SAN JUAN ISLAND LIBRARY

BUILDING CONDITION ASSESSMENT & FEASIBILITY STUDY

May 2018
PROJECT TEAM

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1 EXECUTIVE SUMMARY
EXECUTIVE SUMMARY

The existing San Juan Island Library- located at 1010 Guard Street in Friday Harbor- was built in 1970, and renovated and expanded in 1988, 1994 and 2004, respectively. The library offers a wide range of services for approximately 7,000 island residents.

BUILDING HISTORY

Originally The Shrimp Boat Restaurant, the property was purchased by the Library in February 1983. A 1988 remodel renovated the interior and exterior, and added a new entry. A 1994 remodel included an interior renovation and addition to the south and north. A 2004 interior renovation updated interior finishes, furnishings and lighting. The 2017 maintenance history- an example of maintenance and improvement projects over the span of a single year- was part of the building component life cycle analysis, and is available in the appendix of this report.

PROJECT RATIONALE

Library staff has dealt with more and more problems in providing services in the current building. The Library’s Board of Trustees wanted community input on building changes, so they devised a survey to test on three focus groups comprised of a wide variety of community members. Further information was desired by all of the

IMPETUS FOR STUDY

The Library recognizes a need for increased library services space as well as parking for library patrons. With increasing costs related to building maintenance, the Library district has begun a facilities assessment project to understand the community’s needs for library space, analyze the building’s mechanical and electrical systems, and document the condition of existing components and finishes.

The purpose of the study is to determine the feasibility of the existing library building in accommodating expanded services, as well as engage with the public to understand the community’s perception of a new or expanded facility.

SHKS Architects was enlisted to research the existing library and propose the extents of possible expansion. The current 9,200 square foot building footprint does not meet the space and service needs as indicated by the Library.
EXECUTIVE SUMMARY

groups, including:
- The current condition of the building and any modifications the building could support
- The operating and service limitations in the existing building which library staff have identified
- The possibilities for structural changes to the building that the board might consider

ONGOING PROBLEMS AFFECTING QUALITY OF LIBRARY SERVICE
Some of the most egregious issues with the San Juan Island Library building as identified by members of the library board and staff include:
- A dangerous and inadequate parking lot
- Collection space that is filled to the maximum with no room for expansion
- Insufficient areas for quiet reading and study
- Complete lack of space for noisier collaborative work that won’t disturb others
- Noise from the children’s and teen areas, including foot traffic back and forth
- A cramped workspace for staff filled with frequent foot traffic and distractions
- Inadequate space for the Friends of the Library store and no on-site storage
For a far more complete list of identified problems, please refer to Appendix G of this report.

PROJECT SCOPE
The scope of this project includes a building assessment and maintenance plan, along with site analysis and planning options, and an associated conceptual budget analysis.

SUMMARY OF BUILDING COMPONENTS AND SYSTEMS
A summary of building systems and components (equipment and finishes) is included the Building Condition Assessment (Appendix A).

SURVEY AND DOCUMENTATION METHODOLOGY
Summary of methodology used to survey and document the existing conditions at the Library:
EXECUTIVE SUMMARY

OBSERVATION
No field measurements were verified or taken. Any measurements or areas included in analysis were based upon existing documentation.

REVIEW OF EXISTING DRAWINGS AND MAINTENANCE HISTORY
Available documentation included drawings, specifications, and project manuals from three past construction projects at the Library. When documentation for repairs or changes was not available, installation dates were estimated based on vintage and condition of building components and systems. No investigative demolition was performed.

INTERVIEWS
Informal interviews were conducted with library staff regarding condition of building components and systems, chronology of known repairs and inadequacies in regards to space and services.

SITE ANALYSIS AND PLANNING OPTIONS
Two sites were identified and evaluated, using selection criteria established by the Library: availability, adequate area for a new or expanded library and parking, proximity to the downtown core and transit options, as well as visibility.

PARCEL A: Existing library site at 1010 Guard Street
PARCEL B: Parcel adjacent to existing library site, at 1000 Guard Street (currently owned by Public Works)

CODE ANALYSIS
A preliminary code analysis evaluated parcels A and B, referencing the Friday Harbor Municipal and Land Use Code, as well as applicable International Building Code requirements for the intended occupancies.

COST ANALYSIS
A cost per square foot was developed for renovation of the existing building and new construction options. Costs are based on similar construction projects completed in the last five years, and exclude both escalation and soft costs. Reference Section 4 Cost Analysis for cost estimates and explanation of hard and soft costs.
EXECUTIVE SUMMARY

FACILITIES PLANNING
A building program was not available at the outset of this study, and programming was not included in the scope of this project. Neither the American Library Association (ALA) nor the Public Library Association (PLA) sets prescriptive planning standards for public libraries, as each library serves a different community with varying needs.

General services planning precedes facilities planning because it defines the users, services and operations of the Library. Once these plans are defined, the board, director and others can better decide on space needs, layout, and technical specifications. A long-range plan with a mission statement, goals, and objectives can provide a basis for evaluating whether or not a library has a facility which adequately meets community needs.

ACCESSIBILITY
An exhaustive accessibility audit was not within the scope of this study. Patrons and staff can gain access to the one story building. However, staff work space on the second floor is not accessible.

STRUCTURAL SYSTEM
The Library is a well-constructed, wood frame structure. While additions to the building meet minimum standards for lateral life safety, the lateral resisting system of the original building is unlikely to meet these standards. Since the framing system for the original restaurant building are not visible, they are not fully understood.

There is evidence of distress in one location due to overloading. Elsewhere, efflorescence on the concrete stem walls indicates water infiltration. One glue-laminated beam is delaminating.

MECHANICAL SYSTEM / WASHINGTON STATE ENERGY CODE / FIRE CODE
The building does not have a fire sprinkler system. Though insulated, the existing building does not meet the requirements of the current energy code. The plumbing system is serviceable and appears to meet the requirements of the building although plumbing fixtures show signs of wear and piping is uninsulated. The building is served by a mix of HVAC systems and the temperature control zones are not optimal. This was later confirmed by library staff who noted considerable discomfort among patrons in the summer months.
ELECTRICAL SYSTEM
The existing 208 volt, 3-phase electrical power system is serviceable and has capacity for some growth. Lighting is provided by a combination of incandescent and linear fluorescent fixtures, neither of which is energy efficient.

FIRE ALARM SYSTEM
The fire alarm system does not comply with current codes and represents a life-safety hazard.

CONCLUSION/RECOMMENDATIONS
The existing Library is a well-loved and frequently-used public building. Through a series of intermittent renovations beginning in 1988, overall library systems and finishes have been well-maintained, and structural, electrical and mechanical systems are all robust, and in fairly good condition.

Though the library building could support a second story with additional structural reinforcement, the existing site area, zoning setbacks, and code-required parking areas restrict any expansion options.

The parcel adjacent to the existing Library would support a variety of planning options for an expanded or new Library and on-site parking.

NEXT STEPS
A series of public open house meetings will be conducted in May 2018, with the goal of engaging the community in the planning process, and providing an overall project update, as well as an opportunity to gather feedback on the facility assessment and planning options.
SITE LOCATION

Two parcels were considered; the existing library site (Parcel A) and the adjacent site, currently owned by Public Works (Parcel B). Both sites are noted in the aerial image above.

SITE & BUILDING ANALYSIS

Parcel A is approximately 28,750 square feet (0.6594 acres) and is 190 feet long and 150 feet wide. It is immediately accessible from Guard Street, with a slight topography change on-site, sloping down towards the north end. The Discovery Inn is to the west of the property, a self storage unit is to the north, and Parcel B is to the east.

Parcel B was analyzed in two portions; Parcel B1 and B2. Parcel B1 is approximately 101,989 square feet (2.3413 acres). B2 is approximately 72,250 square feet (1.66 acres). Parcel B1 is relatively flat, with little topography change. Parcel B2 slopes toward the north, with a sharp difference in grade between B1 and B2. The Friday Harbor Village Apartments are to the north of the property, Island Petroleum Services are to the east, and the existing San Juan Island Library (Parcel A) is to the west.
LAND USE OVERVIEW

Parcel A is zoned commercially, while Parcel B is zoned as Light Industrial, and B2 is Multi-Family. Neither property is considered to be in the Downtown Core Zone, nor in the Historic Overlay District. A Library would be an allowed use; however, as a public facility it will have to meet certain other code requirements. Maximum lot coverage for Parcel A is 70%, and maximum building height is 27 feet. Front, rear, and side setbacks are 0', 20' and 20' respectively. Maximum lot coverage for Parcel B is 50%, and maximum building height is 27 feet. Front, rear, and side setbacks for B1 and B2 are 5', 0' and 15' respectively. As a library, one parking space per every 300 square feet is required.

Preliminary site analysis and planning options were prepared for Parcel A and Parcel B,
11

SITE PLANNING OPTIONS

SAN JUAN ISLAND LIBRARY BUILDING CONDITION ASSESSMENT & FEASIBILITY STUDY

PROPERTY LINE
PROPERTY LINE
PROPERTY LINE
PROPERTY LINE
E DRIVEWAY
STBK.
20' - 0" 110' - 0" +/-
STBK.
20' - 0"
170' - 0" +/
STBK.

EXISTING SHARED DRIVEWAY
EXISTING LIBRARY
EXISTING BUILDING /EXISTING SITE

San Juan Island Library Feasibility Study

A0.0

0 20 40 80 10

1" = 40'-0"

SITE PLAN - EXISTING

3D VIEW EXISTING LIBRARY

GUARD STREET

SAN JUAN ISLAND LIBRARY BUILDING CONDITION ASSESSMENT & FEASIBILITY STUDY
### Site Planning Option A: Expand Out

**Challenges**
- Building area expansion limitation
- Insufficient parking
- Access to daylight (wide building)
- Doesn’t improve circulation flow
- Requires extensive system upgrade; electrical, mechanical, fire protection
- Cost for acquiring parking easement

**Opportunities**
- Improves building’s relationship to street

**Cost:** $5.8 Million

**Library Area & Parking**
- **Existing Library**
  - Approx. 9,200 SF
- **Proposed Addition**
  - Approx. 4,600 SF
  - Total: 13,800 SF
- **Required Parking**
  - Approx. 46 Spaces

* 45 Spaces currently shown. Parking requirements not feasible on existing site.

**Challenges**
- Building area expansion limitation
- Insufficient parking
- Access to daylight (wide building)
- Doesn’t improve circulation flow
- Requires extensive system upgrade; electrical, mechanical, fire protection
- Cost for acquiring parking easement

**Opportunities**
- Improves building’s relationship to street

**Diagram:**
- Site Plan - Option A
- 3D View - Option A

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**San Juan Island Library Feasibility Study**

- A1.0
- 04/30/18

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**San Juan Island Library Building Condition Assessment & Feasibility Study**
SITE PLANNING OPTION B: EXPAND UP

$6.7 Million

CHALLENGES
Parking area expansion limitation
Adding a second floor necessitates an elevator, with large cost impacts
Increased operational costs
Doesn’t improve circulation flow
Requires extensive systems upgrade; electrical, mechanical, fire protection
Additional structural requirements for adding second floor

OPPORTUNITIES
Access to daylight (top light)

CHALLENGES
Parking area expansion limitation
Adding a second floor necessitates an elevator, with large cost impacts
Increased operational costs
Doesn’t improve circulation flow
Requires extensive systems upgrade; electrical, mechanical, fire protection
Additional structural requirements for adding second floor

OPPORTUNITIES
Access to daylight (top light)

LIBRARY AREA & PARKING

EXISTING LIBRARY
APPROX. 9,200SF SF

PROPOSED ADDITION
APPROX. 6,700 SF
TOTAL: 15,900SF

REQUIRED PARKING
APPROX. 53 SPACES

* 52 SPACES CURRENTLY SHOWN. PARKING REQUIREMENTS NOT FEASIBLE ON EXISTING SITE.
SITE PLANNING OPTION C: EXTEND LIBRARY ONTO NEXT-DOOR LOT  $7.8 Million

<table>
<thead>
<tr>
<th>CHALLENGES</th>
<th>OPPORTUNITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property sale/subdivision coordination and negotiation</td>
<td>Utilize existing building</td>
</tr>
<tr>
<td>Requires extensive systems upgrade, electrical, mechanical, fire protection</td>
<td>Phaseable- existing building could remain largely operational during construction with a reduction in services</td>
</tr>
<tr>
<td>Operations- sightlines</td>
<td>Parking expansion</td>
</tr>
<tr>
<td></td>
<td>Access to daylight</td>
</tr>
<tr>
<td></td>
<td>Exterior program area</td>
</tr>
</tbody>
</table>

LIBRARY AREA & PARKING

- **EXISTING LIBRARY**
  - APPROX. 9,200 SF

- **PROPOSED ADDITION**
  - APPROX. 9,300 SF
  - TOTAL: 18,500 SF

- **REQUIRED PARKING**
  - APPROX. 62 SPACES

PROPERTY LINE

LOT B2 PROPOSED FOR SALE AND REDEVELOPMENT DUE TO TOPOGRAPHY CHANGES

LOT B1(B) RETAINED FOR FUTURE LIBRARY EXPANSION OR SOLD AS SEPARATE PARCEL.

POTENTIAL DRIVEWAY ACCESS TO PARCEL B IF SUBDIVIDED

3D VIEW - OPTION C

SITE PLAN - OPTION C
SITE PLANNING OPTION D: NEW LIBRARY ON NEW SITE  $8.1 Million

CHALLENGES
Site acquisition costs
Unknowns: soil condition, hazardous materials

OPPORTUNITIES
New building: light, air, flexibility, circulation flow
Parking options
Relationship to street
Phaseable- Library could remain operational on existing site during construction with minor disruption in services
Building expansion area for long term growth
Least operational costs

Additional sites to be considered in future design phases.
COST ANALYSIS

Costs related to construction – renovation, addition, or a new library – of the San Juan Island Library can be categorized as “hard” – construction costs including contractor’s fee, overhead and profit – and “soft” – fixtures, furnishing, and equipment; taxes; permit fees; special inspections; owner’s representative; consultant fees. In the chart below, neither site acquisition costs nor “soft” costs have been included.

### HARD COSTS

“Benchmarking” construction costs for similar library projects – both new and remodel – over the last five years would suggest a budget of between $400 and $450 per square foot for construction in 2018. This study evaluated construction cost more closely for a new building at $437 per square foot in contrast to one that is added to and renovated, $419 per square foot. While new construction involves site and subsurface construction, remodels require working with existing conditions and often challenging access.

### SOFT COSTS

A budget for costs such as FF&E (fixtures, furnishings including shelving, and equipment), taxes, permits, inspections and consultant fees often range from 25% to 40% of the total project cost depending on owner’s representation – whether the owner decides to hire an independent, consulting project representative – and method of project procurement – whether the project is publicly bid or negotiated. Bid projects tend to require more vigorous consultant service to limit owner’s risk.

### REPAIR & RENOVATION COSTS

As noted, repair of existing construction is often comparable to the cost of new construction. Existing construction often limits access, placing greater constraints on the contractor’s and subcontractors’ work. The presence of pre-existing systems – plumbing, heating, ventilation, electrical, and communications – generally represents a challenge to
coordinating new with old. So, it is often more cost-effective to demolish pre-existing systems (even if there is remaining service life) to construct a fully coordinated, warrantable, and serviceable system.

Work on existing construction also carries risk related to unknown conditions. In the process of work on existing buildings, it is common to find conditions requiring attention during construction that had not been previously identified. These unforeseen conditions usually increase construction cost and schedule.

EXPANSION COSTS

Of the expansion alternatives, constructing an addition beside an existing structure is feasible. Integrating systems – HVAC, data and communications, electrical – between new and old requires care. It is likely the entire HVAC system will need to be replaced. Similarly, data, communications, and electrical systems are likely to need replacement rather than extension. While the existing structural system appears to be adequate, an addition with any dependence on the existing structure will require subsurface work: enlarging footings, strengthening connections.
### RENOVATION/REPAIR COST BREAKDOWN

**PLAN OPTION A (GROSS AREA = 13,800SF)**

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<th>Description</th>
<th>$/SF</th>
<th>Gross Area 13,800 sf</th>
<th>Total Cost</th>
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<td>1 Foundations</td>
<td>$3.00</td>
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<td>$9.00</td>
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<td>$7.00</td>
<td>13,800</td>
<td>$96,600.00</td>
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<td>$12.50</td>
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<td>$172,500.00</td>
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## Renovation/Repair Cost Breakdown

### Plan Option B (Gross Area = 15,900sf)

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<td>15,900</td>
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<tr>
<td><strong>General Conditions</strong></td>
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<tr>
<td>----------------------------------------------</td>
<td>------------</td>
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<tr>
<td>Foundations</td>
<td>18,500 sf</td>
<td>$3.00</td>
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<tr>
<td>Vertical Structure</td>
<td></td>
<td>$9.00</td>
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<tr>
<td>Floor &amp; Roof Structures</td>
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<tr>
<td>Roofing, Waterproofing, &amp; Skylights</td>
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<td>$15.00</td>
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<tr>
<td>INTERIORS</td>
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<tr>
<td>Function Equipment &amp; Specialties</td>
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<tr>
<td>Stairs &amp; Vertical Transportation</td>
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<tr>
<td>EQUIPMENT &amp; VERTICAL TRANSPORTATION</td>
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## RENOVATION/REPAIR COST BREAKDOWN

### PLAN OPTION D (GROSS AREA= 18,500SF)

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<tr>
<th>Description</th>
<th>Cost</th>
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<tbody>
<tr>
<td><strong>Gross Area</strong></td>
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<tr>
<td><strong>$/SF</strong></td>
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</tr>
<tr>
<td><strong>1 Foundations</strong></td>
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</tr>
<tr>
<td><strong>2 Vertical Structure</strong></td>
<td>$17.00</td>
</tr>
<tr>
<td><strong>3 Floor &amp; Roof Structures</strong></td>
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</tr>
<tr>
<td><strong>4 Exterior Cladding</strong></td>
<td>$25.00</td>
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<tr>
<td><strong>5 Roofing, Waterproofing, &amp; Skylights</strong></td>
<td>$15.00</td>
</tr>
<tr>
<td><strong>SHELL</strong></td>
<td>$76.00</td>
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<td><strong>Floor, Wall, &amp; Ceiling Finishes</strong></td>
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<tr>
<td><strong>INTERIORS</strong></td>
<td>$26.00</td>
</tr>
<tr>
<td><strong>Function Equipment &amp; Specialties</strong></td>
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<tr>
<td><strong>Stairs &amp; Vertical Transportation</strong></td>
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<tr>
<td><strong>EQUIPMENT &amp; VERTICAL TRANSPORTATION</strong></td>
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<tr>
<td><strong>Plumbing Systems</strong></td>
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<tr>
<td><strong>Heating, Ventilating, &amp; Air Conditioning</strong></td>
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<tr>
<td><strong>Electric Lighting, Power, &amp; Communications</strong></td>
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<td><strong>Fire Protection Systems</strong></td>
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<td><strong>TOTAL BUILDING &amp; SITE</strong></td>
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<tr>
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</tr>
<tr>
<td><strong>PLANNED CONSTRUCTION COST</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Contingency for Development of Design</strong></td>
<td>20.00%</td>
</tr>
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<td><strong>Escalation to Start Date (May 2020)</strong></td>
<td>8.00%</td>
</tr>
<tr>
<td><strong>RECOMMENDED BUDGET</strong></td>
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</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Site Preparation &amp; Demolition</strong></td>
<td>$6.50</td>
</tr>
<tr>
<td><strong>Site Paving, Structures, Landscaping</strong></td>
<td>$30.00</td>
</tr>
<tr>
<td><strong>Utilities on Site</strong></td>
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<tr>
<td><strong>TOTAL SITE CONSTRUCTION</strong></td>
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</tr>
<tr>
<td><strong>TOTAL BUILDING &amp; SITE</strong></td>
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</tr>
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<td><strong>General Conditions</strong></td>
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<tr>
<td><strong>PLANNED CONSTRUCTION COST</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Contingency for Development of Design</strong></td>
<td>20.00%</td>
</tr>
<tr>
<td><strong>Escalation to Start Date (May 2020)</strong></td>
<td>8.00%</td>
</tr>
<tr>
<td><strong>RECOMMENDED BUDGET</strong></td>
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</tr>
</tbody>
</table>

### CONCLUSION & RECOMMENDATION

The recommended budget for the San Juan Island Library building condition assessment and feasibility study is $437,260,000.00.
CONCLUSION & RECOMMENDATION

The building and site assessment at 1010 Guard Street, and site analysis at 1000 Guard Street in Friday Harbor present an exciting opportunity to look at opportunities for growth for an already vital community resource; a lively civic and cultural gathering place for people, books and technologies, serving Island residents of all ages. This study can become a guiding document, identifying and prioritizing updates to your library building, helping to maintain ‘a place for people to pursue independent educational and recreational interests, to use information resources, and to meet and interact in a public forum’.

SUMMARY OF FINDINGS

The existing Library is a well-loved and frequently-used public building. Through a series of intermittent renovations beginning in 1988, overall library systems and finishes have been well-
maintained, and structural, electrical and mechanical systems are all robust, and in fairly good condition.

Though the library building could support a second story with additional structural reinforcement, the existing site area, zoning setbacks, and code-required parking areas restrict any expansion options.

The parcel adjacent to the existing library would support a variety of planning options for an expanded or new library and on-site parking. Additional site options will be considered in future design phases.

**NEXT STEPS**

As part of the planning process, the Library initiated a program of community outreach and engagement to establish a long-term vision of the San Juan Island Library and its desired role in the Island community. The process, ‘Our Library Building: Today & Tomorrow’ is designed to solicit input from a broad cross-section of the community through public meetings and workshops.

The goal of the public engagement process is to work collaboratively with library staff, stakeholders, and the consulting team to:

- Learn about community needs and preferences for library services
- Explore community preferences for how the Library can best support the community.
- Build awareness of the planning process and how to be involved.

**JOIN US!**

**OUR LIBRARY BUILDING**

*today & tomorrow*

**WHAT:** Join your fellow community members to give your input on the future of our Library building at one of the following open houses:

**WHEN:**
- Sunday May 20th: 2:00pm-5:00pm presentations and community open house
- 7:00pm-9:00pm presentations and community open house
- Monday May 21st: 1:00pm-3:00pm presentations and community open house

**WHERE:**
- San Juan Island Grange Hall
  - 152 1st Street, Friday Harbor

Refreshments and door prizes throughout the event!
POTENTIAL SERVICES AND OPERATIONS

Through the community engagement process, the team will work collaboratively using multi-media activities to understand which services the community would use, such as expanded collections, reading spaces, meeting rooms, and a larger parking area.

The library board can use this report to continue the community conversation, expanding partnerships with civic and community groups. This outreach will help identify potential shared resources and additional opportunities as it broadens and deepens community support while planning for the future for the San Juan Island Library.

A facility pre-design study, including a detailed service and operations analysis and preliminary planning design, will enable a more accurate projection of space requirements and budget. Project feasibility can be assessed through a test fit of the preliminary planning design on the existing site.

Example images of library services at locations other than the San Juan Island Library.
APPENDIX A: BUILDING CONDITION ASSESSMENT
The intent of the San Juan Island Library building assessment is to develop a short, medium, and long term plan for replacement of building components and major system elements. The building assessment and associated budget are used in conjunction with the site analysis options and conceptual cost estimates in order to develop a preferred expansion option for the Library to utilize moving forward.

Each component and system has a maintenance priority level assigned, indicating the level of urgency for the corrective recommendations. These priority levels vary from “high priority” to “cyclical replacement based on service life”. Observations and repair recommendations are illustrated per building material or component. Building components and systems have been arranged in the following scope categories:
<table>
<thead>
<tr>
<th>EXISTING IMAGE</th>
<th>OBSERVATION</th>
<th>RECOMMENDATION</th>
</tr>
</thead>
</table>
| Trees & plantings  | Description: site plantings; trees, bushes, soil  
                       | Condition: Good                                                              | Priority level: periodic pruning, cutting back areas where limbs are close to  
                       |                                                                                | structure                                                          |
|                    |                                                                            | Estimated annual pruning cost: $2,000/year  
                       |                                                                                | Estimated tree removal and replacement costs: $10,000 |
| Paving             | Description: Flat and sloped paving at parking areas and walkways  
                       | Condition: Varies- Poor to good, with areas of cracking and potholes, and low  
                       |                                                                                | areas collecting water                                             |
|                    |                                                                            | Priority level: cyclical replacement in future based on service life.  
                       |                                                                                | Estimated cost for asphalt patch and repair: $4.50/sf              |
| Drainage           | Description: Catch basin, typ 4 total storm drain (1 on west side, 3 on east  
                       | Condition: Fair  
                       | Further investigation recommended.  
                       | Priority level: cyclical replacement in future based on service life.  
                       | Estimated cost for catch basin replacement / adjustment: $14,000       |
| Site equipment, misc | Description: Propane Tank  
                       | Condition: Good                                                              | Priority level: cyclical replacement in future based on service life.    |
| Site equipment, misc | Description: Book drop and bollards  
                       | Condition: Good                                                              | Priority level: cyclical replacement in future based on service life.    |
### Existing Image

**Exterior Cladding**

### Observation

**Description:** Painted T-11 siding with painted 1x6 clear cedar trim at windows and doors (see below)

**Condition:** Generally good, with exceptions at areas of white bloom (reference photo taken at east side, May 2016) or at exterior stair. Planted areas where dirt in direct contact with structure

**Priority level:** Cyclical replacement in future based on service life. Repaint at recommended intervals based on lifespan (3-5 years), depending on maintenance and exposure. Inspect existing paint surfaces to determine extent of surface preparation necessary avoiding damage or removal of wood substrate.

**Estimated cost for miscellaneous wood repair/replacement:** $5,000

---

**Exterior Envelope: Siding**

**Description:** Pre-finished aluminum sliding windows

**Condition:** Varies - Poor to fair

**Priority level:** Cyclical replacement in future based on service life. Windows appear to be in generally fair condition though there is evidence of possible water intrusion at some windows. Additional investigation recommended.
<table>
<thead>
<tr>
<th>EXISTING IMAGE</th>
<th>OBSERVATION</th>
<th>RECOMMENDATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description: Curb-mounted skylight</td>
<td>Priority level: cyclical replacement in future based on service life.</td>
<td></td>
</tr>
<tr>
<td>Condition: Fair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exterior Envelope: Skylights</td>
<td></td>
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</tr>
</tbody>
</table>

| Description: Painted metal doors | Priority level: cyclical replacement in future based on service life. Repaint at recommended intervals based on lifespan (3-5 years), depending on maintenance and exposure. |
| Condition: Good | | |
| Exterior Envelope: Doors | | |

<p>| Description: 2x6 rafters at 24” O.C. w/ comp roofing over #15 MW building paper over 1/2” CDX sheathing. 2017 Replacement w/ Durolast PVC membrane | Priority level: cyclical replacement in future based on service life. Estimated cost for re-roof: Re-roof: $16/sf low slope roofs Re-roof: $5.50/sf asphalt composition roofs |
| Condition: Generally good | Estimated cost for gutter replacement: $4,180 total ($11.00/lf) | |
| Exterior Envelope: Roofing | | |</p>
<table>
<thead>
<tr>
<th>EXISTING IMAGE</th>
<th>OBSERVATION</th>
<th>RECOMMENDATION</th>
</tr>
</thead>
</table>
| Exterior systems: Skylight frame | Description: Metal skylight frame  
Condition: Poor | Priority level: cyclical replacement in future based on service life. |
| Exterior systems: Skylight frame | Description: Metal skylight frame  
Condition: Poor | Priority level: cyclical replacement in future based on service life. |
| Exterior systems: Skylight | Description: Skylight  
Condition: Poor | Priority level: cyclical replacement in future based on service life. |
<table>
<thead>
<tr>
<th>EXISTING IMAGE</th>
<th>OBSERVATION</th>
<th>RECOMMENDATION</th>
</tr>
</thead>
</table>
| Exterior systems: Skylight | Description: Skylight  
Condition: Poor | Priority level: cyclical replacement in future based on service life. |
| Exterior systems: roofing | Description: Roofing shingles, membrane  
Condition: Poor | Priority level: cyclical replacement in future based on service life.  
See estimated costs for re-roof. |
| Insulation | Description: Missing insulation at exterior walls, subsequent heat loss  
Condition: Poor | Priority level: high priority  
Estimated cost for replacement of missing insulation: $5,000 |
<table>
<thead>
<tr>
<th>EXISTING IMAGE</th>
<th>OBSERVATION</th>
<th>RECOMMENDATION</th>
</tr>
</thead>
</table>
| Description: Suspended ceiling system; 24”x24” Acoustical ceiling tile with square edge  
30 percent of tiles should be replaced due to staining, torque, or signs of wear.  
Estimated cost for ACT replacement: $6.50/sf (replacement of individual tiles will be readily apparent) | |
| Description: Painted GWB ceiling/soffit at skylight, Staff workroom  
Condition: Good | Priority level: cyclical replacement in future based on service life.  
Repaint at recommended intervals based on lifespan (3-5 years), depending on maintenance and exposure. Inspect existing paint surfaces to determine extent of surface preparation necessary avoiding damage of substrate.  
Estimated cost to replace ceiling lights with LED bulbs: $40,00  
Estimated cost for lighting upgrades throughout building: ($8.00/sf) (8 x 9200 = $73,600) | |
<table>
<thead>
<tr>
<th>EXISTING IMAGE</th>
<th>OBSERVATION</th>
<th>RECOMMENDATION</th>
</tr>
</thead>
</table>
| Interior finishes/systems: Walls | Description: Painted GWB wall surfaces  
Repaint at recommended intervals based on lifespan (3-5 years), depending on maintenance and exposure. Inspect existing paint surfaces to determine extent of surface preparation necessary avoiding damage of substrate.  
Estimated cost to repaint interior: $40,000 |
| Interior finishes/systems: Walls | Description: Wood paneling at fire place  
Condition: Good | Priority level: cyclical replacement in future based on service life. |
| Interior finishes/systems: Wall base | Description: Wood base at periodicals/fireplace  
Condition: Good | Priority level: cyclical replacement in future based on service life. |
| Interior finishes/systems: Wall base | Description: Resilient base  
Condition: Good | Priority level: cyclical replacement in future based on service life. |
<table>
<thead>
<tr>
<th>EXISTING IMAGE</th>
<th>OBSERVATION</th>
<th>RECOMMENDATION</th>
</tr>
</thead>
</table>
| ![Interior finishes/systems: Flooring](image1) | Description: Walk-off mat at entry  
Condition: Good | Priority level: cyclical replacement in future based on service life. |
| ![Interior finishes/systems: Flooring](image2) | Description: Resilient flooring  
Condition: Good | Priority level: cyclical replacement in future based on service life. |
| ![Interior finishes/systems: Flooring](image3) | Description: Carpet/Resilient flooring transitions  
Condition: Good | Priority level: cyclical replacement in future based on service life. |
| ![Interior finishes/systems: Flooring](image4) | Description: Carpet  
<table>
<thead>
<tr>
<th>EXISTING IMAGE</th>
<th>OBSERVATION</th>
<th>RECOMMENDATION</th>
</tr>
</thead>
</table>
| Misc: Staff Bathroom | Description: Existing staff bathroom  
Condition: Poor | Replace bathroom door. Cyclical replacement in future based on service life: update fixtures and finishes, provide ADA-accessibility.  
Estimated cost for bathroom upgrade: $4,000 |
| Misc: Garbage enclosure | Description: Garbage enclosure  
Condition: N/A | Estimated cost for building new garbage enclosure: $3,000 |
| Misc: Stormwater systems/Basement | Description: Ongoing Basement flooding issues  
Condition: Poor | Priority level: high priority  
Excavate building foundation perimeter, remove and replace portions of parking lot, install new pipe and drains.  
Estimated cost for stormwater system replacement: $150,000  
Note: Mold at Basement ongoing problem, with patron and staff complaints regarding health. Additional investigation recommended prior to abatement. Estimated abatement cost: $50,000 |
Memorandum

To:    David Strauss  
       Hannah Allender  
       SHKS Architects

Date:  May 3, 2018

Address:  1050 N 38th Street  
           Seattle, WA 98103

From:  Dan J. Say PE SE

Project:  San Juan Island Library  
          Friday Harbor, WA

Structural Narrative

On December 12, 2017, I joined both of you at the San Juan Island Library, located at 1010 Guard Street in Friday Harbor, WA. The purpose of this visit was to review the existing building to assess its structural condition, and to provide any recommendations related to our observations. Limited opinions regarding a possible second story addition are also included. The investigation was based upon our visual observations only, thus our findings are subject to change based on additional information or investigative demolition to evaluate conditions not visible from our visit.

The existing San Juan Island Library is a one-story wood frame structure constructed, in part, over crawlspace framing. The original building was expanded in roughly 1994, with a substantial northern addition to the building, along with a small addition to the south. The architect for the 1994 addition was The Lewis Architects. We have reviewed the drawings, including the structural drawings, for this work. In 2004 additional modifications were also made to the building and the architect for this work is indicated as Buffalo Design. The scope of the 2004 work was relatively minor from a structural standpoint. We have also reviewed the architectural drawings for the 2004 work on the building.

The existing roof for the 1994 addition is constructed of sawn lumber framing, glue-laminated beams and wood frame bearing walls. The main floor for the 1994 addition (over crawlspace) is constructed of glue-laminated beams and TJI floor joists. The beams are supported by timber posts over foundations.
The foundation system is conventional, consisting of continuous strip footings under uniform loads such as bearing walls, and isolated spread footings under concentrated loads such as columns. The original building appears to be constructed of conventional sawn lumber framings, with the main floor appearing to be cast in place slab on grade. We expect that the original building is also supported on conventional foundations.

Our site visit on December 12th included a full walkthrough of all interior spaces of the building, including the crawlspace for the 1994 addition. We observed some of the original building construction at the upper level, as well as the transition point between the original building and the 1994 addition. Further we walked the perimeter of the full building (original and additions) to visually assess them.

Our observations, opinions and recommendations are based on this visual assessment. We did not perform any investigative demolition to expose hidden conditions, and performed no structural calculations to evaluate the existing structural systems.

Observations
Our visual observations focused on obvious signs of structural distress or unsatisfactory performance. These issues generally manifest themselves through damage to existing finishes, displacements, distortion, cracking among other issues. Often secondary serviceability issues can result from structural deficiencies, such as binding doors and windows.

Primary Gravity System-Original Building
The existing structural systems for the original building were only exposed in a limited way. The framing systems for portions of the original roof were visible at the attic level, and through observations at the attic access spaces.

The existing roof structure consists of sawn lumber roof purlins supporting a straight decking roof diaphragm.

In general, the observed areas of existing framing appeared to be in good condition with no obvious signs of distress or unsatisfactory performance.
(See photo to left)

However, at one location, at the interface between the new and existing roof, we identified an area of distress along the corner of the doorway leading to the attic bathroom. At this location, a crack has developed in the interior finish on each side of the wall over the western corner of the door (See attached photos)
Our review of the remainder of the interior structure in the original building did not show signs of distress or otherwise unsatisfactory performance.

**Primary Gravity System-1994/2004 Additions**

A full set of structural drawings were available for the 1994 addition and architectural drawings were available for the 2004 renovation. The existing framing systems indicated in the existing drawings appear to be consistent with what appears to be constructed, based on our field observations. The existing finishes in the main library space at the addition appear to be functioning well with no obvious signs of distress or displacement. The floor systems for the 1994 addition appear to be functioning adequately for the library stack rooms and other spaces. There are no obvious slopes in the floor systems and the floor finishes seem to be in good condition.

We accessed the crawlspace below the 1994 addition and reviewed the existing framing systems. The floor structure installed is consistent with what is shown in the 1994 structural drawings except for some areas of the foundation. In lieu of strip footings and concrete stem walls to support the posts, continuous grade beams were used instead. A photograph of the existing condition is attached. Some locations do have isolated spread footings that the original structural drawings indicate however.
APPENDIX B

The remaining components to the framing system were consistent with the structural details. Our review of the foundation system found no obvious signs of distress of structural issues with the foundation system.

At one location, we identified that one of the glue-laminated beams was experiencing some delamination at the bottom two laminations.

Continuous grade beam in lieu of stem wall & strip footing.

Some efflorescence was identified along the face of some exposed exterior stem walls and footings. Generally, efflorescence is a sign of moisture intrusion.

The building has two existing sump pumps, which occupants report do no keep up with flooding events.
At several locations, we identified that the exterior plywood sheathing for the exterior shear walls was installed over top of the gypsum wall board. In other cases, the gypsum wall board was installed over top of the plywood. We are not certain why the difference in sheathing installation had taken place.

The preference is to install the sheathing over top of the studs and the gypsum wallboard installed over top of the sheathing.

**Exterior Building Envelope (Full Building)**

We walked the full perimeter of the building and accessed the flat roof and pitched roof for the 1994 addition, as well as portions of the pitched roof for the original building.
The exterior of the buildings showed little sign of deterioration or distress. The existing perimeter wall systems appear to be performing adequately. There was little evidence of deferred maintenance, rot or other structurally related distress. The existing roof carries numerous slopes, with some relatively flat slopes in portions of the composition roofing system. A minimum slope is advised for composition roof systems of this type and we are not certain whether the current roof profile meets the required slope.

Our review of the existing roof systems suggests that the roof structure is performing adequately. However, we did note some areas of loose roof membrane and some evidence of ponding water near the roof drain. This apparent ponding could simply be staining from soil particles that settled onto the roof as the roof water flowed to the drain.

Evidence of potential ponding water.

**Lateral Resisting System-Original Building**

There are no existing drawings available for the original building. We could determine, however, that the existing roof framing consists of sawn lumber members supporting a straight decking roof diaphragm. We have limited information as to the make-up of the exterior wall assemblies. Based upon the visible construction for the roof we anticipate that the exterior wall assembly consists of wood studs with shiplap exterior sheathing and interior finishes. It is unlikely that the exterior stud walls are positively attached to the foundations.

**Lateral Resisting System-1994/2004 Additions**

The 1994 addition was constructed in accordance with the 1991 edition of the Uniform Building Code (UBC). Thus, a rational and reasonable lateral resisting system was incorporated into the structural design. The existing roof and floor diaphragms are sheathed with plywood. The exterior wall systems are shear walls sheathed with plywood, anchor bolted to the foundation, with holdown devices installed at the ends of all shear wall segments. The addition meets the Benchmark Building status in ASCE 41-13, meaning that the structure qualifies to meet the minimum life safety performance objective without the need for further evaluation or retrofit unless there are identified structural deficiencies in the constructed building or there is a reduction in capacity or an increase in demand to the existing lateral system. Removal of existing shear walls, or other lateral elements, would be considered a reduction in capacity, while an addition would be considered an increase in demand.
Conclusions & Recommendations

Based upon our review of the available drawings and our site visit to the building, it is our professional opinion that the San Juan Island Library is performing well from a structural standpoint. The existing building structural systems do not show significant signs of structural distress or damage. The existing building foundations appear to be well suited to the buildings mass and occupant live loads.

While the building is functioning well, we did find several issues that require repair, investigation or further analysis.

We conclude the following:

Primary Gravity Systems-Original Building

- The existing framing systems for the original building are not fully understood. While portions of the existing roof were visible, the make-up of the exterior envelope systems are not entirely clear.
  - It is our recommendation to further investigate the existing building and provide some limited investigative demolition to determine in more detail how the existing building was constructed. This would include the exterior wall assemblies as well as the roof systems to understand if additional plywood sheathing was installed over top of the existing straight decking on the roof, the perimeter walls are attached to the existing foundation, or if plywood sheathing may have been attached to some existing walls.
- A crack was found over the attic bathroom door, at the transition point between the existing and new construction.
  - It is our recommendation to further expose this framing at this location to determine the condition of the underlying framing and the potential source of this distress. Once exposed, additional recommendations can be made to address this issue.

Primary Gravity Systems-1994/2004 Additions

- The exterior concrete stem walls and foundations for the main floor framing in the 1994 addition shows signs of efflorescence on the face some walls and footings. This is usually a sign of water infiltration.
  - We suggest evaluating the perimeter roof drainage systems, or perhaps determine the surface water flow to the face of the building, to determine if the apparent water infiltration is due to inadequate foundation drainage, or inadequate surface water management. In general, unless very severe, water infiltration such as this is not a significant structural issue.
- We found that a least one glue-laminated beam is suffering from delamination at the lower portion of the beam. A photo of this condition was provided earlier in this report.
  - We suggest a more thorough assessment of all beams to confirm that additional beams are not similarly compromised. To correct this condition, we suggest installing SDS ¼” x 6” screws at 6” on center into the bottom of the beams. The screws shall extend a minimum of 24” beyond the affected delaminated areas.
- We noted that some of the plywood sheathing on exterior stem walls (serving as shear walls) was installed over top of gypsum wall board. The preferred application is to install the sheathing
directly to the stud framing to get the common prescribed shear value.
-We suggest investigating the nail size used at these areas, and further evaluate the shear demands on the system to confirm adequacy.

- We noted what could be ponding of the existing roof near the roof drain.
- We suggest that this are be reviewed by a licensed roofer to confirm that the condition is adequate.

Lateral Resisting System-Original Building
- We anticipate that the original building does not conform to a building code (even an older one) design for seismic or wind forces.
- We propose further investigative demolition to confirm existing conditions and expect that the following items would be implemented:
  - New plywood roof sheathing over top of the existing straight roof decking.
  - Anchoring the perimeter walls to the foundation with mechanical fasteners, in order to connect the foundation and floor framing systems together and minimize the chance of the main structure sliding off the foundation during a seismic event.

Lateral Resisting System-1994/2004 Additions
- The 1994 & 2004 additions are identified as Benchmark Buildings as defined in ASCE 41-13.
  - Benchmark buildings meet the minimum Life Safety Performance Standard without improvement provided that the existing building systems were constructed in accordance with the design. Based upon our observations it appears that the building was constructed in accordance with the structural drawings provided. Therefore, there are no proposed seismic mitigation measures. However, it is prudent to confirm that the installation of the plywood (over gypsum wall board) was properly installed and meets the minimum demands required.

Possible Second Story Addition(s)
We understand that one consideration is a possible second story addition over top of the existing structure. Such an addition will require both a gravity and lateral assessment of both the original and later additions to the library. We anticipate the following further assessments and improvements will be necessary to implement the second story addition scenario:

- Portions of the existing roof will need to be removed, with remaining portions re-supported. A new floor and roof system will be constructed with new loads carried down through the existing structure.
- The existing foundations, especially in the original building, may not have sufficient capacity to support new loads from the addition. Thus, we anticipate that existing foundations (especially interior foundations) will need to be evaluated and potentially strengthened to support the new gravity demands. It is possible that the existing perimeter foundation may be adequate to support the new loads, but further assessment will be necessary.
- The proposed addition will increase both wind and seismic forces. The original and additions will need to be evaluated for lateral forces, and will undoubtedly need to be improved. At a minimum we would expect the following lateral system improvements:
- The existing roof diaphragms that remain for the existing building will need to be sheathed with plywood to improve diaphragm strength.
- The existing lateral system for the original building will need to be evaluated and strengthened, resulting in new perimeter (and possibly interior) plywood shear walls. The existing perimeter walls will need to be sheathed with plywood, attached to the existing foundations, and potential overturning hardware will need to be installed at some exterior walls.
- The building additions will also need to be evaluated for lateral forces, and will also likely need to be strengthened. Although the addition was designed to a more current building code that did consider lateral forces, the increased lateral loads from the addition will likely overwhelm the existing lateral system. Strengthening to existing lateral elements and the possible addition of new lateral elements may be necessary.

Thank you for the opportunity to review the San Juan Island Library.

We are available to discuss our findings in greater detail. We look forward to continuing our collaboration with you on this project.
APPENDIX C: MECHANICAL SYSTEMS REPORT
APPENDIX C

THE GREENBUSCH GROUP, INC.

INTRODUCTION
The following memo summarizes our opinion of the condition of the San Juan Island Library mechanical system.

SUMMARY
Mechanical systems appear to have received regular maintenance and are in reasonable condition for their age. More efficient and sustainable systems have become available since the last renovation. Replacing the system with a modern counterpart is recommended to accompany a comprehensive building renovation.

FINDINGS
Building
The insulation envelope appears to comply with code when the building was built, with one exception.

The attic seems to have been converted into an office. We could not see that the roof of the attic office is insulated. There may be insulation on the roof that is not apparent. The vertical walls and floor/ceiling are insulated, but the attic roof may not have been insulated and the attic originally designed to be cold and ventilated to reduce moisture.

This condition should be verified and remedied by upgrading the insulation envelope. Adding insulation to the roof will reduce conditioning loads, duration of HVAC equipment operation and energy consumption.

We can’t determine the insulation value of the glazing. If it is over ten years old it would benefit from replacement as the insulated glass stop seals fail and the window cavity provides less effective insulation. Any single glazing should be replaced with double glazed.
**Fire Protection**

The building is not provided with a fire sprinkler system. The requirement for a sprinkler system will be determined by the building department/fire marshal.

**Plumbing**

Plumbing systems and fixtures appear to be original or replaced as necessary for repairs.

The water meter and service size should be adequate as long as the fixture count remains similar to the current count. Updating of the service entrance, backflow prevention, etc., will be included with any plumbing system renovation.

Fixtures are dated and trim shows wear from the duration of service. The domestic hot water is heated by electricity. The original water heater appears to have been replaced with an

---

*Family Restroom*

---

*Hall Meeting Room and Family Restroom*
instantaneous heater. The instantaneous heater has a much higher amperage demand than a tank type and may be a significant demand on the electrical service.

Piping that we are able to observe is copper and not insulated.

The plumbing system is serviceable and should remain so with regular maintenance. We recommend replacing and updating any systems affected by plans for renovation. This will provide an opportunity to use current energy and water conserving heaters and fixtures, along with modernizing the configuration for accessibility and patron convenience.

**Heating Ventilation and Air Conditioning**

HVAC systems are an assortment of single zone split DX heatpump systems (conventional Trane split systems and Mitsubishi VRF-style systems), some fan powered electric heaters and exhaust fans.

The condition of these systems appears to be fair, and can be continue to be operated with regular maintenance and occasional tinkering if they break down unexpectedly. Filters seem to have been changed regularly; there are no streaks by or buildup on diffusers that would indicate otherwise.

Mitsubishi/LG/Sanyo style split systems seem to have been added where there was a local need for conditioning or comfort.

These systems are simple and straightforward and meet current needs. The arrangement of temperature control zones (areas each system serves) are not ideal, driven mostly by which areas needed additional conditioning, and when; and ventilation systems are not well integrated with the current HVAC.

Mounting of the existing equipment and conduits on the roof, or prospective equipment, and any penetrations, should be improved, so that the equipment has proper hard points to secure to and curbs, sleepers and penetrations are adequately flashed and weatherproofed.

Prospective systems include a more comprehensive system of conventional ducted split heat pumps serving discrete zones of 800 to 1600 square feet and an outdoor unit corresponding to each indoor unit; or a VRF system that consists of ducted and non-ducted air handlers all served by one outdoor unit.

The conventional ducted split heat pump system is generally the least cost solution, however, it does not feature the ability to sub-divide zones and provide individual zone control for a number of spaces, which is an advantage of the VRF system.

The VRF system also features the ability to cool in one zone while simultaneously heating in another and can transfer some of the heat extracted from the air conditioned zone to the heated zone, reducing energy consumption. The VRF system will be more expensive than the split systems but provides additional comfort and energy features.
The energy code now requires that libraries and similar buildings use a dedicated outside air system (DOAS) to provide ventilation air. The system provides a consistent volume of ventilation air to each space and extracts the air through a heat exchanger to recover energy before exhausting it. The benefits of this system are that there are fewer components to leak and go out of calibration, compared to an economizer, and ventilation air quantities supplied to the various zones can be measured and assured.

There are options for temperature control systems, depending on the HVAC system elected. VRF has more limited options as these systems generally come with their own control system integrated with the HVAC equipment. These systems are reliable and reasonably easy to use. They do not integrate with standardized control systems easily though, which can cause some aggravation when a building owner has standardized on a Siemens, Johnson or similar system.

Conventional ducted split systems can be controlled by a wide variety of systems.

**ESTIMATED CONSTRUCTION COST**
Refer to the attachment accompanying this memo for a construction cost estimate.
APPENDIX C

San Juan Island Library
Mechanical Cost Estimate
Pre-Design

February 8, 2018

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Sum: $440,611
Contractor Overhead and Profit (15%): $66,092
Total: $506,703

No fire sprinkler work included
SAN JUAN ISLAND LIBRARY ELECTRICAL ASSESSMENT

DATE
February 23, 2018

LOCATION
San Juan Island Library, Friday Harbor, WA

Introduction

The electrical assessment of the San Juan Island Library was performed with a focus on the following tasks:

- Narrative describing existing electrical systems and conditions.
- Identification of short, medium and long range system upgrades.

Building General Description

The Library Building is approximately 9,200 square foot, two story. The 1st floor contains library, director office, meeting room, bathrooms, electrical room and telecom room. The second floor is an attic with an office, storage rooms and bathroom.
APPENDIX D

**Electrical Services**

Power and telephone utilities serve the building underground and are located on the west exterior side of the building. The utility power transformer is located on the west side of the building in a fence enclosure area. The main electrical and telecom rooms are located in the middle west side of the building.

![Picture 3 – Electrical Utility Power transformer located in fenced area.]

**Power System**

Power is supplied to the building from Orcas Power and Light Cooperative (OPALCO) padmount transformer at 208 volt, 3 phase. The main panel/service is rated at 600 amp and is located in the main electrical room in the middle west side the building. Per OPALCO’s demand meter readings for the last two years, the peak usage occurred in January, 2017 and was 256 amps. This indicates the main panel/service is approximately 43% loaded and has capacity for future load. This also indicates that the highest electrical load may be due to heating. OPALCO’s demand readings show the lowest building usage occurred in July, 2017, at 66 amps.

The main panel is a Square D, I-Line style panelboard. It is a modern type panelboard that contains circuit breakers (not fuses). It appears that it was new in 1994 when an addition was built onto the Library. It appears to be in good condition and is a similar type that would still be installed in a new building today. It has five main circuit breakers. 3 of the five circuit breakers are rated 200 amp, 3 phase and supply sub-panels in the building. The fourth circuit breaker supplies a 3 phase mechanical unit HC-1. The fifth breaker supplies a 1 phase mechanical unit AHU-1. Six main breakers is the maximum limit allowed by code, however, there is physical space to add another breaker, leaving capacity for future growth.
Power System Needs/Upgrades:
- Short term (1 to 5 years) – Monitor existing condition.
- Medium term (5 to 10 years) – Monitor existing condition.
- Long term (approx. 20 years) – Depending on condition, possible replacement of ORCAS padmount utility transformer. Possible replacement of power panels.

**Lighting**

The existing interior lighting in the 1994 building addition is primarily made up of commercial recessed 2x4 fluorescent fixtures with T8 lamps. There are some incandescent track lighting and incandescent can lights. T8 fluorescent lighting is still a fairly efficient means of lighting. The existing fluorescent lighting appears to be in good condition.
The existing interior lighting in the original part of the building is a combination of surface mounted fluorescent and incandescent lighting.

Exit and emergency lighting exists in the building. Some was installed originally in the building and some has been added with surface mounted conduit. The backup batteries should be checked to determine whether they are still in good condition.

The existing exterior lighting is primarily made up of building mounted lights with no pole mounted lights for the parking lot. The site visit was performed during the day time, however, the existing lighting does not appear that it provides very much light at night. The exterior lights are primarily high pressure sodium (HPS) wall packs, building mounted. The north and east sides of the building appear to be underlit. At some point in time, incandescent flood lights have been added with surface conduit routing from light to light around the perimeter to provide more light. LED lighting is currently a more efficient lighting method. Eventually, the exterior lighting should be replaced/upgraded with LED type.

Lighting System Needs/Upgrades:
- Short term (1 to 5 years) – Replace interior incandescent fixtures with LED type. Replace and add exterior fixtures with LED type.
- Medium term (5 to 10 years) – Monitor existing condition. Begin planning for interior fluorescent fixtures to be replaced with LED type. If utility grant available to replace, consider using it.
- Long term (approx. 20 years) – Replace interior lighting with LED type.

Telecommunications (telephone and data)

The utility telephone service equipment is mounted on the west exterior of the building. The telephone service cable is routed into the main telecom room and terminates on the
main telecom terminal board. From there, it ties into telephone system equipment and is distributed throughout the building to wall jacks at telephone locations.

A telecom equipment rack with electronic equipment, switches, servers, etc. is located in the main telecom room and initiates the data network system. From there, the data system is distributed throughout the building with modern type category 5 (CAT5) cabling to wall jacks at computer locations.

![Main Telephone Terminal Board](Picture 10.png) ![Main Telecom Equipment Rack](Pict. 11.png)

Telecom System Needs/Upgrades:
- **Short term (1 to 5 years)** – Begin replacing rack mounted electronic equipment, servers, switches, wireless access points, etc. This equipment has a typically life expectancy of approximately 5 to 7 years, depending on the user.
- **Medium term (5 to 10 years)** – Replace rack mounted electronic equipment, servers, switches, wireless access points, etc. Consider replacing CAT5E cable in building if performance, speed, etc. problems become a nuisance.
- **Long term (approx. 20 years)** – Same comment as 5 to 10 years.

**Fire Alarm System**

The fire alarm system does not meet current codes and the building does not have a fire sprinkler system. The fire alarm system has minimal wall mounted detectors sparsely located in the building. The detectors are not located for proper building protection. The fire alarm system does not have pull stations at the exits and it does not have horn/strobe
notification to notify building occupants of a fire. It is recommended that a new fire alarm system be installed with new building remodels or additions.

Fire Alarm System Needs/Upgrades:
- Short term (1 to 5 years) – Install new fire alarm system.

**Security Alarm System**

The building appears to have a minimal security system monitoring the front entry doors. It may have some other features installed but are not visible. Further investigation is required to determine the capability of the system and if the system is expandable.

Security Alarm System Needs/Upgrades:
- Short term (1 to 5 years) – If security is a concern, upgrade security alarm system with door contacts on all exterior doors and motion sensors in the common areas or areas of high value.

**Electronic Access Controls**

The building does not appear to have electronic access controls at any doors.

Electronic Access Control System Needs/Upgrades:
- Short term (1 to 5 years) – If electronic access controls and key phobes or card readers are desired to track who enters the building after hours or for convenience to allow temporary user access without a hard key, install an access control system.

**Surveillance System**

The building does not appear to have a surveillance camera system (unless it is hidden from site).

Surveillance System (Cameras) Needs/Upgrades:
- Short term (1 to 5 years) – If security is a concern, install a surveillance system with exterior cameras around the perimeter and interior cameras at interior common areas or areas of high value.

Steve TeVelde, P.E.
CODE ANALYSIS – SAN JUAN ISLAND LIBRARY (SITE A)

Project: San Juan Island Library

Officials Consulted: Friday Harbor Land Use Department

GENERAL

Project Description: The scope of the project includes the development of a library addition and renovation, or replacement, and additional parking per square footage requirements.

Owner: San Juan Island Library District

Building Address(es): 1010 Guard St.

Applicable Codes:

(Per FHMC 15.04.010)
2015 International Building Code (IBC)
2015 Uniform Plumbing Code (UPC) as adopted by the state of WA
2015 International Mechanical Code (IMC)
2015 Washington State Energy Code
2015 International Fire Code (IFC)

Friday Harbor Municipal Code
Title 17 - Land Use

Zoning Jurisdiction: Friday Harbor Municipal Code

Other Regulatory Agencies: N/A

ZONING ANALYSIS

Parcel Number: 351151041000

Legal Description: PR OF LOT 59 GOULD’S 2ND ACRE ADDN Sec 11, T 35N, R 3W

Deed Restrictions/Easements: N/A

Zone: Commercial

Allowed or Conditional Use: FHMC 17.32.020

Allowed:
A. Retail sales not requiring outdoor storage;
B. Professional services;
C. Indoor entertainment and amusement;
D. Transient accommodations;
E. Technical services;
F. Governmental services;
G. Churches;
H. Marinas;
I. Commercial parking lots; and
J. Community or public park and recreational facilities; and
K. Ancillary residential uses on other than ground floor street front areas shall be less than 50 percent of the total habitable square footage.

Conditional:
A. Public and private utility structures;
B. Automobile and other machinery repair services contained within an enclosed building; and
C. Self-storage rental units.

Year Built: 1970
### APPENDIX E

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<th>Lot Area:</th>
<th>28,750 sf (0.6594 acres)</th>
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<td>Allowable Lot Coverage:</td>
<td>FHMC 17.32.040 60% allowed 70% allowed if 50% of required parking is located within structure’s footprint</td>
</tr>
<tr>
<td>Existing Floor Area:</td>
<td>(Per Lewis Construction set) 9,200 sf (4,600 original)</td>
</tr>
<tr>
<td>Street Improvements:</td>
<td>N/A</td>
</tr>
<tr>
<td>SEPA</td>
<td>FHMC 18.08 Site in question is not mapped as a critical area per Exhibit A, Critical Areas Map.</td>
</tr>
<tr>
<td>Landscape Requirements:</td>
<td>FHMC 17.56.030, FHMC 17.68.070 Off-street parking lots shall provide perimeter landscaping in accordance with the following minimum requirements: i. A three-foot-wide planting strip along the entire lot perimeter, excluding driveways; ii. One tree for each 20 lineal feet of lot perimeter or fraction thereof, excluding driveways; iii. Each tree shall be healthy “balled and burlapped” stock and carefully planted; iv. Each deciduous tree shall measure a minimum of two inches in diameter at time of planting; v. Each evergreen tree shall have a minimum height of eight feet at time of planting; vi. The remaining planting strip area shall be planted with shrubs and ground cover; vii. Shrubs shall be a minimum height of two feet at time of planting; and viii. All property other than the designated parking area shall be landscaped with at least grass or other ground cover. Each parking area which has 40 or more parking spaces shall provide interior landscaping in accordance with the following minimum standards: i. At least four percent of such parking area shall be used for interior landscaping; and ii. Each landscaping area shall contain at least one deciduous tree or acceptable substitute which measures a minimum of two inches in diameter at time of planting.</td>
</tr>
<tr>
<td>Setback Standards:</td>
<td>FHMC 17.32.050 Front: N/A Rear: 20’ min. Side: 20’ min.</td>
</tr>
<tr>
<td>Setbacks for Specific Items:</td>
<td>FHMC 17.56.040 Site clearance: No obstruction over 42” higher than the adjacent street shall be permitted on corner lots within a 15’ right-triangle setback.</td>
</tr>
<tr>
<td>Building Height:</td>
<td>FHMC 17.56.020 Existing: 158’-11” Allowed: 27’-0” max. (w/o variance)</td>
</tr>
<tr>
<td>Parking:</td>
<td>FHMC 17.68.030 Existing: 44 Required: 1 per 300 sq. ft. of gross floor area For all uses outside the downtown core area the parking area must be within 100 feet.</td>
</tr>
</tbody>
</table>

#### BUILDING CODE ANALYSIS

**Existing Buildings and Structures**

3403.1 Additions to any building or structure shall comply with the requirements of this code for new construction. Alterations to the existing building or structure shall be made to ensure that the existing building or structure together with the addition are no less conforming with the provisions of this code than the existing building or structure was prior to the addition. An existing building together with its additions shall comply with the height and are provisions of Chapter 5.

3404.1 Alterations to any building or structure shall comply with the requirements of the code for new construction. Alterations shall be such that the existing building or structure is no less complying with the provisions of this code than the existing building or structure was prior to the alteration.

**Occupancy Groups**

IBC 302, 304, 310, 311 A3, B

**Allowable Building**

| Allowed (Type V-A, NS) | Existing (Type V-B, S1) |
### Heights and Areas

* Shown for non-sprinklered

<table>
<thead>
<tr>
<th>Occ Group</th>
<th>A-3</th>
<th>A-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of stories allowed</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Area</td>
<td>11,500 sf</td>
<td>24,000 sf</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Occ Group</th>
<th>B</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of stories allowed</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Area</td>
<td>18,000 sf</td>
<td></td>
</tr>
</tbody>
</table>

IBC Table 504.3

<table>
<thead>
<tr>
<th>Maximum building height (Type V-A, NS)</th>
<th>50 ft. (27 ft. allowed per zoning)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(E) Maximum building height (Type V-B, S1)</td>
<td>60 ft.</td>
</tr>
</tbody>
</table>

### Mixed Use and Occupancy

508.1 Where a building contains more than one occupancy group or use, the building or portion thereof shall comply with Section 508.2, and with the applicable provisions of Section 508.3 or 508.4, or a combination of these sections.

### Non-separated Occupancies

508.3.1 Occupancy classification

Non-separated occupancies shall be individually classified in accordance with Section 302.1. The requirements of this code shall apply to each portion of the building based on the occupancy classification of that space except that the most restrictive applicable provisions of Section 403 and Chapter 9 shall apply to the building or portion thereof in which the non-separated occupancies are located.

508.3.2 Allowable building area and height

The allowable building area and height of the building or portion thereof shall be based on the most restrictive allowances for the occupancy groups under consideration for the type of construction of the building in accordance with Section 503.1.

WAC 296-305-06507 Sleeping Areas

1. All sleeping areas in fire stations shall be separated from vehicle storage areas by at least one-hour fire resistive assemblies. Compliance with this section shall be required within three years of the effective date of this chapter.
2. Sleeping areas shall be protected by smoke detectors.

### Construction Type

IBC 602.5 & Table 601

<table>
<thead>
<tr>
<th>Existing</th>
<th>Proposed type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type V-B, S1 (V-N per Lewis Architecture, A1.0)</td>
<td>Type V-A (1 Hour), NS</td>
</tr>
</tbody>
</table>

### Interior Finishes

Table 803.11 Interior Wall and Ceiling Finish Requirements by Occupancy (reference Table)

### Fire Sprinklers

IBC 504 Automatic sprinkler system increase

Value for maximum building height is increased by 20 ft.

Value for maximum number of stories is increased by 1.

IBC 506.3 Automatic sprinkler system increase

The building areas limitation is increased by an additional 200% for buildings with more than one story above grade plane.

The building area limitation is increased by an additional 300% for buildings with no more than one story above grade plane.

### Portable Fire Extinguishers

IFC 906.1 Fire extinguishers for Class A Fire Hazards Light (Low) Hazard Occupancy

<table>
<thead>
<tr>
<th>Value</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2-A rating</td>
<td></td>
</tr>
<tr>
<td>Maximum 3,000 sf per unit of A</td>
<td></td>
</tr>
<tr>
<td>11,250 sf floor area per extinguisher</td>
<td></td>
</tr>
<tr>
<td>75 ft. max. travel distance to extinguisher</td>
<td></td>
</tr>
</tbody>
</table>

### Fire Alarm and Detection Systems

IFC 907.2.1 An automatic fire alarm system shall be installed in accordance with Sections 907.2.1 through 907.2.1.3 in Group A occupancies having an occupant load of 300 or more
A fire alarm system is not required in buildings with an occupant load less than 1,000 when an approved automatic fire sprinkler system is installed throughout the building.

**Fire Access Roads**

IFC 503.1.1 Access roads shall extend to within 150 ft. or all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility.

Width: Min. 20' unobstructed width
Height: Min. 13'-6" unobstructed height

IFC 503.2.4-5 Turning Radius: 50'-0" radius (45 ft. hard surface requirement)
Dead end fire apparatus access roads in excess of 150 ft. shall be provided with an approved area for turning around fire trucks

**General Means of Egress**

1003.2 The means of egress shall have a ceiling height of not less than 7'-6"

1003.1 Protruding objects are permitted to extend below the minimum ceiling height provided a minimum of headroom of 80 inches shall be provided for any walking surface. Not more than 50% of the ceiling area of a means of egress shall be reduced in height by protruding objects

**Occupancy Load**

IBC table 1004.1.2 Existing posted allowable occupants: 129

<table>
<thead>
<tr>
<th>Area (sq. ft)</th>
<th>Occupant Load Factor (gross)</th>
<th>Occupants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library Stacks</td>
<td>7330</td>
<td>100 gross</td>
</tr>
<tr>
<td>Business / Workroom</td>
<td>1300</td>
<td>100 gross</td>
</tr>
<tr>
<td>Meeting</td>
<td>570</td>
<td>15 net</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>9,200 sf</td>
<td>124 occupants*</td>
</tr>
</tbody>
</table>

* Numbers estimated from posted occupancy in existing library and existing drawings provided.

**Egress Requirements**

1005.1 Minimum Egress Width
Stairs: .3’ per occupant; .2’ per occupant for other egress components

1005.2 Door encroachment
Doors, when fully opened, and handrails shall not reduce the required means of egress width by more than 7 inches. Doors in any position shall not reduce the required width by more than one-half.

1007.1 Accessible means of egress required.
Exceptions: 1. Accessible means of egress are not required in alterations to existing buildings.

1008.1.1 Minimum Width of Egress Door:
32’ clear opening

1008.1.2 Door swing
Doors shall swing in the direction of egress travel where serving an occupant load of 50 or more persons.

1008.1.3 Door opening force
Force for pushing or pulling interior egress doors shall not exceed 5 pounds. Other doors, 15 pounds for door latch.

1008.1.6 Landings at doors
Landings shall have a width not less than the width of the stairway or the door, whichever is greater. Doors in the fully open position shall not reduce a required dimension by more than 7 inches. Landings shall have a length measured in the direction of travel of not less than 44 inches.

1008.1.7 Thresholds
No more than 1/2 inch. Raised thresholds and floor level changes greater than 1/4 inch at doorways shall be beveled with a slope no greater than 1:1.

1008.1.8 Door arrangement
Space between two doors in a series shall be 48 inches minimum plus
SAN JUAN ISLAND LIBRARY BUILDING CONDITION ASSESSMENT & FEASIBILITY STUDY

APPENDIX E

the width of a door swinging into the space.

1008.1.9 Door operations Hardware shall be ADA.

1008.1.10 Panic and fire exit hardware H occupancy, and occupant load of 50 or more in Group A or E occupancies.

1009 Stairways No new stairways.

1010.2 Ramp slope 1:12 max; 2% cross slope; 30" rise, max.

1012.2 Handrail height 34-38" AFF

1013.2 Guardrail height 42" AFF

1014.2 Egress through intervening spaces Acceptable if through accessory rooms and a discernible path of egress travel to an exit is provided.

1006.2.1 Number of exits

<table>
<thead>
<tr>
<th>Occupancy</th>
<th>Maximum Occupant Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-3</td>
<td>49</td>
</tr>
<tr>
<td>B</td>
<td>49</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Occupancy</th>
<th>Distance (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-3</td>
<td>75 (w/o sprinklers)</td>
</tr>
<tr>
<td></td>
<td>75 (w/ sprinklers)</td>
</tr>
<tr>
<td>B</td>
<td>75-100 (w/o sprinklers)</td>
</tr>
<tr>
<td></td>
<td>100 (w/ sprinklers)</td>
</tr>
</tbody>
</table>

1017.2 Exit Distance

<table>
<thead>
<tr>
<th>Occupancy</th>
<th>Distance (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-3</td>
<td>200 (w/o sprinklers)</td>
</tr>
<tr>
<td></td>
<td>250 (w/ sprinklers)</td>
</tr>
<tr>
<td>B</td>
<td>200 (w/o sprinklers)</td>
</tr>
<tr>
<td></td>
<td>300 (w/ sprinklers)</td>
</tr>
</tbody>
</table>

1018.2 Corridor Width 44” min.

1018.4 Dead ends 20 ft.

Table 1006.3.2 Stories with one exit

<table>
<thead>
<tr>
<th>Occupancy</th>
<th>Maximum Occ. and travel distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>A, B</td>
<td>49 per story, 75’ travel distance</td>
</tr>
</tbody>
</table>

Accessibility Requirements

1103.2.2 Existing buildings Comply with Section 3411.

3411.3 Extent of application An alteration of an existing element, space or area of a building or facility shall not impose a requirement for greater accessibility than that which would be required for new construction. Alterations shall not reduce or have the effect of reducing accessibility of a building, portion of a building or facility.

3411.6 Alterations A building, facility or element that is altered shall comply with the applicable provisions in Chapter 11 of this code and ICC A 117.1, unless technically infeasible. Where compliance with this section is technically infeasible, the alteration shall provide access to the maximum extent technically feasible.

SEBC 1005.1 Accessibility, Minimum requirements Accessibility provisions for new construction shall apply to additions. An addition that affects the accessibility to, or contains an area of, primary function shall comply with the requirements of Sections 605 and 706, as applicable.
APPENDIX E

Interior Environment

1203.4.1 Natural Ventilation 4% of floor area being ventilated.

1205.2 Natural Light 8% net glazing of floor area being served.

1208.1 Minimum room widths 7 feet

1208.2 Minimum ceiling heights 7 feet, 6 inches; Bathrooms, toilet rooms, kitchens, storage rooms and laundry rooms: 7 feet.

1210.1 Floors and wall base finish materials Toilet, bathing, and shower room floor finish materials shall have a smooth, hard, nonabsorbent surface. The intersection of such floors with walls shall have a smooth, hard, nonabsorbent vertical base that extends upward onto the walls at least 4 inches.

Plumbing Fixture Requirements

Table 2902.1 Reference Occupancy Load calculations above.

Total existing "occupied" square footage: ~9,200 SF

Provided: 3 WC / 3 L

<table>
<thead>
<tr>
<th>Occupancy</th>
<th>Water Closets</th>
<th>Lavatories</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-3</td>
<td>1 per 125 / 1 per 65</td>
<td>1 per 200</td>
</tr>
<tr>
<td>B</td>
<td>1 per 25 (1-50), 1 per 50 (&gt;50)</td>
<td>1 per 40 (1-80), 1 per 80 (&gt;80)</td>
</tr>
</tbody>
</table>

2902.1.3 Equal M&F occupant Load (divide in half)

2903.1 Separate facilities required for each sex. Exception: In occupancies serving 15 or less, one unisex is acceptable.

2904.2 Stall size: 30" wide, min, with 24" clear in front of toilet.

CODE ANALYSIS – SAN JUAN ISLAND LIBRARY (SITE B1)

Owner: San Juan County Public Works

Building Address(es): 1000 Guard St.

ZONING ANALYSIS

Parcel Number: 351151035000

Legal Description: GOULD’S 2ND AC ADDN TO FH - GARAGE Sec 11, T 35N, R 3W

Deed Restrictions/Easements: N/A

Zone: Light Industrial

Allowed or Conditional Use: FHMC 17.52.030

Allowed:
A. Ancillary single-family uses;
B. Wholesale and retail commercial uses to include outdoor storage;
C. Light manufacturing uses;
D. Automobile sales, service and repair;
E. Commercial parking lots;
F. Community or public park and recreational facilities;
G. Indoor entertainment and amusement facilities;
H. Outdoor storage;
I. Accessory buildings associated with the above uses;
J. Self-storage rental units;
K. Professional services; and
L. Cultural, religious, and health care facilities.

Conditional:
A. Public and private utility structures;
B. Equipment maintenance and repair performed outdoors;
C. Activities of a marijuana processor or marijuana producer after such activities have been duly licensed by the state of Washington pursuant to Chapter 314-55 WAC; and
D. Any use not expressly permitted in another zone or allowed by conditional use in another zone.

Year Built: N/A (to be demolished)

Lot Area: 101,989 sf total (2.3413 acres)
Approx. 72,250 sf Industrial (1.66 acres)

Allowable Lot Coverage: FHMC 17.32.040 50% or less allowed

Existing Floor Area: Approx. 10,500 sf (estimated from floor plan on Assessor’s Report)

Street Improvements: N/A

SEPA FHMC 18.08 Site in question is not mapped as a critical area per Exhibit A, Critical Areas Map.

Landscape Requirements: FHMC 17.56.030, FHMC 17.68.070 Off-street parking lots shall provide perimeter landscaping in accordance with the following minimum requirements:
   i. A three-foot-wide planting strip along the entire lot perimeter, excluding driveways;
   ii. One tree for each 20 lineal feet of lot perimeter or fraction thereof, excluding driveways;
   iii. Each tree shall be healthy “balled and burlapped” stock and carefully planted;
   iv. Each deciduous tree shall measure a minimum of two inches in diameter at time of planting;
   v. Each evergreen tree shall have a minimum height of eight feet at time of planting;
   vi. The remaining planting strip area shall be planted with shrubs and ground cover;
   vii. Shrubs shall be a minimum height of two feet at time of planting; and
   viii. All property other than the designated parking area shall be landscaped with at least grass or other ground cover.

Each parking area which has 40 or more parking spaces shall provide interior landscaping in accordance with the following minimum standards:
   i. At least four percent of such parking area shall be used for interior landscaping; and
   ii. Each landscaping area shall contain at least one deciduous tree or acceptable substitute which measures a minimum of two inches in diameter at time of planting.

Setback Standards: FHMC 17.52.050
   Front: 5'-0" (if abutting R.O.W., exclusive of parking areas)
   Rear: None required
   Side: 15'-0" min.

Setbacks for Specific Items: FHMC 17.56.040 Site clearance: No obstruction over 42” higher than the adjacent street shall be permitted on corner lots within a 15’ right-triangle setback

FHMC 17.52.050 Barrier required when light industrial zone abuts residential lot

Building Height: FHMC 17.56.020 Allowed: 27'-0" max. (w/o variance)

Parking: FHMC 17.68.030 Existing: 44 Required: 1 per 300 sq. ft. of gross floor area
For all uses outside the downtown core area the parking area must be within 100 feet.
### CODE ANALYSIS – SAN JUAN ISLAND LIBRARY (SITE B2)

**Owner:** San Juan County Public Works  
**Building Address(es):** 1000 Guard St.

#### ZONING ANALYSIS

<table>
<thead>
<tr>
<th>Parcel Number</th>
<th>351151035000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legal Description</td>
<td>GOULD'S 2ND AC ADDN TO FH - GARAGE Sec 11, T 35N, R 3W</td>
</tr>
<tr>
<td>Zone</td>
<td>Multi-Family</td>
</tr>
<tr>
<td><strong>Allowed or Conditional Use:</strong></td>
<td><strong>FHMC 17.52.030</strong></td>
</tr>
</tbody>
</table>
| **Allowed:** | A. Single-family dwellings; “transient accommodations,” as that term is defined in this title, are not permitted uses;  
B. Accessory uses and buildings normally incidental to the above permitted residential uses; “transient accommodations,” as that term is defined in this title, are not permitted uses;  
C. Multifamily dwellings; “transient accommodations,” as that term is defined in this title, are not permitted uses;  
D. Home occupations;  
E. Community or public park and recreation facilities;  
F. Cultural and religious facilities; and  
G. Planned residential development. |
| **Conditional:** | A. Public and private utility structures;  
B. Mobile home parks. |

| Year Built | N/A |
| Lot Area | 101,989 sf total (2.3413 acres)  
Approx. 29,739 sf Multi-family (0.68 acres) |
| Density | **FHMC 17.24.040**  
Max. density allowed: 14 units per acre (for residential) |
| **Allowable Lot Coverage:** | **FHMC 17.24.050**  
30% or less allowed |

| Existing Floor Area | N/A |
| Street Improvements | N/A |

| SEPA | FHMC 18.08  
Site in question is not mapped as a critical area per Exhibit A, Critical Areas Map. |
| Landscape Requirements | FHMC 17.56.030, FHMC 17.68.070  
Off-street parking lots shall provide perimeter landscaping in accordance with the following minimum requirements:  
i. A three-foot-wide planting strip along the entire lot perimeter, excluding driveways;  
ii. One tree for each 20 lineal feet of lot perimeter or fraction thereof, excluding driveways;  
iii. Each tree shall be healthy “balled and burlapped” stock and carefully planted;  
iv. Each deciduous tree shall measure a minimum of two inches in diameter at time of planting;  
v. Each evergreen tree shall have a minimum height of eight feet at time of planting;  
vi. The remaining planting strip area shall be planted with shrubs and ground cover;  
vii. Shrubs shall be a minimum height of two feet at time of planting; and |
viii. All property other than the designated parking area shall be landscaped with at least grass or other ground cover.

Each parking area which has 40 or more parking spaces shall provide interior landscaping in accordance with the following minimum standards:

i. At least four percent of such parking area shall be used for interior landscaping; and

ii. Each landscaping area shall contain at least one deciduous tree or acceptable substitute which measures a minimum of two inches in diameter at time of planting.

<table>
<thead>
<tr>
<th>Setback Standards:</th>
<th>FHMC 17.52.050</th>
<th>Front: 20’ min. (from R.O.W.)</th>
<th>Rear: 5’-0” (from PL)</th>
<th>Side: 15’-0” min. total (no yard less than 5’-0”)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setbacks for Specific Items:</td>
<td>FHMC 17.56.040</td>
<td>Site clearance: No obstruction over 42” higher than the adjacent street shall be permitted on corner lots within a 15’ right-triangle setback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building Height:</td>
<td>FHMC 17.56.020</td>
<td>Allowed: 27’-0” max. (w/o variance)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parking:</td>
<td>FHMC 17.68.030</td>
<td>Existing: 44 Required: 1 per 300 sq. ft. of gross floor area</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For all uses outside the downtown core area the parking area must be within 100 feet.

* Text in gray notes redundant zoning information listed in the previous zoning analysis.
APPENDIX F: MAINTENANCE HISTORY & TIMELINE
1- Year Sample of Facilities Project and Maintenance Work

January 2017-
1. Five fire extinguishers replaced, added one new in basement
2. Sprayed for silverfish (caught in traps)
3. Bulbs replaced
4. Exhaust fan replaced and switch repaired (under building)
5. Main area carpet cleaning redone (spots, odor)
6. Door locks adjusted (emergency door, staff entrance, hallway)

February 2017-
1. Carpet spot cleaning
2. Sprayed for flying ants (found several in office)
3. Meeting room carpeting spot cleaned
4. Tile floors polished and buffed

March 2017-
1. Moved staff copier to new location; added phone line for FAX
2. Added partition wall
3. Replaced large white board in meeting room
4. Added wireless doorbell to staff entrance
5. Installed two locking t.p. dispensers to deter t.p. theft
6. Replaced public restroom signage to meet gender neutral standards

April 2017-
1. Front door mechanism was broken and replaced
2. Added No Smoking/Vaping decals to windows
3. Front of building trashcan was retrofitted to deter trash dumping by public
4. Rubber transitions between tile floor and carpeting were repaired

May 2017-
1. Electrical wiring for ductless heat pumps and moving copier
2. Two ductless heat pumps installed
3. Four speakers installed in Main Salon area ceiling and walls
4. Added spotlight and dimmer for program presenters
5. Added recessed lighting in fireplace area and in teen area
6. Added two outdoor electrical outlets and three indoor electrical outlets
7. Added wired Ethernet to teen area
8. Added two additional smoke detectors
9. New shades installed in staff area
June 2017-
1. Replaced flooring in blue public restroom (tile bubbled from moisture)
2. Additional breaker line installed due to frequent tripping
3. Additional shelving for Adult Fiction DVDs and YA Fiction
4. Vents cleaned in high ceiling
5. Bent One-Way sign repaired
6. Carpets cleaned—meeting room and restroom hallway, upholstered chairs
7. Primary network security appliance failed

July 2017-
1. HVAC pump and air handler failed, necessitating their replacement
2. Electrical work to install new HVAC and air handler, 3 new minisplits, move copier
3. Long window in staff area replaced with tinted, anti-glare glass
4. Trees trimmed back

August 2017-
1. Staff workroom carpeting replaced
2. Touch up painting: outside—columns, bike rack area, new trim, side wall, new ducting; inside—new electrical conduit, hallway door

September 2017-
1. Electrical outlets relocated underneath furniture
2. Emergency lights repaired in meeting room

November 2017-
1. Upholstered furniture cleaned
2. Carpets cleaned in meeting room and main area of Library

December 2017-
1. Roof replacement begun
2. Buzzing ceiling fixtures replaced in staff area
3. Faulty outdoor light replaced
4. Fading exterior light replaced
5. Gutters cleaned
6. Windows washed inside and outside
7. Bent parking lot sign repaired
## 2015-2018 PROCESS TIMELINE

<table>
<thead>
<tr>
<th>DATE</th>
<th>WHAT</th>
<th>WHO?</th>
<th>HOW PUBLICIZED?</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 10, 2015</td>
<td>Regular Board Meeting--Board decides to plan workshops to consider facilities</td>
<td>Board; Public invited</td>
<td>In-library flyers and local news</td>
<td>Board decided to plan work sessions to examine facilities in terms of successfully fulfilling the Library’s mission.</td>
</tr>
<tr>
<td>April 15, 2015</td>
<td>Staff Visioning Session</td>
<td>Library Staff</td>
<td>Internal for staff only</td>
<td>Asked to envision the Library in the future--what are ideas and dreams? What are needs vs. wants?</td>
</tr>
<tr>
<td>May 2015</td>
<td>Staff Assessment Survey</td>
<td>Library Staff</td>
<td>Internal for staff only</td>
<td>Asked to answer: 1) What’s working well? 2) What could be better?</td>
</tr>
<tr>
<td>May 26, 2015</td>
<td>Special Board Work Session #1</td>
<td>Board; Public invited</td>
<td>In-library flyers and local news</td>
<td>Focus: Create library building program based on needs assessment of facility, services, and long-range plan. Develop broad objectives and Action Plan of building program, including public involvement.</td>
</tr>
<tr>
<td>August 2015</td>
<td>Library Annual Report</td>
<td>Every island postal patron</td>
<td>Mailed to every postal patron; available in Library and on website</td>
<td>Looking Ahead! Facility Needs-blurb on back page; describes facility needs project and invites public to participate.</td>
</tr>
<tr>
<td>September 15, 2015</td>
<td>Special Board Work Session #2</td>
<td>Board; Public invited</td>
<td>In-library flyers and local news</td>
<td>Focus: Continue to develop public input Process and Actions begun at May 26, 2015 Work Session</td>
</tr>
<tr>
<td>December 15, 2015</td>
<td>Special Board Work Session #3</td>
<td>Board; Public invited</td>
<td>In-library flyers and local news</td>
<td>Focus: Continue to develop public input process as part of Library Facility Exploration begun at May 26, 2015 Work Session</td>
</tr>
<tr>
<td>September 7, 2016</td>
<td>Special Board Work Session #4</td>
<td>Board; Public invited</td>
<td>In-library flyers and local news</td>
<td>Focus: Continue to develop public input process and information for any facility solutions, as part of Library Facility Exploration begun at Work Session #1 on May 26, 2015</td>
</tr>
<tr>
<td>DATE</td>
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<td>WHO?</td>
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<tr>
<td>October 2016</td>
<td>Survey Focus Groups</td>
<td>Invited 56 community stakeholders</td>
<td>By email invitation</td>
<td>Held three focus groups to test library facilities survey intended for distribution to the community. Responses indicated the public needed more detailed information about current state of the facilities, what services were prohibited due to facilities issues (including size and space), and what solutions the Library board and staff had explored and would recommend.</td>
</tr>
<tr>
<td>May 9, 2017</td>
<td>Regular Board Meeting--Board decides to hire firm to conduct facilities assessment</td>
<td>Board; Public invited</td>
<td>In-library flyers and local news</td>
<td>The Board authorized the Director to issue a RFQ for architectural firms to conduct Library facilities assessment and feasibility study.</td>
</tr>
<tr>
<td>August 2017</td>
<td>Facilities RFQPosted</td>
<td>Open to all qualified architectural firms in the region</td>
<td>Posted in regional and local newspapers (print and online); contacted some firms directly</td>
<td>The RFQ requested eligible firms to submit their qualifications to conduct an assessment and feasibility study of the library facilities.</td>
</tr>
<tr>
<td>September 2017</td>
<td>Facilities Assessment Committee selects four firms to interview</td>
<td>Committee members only</td>
<td>Internal for committee only</td>
<td>Ten firms submitted qualifications. Four firms were selected for interviews.</td>
</tr>
<tr>
<td>September 2017</td>
<td>Facilities Assessment Committee interviews four architectural firms</td>
<td>Four selected firms</td>
<td>Direct invitations to selected firms</td>
<td>The top four architectural firms were interviewed by Facilities Assessment Committee.</td>
</tr>
<tr>
<td>October 2017</td>
<td>Facilities Assessment Committee selects two finalists to submit proposals</td>
<td>Two selected firms</td>
<td>Direct invitations to selected firms</td>
<td>Qualifications were discussed, and two finalists were invited to submit fee proposals for consideration.</td>
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<tr>
<td>October 2017</td>
<td>Facilities Assessment Committee reviewed proposals and chose final selection to recommend to Board of Trustees</td>
<td>Committee members only</td>
<td>Internal for committee only</td>
<td>Committee selected one firm to recommend to the Board</td>
</tr>
<tr>
<td>October 31, 2017</td>
<td>Special Board Meeting to select final firm to negotiate contract with</td>
<td>Board; Public invited</td>
<td>In-library flyers and local news</td>
<td>Committee recommend one firm to hire. Board made final selection</td>
</tr>
<tr>
<td>November 2017</td>
<td>SHKS Architects Hired</td>
<td>SHKS Architects</td>
<td>Direct contact with firm</td>
<td>Contract was negotiated and signed</td>
</tr>
<tr>
<td>December 2017</td>
<td>Library’s Community Newsletter</td>
<td>Every island postal patron</td>
<td>Mailed to every postal patron; available in Library and on website</td>
<td>Full front-page article by Director on facilities assessment project and hiring of architects to evaluate the building and conduct a feasibility study, directed to the community</td>
</tr>
<tr>
<td>December 2017</td>
<td>SHKS Architects and consultant visit Library and attend Board Meeting; begin gathering data for assessment</td>
<td>Board; SHKS Architects; Public invited</td>
<td>In-library flyers and local news</td>
<td>The structural engineering consultant accompanied the architects to begin observations and data collection</td>
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<td>DATE</td>
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<tr>
<td>January -</td>
<td>Architects and consultants continue data collection</td>
<td>SHKS</td>
<td>N/A</td>
<td>Consultants include structural engineering, mechanical, electrical and cost estimation</td>
</tr>
<tr>
<td>February 2018</td>
<td></td>
<td>Architects and consultants</td>
<td></td>
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<tr>
<td>March 26, 2018</td>
<td>SHKS Architects attend Board Meeting to present draft report; present to staff at special staff meeting</td>
<td>Board; SHKS Architects; Public invited; Staff</td>
<td>In-library flyers and local news</td>
<td>SHKS presented a draft report and presentation, gathered more information from Board and staff members, discussed community outreach meetings coming up in May 2018</td>
</tr>
<tr>
<td>April 10, 2018</td>
<td>Regular Board Meeting--to review SHKS Architects' final report</td>
<td>Board; Public invited</td>
<td>In-library flyers and local news</td>
<td>Board will review final report and discuss community meetings to share results and gather community input</td>
</tr>
<tr>
<td>May 20-21, 2018</td>
<td>3 Community Meetings</td>
<td>Public invited</td>
<td>Press releases, Library newsletter, newspaper ads, email blasts, website, social media, banners, posters, flyers</td>
<td>Community invited to attend one of three meetings to view final report from SHKS Architects, view presentation, interact with display boards, discuss with architects, board members and staff members, and give input on future direction for Library facilities</td>
</tr>
<tr>
<td>June 12, 2018</td>
<td>Regular Board Meeting--to decide on board’s recommendation for future of Library facilities</td>
<td>Board; Public invited</td>
<td>In-library flyers and local news</td>
<td>Board will decide on recommended path to follow for Library facilities, taking into account final report from SHKS architects, community input, and how to fulfill Library’s mission and meet long-range goals</td>
</tr>
<tr>
<td>TBD</td>
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<td></td>
<td>Next steps will be determined based on board’s decision</td>
</tr>
</tbody>
</table>
### Meeting Notes

**Meeting Date**: 03/26/18  
**Issue Date**: 03/29/18  
**Project**: San Juan Island Library Needs Assessment & Feasibility Study  
**Subject**: San Juan Island Library Staff Meeting  
**Attendees**: Carrie Lacher, Laurie Orton, Leslie Baker, Jenni, Pat, Beth, Melina, Heidi, Floyd, Boyd, Sue, Marty  
**Copies**: Attendees, file  
**Note**: These meeting notes represent the architect’s understanding of issues discussed during the meeting, resolutions reached, and items requiring action. Please notify the architect within 7 days if these notes are found inaccurate or incomplete.

<table>
<thead>
<tr>
<th>Item</th>
<th>Subject</th>
<th>Remarks</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Introduction</td>
<td>A. SHKS presented status report and overall schedule update</td>
<td></td>
</tr>
<tr>
<td>1.2</td>
<td>Conditions Assessment</td>
<td>A. Architectural, structural, mechanical and electrical assessment all concluded that the building has been well-maintained—structural, mechanical, and electrical systems are all robust and in fairly good condition, though there are some ongoing problems, and areas for minor upgrades and repair.</td>
<td></td>
</tr>
</tbody>
</table>
| 1.3  | Site Planning Options | A. Site Planning Options  
Parcels A  
Option A.1- Expanded single-story library on existing site  
Option A.2- Two-story library on existing site  
B. Parcel B  
Option B.1- New 18,500sf (p to 28,800sf) library with 62 (up to 96) parking spaces, build up to front setback with greater sidewalk presence (closer to feel of downtown street front). DS noted parking areas are 10’x20’, roughly representing an equal amount of parking and building area per occupant.  
Option B.1- Same size and maximum coverage limitation as B.2. Library centered on parcel, with additional curb cut to access rear parking area. Both options B propose a mix of planted areas interspersed with parking.  
C. Combined Parcel A and B- retain existing 9,200sf library | |
building with 9,300sf east expansion and 73 parking spaces at south and east. Retain remainder of Parcel B for future expansion or outdoor activity space, or subdivide and sell as separate parcel with driveway access.

1.4 Discussion/Questions

Existing Library issues:

Good qualities about the library: Comfortable, cozy, personal, inviting, friendly staff.
Flexible/Multipurpose area in front works well, warm and inviting to have fireplace there.
Periodicals and ‘Local Interest’ in front is good, and wood bookshelves provide sense of warmth.

Inadequacies:

**Parking/site issues:**
Not enough parking spaces for high use of library
Parking lot too small and tight--fender benders common
Dangerous for children exiting buses
No safe drop-off/pickup area for patrons outside of traffic lane
Book drop-off blocks thru traffic
Book drop off- would be preferable to have a larger bin that deposits directly into the building. Books get damaged over holidays as bin gets too full.
Book drop materials exposed to elements 3 times a day--need shelter coming in
Lack of parking lot surveillance
Lack of loading/delivery space (currently blocks staff egress)
No parking onsite for future library vehicle

**General circulation/visibility:**
Library aisles are too tight
Poor sight lines throughout
Would like to increase space for browsing and lingering in aisles/library overall
Visibility- nobody can see or hear throughout all of the library

**Mechanical/electrical issues:**
Mechanical assessment- AC doesn’t keep up, can’t keep up with user needs (runs warm during the summer- patron complaints. Need more HVAC.
Doors open Memorial Day – October for air circulation
Inadequate air quality in middle of Library
Need for cooling refuge
Not enough outlets for people to plug in, co-work with others on tech devices

**Restrooms:**
Access to restroom is problem especially for people with
walkers (tight hallway)
Emergency access and security in hallway (no way to monitor bathroom hallway)
Disruptive location due to adjacency to meeting room
No way to hear what’s going on inside bathroom (in case someone were trapped inside)

**Privacy Issues:**
No place to make private phone calls (have to go to parking lot or sit in car)

**Friends:**
Need larger space for Friends store
Friends have no staging area
Friends need on-site storage space for discarded books being saved for book sales (storing off-site currently)

**Teens/Children’s:**
Monitoring teens and children’s areas is challenging
Too large of a separation between Teens and Children’s’ Areas
Kids end up running back and forth
Children’s area at back of library- not enough space
Not enough space for Preschool Storytime activities
No egress from Children’s area in an emergency
If had space:
Computer lab for instruction or after school play
Makerspace
Recording studio
Video-editing studio
Tool library
Youth services programs- frequently held offsite due to lack of room at library
Need greenspace that opens directly to Library

**Meeting Spaces:**
Need smaller meeting room space that doesn’t need to be reserved (use for skype interviews, small group work, phone calls, etc)
Adult programs- insufficient parking, exceeding 129 max attendance per fire code
No meeting space for commercial and/or private needs (have to pay to have a private meeting)
Meeting Room events increase parking lot usage (also busier in summer, need to accommodate seasonal population change)
English programs ‘leveled English program’– small groups talk out loud in middle of library– would use small meeting rooms if they had them
Can’t expect there to be a “Quiet study area”
"If I had 1,000sf” would use for meeting space, small meeting space, and staff workroom

**Collections:**
Need to enlarge large print collection (interest has grown), children’s collections, teen collections, adult nonfiction collection, books on cd audio collections
DVD collections are high circulators—can’t discard because still popular, but can’t add new titles because no room to expand—only place in town to borrow DVDs
Interlibrary circulation – largest in state?
Shelving is max’d out- top shelf is too high, and already using bottom shelf which is difficult for patrons and shelvers to use.
Not sure what percentage of collection is in circulation, but if everybody returned a book at the same time, they wouldn’t have enough space to accommodate collections
Currently operate on the policy of ‘Weed a book to buy a book”

**Entry:**
Need more covered space outside for people to wait for hours before/after library is open
No space for an automated front door

**Circulation Desk:**
Noise from circulation annoys people in fireplace area
Check-in work area- not enough space, tight to maneuver carts
Conflict between book drop off at desk and entryway
No panic button to communicate with law enforcement

**Workroom:**
Staff space is glaringly insufficient
Work stations are too tightly packed—no privacy, too noisy
Unsecured—pathway from back door to main library constantly used
Problems with glare, or too dark
Acoustics an issue- sound transmission from staff to public area, and very distracting in the staff area itself
Need space for suitable staff lounge
No space for concentrated work
Interlibrary Loan- highest circulation per capita, but no room for processing
Boxes pile up in workroom, office supplies stored on both floors

**Display/Storage:**
Need larger space for Community Bulletin Boards—can’t post everything, too small
Can’t host ‘Travelling national exhibit’ Smithsonian, Harry Potter, NASA, animated and figurines (don’t have space or security requirements)
Need storage for permanent art collection; also no secure display space
Not enough storage space throughout library

Programming:
Outreach- children’s programming often held off-site because library space too small
Adult programming: 129 occ. (parking for 4 blocks) 90-100 ppl often
Reading buddies programs- paired young and older readers (15 pairs) but had to turn people away as it was very popular and there was no place for it within library
Preschool Storytime- no space large enough
No space for larger computer lab
Need more space for summer programs (150 people, currently do offsite at elementary school)
‘If had more space’:
After-school computer classes
Offered donation of recording studio, HAM radio, video editing, tool library- no place to keep, but community support for them

Site selection/ potential for growth:
School district property- offered, if SJLIB ran school library
Proximity to downtown- foot traffic/car traffic
Old Medical Center property- 2 story, poor infrastructure
Which side of Spring street/Blair street are considered walkable?
Currently buses bring Elementary school kids, Middle/HS students walk to library
Size of community doubles during summer
Size for larger community than have the financial base for Fluctuating size of population- same challenges that the town faces- tourists during the summers, Library offers guest cards, an integral part of mission to serve tourists

Acoustics
Volunteers are sometimes too loud
Patrons can hear what’s going on in staff room
Added carpeting and shelving in Teen area to help block noise
Can get noisy at Circulation desk
Additional small meeting room spaces needed
No place to make private phone calls

Server Room:
Temperature in server room hasn’t been an issue
Server room with adequate power and enough space is desirable.

**Miscellaneous:**
Mold from Basement still a problem (perceived or otherwise)- Patron and staff complaints- sneezing, runny noses- occupational health issue
No place to demonstrate technology- need more space to interact with patrons one-on-one
Some settling at magazine storage area upstairs, making pocket door at staff restroom difficult to open and close (some repair has been done)
Emergency generator- would operate during emergency
Who runs it? ‘emergency management committee’
Library as refuge- central hub

1.5 **Next Steps**
Finalize report in next two weeks
Public Engagement activities in May. LO to inform staff after approach is refined with SHKS, Mark, Lynn.