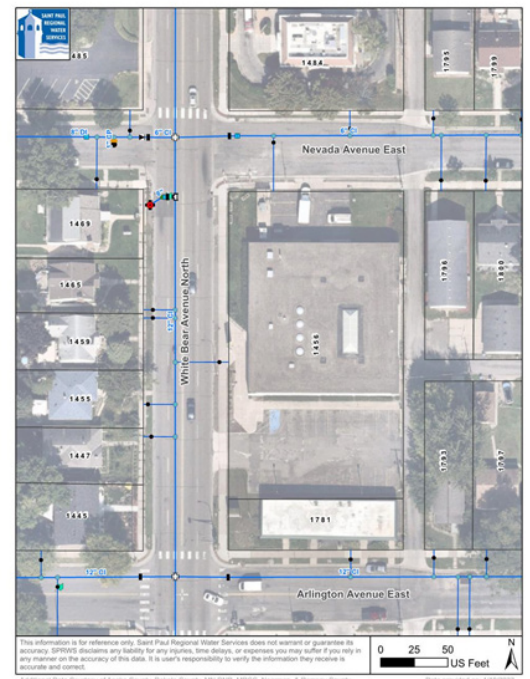
The original 1977 mechanical drawings indicate a 6" sanitary sewer service constructed from the sewer main in Nevada Avenue to the north side of the building just east of the transformer.

Based on available information, the library is still utilizing the original 6" sanitary service from the 1977 construction. It is very likely that this service was constructed of vitreous clay and is now approximately 45 years old. It is recommended that the existing service line be assessed via televising camera. The televising camera documentation will assist in evaluating the existing condition and determining the need for future replacement.

Water Main

There is an existing 12" city watermain located in White Bear Avenue as well as a 6" watermain located in Nevada Avenue. The original 1977 mechanical drawings indicate that the building is served by 2" domestic water service from the main in Nevada Avenue into the mechanical room at the northwest corner of the building. This is consistent with the record drawings from St. Paul Regional Water Services.

There is an existing fire hydrant located on the southwest quadrant of the intersection of White Bear Avenue and Nevada. This hydrant is across the street from the library and serves as the



source of fire protection for the building.

Storm Sewer

A Gopher One Call utility map request was placed in early January, but the city of St. Paul has not provided any sewer maps to date. It is anticipated that there is an existing storm sewer infrastructure located in White Bear Avenue and Nevada Avenue.

The original 1977 building construction plans indicate that the roof utilizes roof drains that are built internal to the structure. There is a dedicated roof drain storm service that runs parallel to the sanitary service. The original 1977 mechanical drawings indicate that a 6" storm service is routed from the building to the existing 27" storm sewer in Nevada Avenue. It is very likely that this service was constructed of vitreous clay and is now approximately 45 years old. It is recommended that the existing service line be assessed via televising camera. The televising camera documentation will assist in evaluating the existing condition and determining the need for future replacement.

Telecommunications, Gas and Electrical

The local telecommunications provider is Centurylink. They have a telecom line that runs in the alley east of the existing library.

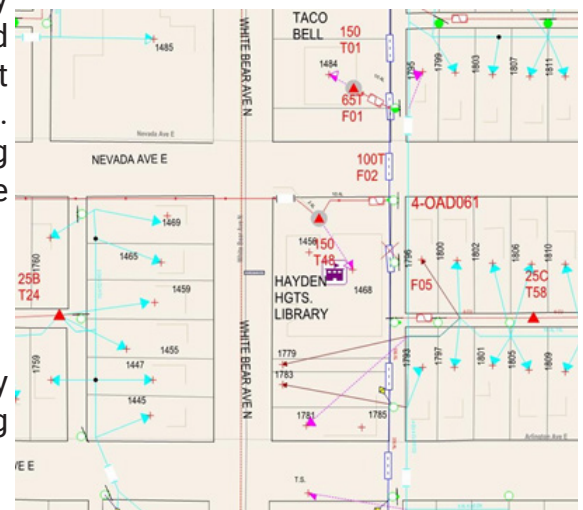
The local provider for electrical service is Xcel Energy. There are underground electrical lines on the south side of Nevada Avenue that are routed to the exterior transformer located on the west side of the staff parking lot. A 3-wire service is routed from the transformer to the building.

The local provider for gas service is Xcel Energy. There is an underground gas main in Nevada Avenue and the gas service is routed from the main to the building just west of the staff parking lot. The existing gas meter is on the north of the building adjacent to the staff parking lot. This is also consistent with the mechanical plans from the original 1977 construction drawings.

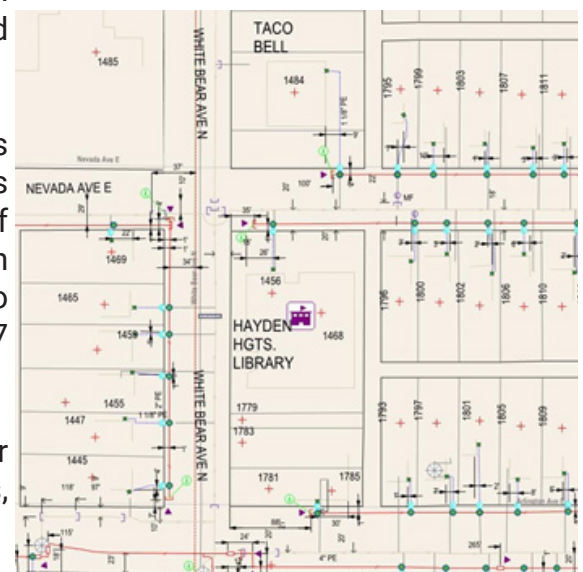
See the mechanical engineering narrative for further information regarding the adequacy of the existing gas, electric and telecommunication services.



Centurylink Asset Report



Xcel Energy Utility Records - Electric



Xcel Energy Utility Records - Gas

Grading and Drainage

A detailed topographic survey was not available at the time of the site assessment, but the landscaping and adjacent concrete sidewalk generally appear to have adequate slope away from the building. There was a notable stockpile of snow in the main parking lot which made it difficult to assess drainage on the south side of the building. Future improvements to the site should verify that all areas adjacent to the building maintain positive drainage to the alleys.

Pavement

The parking lot on the south side of the site is bituminous pavement. There is no concrete curb and gutter, and the concrete sidewalk is flush with the bituminous pavement. There are approximately 20 standard parking stalls and 1 ADA parking stall. One ADA parking stall meets current code requirements for number of ADA parking stalls. A complete pavement assessment was not performed at the time of the site review as most of the parking area was covered in snow, however it appeared that there were notable full-depth cracks in the overall bituminous parking lots. It is recommended that the parking lot receive either a crack seal and new chip coat as part of any upcoming library improvements or explore the need for a full-depth replacement.

The concrete sidewalk on the south side of the building adjacent to the bituminous parking lot had significant cracking and deterioration. This concrete sidewalk should be replaced during future building improvements.

The concrete sidewalk on the west side of the library between White Bear Avenue and the structure had several noticeable heaved panels. Future improvements should identify locations of tripping hazards and replacement needs.



Visitor Parking Lot



Staff Parking Lot



Cracked Sidewalk South of Building



Cracked Sidewalk at Southwest Corner of Building



Bituminous Pavement Cracking at Staff Parking Lot

Asakura Robinson | Landscape Architect

Hardscape

Condition: Some chips and cracks, full condition to be assessed in spring

Material: Concrete, bituminous (parking lot surface)

Size: 6 ft width sidewalks

Maintenance Type: Sidewalk and path cleared in winter months.

Site Accessibility

Parking: One (1) accessible stall available

Maintenance Type: Sidewalk clear, parking stall cleared at site visit

Brief Description: Sidewalk and path cleared in winter and edges trimmed in temperate months. Western & Rear sidewalk slope toward western alley to drain in street.

Parking

Condition: To be reviewed in spring.

Parking: 23 parking stalls and loading zone available in southern parking lot with 8 additional parking stalls in northern lot

Safety: Light pole in alley.

Maintenance Type: City responsible for clearing alleyway.

Brief Description: Parking lot alley shared with private property.

Snow is stored in south east corner of parking lot.

Views

No significant views into or out of library due to window position and lack of landscaping.

Entry

Condition: Good.

Safety: Light pole at exterior entrance; surveillance camera within interior of entrance.

Maintenance Type: De-iced and maintained during visit.

Brief Description: Book return located on the exterior for convenience when library is closed.



Sidewalk along White Bear Avenue



Sidewalk along parking lot



Parking lot



Entrance

Planting Beds

Condition: Out of season; to be assessed in spring

Species: To be assessed in spring; combination of deciduous plantings and evergreen plantings surrounding building foundation, turf grass as groundcover in restrained locations.

Maintenance Type: Trimmed

Brief Description: Woody shrubs in hedges along south parking lot and west entry. Concrete planters within turf area do not feature any planting at time of site visit.

Limited green space west of building adjacent White Bear. Sidewalk planting strip has been filled with bituminous material and is no longer a planted area.



Planting beds at southern edge of library



Trash receptacle

Site Furnishing

Trash Receptacle

Condition: Good condition; outdated style; appears to be typical trash receptacle style among all library sites within project scope.

Maintenance Type: Trash bag changed when full; no rain hood indicates receptacle may see water intrusion during precipitation events.

Recycle bin available: No

Galvanized bike rack

Condition: Galvanized steel, condition at base unknown, to be reviewed in spring upon clearing of snow. Does not appear to match bike racks at other library sites within project scope.

Capacity: 20 bicycles per rack.



Galvanized bike rack and site light pole

Lighting and Security

Safety: Security cameras have view of parking lot. Light pole in parking lot and on front street.

Signage & Wayfinding

Condition: Contemporary style; slightly leaning.

Brief Summary: Sign does not identify Hayden Height by name, simply says library. Is not lit in the evening and is not standing erect. Signage does not match other library signage in project scope.



Library sign on White Bear Avenue

Utility Systems

Brief Description: Meter located on northern side of building at staff parking lot.

Stormwater

Condition: Roof overflow scuppers identified near top of building. Primary internal roof drain function assumed to need investigation due to ice damming at overflow scuppers during visit. Roof drain at grade (ground condition) to be identified in spring.

Maintenance Type: Freezing noted.

Landcare

Maintenance:

- Mowing noted to occur twice a month in the summer by maintenance staff.
- Winter site maintenance is dependent on precipitation events and temperature fluctuations, specifically:
 - Regular de-icing of steps and paths
 - Plowing sidewalks and accessways

Brief Summary: Maintenance practices are applied in the same manner across all three sites. It is the same St. Paul Public Libraries staff personnel that maintains the grounds for all three libraries, utilizing identical equipment and storage facilities.

Irrigation

Condition: Unknown, more investigation required for system type and spring/summer performance.

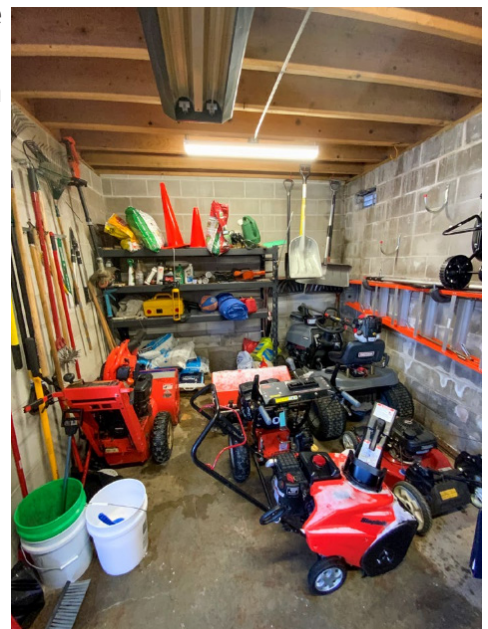
Brief Summary: Could not confirm system type or functionality with staff.



Gas meter



Alley gutter



Maintenance equipment

The intent of the exterior assessment was to document exterior finishes that are worn and require replacement and finishes that require maintenance to extend their usable life.

Masonry

Masonry is a ceramic glazed masonry units. The majority of block is in good condition, however there is a number of bricks that have cracked or faces have spalled.

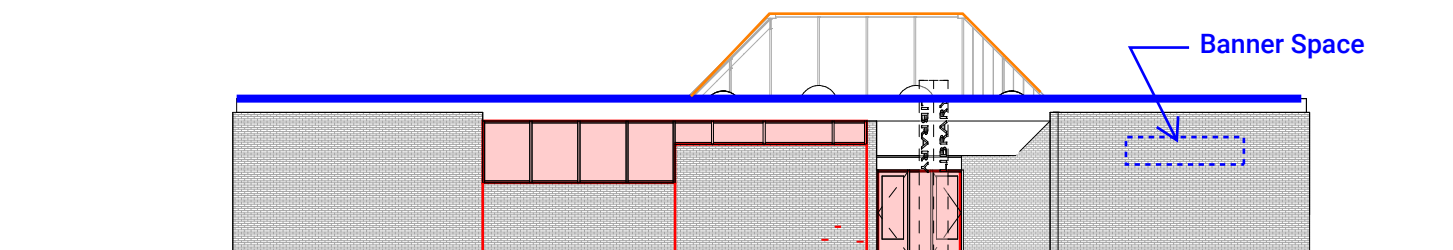
The worst condition is located near the service door due to dumpsters hitting the building.

Recommendation is to replace individual bricks that have cracked and replace nearby mortar.

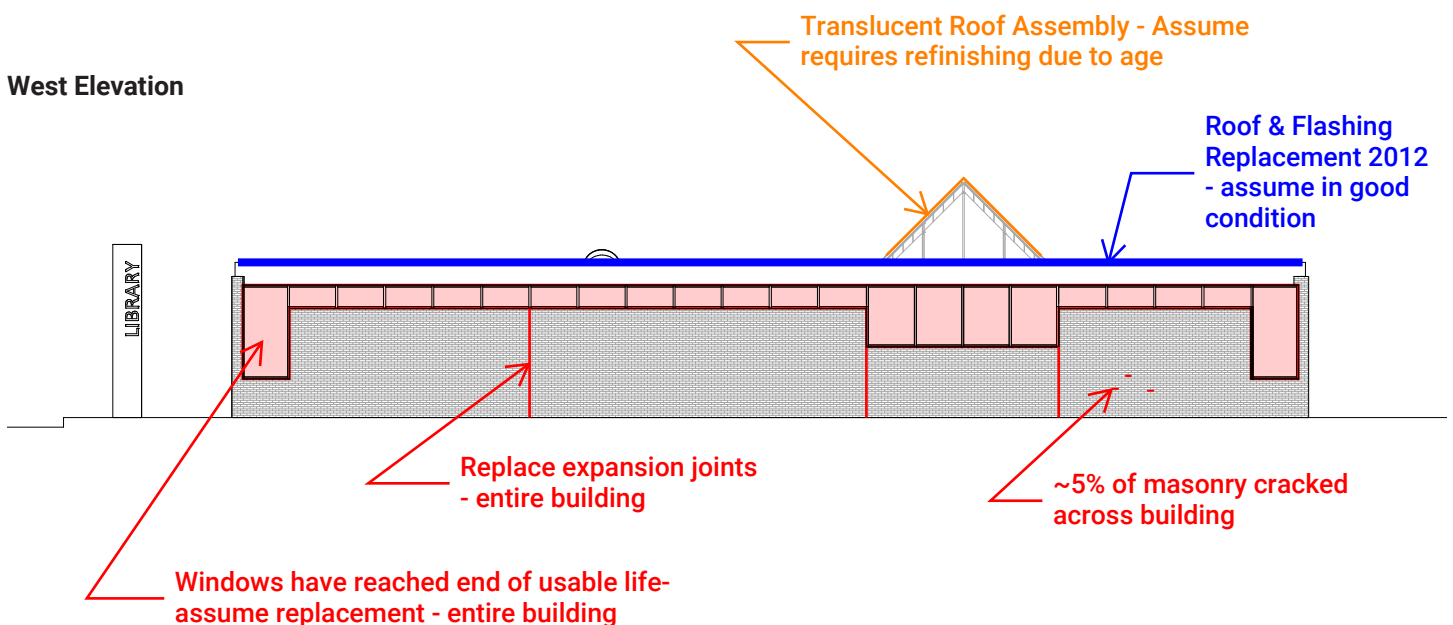
Masonry at overflows is dirty from overflow being used. Masonry should be cleaned and primary drains should be investigated.



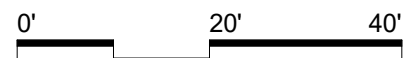
Cracked masonry at service door



West Elevation



South Elevation



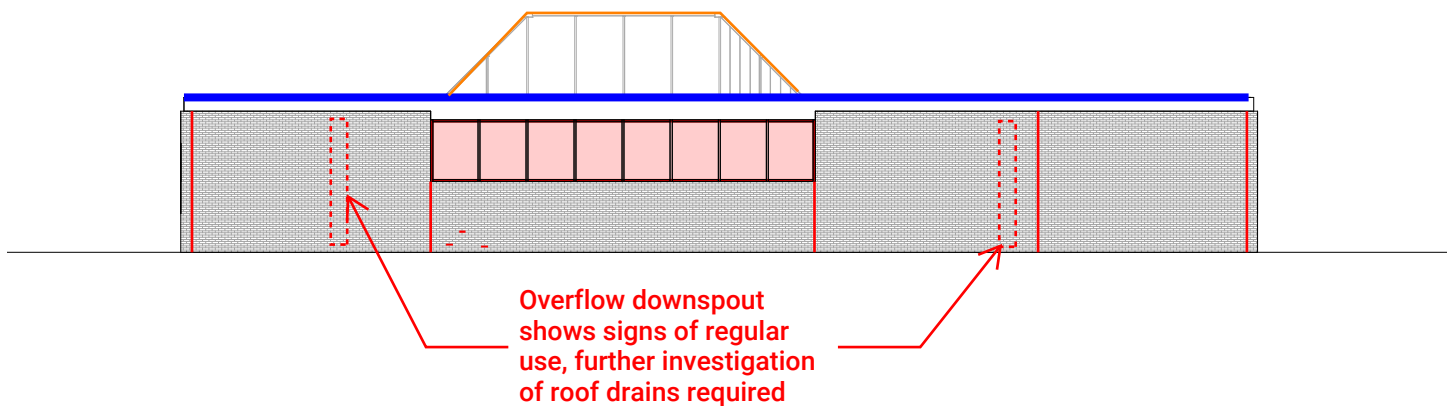
Roof

Roof was replaced in 2012 and there is not indications of water damage. As part of roof replacement additional insulation was added to improve the thermal quality of roof, likely enough to appease code at the time but appears to be less than current code.

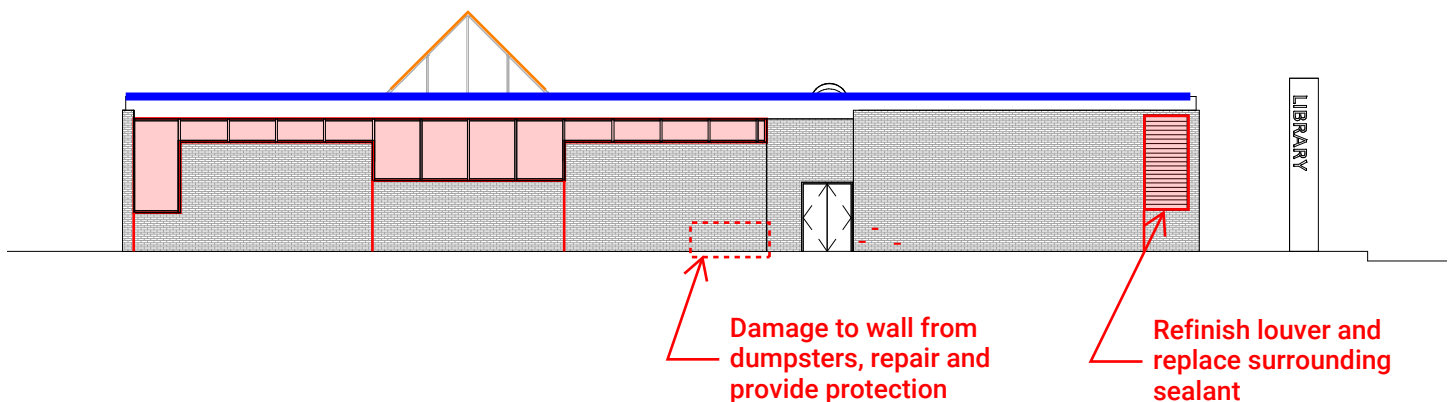
Skylight was replaced in 2012. Translucent skylights begin to yellow over time. Assume refinishing may be recommended to prevent future discoloration.

Glazing

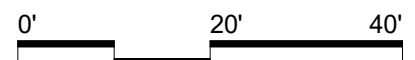
Glazing is a mixture of storefront and translucent plastic panels. All are original to the building and should be replaced.



East Elevation



North Elevation



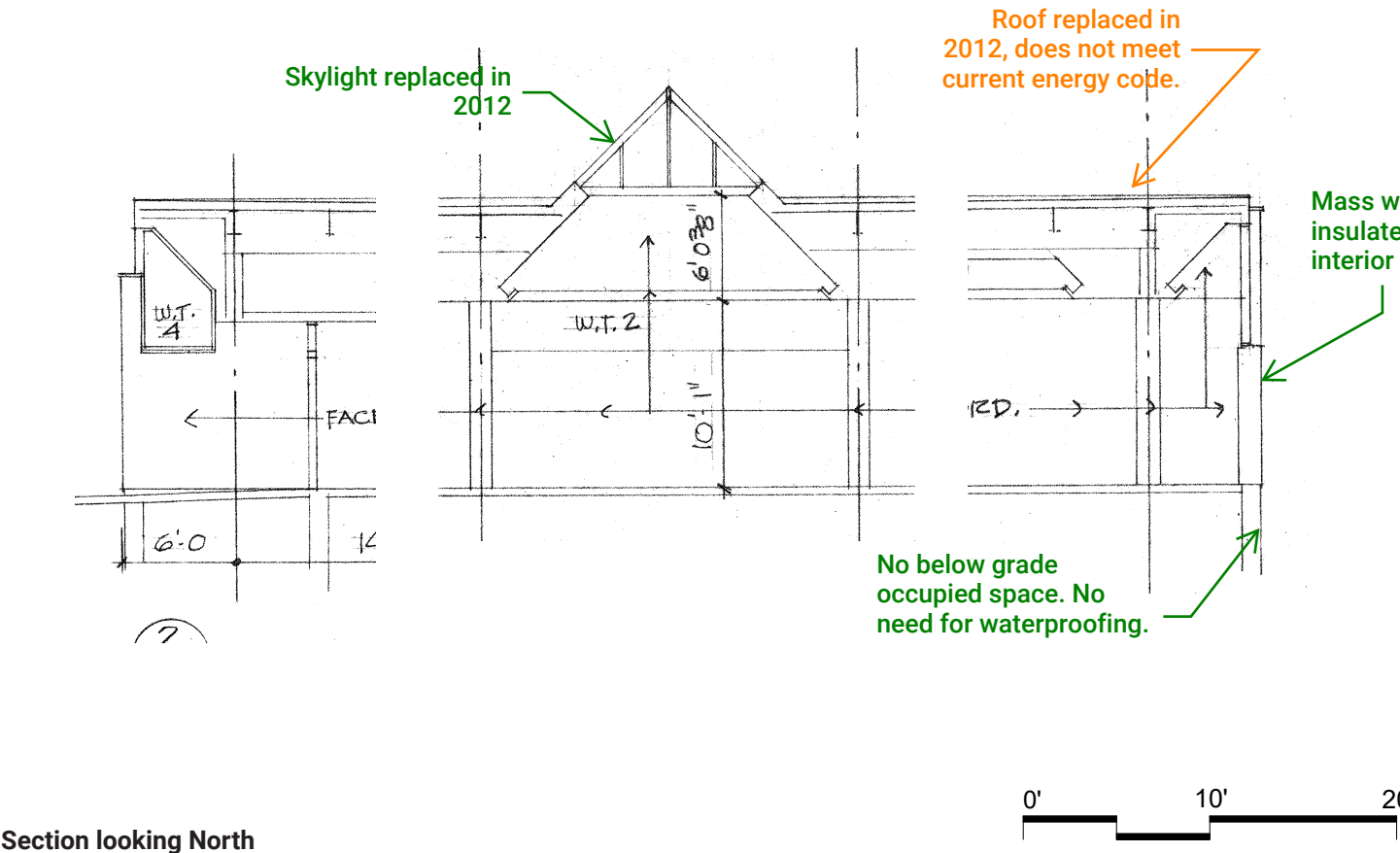
Energy

Energy efficiency of building enclosure is governed by the Minnesota Energy Code. Existing wall and roof assemblies are not required to be brought up to standard code however meeting sustainability goals with assemblies that do not meet code is more challenging.

The only insulation in the building is on the roof which was insulated to energy code at the time but no longer meets today's codes.

	Year	Assembly	Estimated R-Value	Current Code R Value
Roof	2012	2" rigid insulation plus sloped expanded insulation (Average ~3")	15	30
Exterior Wall	1977	12" Masonry (4" Face brick + 8" block), gypsum board over furred wall with 1 1/2" insulation	9 (0 CI)	13 CI
Windows	1977	Double pane windows or translucent panel in aluminum frame	-	3
Foundation	1977	12" Cast in place Concrete with 1.5 insulation	2.5	7.5 CI

CI: Continuous Insulation



Section looking North

The intent of the interior assessment was to document interior finishes that are worn and require replacement and finishes that require maintenance to extend their usable life.

Flooring

Flooring throughout is worn. The main library level is carpet has exceeded its expected life and should be replaced throughout. Tile in vestibule, entry, and around service desk is worn and should be replaced. Existing tile is inset in recessed slab that may be infilled as most modern replacement flooring options would not require same inset.

Doors

Most doors panels are original and have reached end of usable life. Recommend replacement of door panels and hardware.



Flooring wear



Main Reading Room

Walls and Ceilings

Walls in reading rooms are largely covered by shelving and have low signs of abuse, however walls with gypsum board finish has pulled away from masonry.

Ceiling is dated, and to add sprinklers or adjust mechanical some or all of the ceiling will have to be demolished.

Furniture

Furniture throughout is dated and worn. Service desk is not accessible and shows wear and should be replaced.

Shelving is modular and similar to what replacement would be specified now. Shelving is orange which, depending on direction of project, may be an opportunity for a design feature. Surrounds are plastic laminate which has shown wear and are dated but could be replaced without replacing the shelving. Media shelving is worn and should be replaced.

Interactive artwork in children's area should be preserved.

Toilets

Toilet finishes are worn and beyond usable life. Staff toilets are not accessible. Toilets should receive complete replacement.



Interactive artwork in children's area



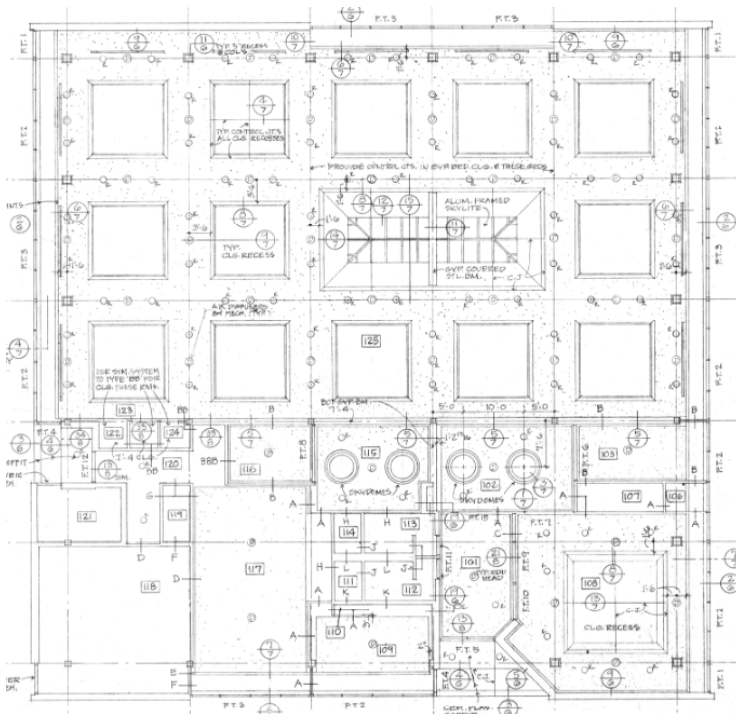
Existing shelving



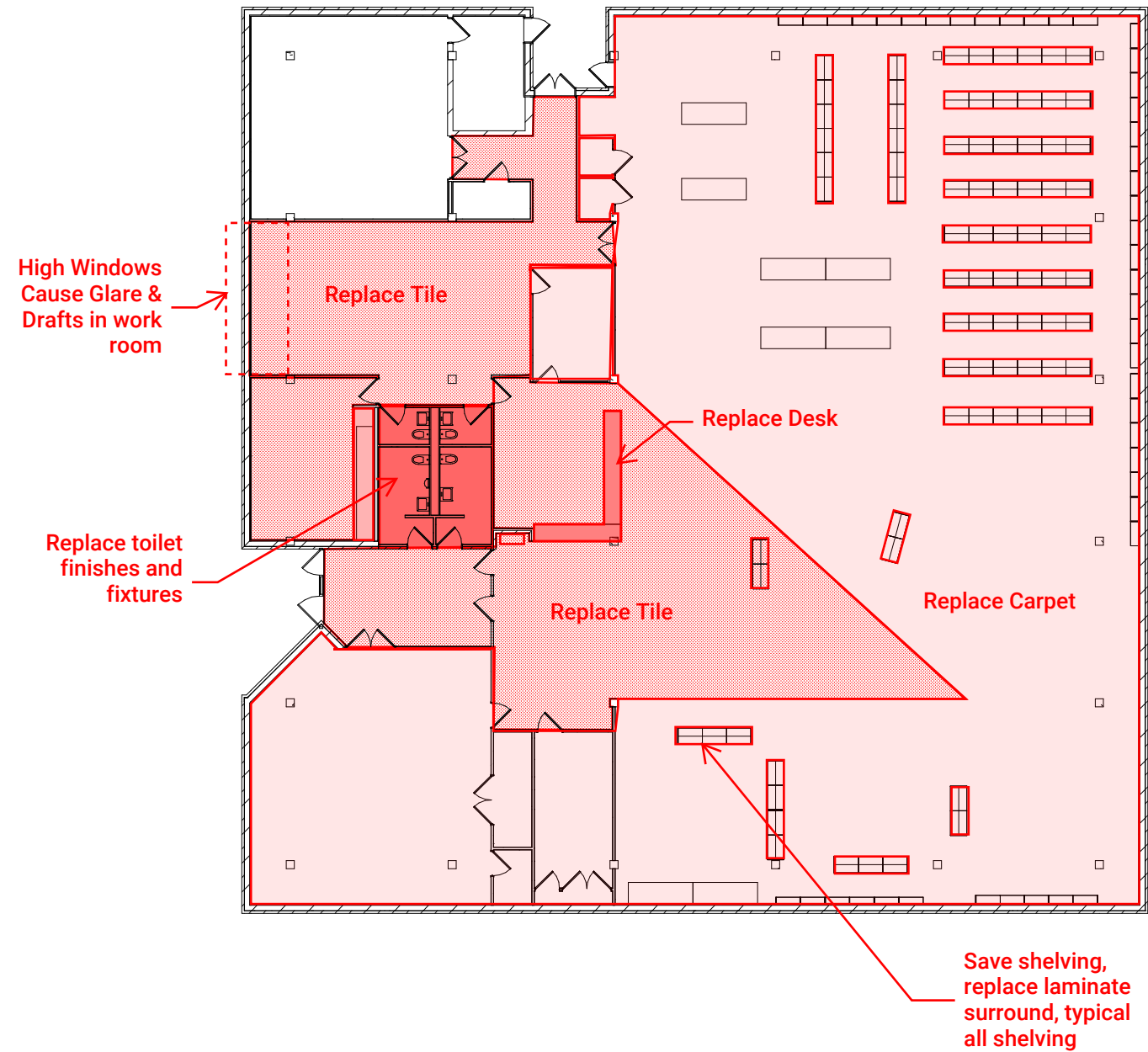
Existing Media shelving



Toilet Finishes



Reflected Ceiling Plan



IMEG Engineers, Structural Engineers

Existing Building Information

The original building drawings are dated 1977. The roof framing is steel deck and joists supported on steel beams. The roof beams are supported on interior 10" x 10" concrete columns. The exterior walls are masonry walls. At the ribbon window locations there are steel columns embedded in the masonry wall that extend up to support the roof structure.

Limited Visual Structural Observation

IMEG performed a limited cursory visual observation on January 18, 2022. The observation was limited to a visual review, no finishes were removed, and no destructive demolition was performed to observe the structural frame

Interior Observation

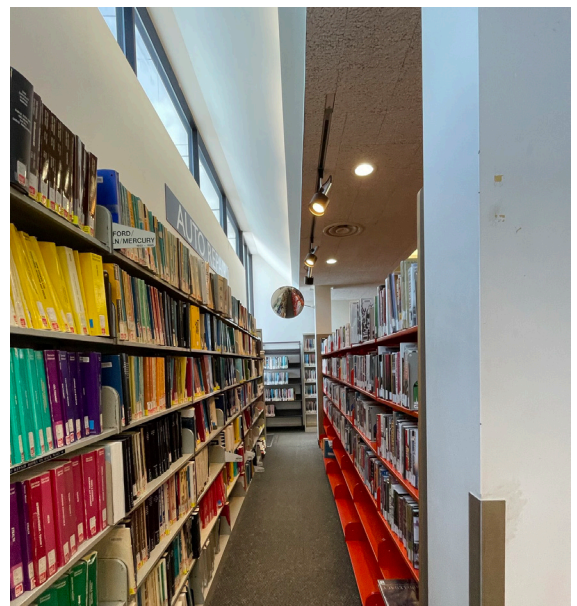
There were some minor cracks in the gypboard ceiling in the skylight area. The cracks are small and limited in an isolated area. In our opinion there is not a structural concern, and the cracks are due to minor deflection and temperature differential movement in the gypboard ceiling adjacent to the skylight.

A Library employee mentioned that at the high height windows, the interior gypboard wall panel was pulled away for the adjacent full height wall panel. Upon our observation, the wall panel appears to be non-structural. It appears the bookshelves have pulled the partial height panel away from the structural masonry wall behind the panel. If desired, the panel can be reattached to the masonry wall.

Exterior Observation

The exterior review of the building was limited due to the snow cover at the base of the wall at most of the building. The remainder of the exterior brick appeared to be in good condition. We did note some minor cracking at the location between the full height and the wall below windows, but the cracking was limited and therefore appear to be temperature and shrinkage cracks at a location which is typically susceptible to cracking.

Based on our limited observation it is our opinion the building appears to be in good condition with no visible structural concerns.



KFI Engineers, Mechanical, Electrical, and Plumbing Engineers

Building HVAC Systems

The building ventilation was constructed in 1978. Air is supplied to the occupied spaces as follows:

- One air handling unit (AHU) provides mixed air throughout the building. It is controlled through multizone dampers, with a hot / cold deck. See Figure 1. This unit also has onboard needlepoint bipolar ionization.
- The AHU utilizes MERV 13 filters.



Figure 1: AHU - Multizone Dampers

The building is currently heated by two (2) 399MBH input high efficiency condensing boilers, installed in 2020. The plant operates as primary-secondary system. See Figure 2.

- Boilers are wall hung type and supply 180°F hydronic hot water. The boilers reduce supply temperature based on an outdoor air reset.
- The boiler vent stacks are showing signs of discoloration. The venting utilizes schedule 40 PVC, which has a maximum operating temperature of 140°F. It is recommended to replace the venting with schedule 80 CPVC or stainless steel.
- The piping serves the air handling unit, cabinet unit heaters within the vestibule, and unit heaters.



Figure 2: Boilers

The building is conditioned with a refrigerant condensing unit, and refrigerant coil within the AHU. The unit is located on the north side of the building, in an enclosure. The unit has approximately 20 tons capacity.

Restrooms are exhausted through exhaust fans. The exhaust systems are inadequate based on code, and number of units.

The building automation system (BAS) has been upgraded from pneumatic to digital controls. Controls are proprietary by Johnson Controls. Refer to Figure 3.

Building Plumbing Systems

The building is connected to city sewer and water. Storm water routed through primary drains to grade, and overflow downspouts to grade.

Domestic piping throughout the building is mostly galvanized, and in need of replacement.

Plumbing fixtures:

- One (1) non-ADA compliant water cooler is located on the upper

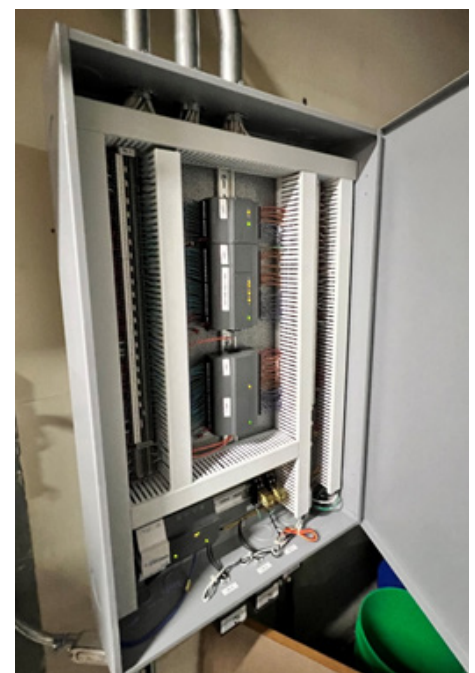


Figure 3: Building Automation System

level.

- Restroom fixtures are in good condition. See Figure 4. Water closets are wall mounted, flush valve type.

Natural gas is supplied to the building, to the boilers and domestic water heater.

Domestic water is heated by a residential type natural gas water heater.



Figure 4: Restroom Fixtures

Building Fire Protection System

The building does not utilize a wet fire suppression system.

Building Power Distribution System

The building is served by a 120/208-volt, 3 phase, 4 wire, 600-amp service.

The building electrical service originates from utility pad mount transformer at the north side of the building.

- The power company meter is located in the building mechanical room at the southeast corner of the building.

A 600-amp main service disconnect switch with 500-amp fuses is located adjacent to the meter. See Figure 5.

- This disconnect is labeled "MAIN SW". However, it does not appear to be service entrance rated.
- The disconnect switch feeds a main distribution panel that includes a branch circuit section and breakers that feed the HVAC equipment and two (2) branch circuit panels.



Figure 5: Main Disconnect

Two (2) 225-amp, 42 circuit, recessed branch circuit panelboards are located at the end of the corridor to the mechanical room. See Figure 6.

- The panelboards appear to be in good condition.

Building Lighting

Lighting in the main library is mainly provided via a combination of square architectural coves with fluorescent strip lights and incandescent downlights. It is not known whether the fluorescent lamps and incandescent lamps have been replaced with LED lamps. See Figure 7. Some pendant fixtures and track fixtures are also located in the main library.

- The fixtures appear to be in good condition.



Figure 6: Electrical Panels

Lighting throughout the remainder of the building consists of several different types of fixtures, surface wraparounds, recessed fluorescent fixtures and downlights. It is unknown if LED retrofit lamps have been installed in some of these fixtures.

Lighting in the main library is controlled by relays located in a junction box above the panels. It is assumed the lighting relays are controlled on a time of day basis.

Lighting controls in other spaces consist of switches and occupancy sensors. The energy code will require new lighting controls including occupancy control, dimming, and daylighting controls.

Exterior lighting consists of recessed downlights at the main entrance and at the back door. Some wall packs are mounted to the building to provide parking and alley lighting.

The front sidewalk of the library is illuminated by several shoebox fixtures mounted to very short poles. See Figure 8.

Fire Alarm Systems

- The building fire alarm system is a Silent Knight model 5700 addressable fire alarm system.
- The system includes smoke detectors in all spaces, manual pull stations at the exits, an annunciator at the front entrance, and horn strobe annunciation units in all public spaces. The system appears to be in good condition. See Figure 9.

Technology Systems

Telecommunications

- A data rack is located in the office work room. The cabinet was locked.
- Voice/data jacks throughout the building are surface mounted and connected with surface wireway.
- The voice/data jacks appeared to be in fair condition.
- Voice PABX is a Panasonic TVA50 system.
- Voice/data cabling is mostly Category 5/5e cabling.
- Wireless LAN coverage (WLAN) should be looked at for proper coverage, as it does not appear to be adequate.

Security

Access Control

- The building has a Keyscan Access Control System.
- A card reader controls access to the back-south entrance. This



Figure 7: Main Library Lighting



Figure 8: Short Shoebox Fixture



Figure 9: Fire Alarm Control Panel

was the only card reader observed.

- Card Reader is HID.
- A doorbell is located at this entrance.

Intrusion Detection

- Motion sensors were observed in main rooms and corridors.

Video Surveillance

- Cameras are installed at several locations throughout the building. Exterior building mounted cameras are located on the north front corner of the building, at the parking lot and at the back entrance.
 1. These are monitored by the staff at computer stations.
 2. System is a Panasonic TDA50 series system Hybrid IP-PBX (KX-TDA50)

Audio/Video

Overhead paging system does not have adequate coverage for the space and should be replaced (if existing) or utilize fire alarm for supervised mass notification voice.

- Projection screen is in rough shape and not proper tensioning.
- Very little audio-video equipment was existing in spaces including in conference rooms. This will need to be added in a renovation for technology functionality expected by the public.



Figure 10: Voice PABX



Figure 11: Voice Cabling Punch Down and Patching



Figure 12: Data Cabinet



Figure 13: Access Control System

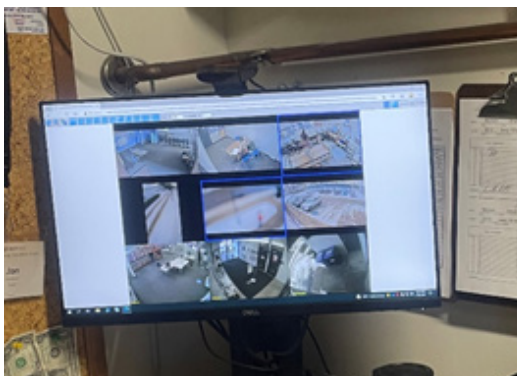


Figure 14: Video Surveillance Display

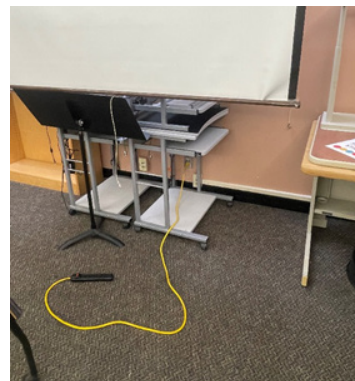


Figure 15: Damaged Projection Screen and Cabling Access

Kvernstoen, Rönholm & Associates | Acoustic Consultant

Room Acoustics

Existing room acoustical materials and characteristics are as follows:

- Gypsum board walls in the collections, children's, and teen areas
- Gypsum board ceiling in the above areas with approximately NRC 0.55 rated acoustical ceiling tile glued to the lower ceiling areas between coffers. When direct attached acoustical ceiling tile is significantly less sound absorptive than with air space above. Estimated performance of the glued on tile is approximately NRC 0.2.
- Hard ceiling surfaces amplify conversational noise and reflect sound between different library areas.
- Carpeted floor in the collections, children's, and teen areas
- Book shelves provide sound absorption in the above areas
- Children's area has artwork on the wall that includes sound absorptive and diffusive materials. Because of the small square footage of the material this provides minimal acoustical benefit.
- Community Room has similar ceiling treatment to the main space and carpeted floor.

Current Reverberation Times in the Community Room are shown in Table 1 below:

Table 1: Community Room RT's

125	250 Hz	500 Hz	1k Hz	4k Hz
0.8 Seconds	1.2 Seconds	0.9 Seconds	0.6 Seconds	0.5 Seconds

These RT's are higher than recommended for the size and use of the space.

Mechanical Noise Control

Current measured Ambient Noise Levels were as follows:

Main Library Space	47.2 dBA
Community room	38.3 dBA

The current ANLs are higher than industry standards for library ambient noise levels, but the primary noise source for the main library space was the air purifier that is a temporary solution. The Community Room ANL was slightly higher than recommended, but close to the recommended range.

For reference, the ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers) design guideline for HVAC-related background noise level in libraries is NC 30 (35 dBA).

MN B3 does not have specific recommendation for library background noise levels, but the general guideline is NC 40 (45 dBA). See discussion regarding the Community Room below.

3. Community Room Acoustics

For state funded projects MN B3 and Minnesota Statute §16C.054 require adequate acoustic conditions of gathering spaces and accommodation for hard-of-hearing for all spaces which accommodate

and are intended for gatherings of 15 or more people, and where audible communications is integral to the use of the space:

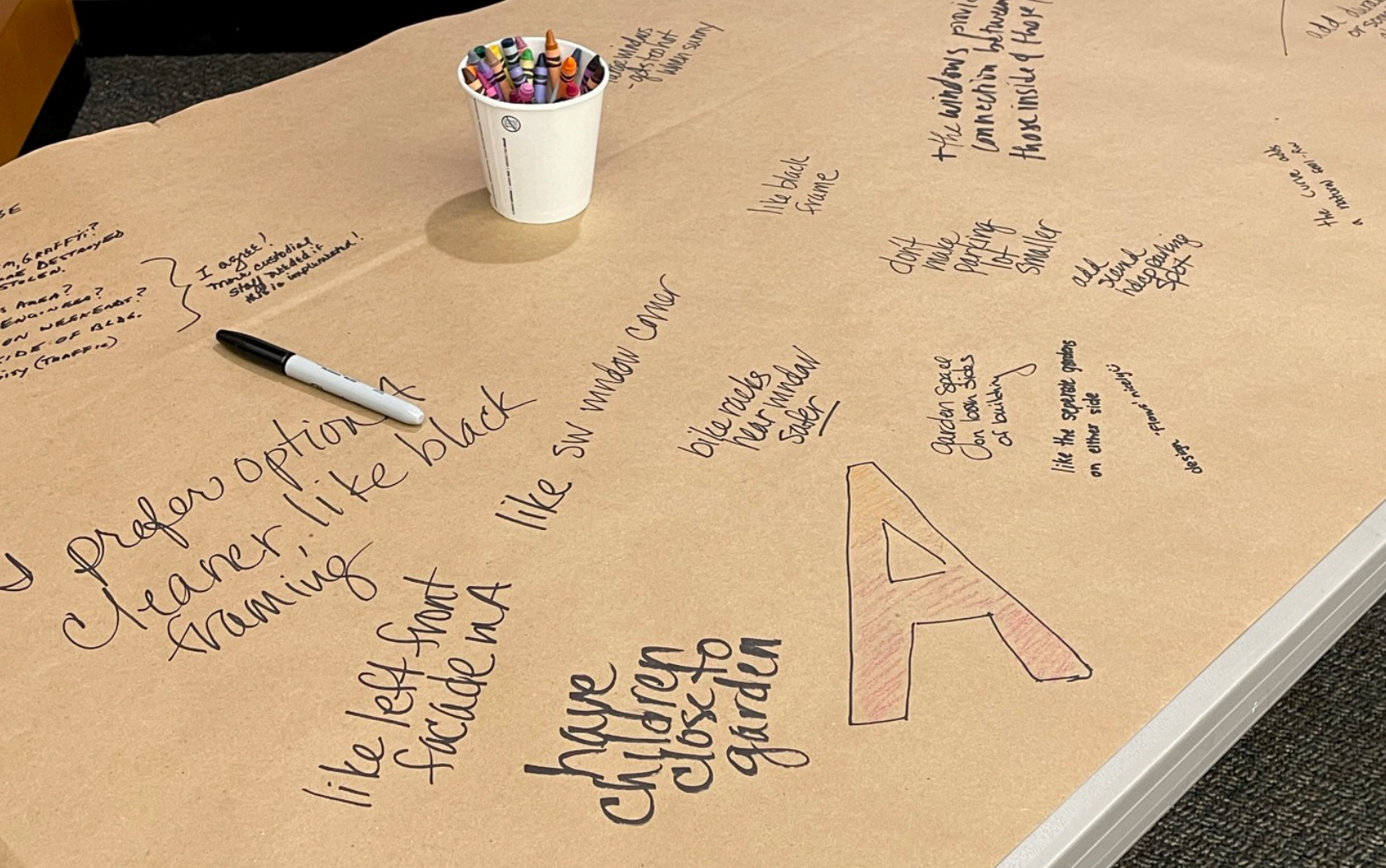
1. Include audio-induction loops to provide an electromagnetic signal for hearing aids and cochlear implants if a permanent audio amplification system is present in the space.
2. The space must meet the American National Standards Institute Acoustical Performance Criteria, Design Requirements and Guidelines for Schools for:
 - i. Maximum background
 - ii. Reverberation times

For this size assembly space the maximum background noise level requirement is 35 dBA (NC 30) and RT requirement is 0.7 seconds @ 500, 1k, and 2k Hz.



Community Room





PROCESS & TIMELINE

Hayden Heights Library
Saint Paul Public Library

LSE and SPPL undertook a robust and multifaceted public engagement process that took into account over one thousand voices from across Saint Paul. This in addition to SPPL's multi-year engagement process.

Project Ambassadors were invited to informational meetings where information on progress was shared to local stakeholders and the general public was invited to a series of open houses. One that covered general information pertaining to all projects and two specific to each library.

LSE utilized the IIAP2 spectrum to lead meetings with each group on a consistent location on the spectrum through the process. Both Project Ambassador and Open House meetings fell on the Involve spectrum that ensures feedback is reflected in final decisions but does not ultimately leave decision making into the hands of attendees. This was shared with attendees in the first open house.

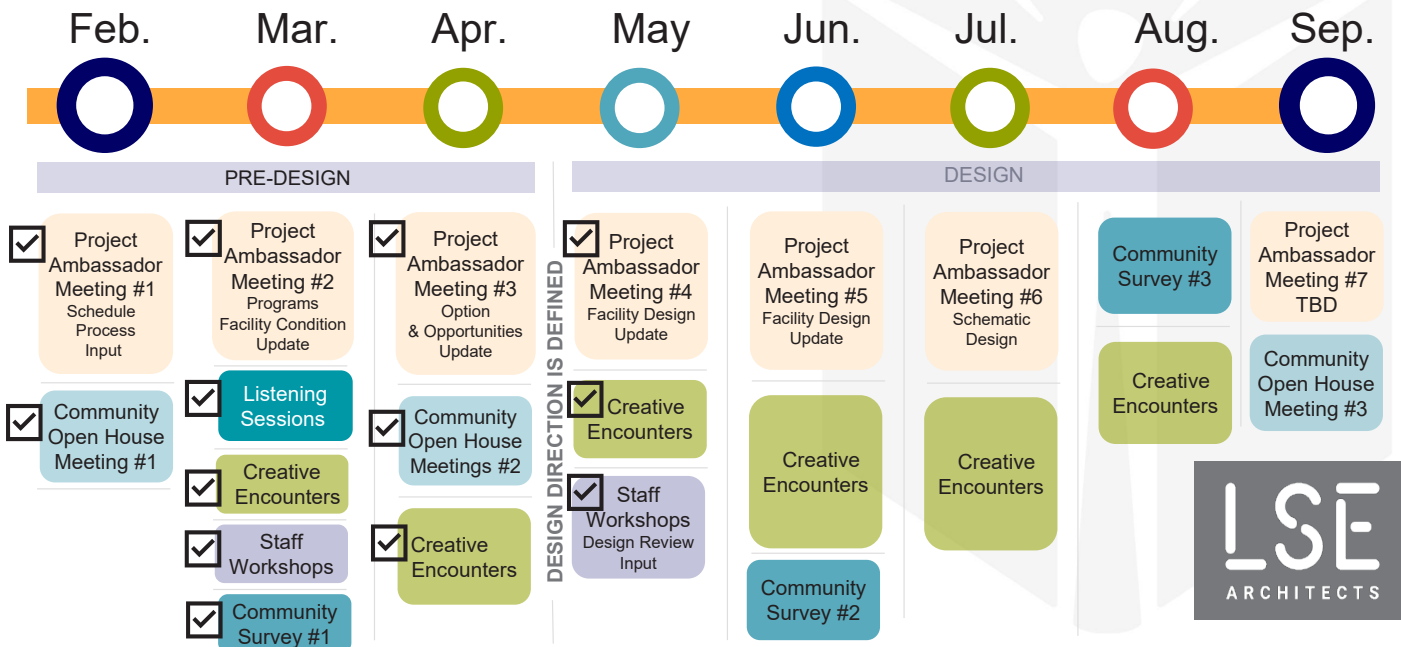
Further, surveys shared online and in pop-up events were distributed to the community.

	INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
PUBLIC PARTICIPATION GOAL	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives and/or solutions.	To obtain public feedback on analysis, alternatives and/or decision.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision-making in the hands of the public.
PROMISE TO THE PUBLIC	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.



IAP2 Spectrum as shared in Open House #1 (2.24.22)

Community Engagement Timeline



Open Houses - IAP2 Level Involve

Series of 3-4 progressive meetings

- Open House #1, Virtual, February 24 6:30 PM
- Open House #2, In Person, April 22, 11:30-1:30 PM
- Open House #3 - In Schematic Design
- Open House #4 - In Design Development if Required

Listening Sessions

In-person listening sessions at each library

- Listening Session: In person, March 16, 4-6 PM

Community Surveys - IAP2 Level Involve

Series of progressive surveys

Library Design Project Ambassador Meetings - IAP2 Level Involve | Collaborate

Comprised of invited neighborhood groups, associations and youth leadership teens

Project Ambassador Meetings

- Project Ambassador Meeting #1, Virtual, February 8, 4 PM
- Project Ambassador Meeting #2, Virtual, March 8, 4 PM
- Project Ambassador Meeting #3, Virtual, March 30, 4 PM
- Project Ambassador Meeting #4, Virtual, April 26, 4 PM

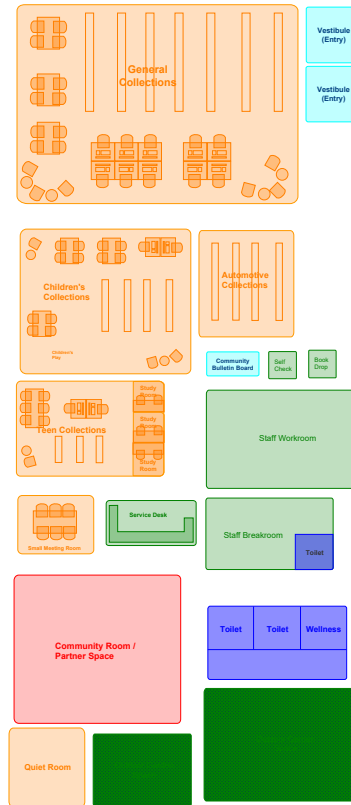
Artist Advisory Cohort | Creative Encounters - IAP2 Level Collaborate

Co Facilitators of Engagement, lead ideation on engagement sessions and create creative encounters within the community

Ongoing

Library Staff Input – IAP2 Level Collaborate

Ongoing



Make Your Hayden Heights Library

The accompanying pieces, when placed on the site plan, are about the size of a library that matches the collections, visitors, and checkouts of Hayden Heights Library. Cut out the pieces and start to imagine what your library can be!

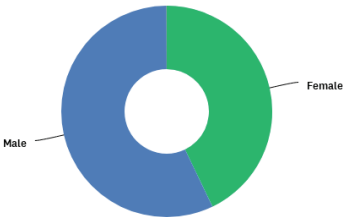
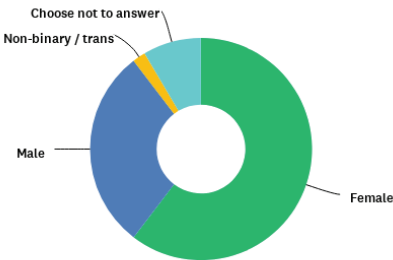
Cut this out and return with your completed library

What is the most important thing you want us to know about the library?

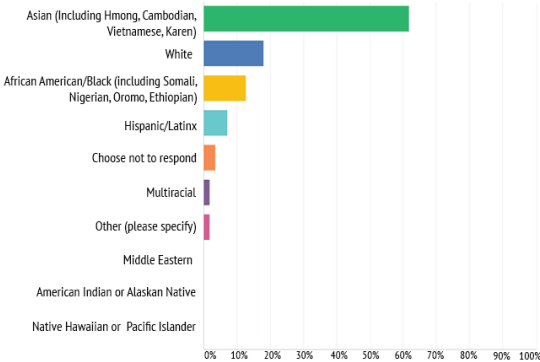
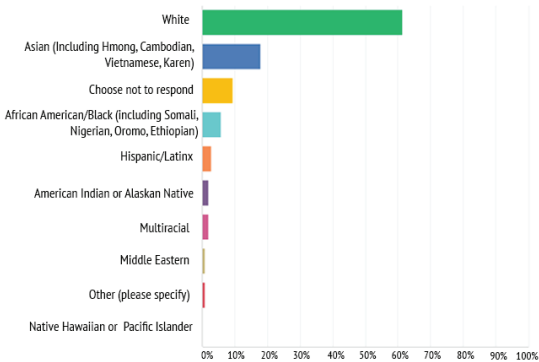
Survey was held in March 2022 and elicited over 1000 responses with 184 specific to Hayden Heights library.



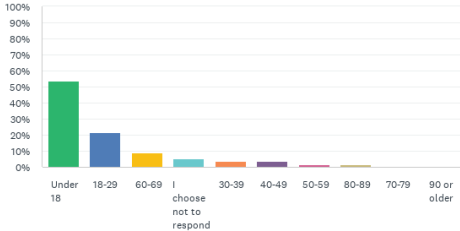
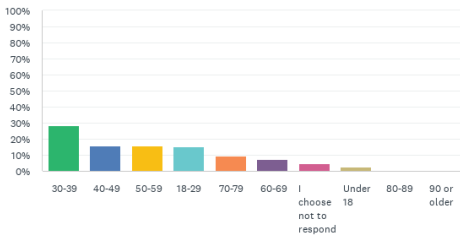
Gender Identity



Race/ Ethnicity



Age



WE ASKED: What library features are most important to meeting the needs of the community?

WE HEARD:

**all
respondents**

- A space that reflects the cultures in my community
- Sustainable and environmentally friendly libraries
- Increased access to books, music and movies
- Adding community meeting/program spaces and study rooms.

**BIPOC
respondents**

- A space that reflects the cultures in my community
- Improved technology

**respondents
under age 18**

- Increased access to books, music, and movies
- Sustainable and environmentally-friendly libraries
- Separation of quiet and loud spaces
- Improved accessibility

WE ASKED: How do you feel about adding green space for reading, relaxing, working, or programming?

WE HEARD:

Across respondents, there is **strong community interest** in adding green space.

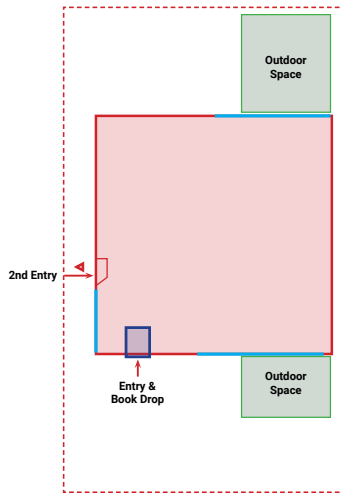
WE ASKED: How do you feel about the Automotive Special Collection at Hayden Heights?

WE HEARD:

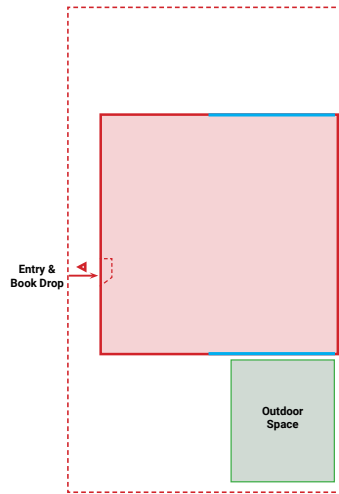
While most respondents had no opinion on the automotive collection at Hayden Heights, **28% said they like having it at the library.**

Of BIPOC respondents, 33% said they like having it at the library.

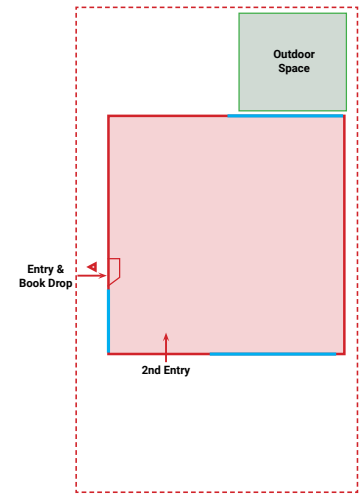
1. Split outdoor space adjacent to multiple program areas



2. Outdoor space with connection to parking lot



3. Outdoor space on North side of site only



Local Precedent 1
Book Drop Signage



Highland Park Library, Saint Paul
LSE Architects

Local Precedent 2
Front Porch



Webber Park Library, Minneapolis
LSE Architects

Local Precedent 3
Plaza



Osboro Library, Bloomington
LSE Architects

Local Precedent 4
Reading Garden



Sun Ray Library, Saint Paul
LSE Architects

CONCEPT DEVELOPMENT

Hayden Heights Library Saint Paul Public Library

Option A

Visibility along White Bear Avenue is enhanced in both options with expanded windows and framed views into the library. The approach on option A breaks the rigid geometry with organic forms and movement that lead to connections to the new outdoor program spaces. Both the Children's and Teen spaces, extend out to an enclosed outdoor space. Key to this option is a central Community room, which doubles as a Storytime room and expands the library with an operable wall.

Option B

Option B maintains the original geometry. The flex Partner space is located near the front door. As an Option the Community room is located in the North adjacent to the existing staff parking lot and had an opportunity for an exterior entrance for extended use. Outdoor program spaces are located adjacent to the Children's area and as an extension to the Community Room. In this option, the Teen space occupies the corner view to White Bear Ave.

SPPL Libraries		Hayden Heights - Goal Program			
		Quantity	Size	Subtotal	Total Notes
0	Circulation				650
	Vestibule	1	150	150	
	Lobby	1	500	500	
	Corridor	-	-	-	
1	Administration				2,005
	Staff Workroom	1	1,200	1,200	
	Staff Office	1	130	130	
	Breakroom	1	300	300	
	Service Desk	1	250	250	
	Book Drop	1	25	25	
	Self Check	2	50	100	
2	Collections				5,245
Adult				-	
	Collections	1	1,400	1,400	Includes Auto
	Tech	1	850	850	
	Seating	1	1,000	1,000	
Children					
	Collections	1	400	400	
	Play	1	300	300	
	Tech	1	175	175	
	Seating	1	300	300	
Teen				-	
	Collections	1	220	220	
	Maker / Seating	1	350	350	
	Tech	1	250	250	
3	Community & Breakout Spaces				1,160
	Community Room	1	1,000	1,000	
	Study Room	2	80	160	
4	Toilets / Mothers Rooms / Quiet Rooms				310
Toilets					
	Public Single User Toilet	2	85	170	
	Staff Toilet	1	80	80	
	Wellness Room	1	60	60	
5	Partner Spaces				400
	Partner Space	1	400	400	
6	Services / Storage				1,010
	Outdoor Storage	1	125	125	
	Mechanical	1	620	620	
	Boiler	1	130	130	
	Hallway / Receiving	1	135	135	
	Sub Total			10,780	Net Square Feet
	Gross Factor		15%	1,622	Walls, Partitions, Circulation
	Building Total Area			12,402	Gross Square Feet
7	Exterior				0.69 Acres
	Book Drop	0			Near main entrance
	Parking Lot	2			Approximately 25 stalls, 2 Accessible
	Mechanical Enclosure	-			



CONCEPT A

Hayden Heights Library Saint Paul Public Library

Based on Surveys, more than 90% of all respondents support the idea of developing outdoor library program space. Option A shows the opportunity for two separate outdoor spaces. One is located adjacent to, and accessed through, the Children's area to support use for story time, play and learn, and maker activities. The second is located adjacent to the Teen area but accessible for all library users, providing an acoustically separated space.

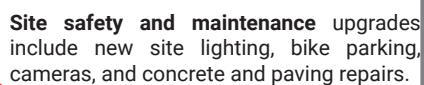
The community room is shown in the center of the library, with operable walls that open into both the Children's and the Teen areas. This flexibility allows the community room to be utilized throughout the day for programs such as storytime, guest author readings, large group meetings, educational programs and more. When it is not reserved, the operable wall could remain open for library patrons to utilize for quiet reading or focused work. Added community and meeting space was the top request we heard during engagement.

In support of Libraries as Resilience Centers, a flex/partner space has been included. Needs for flexible and potential partner space can be met by providing access to a classroom/large group meeting space, technology, sinks, small consultation rooms, and a potential private or transaction type space.

Added and expanded windows which improve the visibility of the library, create a more comfortable and welcoming environment, and contribute to the overall safety of the site. This option suggest a seating and work area be located at the new expansive corner window.

A parking spot is indicated outside of an area that the automotive collection may be located within the library. This adjacently allows for additional automotive related programs to be supported at this site. For respondents aware of the Saint Paul Public Library Automotive Collection, it is an appreciated and valued resource.

Pre-Design Report for Hayden Heights Library | LSE Architects

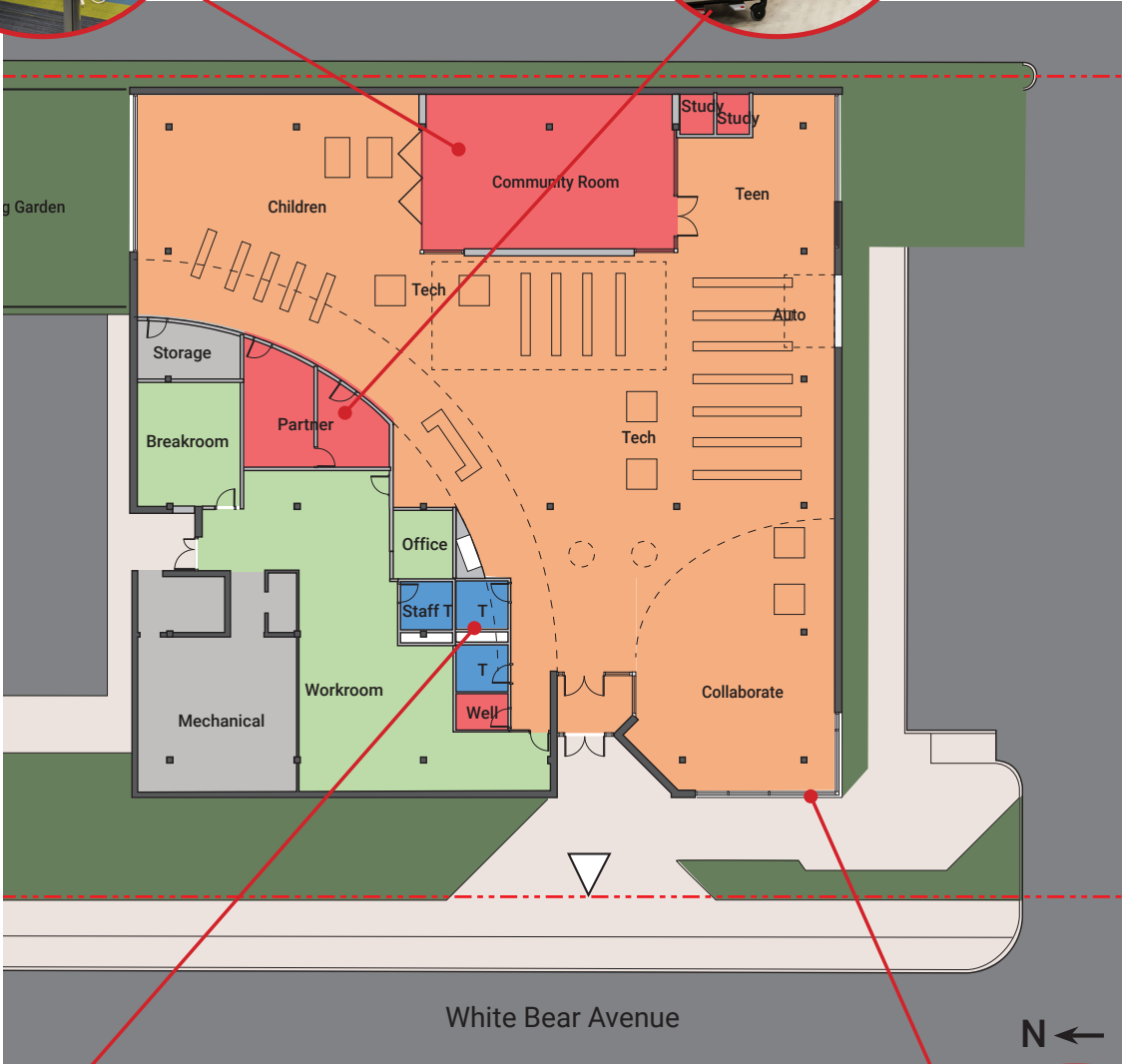




Technology-rich community room is shown centrally located for greater flexibility to support storytime, teen usage, and large group gatherings.



Based on survey responses and community need for **Libraries as Resilience Centers**, a flexible partner space has been incorporated into the plan. Potentially a clinic, social worker, and workforce development.



Equity and safety are improved with new single user gender-inclusive and accessible restrooms, relocated to improve sightlines for library staff.



New and **expanded windows** adds interest and improve security to White Bear Avenue, while creating opportunities to connect unique library features like the auto collection to the site.

SPPL Libraries		Hayden Heights - Option A			
		Quantity	Size	Subtotal	Total
0 Circulation					1,040
	Vestibule	1	150	150	
	Lobby	1	515	515	
	Corridor	1	375	375	
1 Administration					2,125
	Staff Workroom	1	1,285	1,285	
	Staff Office	1	135	135	
	Breakroom	1	320	320	
	Service Desk	1	260	260	
	Book Drop	1	25	25	
	Self Check	2	50	100	
2 Collections					5,665
Adult					
	Collections	1	1,480	1,480	Includes Auto
	Tech	1	910	910	
	Seating	1	1,085	1,085	
Children					
	Collections	1	400	400	
	Play	1	360	360	
	Tech	1	175	175	
	Seating	1	380	380	
Teen					
	Collections	1	250	250	
	Maker / Seating	1	375	375	
	Tech	1	250	250	
3 Community & Breakout Spaces					1,260
	Community Room	1	1,100	1,100	
	Study Room	2	80	160	
4 Toilets / Mothers Rooms / Quiet Rooms					310
Toilets					
	Public Single User Toilet	2	85	170	
	Staff Toilet	1	80	80	
	Wellness Room	1	60	60	
5 Partner Spaces					400
	Partner Space	1	400	400	
6 Services / Storage					1,010
	Outdoor Storage	1	125	125	
	Mechanical	1	620	620	
	Boiler	1	130	130	
	Hallway / Receiving	1	135	135	
Sub Total				11,810	Net Square Feet
Gross Factor				5%	592 Walls & Partitions
Building Total Area				12,402	Gross Square Feet
7 Exterior				0.69 Acres	
	Book Drop	0			Near main entrance
	Parking Lot	2			Approximately 26 stalls, 2 Accessible
	Mechanical Enclosure	-			



CONCEPT B

Hayden Heights Library Saint Paul Public Library

Based on Surveys, more than 90% of all respondents support the idea of developing outdoor library program space. Option B shows the opportunity for two separate outdoor spaces. One is located adjacent to, and accessed through, the Children's area to support use for story time, play and learn, and maker activities. The second is located adjacent to the Community Room which has the potential of expanding event space, while also support all library users and providing an acoustically separated space for patrons.

The community room is shown in this option adjacent to an exterior wall to support the option for a connection to outdoor space and an option for after hour use should that be desired at some point in the future. When it is not reserved, the operable wall could remain open for library patrons to utilize for quiet reading or focused work. Added community and meeting space was the top request we heard during engagement.

In support of Libraries as Resilience Centers, a Flex/Partner space has been located near the front door in this option. Needs for flexible and potential partner space can be met by providing access to a classroom/large group meeting space, technology, sinks, small consultation rooms, and a potential private or transaction type space.

Added and expanded windows which improve the visibility of the library, create a more comfortable and welcoming environment, and contribute to the overall safety of the site.

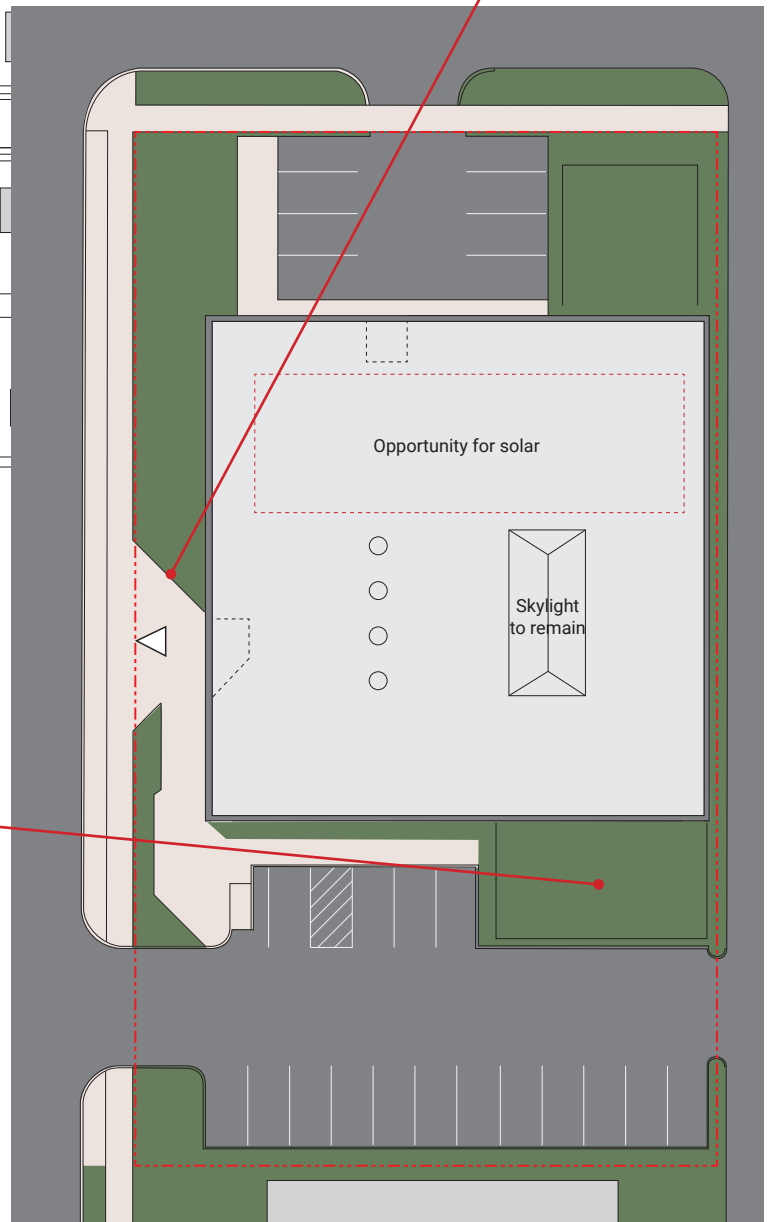
The new expansive corner window activates White Bear Avenue with views into a new Teen Space. Youth led engagement shared a desire for a Teen space that is separated from younger kids.



Safety and maintenance upgrades include new site lighting, bike parking, cameras, and concrete and paving repairs.



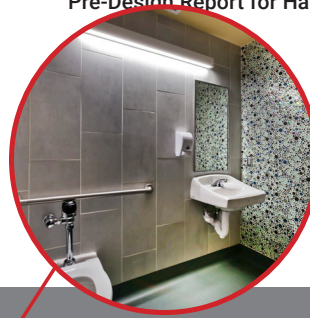
90% of those surveyed supported the idea of adding **outdoor space** to support library programming, reading, and meeting space.



Technology-rich community room is shown on the exterior of the building providing access to exterior space.



Equity and safety are improved with new single user gender-inclusive and accessible restrooms, relocated to improve sightlines for library staff.



Based on survey responses and community need for **Libraries as Resilience Centers**, a flexible partner space has been incorporated into the plan. Potentially a clinic, social worker, or workforce development.





New and **expanded windows** adds interest and improve security to White Bear Avenue, while creating opportunities to connect unique library features like the auto collection to the site.



SPPL Libraries		Hayden Heights - Option B			
		Quantity	Size	Subtotal	Total Notes
0	Circulation				1,350
	Vestibule	1	150	150	
	Lobby	1	750	750	
	Corridor	1	450	450	
1	Administration				1,955
	Staff Workroom	1	1,095	1,095	
	Staff Office	1	140	140	
	Breakroom	1	280	280	
	Service Desk	1	315	315	
	Book Drop	1	25	25	
	Self Check	2	50	100	
2	Collections				5,645
Adult				-	
	Collections	1	1,255	1,255	Includes Auto
	Tech	1	880	880	
	Seating	1	1,275	1,275	
Children					
	Collections	1	600	600	
	Play	1	300	300	
	Tech	1	180	180	
	Seating	1	275	275	
Teen					
	Collections	1	220	220	
	Maker / Seating	1	410	410	
	Tech	1	250	250	
3	Community & Breakout Spaces				1,040
	Community Room	1	880	880	
	Study Room	2	80	160	
4	Toilets / Mothers Rooms / Quiet Rooms				310
Toilets					
	Public Single User Toilet	2	85	170	
	Staff Toilet	1	80	80	
	Wellness Room	1	60	60	
5	Partner Spaces				500
	Partner Space	1	500	500	
6	Services / Storage				1,010
	Outdoor Storage	1	125	125	
	Mechanical	1	620	620	
	Boiler	1	130	130	
	Hallway / Receiving	1	135	135	
	Sub Total			11,810	Net Square Feet
	Gross Factor		5%	592	Walls & Partitions
	Building Total Area			12,402	Gross Square Feet
7	Exterior				0.69 Acres
	Book Drop	0			Near main entrance
	Parking Lot	2			Approximately 23 stalls, 2 Accessible
	Mechanical Enclosure	-			

Cost estimate produced by Eden Resources of Saint Paul. Full breakdown of assumptions in appendix.

SECTION A: CONCEPTUAL		HAYDEN HGTS	
MODEL INFORMATION		Option-A	Option-B
LSE conceptual plans, dated 4/22/2022			
Description of Scope		Ext'r, Int'r RENOVAT'N	Ext'r, Int'r REMODEL
Addition / New / or ETR		Existing 1-storey	Existing 1-storey
Exterior SOW		2 Lots, 30 stalls	New-24+s, Garden
Building Areas include:			
Main L / L1 Renovation		11,744	11,356
Lower L / LL Renovation			
RENOVATION TOTAL SF		11,744	11,356
Main L / L1 Addition		-	-
Lower L / LL Addition		-	-
ADDITION TOTAL SF		-	-
VALUE-1 / RENOVATION SF		11,744	11,356
VALUE-2 / ADDITION SF		-	-

SECTION B - CONCEPTUAL		HAYDEN HGTS		
MODEL ESTIMATE		Option-A	Option-B	
Demolition, Site/Salvage	\$	-	\$	-
Demolition, Building	\$	40,500	\$	34,500
Site Construction	\$	297,000	\$	306,000
Building Construction	\$	1,820,320	\$	1,907,808
SubTOTAL Site / Building Construction	\$	2,157,820	\$	2,248,308
Unit \$ / SF	\$	183.74	\$	197.98
SubTOTAL Site / Building Construction	\$	2,157,820	\$	2,248,308
Contractor, Fee/OHP	\$	141,337	\$	147,264
SubTOTAL Construction	\$	2,299,157	\$	2,395,572
Contingency (+10%)	\$	229,916	\$	239,557
Owner FF&E	\$	452,000	\$	452,000
Owner FF&E-2	\$	48,000	\$	48,000
Escalation (+5%)		considered		considered
Location Factor (0-5%)		considered		considered
Gross Up Factor (optional, excl.)		none - N/R		none - N/R
A/E Professional Fee's, Testing		excluded		excluded
Project TOTAL - Conceptual ESTIMATE, 2023	\$	3,029,073	\$	3,135,129
Project \$, Unit \$ / SF	\$	257.93	\$	276.08
<i>If 2024 construction, then</i> Escalate (+5%)	\$	151,454	\$	156,756
<i>If 2025 construction, then</i> Escalate (+5%)	\$	159,026	\$	164,594

Directive	Response	Concept A	Concept B
Accessibility & Entry	Library and community response supports radical accessibility, not just meeting ADA, but providing a welcoming library for people of all abilities.	Concept A provides identical access throughout building and site for people of all abilities. There are no barriers to access.	Concept B provides identical access throughout building and site for people of all abilities. There are no barriers to access.
Sustainability	Library and community response strongly supports sustainable construction.	Concept A replaces windows with higher performance glazing and has opportunities for solar.	Concept B replaces windows with higher performance glazing and has opportunities for solar.
Site	Library supports use of site for programming. City does not require parking on site, however staff feedback indicates a desire for a small amount of parking.	<p>Concept A provides opportunities for a children's reading area shielded from other public spaces and a teen and adult outdoor reading area.</p> <p>Concept A saves the majority of parking on site and the opportunity for special event parking.</p>	<p>Concept B provides opportunities for a children's reading area shielded from other public spaces and a teen and adult outdoor reading area.</p> <p>Concept B saves the majority of parking on site.</p>
Staff Areas	Staff areas are currently inefficient, drafty, and lack views.	Concept A reorganizes staff area for increase efficiency, provides opportunities for windows at eye level for views and a new accessible staff restroom. Staff breakroom has opportunities for access to the exterior away from the public entrance.	Concept B relocates staff area and provides opportunities for windows at eye level and a new accessible staff restroom. Staff breakroom has opportunities for access to the exterior away from the public entrance.
Technology	Library and community response shows strong desire for increase access to technology	Concept A provides larger tech area, improved wifi, teen/maker space.	Concept B provides larger tech area, improved wifi, teen/maker space.
Separation of Quiet and Loud Spaces	Library and community response shows desire for active and quiet spaces	Concept A creates active zones and architectural features can limit spread of sound. Concept adds study rooms and activity spaces can be opened or closed to provide acoustical separation.	Concept B creates active zones and architectural features can limit spread of sound. Concept adds study rooms and activity spaces can be opened or closed to provide acoustical separation.
Opportunities for views	Library and community response shows desire for views into and out of library.	Concept A provides a significant opening into study/collaboration areas of the library that will provide eyes on the street and views into library activity inside.	Concept B provides a significant opening into teen areas of the library that will provide eyes on the street and views into library activity inside.
Safety & Security	Desire for singular entry and toilets within view of desk.	Concept A moves toilets interior to the library and not in the vestibule. Everyone enters through one door.	Concept B moves toilets interior to the library and not in the vestibule. Everyone enters through one door.

Civil Engineers

Pierce Pini & Associates

The concept plans for the Hayden Heights Library improvements include the renovation of the interior space. As part of the work, the existing sanitary and storm services need to be televised and analyzed to determine their conditions and need for replacement. The existing parking lot has signs of significant cracking and should receive a full depth bituminous pavement replacement. In addition, select portions of the existing adjacent sidewalk need to be replaced where cracking and heaving is evident.

Architectural

LSE Architects

Concept plans indicate a full refurbishment of the interior of the library. This will include replacement of finishes throughout and new gypsum on metal stud partitions and insulated for acoustical purposes. New flooring will be carpet. Toilet rooms will be replaced with single user toilets with new tile finishes. Ceiling throughout will be ACP however at entry a specialty ceiling product may be introduced in schematic design.

Community room in each option features a glazed operable partition that will provide flexibility to use space as part of the larger library and its own acoustically separated space.

Building exterior will remain significantly intact in both options however all existing windows will be replaced with new thermally broken glazing and storefront entry systems. At entry corner masonry will be demolished and replaced with new glazing. In option one the glazing will have a masonry surround. In option two glazing will be in line with wall and salvaged masonry will patch to provide a consistent finish.

Structural Engineers

IMEG Engineering

Both options for Hayden Heights involve minor selective demolition of the existing building .

The selective demolition may involve lintels for new openings in the existing non-load bearing exterior wall. At the proposed new entry additional support may be required to brace the top of the new window system.

Mechanical, Electrical, and Plumbing Engineers

KFI Engineers, Mechanical, Electrical, and Plumbing Engineers

Building HVAC Systems

1. A new air handling unit (AHU) will provide ventilation, heating, and cooling to the occupied spaces. The unit would be located within the existing mechanical room. ASHRAE 90.1 2019 will be utilized for efficiencies and sizing the unit.
2. For heating and cooling of the building, sustainable options will be reviewed which include ground source heat pumps and air side total energy recovery. Other options may include:

- The existing library boilers are in good working condition, and could be reused.
- A new 25 ton air cooled chiller could provide dehumidification and cooling to the AHUs. Unit shall be located on the roof within a sound enclosure, or on grade.
- 3. Restrooms will be exhausted through exhaust fans, through the roof.
- 4. The building automation system will be direct digital controls and meet SPPL standards. The following requirements will be included:
 - Air side economizer
 - Demand control ventilation
 - Boiler / chiller system controls
 - Supply air temperature reset for multizone
- 5. Metering of HVAC loads will meet guidelines listed in B3 2030. Meeting a two-percenter goal for renewable energy will be evaluated and included if found to be cost effective.
- 6. Systems shall be commissioned.
- 7. Building Plumbing Systems
- 8. Storm water will be routed through drains and scuppered to grade.
- 9. Solar thermal systems will be evaluated for domestic water heating.
- 10. Water fixtures shall be low flow and meet the following requirements:
 - Lavatory faucets less than or equal to 1.5 gallons / minute
 - Kitchen and pantry faucets less than or equal to 2.0 gallons / minute

Building Fire Protection System

1. This building would be considered A-3 occupancy, not requiring an automatic sprinkler system if less than 12,000 square feet and less than 300 occupant load. However, consideration of other trade-off costs should be reviewed that financially affect the project (ie insurance, fire alarm and detection requirements).
2. Building Power Distribution System
3. The existing 120/208 volt, 3 phase, 4 wire, 600 amp Electrical Service will remain as is.
4. Provide two (2) new 120/208 volt, 3 phase, 4 wire, 200 amp branch circuit panelboards.
 - Lighting and small loads will be fed from the two (2) branch circuit panelboards.
5. New general purpose receptacles will be provided throughout the building.

Building Lighting

1. New LED lighting fixtures will be provided throughout the building.
 - The lighting design and light fixture selections will be developed as a joint effort by LSE Architects and KFI Engineers.
 - New automatic lighting controls will be provided for all spaces to meet the energy code. Lighting control will consist of:
 - Occupancy control.
 - Dimming control.
 - Daylighting Control.
 - Emergency lighting will be provided by battery powered emergency light fixtures.
 - Provide new LED battery powered Exit Lights.
 - New exterior lighting will be provided at building entrances and exits.
 - New site lighting will be provided.
 - Exterior and site lighting will be controlled by a photocell for dusk to dawn control and dimmed

by 30% on a time of day schedule.

2. Fire Alarm Systems & Technology Systems
3. A new Fire Alarm System will be provided. The fire Alarm system will consist of the following:
 - Main Fire Alarm Control Panel.
 - Remote annunciator at the building entrance.
 - Smoke Detectors.
 - Annunciation devices (Speakers and Strobes).
 - The fire alarm system will be capable of supervised mass notification.
4. New telecommunications systems infrastructure will be provided. The telecommunications system infrastructure will consist of the following:
 - New data rack/cabinet.
 - New voice/data jacks and Cat 6A cabling.
 - Wireless access points will be installed to provide coverage throughout the building.
 - A new access control system will be provided for the building. Card readers will be provided at entrance doors, and non-public spaces.
5. A new security system will be provided, the security system will consist of:
 - Motion sensors.
 - Door contacts.
 - Security cameras. Cameras will be installed to provide comprehensive coverage.
6. New audio visual systems will be provided in all meeting rooms. Audio visual components will include:
 - Flat panel displays (projector and projector screen where needed due to size).
 - HDMI Inputs where needed.
 - Network access.



LSE
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