



FINAL
DRAFT

Existing Conditions Assessment for
SAUNDERS HOUSE

GLOUCESTER LYCEUM & SAWYER FREE LIBRARY

Spencer, Sullivan & Vogt
ARCHITECTURE • PRESERVATION

GLOUCESTER, MASSACHUSETTS
NOVEMBER 2018

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ACKNOWLEDGEMENTS

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With special thanks to the following individuals for their invaluable assistance:

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Elizabeth Passmore, Cape Ann Museum
The Saunders House Stewardship Committee: Prudence Fish, Jane Mead, Bill Remsen,
David Rhineland, Mern Sibley (chair), Katelynn Vance.



EXECUTIVE SUMMARY

In 2018 Spencer, Sullivan, & Vogt (SSV) was engaged by the Saunders House Steering Committee (SHSC) of the Sawyer Free Library to assess the capabilities of the Saunders House building to serve the mission and program of the Library as it contemplates an expansion project. SSV serves as a consultant to Dore & Whittier Architects, the firm engaged for the Sawyer Free Library planning study. The intent of the Saunders House study is to establish a baseline for existing conditions and establish a plan for updating the building's use within the existing footprint. This study is a comprehensive assessment of physical conditions at the Saunders House and provides recommendations for structural and related modifications to accommodate proposed interior renovations to complement the programmatic requirements of the Sawyer Free Library.

The use of the Saunders House has evolved from its original function as a distinctive Georgian style private residence built in 1764 which evolved architecturally in several major alterations to its current incarnation to a public library. In 1884 it was given as a gift to the City of Gloucester for use as a public library by Samuel Sawyer and renovated for that purpose, later including a two-story brick wing added in 1913. In its current state, the Saunders House has finished spaces on the first floor for library program use, office and staff and resource work areas; the second floor has community and library staff work areas; and the third floor is essentially unused for anything but light general storage. The basement is used for mechanical systems and storage. A 1976 addition attached to the north houses most of the public library functions and book stacks. The principal entrance to the Saunders House is through the 1913 north wing linked to the 1976 building.

The Library seeks to renovate or replace the 1976 library building to house the functions of a fully-contemporary up-to-date library. This study investigates the adaptation of the Saunders House for spaces serving meetings, study, and exhibition with the potential of archival storage in the basement. The proposed meeting space use falls into the assembly category of the building code, which requires load bearing of 100 lb/sf, while reading room requirement is 60 lb/sf.

The Structural Assessment on page 63 of this document investigates the load bearing capacity of Saunders House. It is important to read the entirety of this report to understand the scope of structural issues. This summer, during a site visit by a Massachusetts Board of Library Commissioners' staff member, a floor loading capacity of 150 lb/sf was strongly recommended as a potential requirement of MBLC grant support. This was a response to a recent incident in a public library caused by a floor over-loading problem and is understandably precautionary in case the uses of the spaces changed without a full understanding of the floor loading capacities. Consequently, the Saunders House Stewardship Committee wished to investigate the impact of increasing the load bearing capacity of levels 1 and 2 of Saunders House. SSV with structural engineer John Wathne, Structures North, duly investigated this request. The impact of this very significant amount of structural reinforcement essentially requires an invasive endoskeleton of steel beams and columns within the historic structure of the Saunders House. We believe this is a serious and deleterious intervention in terms of impact on important historic fabric. This is particularly true for the first-floor walls, including the WPA wall mural in the magnificent center hall and staircase. We assert that the level of intervention to reach

that would be excessive and inappropriate for this historic structure both in terms of its integrity and the proposed uses.

Our recommendation is to reinforce the first-floor framing to 100 lb/sf as required by the assembly code of the proposed use for meeting space and 60 lb/sf for reading room spaces. On October 1, 2018, the Stewardship Committee agreed with this recommendation.

For the scope of other repairs on the building, it is extremely important to read the subcontractor assessments. See the Hazardous Materials Assessment on page 45ff., the Plumbing System Assessment on page 77ff., the Fire Protection System Assessment on page 85ff., the HVAC System Assessment on page 89ff., the Electrical System Assessment on page 99ff., and the Mural Assessment on page 109ff.

Based on several conceptual design options, two floor plan layouts were accepted in concept by the SHSC. Both plans assume the universal access is achieved by the link between the Saunders House and the Sawyer Free Library and that new HVAC, electrical, plumbing and fire Protection systems replace existing infrastructure. Scheme 1 depends on the link to the Sawyer Free Library for vertical access and emergency egress from the second floor of the Saunders House. Scheme 2 includes both elevator and emergency egress from the second floor to the first floor within the Saunders House building.

There is also strong interest in creating a basement archive area which will serve local archival needs. Both Scheme 1 and 2 could accommodate this goal.

These decisions are critical for the exploration of expanded uses related to public access and enjoyment of this community asset.

Current situation

The exterior of the building envelope was reviewed both architecturally and structurally. Considering its age and many transformations, the Saunders House is a remarkable survivor among Georgian period houses, and it contains major examples of period rooms with high style decoration elements. It also contains important mural sequences painted by two important local artists under the aegis of the Works Progress Administration in 1934. It has survived being transformed from a Georgian to a Victorian style, and from there to a library and back to a 'Colonial' style.

After over 250 years of continuous use, however, the architectural and structural integrity of the interior exhibits signs of wear. Old mortar and wet conditions in the basement need to be remedied, and the entire structure needs to be brought up to code to enhance the workings of a large, modern public library.

Fortunately, identification of the physical maladies of the building is coinciding with the realization by the SFL that the Saunders House has great historic value and potential a public meeting and study space.

The report

The report is organized as follows:

Part One of the report, History & Significance, begins with a brief history and stylistic description of the building. Next is a list of character defining features, the physical elements that define the building's architectural significance and should be retained in any restoration scheme. The Preservation Guidelines section describes how alterations to the building should be approached to retain and celebrate the building's architectural significance.

Part Two, Existing Conditions & Treatment Recommendations, includes an examination of conditions at the building, both exterior and interior, from the roof to framing to the foundation, and recommendations for repair. Structural, mechanical, and hazardous materials assessments and a building code analysis are provided for the existing structure.

Part Three, Conceptual Design, Cost Estimates & Planning, includes conceptual design for preservation of the exterior and interior renovations, plus associated building code improvements and cost estimates.

The Appendix includes photographic documentation of the building and resources used in preparation of the report.

It has been a privilege to study and provide recommendations for the preservation and rehabilitation of the Saunders House, a vibrant community resource and historic cultural asset.

METHODOLOGY

The Feasibility report represents a collaborative effort between SSV and the stewards of the Saunders House. The client was represented by Library Director, Deborah Kelsey, who provided important guidance to help SSV understand and appreciate the programmatic requirements for operation of the SFL.

The project team was assembled and coordinated by Lynne Spencer, partner and preservation principal at SSV. Lynne directed on site investigations with the assistance of preservation architect Doug Manley. Architectural designer Curtis Perrin developed the historic research components of the report and coordinated its final assembly.

SSV assessed the building envelope and interior conditions and documented them with narrative and photographs. Structures North Consulting Engineers performed a structural engineering assessment of the building, Garcia, Galuska, DeSousa surveyed the mechanical, electrical and plumbing systems, cost estimating was provided by PM&C, and Universal Environmental Consultants performed the hazardous material assessment. Assessment and recommendations of the murals was done by Peter Williams.

Finch & Rose's 2005 is the seminal document for the architectural history of the Saunders House, its evolution, and significance. It was referred to extensively in the preparation of this report.

All photographs were taken by SSV unless otherwise indicated. The final report was issued both as a printed document and in electronic format as a portable document format (pdf).

Undated view of the house prior to 1878



(Finch&Rose)

Front facade as remodeled by Pew in 1878



(Finch&Rose)

Front facade c. 2005



(Finch&Rose)

PART 1: HISTORY AND SIGNIFICANCE

BUILDING HISTORY

The Saunders House is a grand example of Georgian architecture in Gloucester and indeed the North Shore generally. It retains its most architecturally defining exterior and interior features even though it has undergone many metamorphoses through its history. Since 1884, it has housed the Sawyer Free Library. For an extensive history of the building, see the report from Finch & Rose (2005).

The house was originally built for Thomas Saunders, a distinguished merchant, in 1764 as a 2-story center-hall plan with a gambrel roof. Much of the ornate interior woodwork from this period remains in the house in the southeast parlor and chamber and in the center hall, and it is of a very high quality. There were a pair of twin chimneys on either side of the house, which left room in the middle for a front-to-back center hall. The elaborate staircase has an intricately cut spiral newel post, and gradual ascent with low risers with three balusters to each step. To the right of the hall is a superb parlor with paneling and bolection moldings on all four walls, window seats, and a chimney flanked by alcoves. The matching chimney on the other side of the house was removed as were the original kitchen and cooking fireplace that were located on the north (rear) side.

After Saunders's death and probate of his estate, the house was sold to Capt. John Beach around 1784. Under Beach's ownership, the house began to change drastically, with replacement of the gambrel roof by a major third story addition with a 2-story, domed, 22.5-foot diameter octagonal observatory in 1802. Preserved sections of these vanished modifications show that the roof at this time was covered with canvas roofing material. It is speculated that Beach added the observatory out of pique that a new house across the street blocked his view of the harbor. The house probably acquired a balustrade on the roof at this time and some of the exterior ornamentation. Much of Beach's third-story woodwork remains intact, including a delicate Federal-style stairway that led to the former observatory that is in the epitome of style for the period. Beach died in 1819, and at some point prior to 1844 the observatory was replaced by a hipped roof, perhaps because the observatory was leaking.

After a succession of owners, the front entry was modified in the 1870s by adding heavy Italianate brackets supporting a bay window. In 1878, William A. Pew bought the house and extensively remodeled it into a Victorian showcase by adding a 4-story entry tower in the middle of the front facade. He also added a balustraded porch around the front and sides, new bay windows linked to the porch, and an addition at the rear linked to a port-cochere.

In 1884, Samuel Sawyer bought the house from Pew and donated it for use as a library and to display his own art collection to the public. In its initial years, the library did not make major alterations to the structure. In 1912-13 a 'fireproof' brick stack wing was added to the northwest corner, followed in 1914-15 by a major interior remodel and construction of a three-story addition across the entire north facade by Coolidge & Carlson architects of Boston. The interior changes involved

removing the western chimney stack and related walls to create large open rooms on the house's west side and a new stair in the rear addition.

By 1934, tastes had swung away from Victorian toward Colonial Revival, and there was a major exterior remodeling to remove the bulk of Pew's embellishments. The central entry tower was removed, as were the porches and bay windows, although the tower's base was kept to provide a new covered entry porch for the front door. This work was carried out by noted restoration architect Henry J. Carlson of Coolidge & Carlson, who earlier had added the back addition. In the interior, Victorian elements in the southeast front parlor (to the right of the entry) were replaced with an eighteenth-century styled mantel and hearth surround. A mural sequence by Frederick L. Stoddard was added as part of a Works Progress Administration project, and Frank Chouteau Brown did photo and drawing documentation of the southeast parlor and center hall for the "White Pine Series."

The library undertook a major new addition extending off the 1912 addition in 1976, and the Saunders House underwent some internal changes to optimize it for library use. This new wing was designed by Gloucester architect Donald F. Monell, who had an eye for having it work well with the Saunders House as well as the nearby City Hall such that the ensemble now forms an attractive group in the city center. Monell also designed the adjacent Cape Ann Museum in a similar style by attaching a new wing to an antique house.

In 2005 planning began for a major expansion to the 1976 addition, but the project was not undertaken. The library is currently in the planning phase for a new expansion project.

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MURAL HISTORY

The Sawyer Free Library has two sets of wall murals that are historically and culturally significant and warrant preservation and conservation. The earliest artwork, the 1934 mural cycle in the center hall, was created by artist Frederick Lincoln Stoddard as a federally-funded Works Progress Administration Federal Art Project. The Federal Art Project was a New Deal program designed to employ artists. As a result of the program, a significant body of public art was created across the country. The 1974 murals in the community room were painted by local artist Howard A. Curtis as memorial to a devoted librarian.



Stoddard's murals portray an impression of Gloucester rather than just a picture of it

STODDARD MURALS

Because the library is recognized to be such a fine example of a period Colonial interior, the question of its decoration was one of suitability and how to adapt to the many wall surfaces, while yet having unity. Stoddard's murals present an idea of Gloucester rather than a particular image of it – suggestions of wharves, streets, boats, landings, and fisheries within a background giving a sense of spaciousness.

Frederick Lincoln Stoddard (1861-1940) painted the murals with the assistance of Howard Curtis as part of the Public Works of Art Program. Stoddard was born in Quebec, Canada, but by 1886 had emigrated to the United States, where he established a stained glass studio in St. Louis, Missouri. After selling his interest in the business, he traveled to Paris in 1891 and studied with French painters Jean-Joseph Constant and Jean-Paul Laurens. Stoddard returned to St. Louis in 1894 to pursue a career as a muralist and began painting large-scale, multi-part works featuring heroic and allegorical figures in hotels, theaters, churches and public buildings including St. Louis's City Hall and Odeon Theater. A member of the Society of Western Artists, he taught classes at Washington University in stained glass, decorative arts, design, illustration and mural painting.

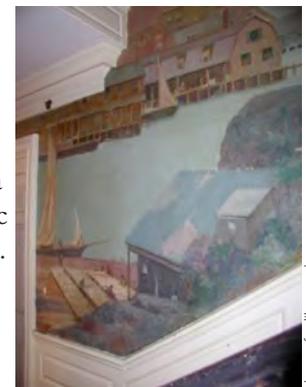
In 1904 Stoddard began working in New York City and spending summers in Mount Kisco, New York. In addition to his mural painting he took on magazine cover commissions for a variety of publications including *Cosmopolitan*, *Hearst's*, *Motor Boating*, and *Motor*. His numerous covers for *Motor* illustrated fanciful subjects ranging from an Egyptian pharaoh motorist to a woman on a flying unicycle.

Stoddard began visiting Gloucester, Massachusetts in 1922 and became a year-round resident in 1928. He was an active member of the Gloucester Society for Artists and the North Shore Art Association. Introductory remarks he provided at an artists' gathering in 1934 help explain what drew the artist to this seaside community.

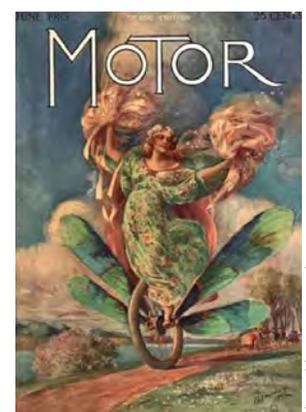
Gloucester has for many years been famous as a fishing port and its sturdy sailors have been celebrated in song and story. Around its beautiful and protected harbor they built their homes,



Murals at top of stairs



Murals at base of stairs



Stoddard cover, *Motor* (June 1910)



Stoddard mural in upper hall, east wall

their wharves, their places of business.... Time has softened the rough edges, mellowed the contrasts and gradually there has come a charm that has attracted to the Cape the artist, the sightseer, and the writer in ever-increasing numbers.

Stoddard painted at least ten WPA murals in the city. Through his library murals, Stoddard conveyed the spirit of Gloucester in an idealized expression of its maritime culture against a backdrop of the agrarian life that supported the early settlement of the community. Because he painted directly on the old, uneven plaster walls, the works have a quality of seeming old and harmonizing with the building.

The large mural rising aside the central stair adapts the idea of Gloucester to the particularities of the architecture. The bottom shows a harbor with its fisheries and boat building industry as simple masses against the water. At the top of the stairs, one reaches the 'horizon' at eye-level, and looking over the balustrade there is a feeling of the size of the harbor and its beauty. On the opposite east wall upstairs, scattered indicators like a tumble-down cellar and a distant glimpse of the 'Whale's Jaw' rock formation represent the vanished Dog Town Common settlement. Returning downstairs, the long east wall panel shows wharves and ship-building, with a small schooner in progress. The panel under the stairs depicts bringing in the marsh hay by means of a flat boat called a 'gundalow'.



Stoddard mural in vestibule

CURTIS MURALS

Howard Allen Curtis (1906-1989) began teaching art at Gloucester High School in 1934 and the same year landed a job as assistant to Stoddard on his library mural commission. This initiation to mural painting with an acknowledged master may have inspired his eventual professional career focus on marines, allegorical pieces, murals, and mural conservation. Trained in photo engraving at Wentworth Institute and art at the Massachusetts College of Art, Curtis taught art for 34 years and was active in the Gloucester arts community.

Curtis painted murals in the former Gloucester police station, the Prospect Street Methodist Church, and the Riverdale Methodist Church, and restored other murals in the city including the 1934 Stoddard works at the library. In 1976, Curtis was commissioned by the Friends of the Library to paint murals in what is now the community room. This memorial to longtime librarian Margaret E. Goodnow was based on fragmentary sketches by Frederick Stoddard for planned murals that were never completed. The Curtis murals are comprised of seascapes and marine scenes that include ship wrecks, a lighthouse, fishing stations, and Gloucester schooners among icebergs.



Howard Curtis at work at Sawyer Free Library (1976)

Curtis described his technique as painting by imagination, in which historical detail was blended into chiefly imaginary marine scenes. The artist called his paintings “arrangements in which everything is made to fit a particular mood.”



Curtis mural in community room

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ARCHITECTURAL SIGNIFICANCE

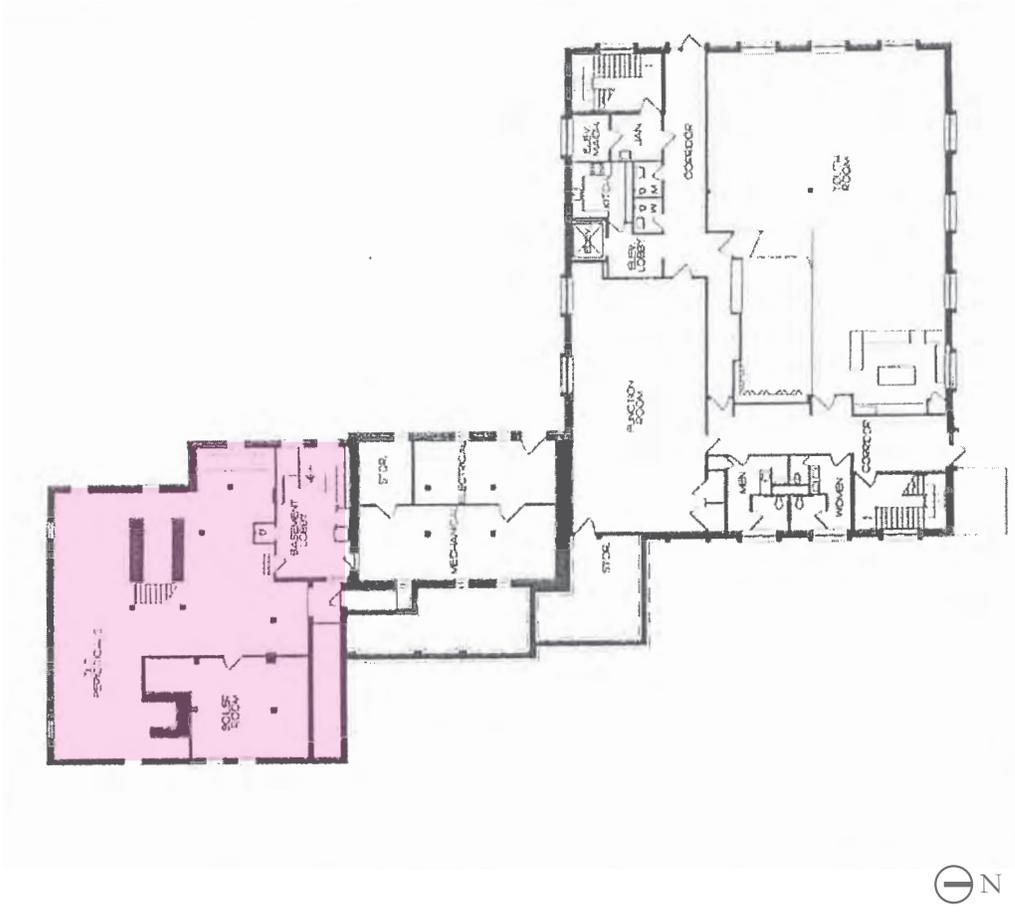
The Saunders House has a quality of grandeur and a level of detailing that makes it exceptional among surviving original houses of the Georgian period on the North Shore. Indeed few houses in the entire state have features that approach its magnificence. Today some of these fine qualities are obscured by maintenance issues and day-to-day clutter from its conversion to a large public library, but overall its cultural importance is recognized, and its stewards continue the long tradition of caring for the building.

Many layers of alterations cloud the image of the original house. That said, many original features remain: the original rusticated boarding on the front facade that is meant to look like cut stone, the pedimented window frames, and the elaborate cornice are key among these. On the interior, the central stair hall retains its original detailing on both the lower and upper floors, including wainscots, spiral balusters, and an arched window at the upper landing. Similarly, the southeast parlor preserves most of its fine woodwork and moldings, its cornice, and its overmantel with pilasters – a level of elaborate decoration seen on only the most important houses.

Subsequent to its original construction, the house has been through at least five major renovations and untold numbers of minor changes. In 1802 and 1878, the house was updated to reflect the tastes of the times, first with the addition of a third floor, and then with the latest Victorian Italianate styling by adding an entry tower, bay windows, and porches. Portions of these alterations remain on the third floor, which is largely intact from 1802 including its Federal staircase, and paint and wallpaper finishes from 1878. Even though not original to the construction of the house, these antique survivors should be preserved in their own right as a time capsule from the nineteenth century that has persisted intact down to the present.

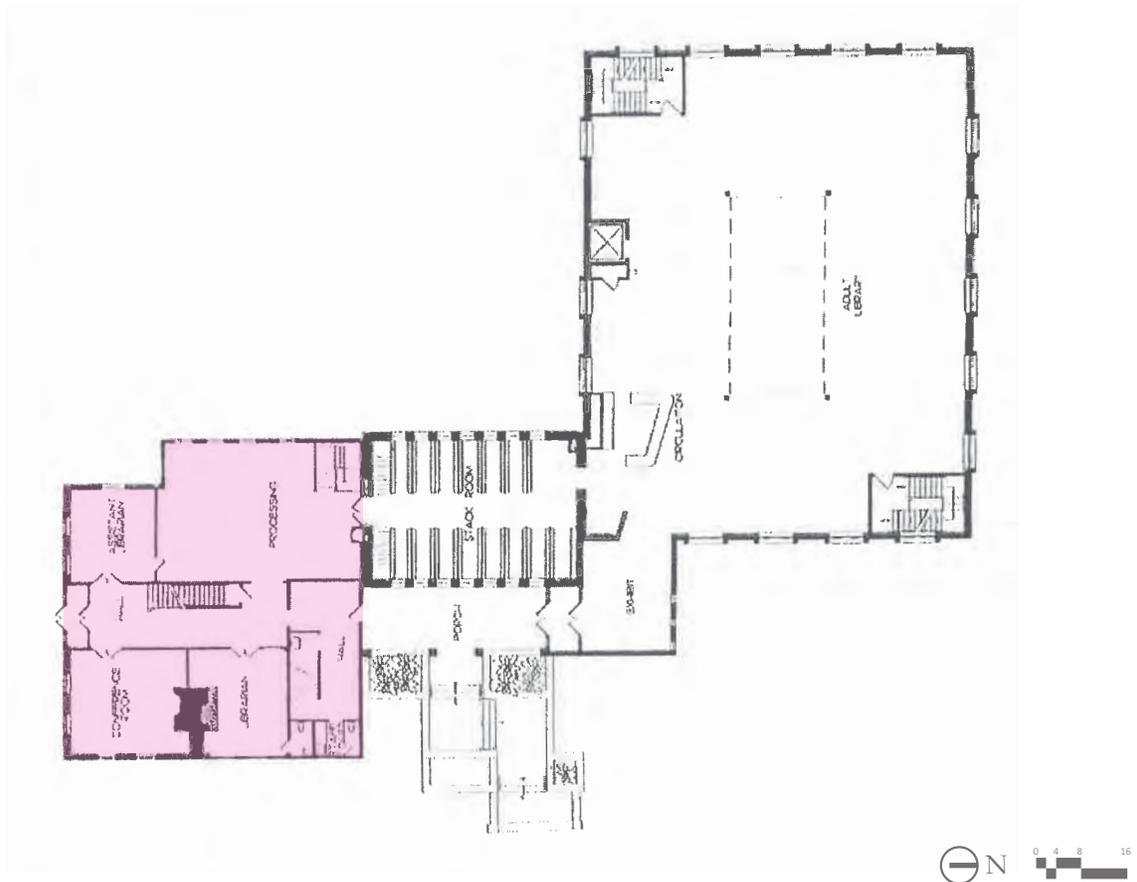
In 1914, and then in 1934, alterations were carried out to enhance the building's new function as a library, adding stacks and then an entire new wing across the back of the house. The 1934 work is notable for its effort to return the house to its 'colonial' appearance, as well as for the important mural sequences added to the interior under the Works Progress Administration program. These murals are a significant cultural asset in Gloucester.

A final addition in 1976 added an enormous new wing to bring it up to the library standards of its time. This new addition was designed by local Gloucester architect Donald F. Monell. This addition is held in good esteem by the community and harmonizes well with the Saunders House via its hipped roof. Not far away, the Cape Ann Museum was also designed by Monell in a very similar fashion and also attached to an antique house. The two projects of the museum and the library now bookend the City Hall in an effective manner. Efforts should be made to retain the cohesiveness of the urban relationships in this part of Gloucester.



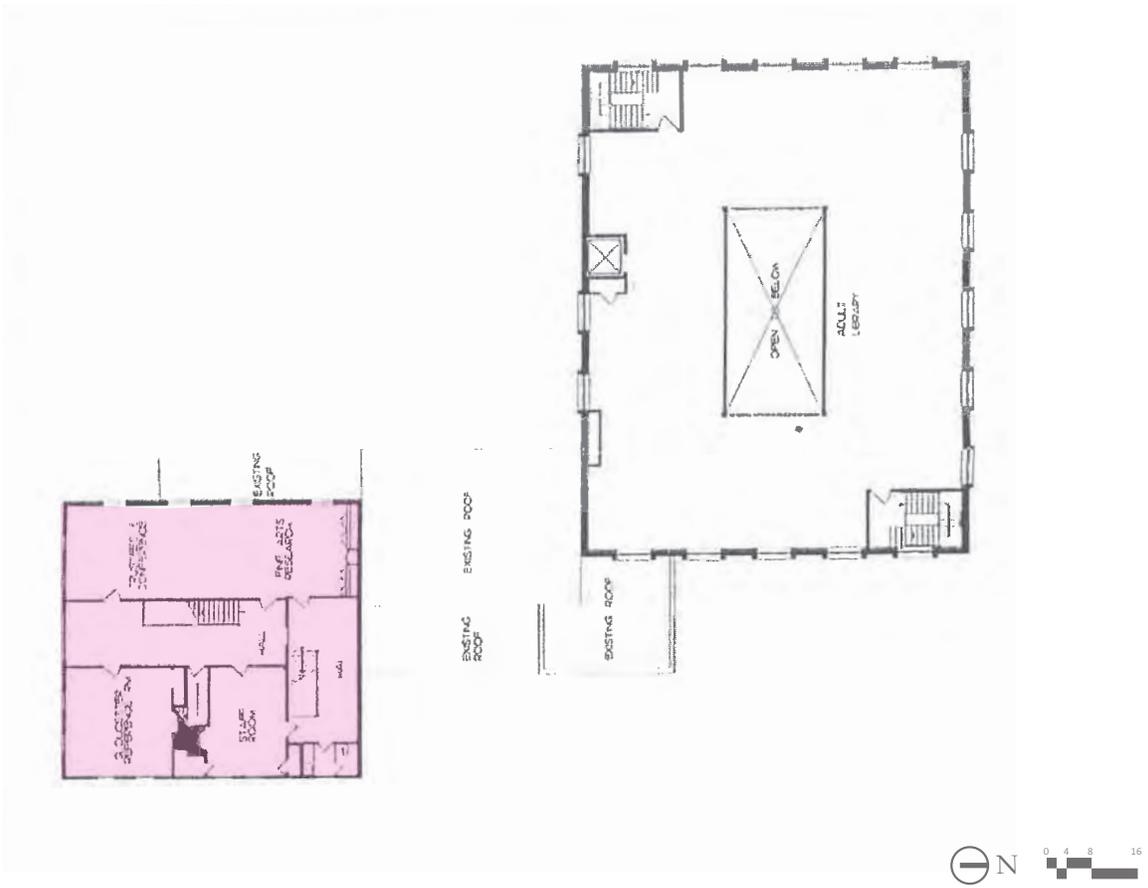
(Finegold, Alexander)

Sawyer Free Library Existing Basement Floor Plan



(Finegold, Alexander)

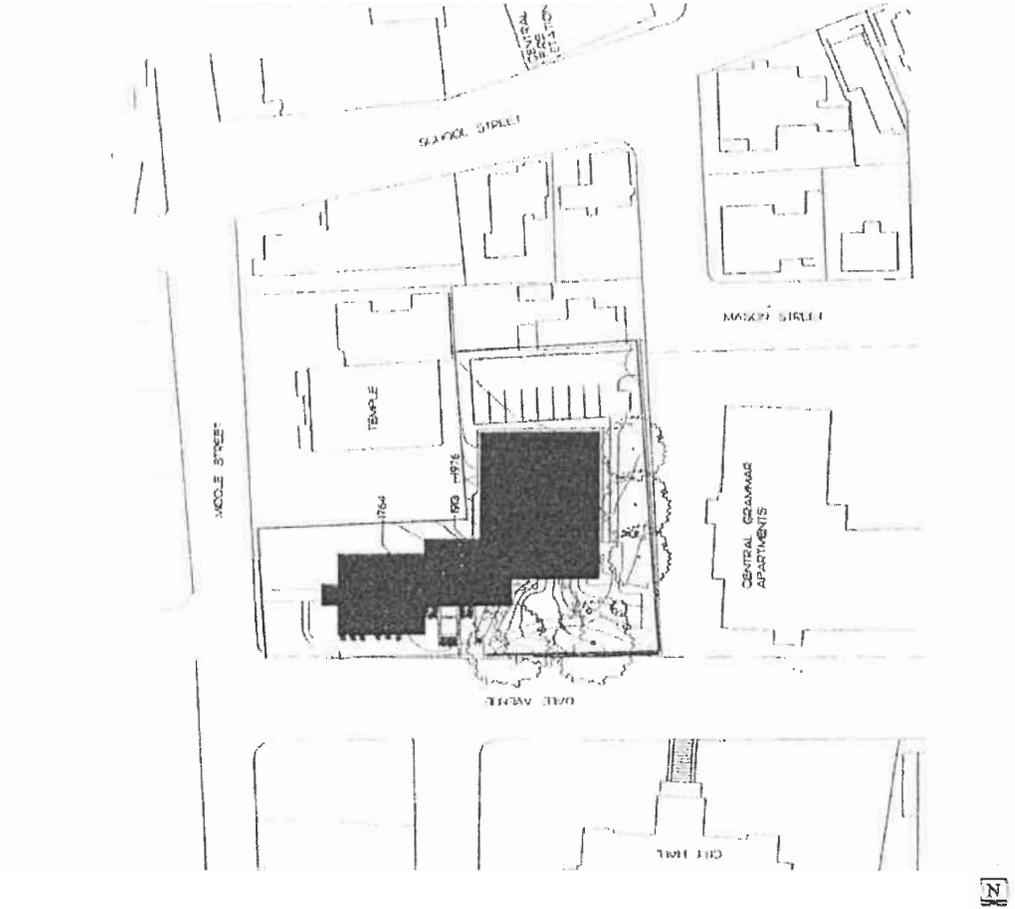
Sawyer Free Library Existing First Floor Plan



Saunders House

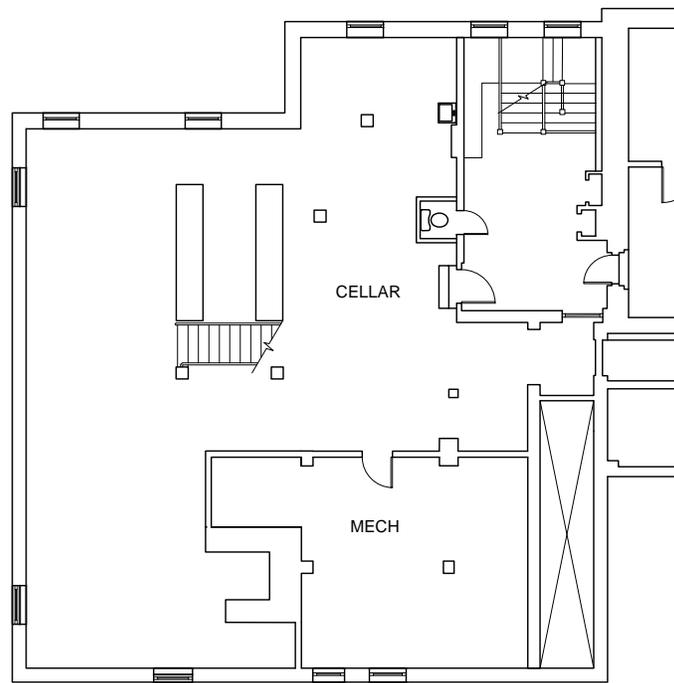
Sawyer Free Library Existing Second Floor Plan

(Finegold, Alexander)



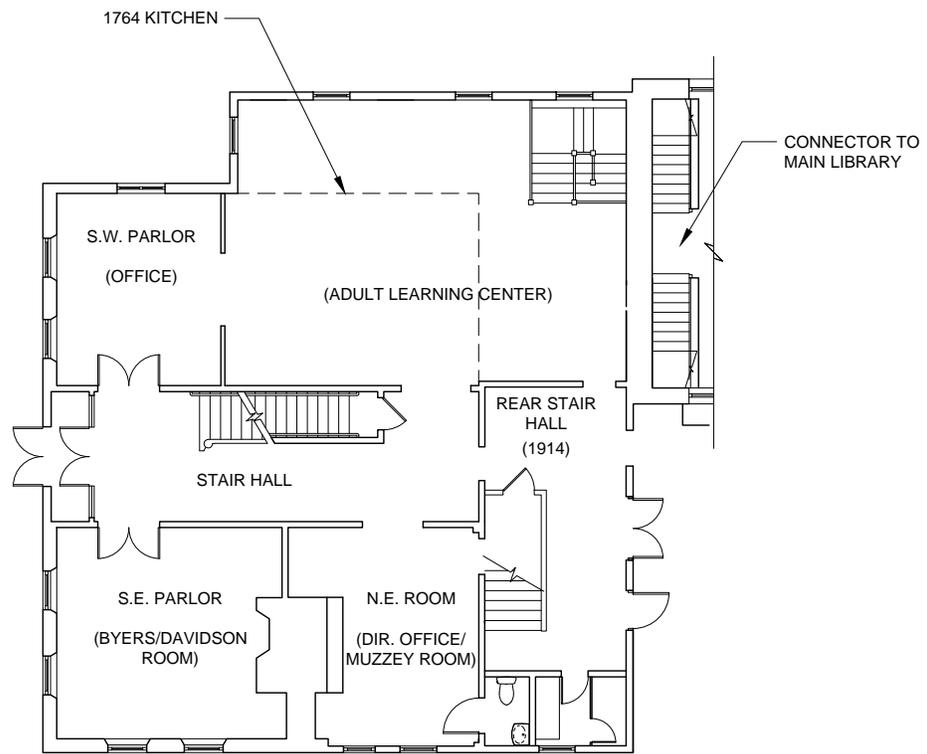
(Finogold, Alexander)

Sawyer Free Library
Existing Site Plan



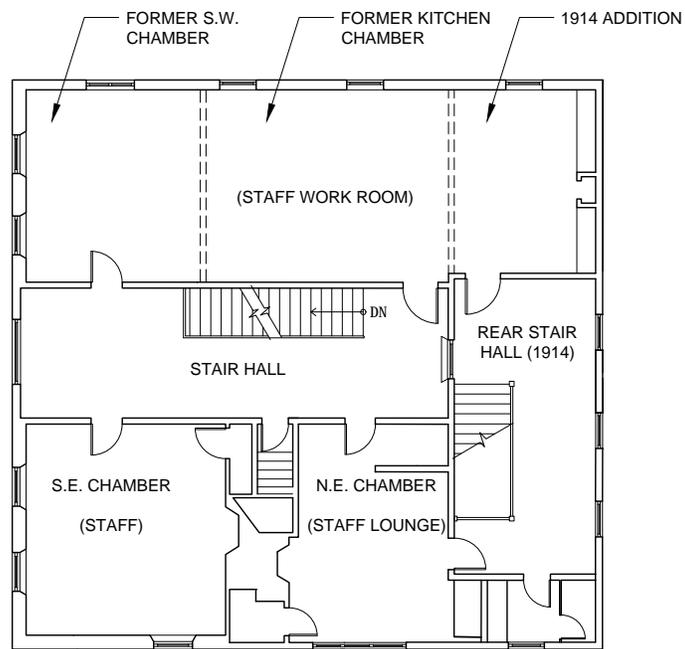
scale 1/16" = 1'

**Saunders House
Existing Ground Floor Plan**



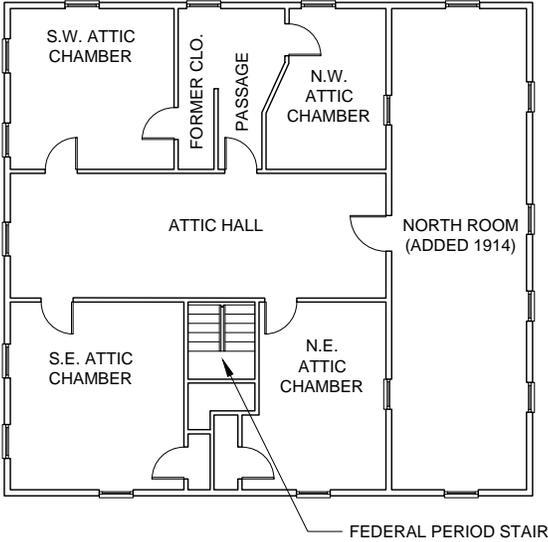
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**Saunders House
Existing First Floor Plan**



scale 1/16" = 1'

**Saunders House
Existing Second Floor Plan**



scale 1/16" = 1'

**Saunders House
Existing Third Floor Plan**



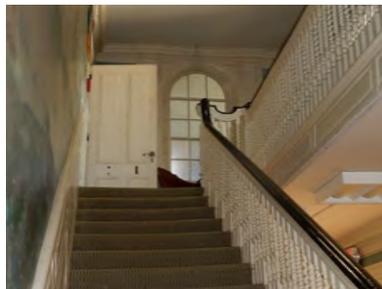
1938 photograph of west side facade.



Circa 1900 photograph after snowstorm.



The house in 2018.



CHARACTER DEFINING FEATURES

Every old building has a distinctive identity and character. Character-defining features are the significant, observable, and experiential aspects of a building that define its architectural power and personality. These are the features that should be retained in any restoration or rehabilitation scheme in order to protect the building's integrity and to maintain eligibility for preservation grant funding and rehabilitation tax credits.

Character-defining elements include the overall shape of the building and its materials, craftsmanship, decorative details, and interior spaces and features, as well as the various aspects of its site and environment. They are critically important considerations whenever building work is contemplated. Inappropriate changes to historic features can undermine the historical and architectural significance of the building, sometimes irreparably.

This survey of Saunders House identifies the elements that contribute to the unique character of the original buildings. The bulleted items in this section should be considered important aspects of the historic nature of the building and changes to them should be made only after careful consideration.

EXTERIOR CONDITIONS

Setting: *The topography, population density, and other influences that are noteworthy to the property.*

- Located in the urban center of Gloucester among a densely sited concentration of notable historic buildings, some of them examples of Gloucester's finest eighteenth-century architecture.

Shape: *The form of the building. The massing that gives the initial visual impression of the structure.*

- The form of the original house is a rectangular mass with five bays of windows and a central entry. Two original stories form the base, which is surmounted by a smaller third story with a hipped roof.
- NOTE: A portion of the back third of the house was added when the house was used as a residence, but the rest was added when it was converted to a library (see Finch & Rose report).

Roof and Roof Features: *Typically the most dominant element of a building. Often the element that most informs the shape of the building.*

- Hipped roof
- One original chimney stack remains on the east; a symmetrical western chimney stack was removed



- Original Georgian modillioned cornice at the second story; Federal cornice at the third story.

Openings: *Windows and doors. These often reflect the hallmark features of specific architectural styles.*

- Pedimented 6 over 6 windows on the front, replaced original 12 over 12 windows and have elongated at the base by 10” during the 1878 renovation.
- 6 over 6 windows elsewhere.
- NOTE: Shutters that would have been typical to this house in its eighteenth-century form have been removed. A surviving shutter example is stored on the third floor.

Trim and Secondary Features: *Casings at windows and doors, moldings, cornices, water-tables and other additive features.*

- Original Georgian modillioned cornice at the second story; Federal cornice at the third story.
- Pediments over windows date to the early period of the house.
- Portions of the structure with original wooden clapboards with tapered weather exposure.
- Original rusticated boarding on front facade with corner quoins.
- Columns and balustrades on the front entry from the 1878 renovation.
- Original cladding including rusticated paneling made to resemble stone and tapered weather exposure.

Materials: *The visible kit of parts that comprise the exterior envelope of the buildings.*

- Wood.
- Glazing.
- Stone.
- Brick.



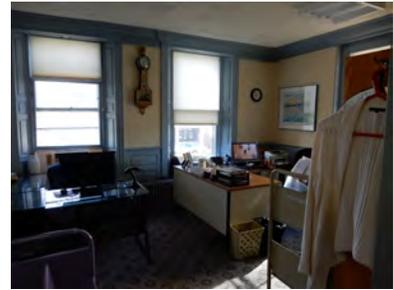
The house and 1976 addition in 2018.



Southeast Parlor



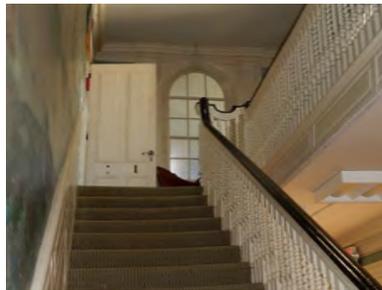
Southeast Parlor



Southwest Parlor



Stair Hall



Stair Hall



Stair Hall



Stair Hall



Stair Hall



Adult Learning Center



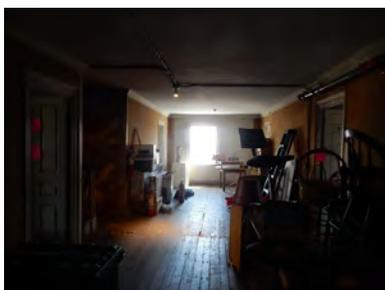
Staff Work Room



Southeast Chamber



Northeast Chamber



Attic Hall



Attic Chamber



Federal staircase

INTERIOR CONDITIONS

Features & Details: *Individual elements that are character defining.*

- Fireplace, mantel, and pilastered overmantel in southeast parlor.
- Wainscoting, panels, window surrounds in southeast parlor.
- Banister, newel post, balustrades in main hall.
- Murals by Stoddard and Curtis on first and second levels.

Individual Spaces: *Individual spaces that are character-defining.*

A. Level 1

1. Southeast Parlor: 1764 modillioned cornice and bolection molding overmantel with elaborate detail, pilasters, fireplace surround, mantel shelf, paneled window openings, doorway, wood paneling on all walls, fireplace, ceiling with original plaster, all window sashes and casings.
2. Southwest Parlor: Original cornice, window paneling, wainscot, wall plaster, window seat, chair rail.
3. Stair Hall: Spiral newel post, 1764 wainscot paneling, 1914 doors, turned balusters, stairway, original ceiling plaster, Stoddard murals.
4. Northeast Room: 1764 corner posts.
5. Adult Learning Center: This room was the original kitchen and considerably modified in the 1914 renovation. Most details in the room date to 1914.

B. Level 2

1. Southeast Chamber: Corner post casings; window casings from 1878; original plaster ceiling, original 1764 cornice, over-mantel and pilasters from 1764, mantel and coal grate from 19th century, 1764 doors.
2. Northeast Chamber: Original 1764 corner posts, 1914 window, 1764 over-mantel panels, 1764 door, 1850s door with graining exposed.
3. Stair Hall: Stoddard murals, 1764 cornice, wainscot, and stair railings, arched paneling and pilasters, pilastered doorway, compass head window over door.
4. Staff Work Room: Curtis murals; original window casings, portions of original wood ceiling cornice, 19th-century window casings.

C. Level 3

1. Attic Chambers & Attic Hall: 1878 wallpaper and paint schemes, crown moldings, faux wood graining on door, original plaster and lath, wide pine flooring, sashes and casings, Federal staircase, staircase stencils.



PRESERVATION GUIDELINES

The consideration of repairs, renovations, and maintenance at Saunders House should be guided by the significance of the buildings and site as framed by the National Register, Massachusetts Historical Commission, and the character defining features identified in this report. *The Secretary of the Interior's Standards for the Treatment of Historic Properties* should be used to inform all work at the building. The Standards provide advice on the preservation and protection of cultural resources and recognize four treatments: Preservation, Rehabilitation, Restoration and Reconstruction. The first three are relevant to this project.

Preservation

Preservation is defined “as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project.”

Rehabilitation

Rehabilitation is defined “as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural or architectural values.”

Restoration

Restoration is defined “as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.”

GENERAL APPLICATION OF THE STANDARDS

Additions

Additions to a historic structure should be respectful and subordinate to the original building. Although the addition should possess similar mass, proportions and materials and can feature complementary stylistic details, it should not replicate the original building and should be readily distinguished as new construction.

Materials

When repairs are required, original building materials should be replaced in kind – brick for brick, wood for wood, slate for slate. When traditional replacement materials are not available or are economically unfeasible, substitute materials that mimic the look, feel, and workability of original materials may be considered. Care should

be taken when deciding to use a synthetic material, however, since modern products may interface poorly with traditional building materials, offer limited longevity versus traditional materials, and experience color shifts and other deteriorative changes.

Siding

Substitute siding materials cannot rival the distinctive, historic appearance of wood clapboards, or shingles. Although substitute materials such as vinyl or cement board siding may offer short-term benefits in terms of maintenance and durability of color finish, they have inherent disadvantages. Vinyl siding severely compromises the historic integrity of a building and its application often obscures character defining trim elements or necessitates their removal. Cement board siding lacks the distinctive tapered profile of wood siding, is difficult to install (it requires screws instead of nails), and degrades over time. It performs poorly and takes on water during freeze-thaw cycles and where butt ends have not been properly prepared.

Wood Windows and Doors

Wood windows and doors are character defining features and essential elements in a historic building's distinctive architectural design. Repairing and weatherizing existing wood doors and windows is always the preferred approach for historic buildings and provides energy efficiency comparable to new elements. When windows have exceeded their useful lives and retention is not practical or economically feasible, an approach that combines repairing old windows where possible and introducing new windows where necessary is recommended.

Paint Finishes

Original paint formulations and colors are character-defining elements that are often lost over time because the paint materials themselves are relatively short-lived. When repainting is necessary to preserve the integrity of the envelope, the colors chosen should be appropriate to the style and setting of the building. If the intent is to reproduce the original colors or those from a significant period in the building's history, they should be based on the results of a scientific paint analysis.

Traditional lead-based paints, which offer excellent longevity, durability, and color stability, are no longer available in the United States. The highest quality latex-based paints available should be employed instead, after thorough surface preparation and priming. The application of a permanent vinyl or ceramic liquid coating system is damaging to wood, irreversible, and historically inappropriate.

APPLICATION OF THE STANDARDS AT SAUNDERS HOUSE

Preservation of the character-defining features and architectural integrity of the building should be of paramount concern for the building's stewards.

Preservation of the Setting and Landscape

The spatial relationship with the surrounding structures and streets should be retained in any rehabilitation scheme. The relevant history of the proximate geographical area should be respected within the framework of context and historical associations. Parameters to consider may include a variety of factors that can be determined by research and historical survey efforts that take account of time period, historical events, symbolic associations, and spatial relationships.

Preservation of Exterior Character Defining Features

Roofing

The roofing material is asphalt shingles. The roofing should be checked for wear, and replaced where necessary. An envelope repair project in 2009 addressed siding, windows, roof, and chimney repairs and at the time of the 2018 assessment these elements remain in good condition. No additional envelope repairs are required for now, but the exterior should be monitored and receive on-going maintenance such as painting as it is required.

Wood Siding, Windows, Doors, Trim, and Gutters

All wood materials should be retained, repaired and maintained. If the replacement of damaged elements is unavoidable, the original wood profiles should be replicated.

Some original wood elements no longer extant include the roof railings, original doors, some windows, and the shutters. These can be replicated if historic images and/or discovered remnants provide sufficient evidence for the recreation of the original forms. Wood gutters need repair or replacement.

Finch & Rose has identified the original color palette through paint analysis. A historically appropriate scheme for renovating the building should be devised with the assistance of a historic paint specialist.

Preservation of Interior Character Defining Features

Saunders House has undergone a series of significant interior alterations dating back over 100 years. The original configuration of rooms was changed to adapt the building to a library. All of the surviving original trim and woodwork is preferably maintained. Architectural features that should be preserved and/or restored include the wood moldings, window surrounds, mantelpieces, overmantels, interior transoms, and floors where possible. The restoration of windows and doors should be guided by extant remnants, salvaged elements, or comparative analysis with other contemporaneous houses. If interior demolition takes place, character defining elements should be salvaged and reused when possible.



PART 2: EXISTING CONDITIONS & TREATMENT RECOMMENDATIONS

EXTERIOR CONDITIONS

ROOF AND WATER MANAGEMENT SYSTEM

Conditions

A major exterior project was undertaken in 2007, so conditions are for the most part acceptable on the exterior of the building.

Recommendations

- The situation bears monitoring so that problems can be actively addressed when necessary. The expected lifespan of the asphalt shingle replacement roof should be about another 20 years.
- If active leaks become evident, swift action should be taken to locate and correct the cause.





SIDING AND TRIM

Conditions

The original wooden Georgian and Federal cornices are intact on the main block of the building, including modillions in two different styles.

Original rusticated wood panels on the front are made to resemble dressed stone.

Some original wooden clapboards are preserved on the east facade showing the tapered weather exposure – a characteristic eighteenth-century feature.

Original paint analysis on the pediments performed by Finch & Rose shows a variety of paint treatments over time.

The portico forms the base of the former entry tower. When the entry tower was removed, columns were taken from elsewhere on the first level porches to construct the present portico. The columns and balustrade are Victorian elements.



Recommendations

- Small areas of paint deterioration were observed, and others may be present. Check the entire structure for paint deterioration, and scrape and repaint as needed.
- The 2009 exterior envelope repairs project included siding and trim repairs, and these elements remain in good condition today, requiring no work at this time, but their condition should be monitored and maintained.



(Prudence Fish)

WINDOWS AND DOORS

Conditions

The windows in the building consist of reproduction 6 over 6 double-hung sash windows that were installed in 1934. In 1914 a three-panel window replaced the original windows on the east facade.

The 2007 envelope repair replaced some existing wood windows with new wood windows.

Various types of doors are on the building.

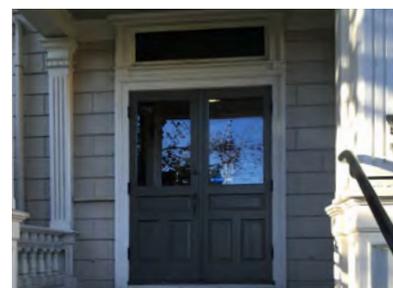
Air conditioner units are mounted in the windows.

Shutters that hung on the house were removed, along with their mounting hardware, in 1934.

Recommendations

- Install weather-stripping.
- Existing aluminum exterior storm windows should be replaced with new low profile exterior storm windows that would be an aesthetic improvement appropriate for this historic property and could also achieve increases in efficiency.
- The 2009 envelope repairs project restored windows and selectively replaced windows that were judged too deteriorated to restore. The present condition of windows and doors is good, but they need to be monitored and repaired as conditions require.
- Upgrade to central air conditioning system.

FOUNDATIONS AND DRAINAGE SYSTEMS





Conditions

The foundations consist of brick atop rubble stone set in mortar. The brick has been painted, and paint is starting to come off at the mortar joints, suggesting moisture in the joints. This mortar deterioration needs to be addressed.

The front steps are slabs of granite.

For the full extent of conditions in this area, it is important to see the Structural Assessment on page 63ff. The house is constructed of a heavy timber wood frame system. Several original timber posts are exposed and visible on the interior. In the third floor many areas of framing, including framing for an original hipped roof, are visible. The Structural Assessment observed rotted timber sills at the foundation. The Structural Assessment also observed severed and modified areas of framing from earlier renovations that need reinforcing.

Downspout is emptying directly onto the ground next to the foundation.



Recommendations

- Remove paint from brick via chemical stripping to prevent moisture being trapped behind the paint that leads to brick and mortar deterioration.
- Investigate present locations of downspouts for blockages via a snake camera inspection and confirm clear passage to a storm system or dry well.
- Roof run-off should be controlled to minimize water penetration into the basement through the rubble stone foundation. Perform localized treatments to keep water away from foundation including relocation of downspouts or creation of dry wells.
- Repointing of foundation bricks.



INTERIOR CONDITIONS

BASEMENT

Conditions

Some bricks in the basement are spalling, a condition that most likely is resulting from moisture. The brick wall is currently painted. There are numerous places where mortar needs repointing. Some structural work has been done to add columns and a steel beam to stabilize older wooden structural elements that are failing.

The sill under the southeast parlor has rotted, causing settlement of the building that has translated into the displacement of the fireplace mantel and paneling in the southeast parlor.

For the full extent of conditions in this area, it is very important to read the Structural Assessment on page 63ff., the HVAC System Assessment on page 89ff., and the Electrical System Assessment on page 99ff.)

Recommendations:

- Structural upgrades to address settlement of building at southeast parlor.
- Inspect structural upgrades and install further upgrades to support 100 lb/sf load on level 1.
- Repoint brick foundation and replace spalled bricks if required. Remove paint from brick.
- Test for radon and install mitigating equipment as required.
- If the archives are to be located in the basement (see page 123 for details): Install new 5" slab with vapor barrier and rigid insulation beneath, wire reinforcing, new concrete footings for new structural columns (see Structural Assessment on page 63), and 5' deep elevator pit with walls keyed into 12" slab/footing for design scheme.
- Selective asbestos pipe covering removal.
- Upgrade ceiling-hung HVAC equipment, electrical panels, and tel/com panels (See the HVAC System Assessment on page 89ff. and the Electrical System Assessment on page 99ff.). The HVAC System Assessment recommends upgrading from an oil to a gas system, and the Hazardous Materials Assessment indicates removal of the oil storage tanks (see page 45ff.).
- Create archival storage area with environmental enclosure and vapor-sealed doors.
- Install shelving in archival storage area.
- Update fire alarm system with addressable system so that location of any fire can be quickly ascertained.





LEVELS 1 & 2

Conditions

Some areas have lead paint and accessibility issues. The library plans to alter some interior configurations to accommodate new program uses. Care should be taken to place new partitions in ways that minimize impact to the historic murals. The murals show some signs of deterioration, and drop acoustical tile ceilings exist in some locations.



Recommendations:

- Remove partitions where indicated.
- Remove finishes as required to assess structural modifications.
- Remove existing acoustical tile ceilings where indicated and patch plaster ceiling.
- Refinish all existing wood floors, patch disturbed floors with new wooden flooring to match.
- New carpet runners at stair and hallway.
- Remove existing floor finishes, carpet, and tile.
- Remove mechanical, electrical, and plumbing items to be replaced.
- Selective asbestos floor covering removal.
- New structural steel columns and beams required for floor framing revisions (see Structural Assessment on page 63).
- Restoration repairs to historic fireplace and paneling at SE parlor.
- Repair wood trim & paint.
- Install new egress stair and machine room-less elevator (Scheme 2).
- New partitions on first and second floors - plaster and paint.
- Install ceramic floor tiling at restrooms.
- Install signage with Braille indicators.
- Restore murals (see Mural Assessment on page 109).

HAZARDOUS MATERIALS ASSESSMENT

UNIVERSAL ENVIRONMENTAL CONSULTANTS

Summary

Asbestos containing materials were found in the building in the pipe insulation, floor tiles, glue for stair tread flooring, and linoleum flooring. Areas containing these materials were located in the mechanical room, basement, crawl space, bathroom/closet, and other locations with hidden pipes and hard joint insulation. If the asbestos materials are intact and not releasing fibers, they can remain in place until work begins. If necessary, the asbestos should be remediated or sealed. The asbestos containing materials should be removed prior to any restoration or renovation work.

Refer to the report that follows for applicable laws and standards for surfaces with lead-based paint.



**FINAL REPORT
FOR
HAZARDOUS MATERIALS IDENTIFICATION
SURVEY
AT THE
GLOUCESTER LIBRARY
SAUNDERS HOUSE
GLOUCESTER, MASSACHUSETTS**

PROJECT NO: 218 169.00

SURVEY DATE:
July 13, 2018

SURVEY CONDUCTED BY:
UNIVERSAL ENVIRONMENTAL CONSULTANTS

July 18, 2018

Ms. Maria Fernandez-Donovan
Dore & Whittier Architects
260 Merrimac Street
Newburyport, MA 01950

Reference: Report for Hazardous Materials Identification Survey at the Gloucester Library, Saunders House, Gloucester, MA

Dear Ms. Donovan:

Thank you for the opportunity for Universal Environmental Consultants (UEC) to provide professional services.

Enclosed please find the final report for Hazardous Materials Identification Survey at the Gloucester Library, Saunders House, Gloucester, MA.

The inspection was performed by a Massachusetts licensed asbestos inspector Mr. Jason Becotte (AI-034963).

Please do not hesitate to call should you have any questions.

Very truly yours,

Universal Environmental Consultants



Ammar M. Dieb
President

UEC:\218 169.00\Report-DOC

Enclosure

INTRODUCTION:

Universal Environmental Consultants (UEC) has been providing comprehensive asbestos services since 2001 and has completed projects throughout New England. We have completed projects for a variety of clients including commercial, industrial, municipal, and public and private schools. We maintain appropriate asbestos licenses and staff with a minimum of thirty years of experience.

UEC was contracted by Dore & Whittier Architects to conduct an identification survey for Hazardous Materials at the Gloucester Library, Saunders House, Gloucester, MA. This survey was not comprehensive and it should not be used to demolish the building.

The scope of work included the inspection of accessible ACM, collection of bulk samples from materials suspected to contain asbestos and determination of types of ACM found. Bulk samples analyses for asbestos were performed using the standard Polarized Light Microscopy (PLM) method in accordance with the Environmental Protection Agency (EPA) standard. Bulk samples were collected by a Massachusetts licensed asbestos inspector Jason Becotte (AI-034963) and analyzed by a Massachusetts licensed laboratory EMSL, Woburn, MA.

Samples results are attached.

FINDINGS:

Asbestos Containing Materials (ACM):

The regulations for asbestos inspection are based on representative sampling. It would be impractical and costly to sample all materials in all areas. Therefore, representative samples of each homogenous area were collected and analyzed or assumed.

All suspect materials were grouped into homogenous areas. By definition a homogenous area is one in which the materials are evenly mixed and similar in appearance and texture throughout. A homogeneous area shall be determined to contain asbestos based on findings that the results of at least one sample collected from that area shows that asbestos is present in an amount greater than 1 percent in accordance with EPA regulations.

No additional accessible ACM was found during this survey. However, hidden ACM may be found during any renovation or demolition activities.

Number of Samples Collected

Fifty eight (58) bulk samples were collected from the following materials suspected of containing asbestos.

Type and Location of Material

1. Boiler rope on boiler in basement mechanical room
2. Boiler rope on boiler in basement mechanical room
3. Boiler packing on boiler in basement mechanical room
4. Boiler packing on boiler in basement mechanical room
5. Rough ceiling plaster in basement mechanical room
6. Rough ceiling plaster in basement mechanical room
7. Rough ceiling plaster in basement mechanical room
8. Pipe insulation in basement mechanical room
9. Pipe insulation in basement mechanical room
10. Pipe insulation in basement crawl area
11. Wall plaster in basement stairwell
12. Wall plaster in first floor
13. Wall plaster in first floor
14. Wall plaster in second floor
15. Wall plaster in second floor

16. Wall plaster in third floor
17. Wall plaster in third floor
18. Ceiling plaster in first floor
19. Ceiling plaster in first floor
20. Ceiling plaster in first floor
21. Ceiling plaster in first floor
22. Ceiling plaster in second floor
23. Ceiling plaster in second floor
24. Ceiling plaster in second floor
25. Tan paper under hardwood floor in first floor hallway area
26. Tan paper under hardwood floor in first floor hallway area
27. Grey paper under hardwood floor sleepers in second floor large room
28. Grey paper under hardwood floor sleepers in second floor large room
29. Joint compound on first floor wall
30. Joint compound on first floor wall
31. Joint compound on second floor wall
32. 1' x 1' Acoustical tile ceiling in basement
33. 1' x 1' Acoustical tile ceiling in basement
34. 1' x 1' Acoustical tile ceiling with holes in first floor large room
35. 1' x 1' Acoustical tile ceiling with holes in first floor large room
36. 1' x 1' Craggy acoustical tile ceiling in first floor front room
37. 1' x 1' Craggy acoustical tile ceiling in first floor front room
38. Brown glue daub for 1' x 1' craggy acoustical tile ceiling in first floor front room
39. Brown glue daub for 1' x 1' craggy acoustical tile ceiling in first floor front room
40. 1' x 1' Acoustical tile spline ceiling in first floor bathroom
41. 2' x 2' Suspended acoustical tile ceiling in first floor bathroom
42. Grey sink coating in second floor lunch room
43. Blown-in insulation in third floor under floor boards
44. Blown-in insulation in third floor under floor boards
45. Beige 12" x 12" vinyl floor tile in basement
46. Beige 12" x 12" vinyl floor tile in basement
47. Black mastic for beige 12" x 12" vinyl floor tile in basement
48. Black mastic for beige 12" x 12" vinyl floor tile in basement
49. Tan stair tread flooring on basement stairwell
50. Tan stair tread flooring on basement stairwell
51. Yellow glue for tan stair tread flooring on basement stairwell
52. Yellow glue for tan stair tread flooring on basement stairwell
53. Brown sheet flooring on first floor under carpet
54. Brown sheet flooring on second floor under cabinets
55. Green linoleum flooring in first floor bathroom
56. Green linoleum flooring in first floor closet
57. New beige linoleum flooring in first floor bathroom
58. New vinyl stone pattern flooring in second floor lunch room

No additional accessible ACM was found during this survey. However, hidden ACM may be found during any renovation or demolition activities.

Sample Results

Type and Location of Material

Sample Result

- | | |
|---|----------------------|
| 1. Boiler rope on boiler in basement mechanical room | No Asbestos Detected |
| 2. Boiler rope on boiler in basement mechanical room | No Asbestos Detected |
| 3. Boiler packing on boiler in basement mechanical room | No Asbestos Detected |
| 4. Boiler packing on boiler in basement mechanical room | No Asbestos Detected |

5. Rough ceiling plaster in basement mechanical room	No Asbestos Detected
6. Rough ceiling plaster in basement mechanical room	No Asbestos Detected
7. Rough ceiling plaster in basement mechanical room	No Asbestos Detected
8. Pipe insulation in basement mechanical room	No Asbestos Detected
9. Pipe insulation in basement mechanical room	15% Asbestos
10. Pipe insulation in basement crawl area	35% Asbestos
11. Wall plaster in basement stairwell	No Asbestos Detected
12. Wall plaster in first floor	No Asbestos Detected
13. Wall plaster in first floor	No Asbestos Detected
14. Wall plaster in second floor	No Asbestos Detected
15. Wall plaster in second floor	No Asbestos Detected
16. Wall plaster in third floor	No Asbestos Detected
17. Wall plaster in third floor	No Asbestos Detected
18. Ceiling plaster in first floor	No Asbestos Detected
19. Ceiling plaster in first floor	No Asbestos Detected
20. Ceiling plaster in first floor	No Asbestos Detected
21. Ceiling plaster in first floor	No Asbestos Detected
22. Ceiling plaster in second floor	No Asbestos Detected
23. Ceiling plaster in second floor	No Asbestos Detected
24. Ceiling plaster in second floor	No Asbestos Detected
25. Tan paper under hardwood floor in first floor hallway area	No Asbestos Detected
26. Tan paper under hardwood floor in first floor hallway area	No Asbestos Detected
27. Grey paper under hardwood floor sleepers in second floor large room	No Asbestos Detected
28. Grey paper under hardwood floor sleepers in second floor large room	No Asbestos Detected
29. Joint compound on first floor wall	No Asbestos Detected
30. Joint compound on first floor wall	No Asbestos Detected
31. Joint compound on second floor wall	No Asbestos Detected
32. 1' x 1' Acoustical tile ceiling in basement	No Asbestos Detected
33. 1' x 1' Acoustical tile ceiling in basement	No Asbestos Detected
34. 1' x 1' Acoustical tile ceiling with holes in first floor large room	No Asbestos Detected
35. 1' x 1' Acoustical tile ceiling with holes in first floor large room	No Asbestos Detected
36. 1' x 1' Craggy acoustical tile ceiling in first floor front room	No Asbestos Detected
37. 1' x 1' Craggy acoustical tile ceiling in first floor front room	No Asbestos Detected
38. Brown glue daub for 1' x 1' craggy acoustical tile ceiling in first floor front room	No Asbestos Detected
39. Brown glue daub for 1' x 1' craggy acoustical tile ceiling in first floor front room	No Asbestos Detected
40. 1' x 1' Acoustical tile spline ceiling in first floor bathroom	No Asbestos Detected
41. 2' x 2' Suspended acoustical tile ceiling in first floor bathroom	No Asbestos Detected
42. Grey sink coating in second floor lunch room	No Asbestos Detected
43. Blown-in insulation in third floor under floor boards	No Asbestos Detected
44. Blown-in insulation in third floor under floor boards	No Asbestos Detected
45. Beige 12" x 12" vinyl floor tile in basement	2% Asbestos
46. Beige 12" x 12" vinyl floor tile in basement	2% Asbestos
47. Black mastic for beige 12" x 12" vinyl floor tile in basement	No Asbestos Detected
48. Black mastic for beige 12" x 12" vinyl floor tile in basement	No Asbestos Detected
49. Tan stair tread flooring on basement stairwell	No Asbestos Detected
50. Tan stair tread flooring on basement stairwell	No Asbestos Detected
51. Yellow glue for tan stair tread flooring on basement stairwell	5% Asbestos
52. Yellow glue for tan stair tread flooring on basement stairwell	5% Asbestos
53. Brown sheet flooring on first floor under carpet	No Asbestos Detected
54. Brown sheet flooring on second floor under cabinets	No Asbestos Detected
55. Green linoleum flooring in first floor bathroom	15% Asbestos
56. Green linoleum flooring in first floor closet	15% Asbestos
57. New beige linoleum flooring in first floor bathroom	No Asbestos Detected
58. New vinyl stone pattern flooring in second floor lunch room	No Asbestos Detected

OBSERVATIONS AND RECOMMENDATIONS:

All asbestos abatement activities must be performed by a Massachusetts licensed asbestos abatement contractor under the supervision of Massachusetts licensed project monitor.

1. Pipe insulation was found to contain asbestos. ACM debris was found in the crawl space.
2. Beige 12" x 12" vinyl floor tile was found to contain asbestos.
3. Yellow glue for tan stair tread flooring was found to contain asbestos.
4. Green linoleum flooring was found to contain asbestos.
5. All other suspect materials were found not to contain asbestos.

Lead Based Paint (LBP):

OBSERVATIONS AND RECOMMENDATIONS:

Painted surfaces were found to contain LBP. All LBP activities performed, including waste disposal, should be in accordance with applicable Federal, State, or local laws, ordinances, codes or regulations governing evaluation and hazard reduction. In the event of discrepancies, the most protective requirements prevail. These requirements can be found in OSHA 29 CFR 1926-Construction Industry Standards, 29 CFR 1926.62-Construction Industry Lead Standards, 29 CFR 1910.1200-Hazards Communication, 40 CFR 261-EPA Regulations.

Oil Tanks:

OBSERVATIONS AND RECOMMENDATIONS:

Two (2) aboveground oil tanks were observed in the mechanical room.

COST ESTIMATES:

The cost includes removal and disposal of all accessible ACM and an allowance for removal of inaccessible or hidden ACM that may be found during renovations or demolitions.

Location	Material	Approximate Quantity	Cost Estimate (\$)
Mechanical Room	Oil Tanks	2 Total	7,500.00
Basement	Pipe and Hard Joint Insulation	200 LF	5,000.00
	Beige 12" x 12" Vinyl Floor Tile	1,600 SF	9,600.00
	Stair Treads	80 SF	600.00
Crawl Space	Pipe and Hard Joint Insulation	50 LF	1,500.00
	Debris	100 SF	1,000.00
Bathrooms/Closet	Green Linoleum Floor Covering	100 SF	800 SF
Various Locations	Hidden Pipe and Hard Joint Insulation	200 LF	5,000.00
Fees for Design, Monitoring and Air Sampling Services			12,500.00
TOTAL:			\$ 43,500.00

DESCRIPTION OF SURVEY METHODS AND LABORATORY ANALYSES:

Asbestos samples were collected using a method that prevents fiber release. Homogeneous sample areas were determined by criteria outlined in EPA document 560/5-85-030a.

Bulk material samples were analyzed using PLM and dispersion staining techniques in accordance with EPA method 600/M4-82-020.

LIMITATIONS AND CONDITIONS:

This report has been completed based on visual and physical observations made and information available at the time of the site visits, as well as an interview with the Owner's representatives. This report is intended to be used as a summary of available information on existing conditions with conclusions based on a reasonable and knowledgeable review of evidence found in accordance with normally accepted industry standards, state and federal protocols, and within the scope and budget established by the client. Any additional data obtained by further review must be reviewed by UEC and the conclusions presented herein may be modified accordingly.

This report and attachments, prepared for the exclusive use of Owner for use in an environmental evaluation of the subject site, are an integral part of the inspections and opinions should not be formulated without reading the report in its entirety. No part of this report may be altered, used, copied or relied upon without prior written permission from UEC, except that this report may be conveyed in its entirety to parties associated with Owner for this subject study.

Inspected By:



Jason Becotte
Asbestos Inspector

131804301

CHAIN OF CUSTODY

Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

PLM
48-hour TAT

Town/City: Gloucester, MA Building Name Library Saunders House

Sample	Result	Description of Material	Sample Location
1		Boiler rope	Basement mechanical room
2			
3		Boiler Packing	
4			
5		Rough ceiling Plaster	Basement mechanical room
6			
7			
8		Pipe insulation	Basement mechanical room
9			
10			Basement crawl area
11		wall plaster	Basement stairwell
12			1st floor
13			
14			2nd floor
15			
16			3rd floor
17			
18		ceiling Plaster	1st floor
19			
20			

Reported By: Jason Bente Date: 7-13-18 Due Date: _____

Received By: _____ Date: _____

REC'D CBM 152P
EMSL-BOSTON JUL 13 2018

UNIVERSAL ENVIRONMENTAL CONSULTANTS

CHAIN OF CUSTODY

Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

PLM

Town/City: Gloucester, MA Building Name Library Saunders House

Sample	Result	Description of Material	Sample Location
21		Ceiling Plaster	1st Floor
22			2nd Floor
23			
24			
25		Tan paper under Hardwood	1st fl. hallway area
26			
27		Gray Paper under Hardwood sleepers	2nd fl. large room
28			
29		Joint Compound	1st fl. wall
30			
31			2nd fl. wall
32		1x1 AT ceiling	Basement
33			
34		1x1 AT Holes ceiling	1st fl. large room
35			
36		1x1 AT Craggy ceiling	1st fl. Front room
37			
38		Brown glue dabs	
39			
40		1x1 AT spline ceiling	1st fl. bathroom

Reported By: Jason Bette Date: 7-13-18 Due Date: _____

Received By: _____ Date: _____

REC'D CBM 1524
EMSL-BOSTON JUL 13 2018

UNIVERSAL ENVIRONMENTAL CONSULTANTS

walk in

131804301

CHAIN OF CUSTODY

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PLM

Town/City: Gloucester, MA Building Name Library Saunders House

Sample	Result	Description of Material	Sample Location
41		2x2 SAT	1st fl. Bathroom
42		Gray sink coating	2nd fl. Lunch room
43		Blown-In Insulation	3rd fl. under floor boards
44			
45		Beige 12x12 VFT	Basement
46			
47		Black mastic	
48			
49		Tan stair treads	Basement stairwell
50			
51		yellow glue	
52			
53		Brown sheet flooring	1st fl. under carpet
54			2nd fl. under cabinets
55		Green Linoleum	1st fl. Bathroom
56			1st fl. closet
57		new Beige Linoleum	1st fl. Bath room
58		new vinyl stone pattern floor	2nd fl. Lunch room

Reported By: Jason Beattie Date: 7-13-18 Due Date: _____

Received By: _____ Date: _____

REC'D CBM 1524
 EMSL-BOSTON JUL 13 2018
Walk in



EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

<http://www.EMSL.com> / bostonlab@emsl.com

EMSL Order: 131804301

Customer ID: UEC63

Customer PO:

Project ID:

Attention: Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Phone: (617) 984-9772

Fax: (508) 628-5488

Received Date: 07/13/2018 1:52 PM

Analysis Date: 07/17/2018

Collected Date:

Project: Library Saunders House - Gloucester, MA

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1 131804301-0001	Basement Mechanical Room - Boiler Rope	White Fibrous Homogeneous	98% Glass	2% Non-fibrous (Other)	None Detected
2 131804301-0002	Basement Mechanical Room - Boiler Rope	Gray Non-Fibrous Homogeneous	98% Glass	2% Non-fibrous (Other)	None Detected
3 131804301-0003	Basement Mechanical Room - Boiler Packing	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4 131804301-0004	Basement Mechanical Room - Boiler Packing	Gray Non-Fibrous Homogeneous	2% Wollastonite	98% Non-fibrous (Other)	None Detected
5 131804301-0005	Basement Mechanical Room - Rough Ceiling Plaster	Gray Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
6 131804301-0006	Basement Mechanical Room - Rough Ceiling Plaster	Gray Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (Other)	None Detected
7 131804301-0007	Basement Mechanical Room - Rough Ceiling Plaster	Gray Non-Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (Other)	None Detected
8 131804301-0008	Basement Mechanical Room - Pipe Insulation	Brown Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
9 131804301-0009	Basement Mechanical Room - Pipe Insulation	Gray Fibrous Homogeneous		85% Non-fibrous (Other)	15% Chrysotile
10 131804301-0010	Basement Crawl Area - Pipe Insulation	Gray Fibrous Homogeneous	40% Cellulose	25% Non-fibrous (Other)	35% Chrysotile
11 131804301-0011	Basement Stairwell - Wall Plaster	Gray Fibrous Homogeneous	2% Hair	98% Non-fibrous (Other)	None Detected
12 131804301-0012	1st Floor - Wall Plaster	Gray Fibrous Homogeneous	<1% Hair	100% Non-fibrous (Other)	None Detected
13 131804301-0013	1st Floor - Wall Plaster	Gray Non-Fibrous Homogeneous	<1% Hair	100% Non-fibrous (Other)	None Detected
14 131804301-0014	2nd Floor - Wall Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
15 131804301-0015	2nd Floor - Wall Plaster	Tan/White Fibrous Homogeneous	2% Hair	98% Non-fibrous (Other)	None Detected
16 131804301-0016	3rd Floor - Wall Plaster	Gray Fibrous Homogeneous	2% Hair	98% Non-fibrous (Other)	None Detected

Initial report from: 07/17/2018 18:24:46



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EMSL Order: 131804301

Customer ID: UEC63

Customer PO:

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
17 131804301-0017	3rd Floor - Wall Plaster	Gray/White Fibrous Homogeneous	2% Hair	98% Non-fibrous (Other)	None Detected
18 131804301-0018	1st Floor - Ceiling Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19 131804301-0019	1st Floor - Ceiling Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
20 131804301-0020	1st Floor - Ceiling Plaster	Gray/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
21 131804301-0021	1st Floor - Ceiling Plaster	Gray/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
22 131804301-0022	2nd Floor - Ceiling Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
23 131804301-0023	2nd Floor - Ceiling Plaster	Gray Fibrous Homogeneous	2% Hair	98% Non-fibrous (Other)	None Detected
24 131804301-0024	2nd Floor - Ceiling Plaster	Gray Fibrous Homogeneous	2% Hair	98% Non-fibrous (Other)	None Detected
25 131804301-0025	1st Fl. Hallway Area - Tan Paper Under Hardwood	Tan/White Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
26 131804301-0026	1st Fl. Hallway Area - Tan Paper Under Hardwood	Tan/White Non-Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
27 131804301-0027	2nd Fl. Large Room - Gray Paper Under Hardwood Sleepers	Gray Fibrous Homogeneous	40% Cellulose 20% Synthetic	40% Non-fibrous (Other)	None Detected
28 131804301-0028	2nd Fl. Large Room - Gray Paper Under Hardwood Sleepers	Gray Fibrous Homogeneous	70% Cellulose 25% Synthetic	5% Non-fibrous (Other)	None Detected
29 131804301-0029	1st Fl. Wall - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
30 131804301-0030	1st Fl. Wall - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
31 131804301-0031	2nd Fl. Wall - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
32 131804301-0032	Basement - 1x1 AT Ceiling	Brown/White Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
33 131804301-0033	Basement - 1x1 AT Ceiling	Brown/White Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
34 131804301-0034	1st Fl. Large Room - 1x1 AT Holes Ceiling	Brown Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
35 131804301-0035	1st Fl. Large Room - 1x1 AT Holes Ceiling	Brown/White Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected

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EMSL Order: 131804301
Customer ID: UEC63
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Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
36 <i>131804301-0036</i>	1st Fl. Front Room - 1x1 AT Craggy Ceiling	Gray Fibrous Homogeneous	70% Min. Wool	30% Non-fibrous (Other)	None Detected
37 <i>131804301-0037</i>	1st Fl. Front Room - 1x1 AT Craggy Ceiling	White Fibrous Homogeneous	70% Min. Wool	30% Non-fibrous (Other)	None Detected
38 <i>131804301-0038</i>	1st Fl. Front Room - Brown Glue Daub	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
39 <i>131804301-0039</i>	1st Fl. Front Room - Brown Glue Daub	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
40 <i>131804301-0040</i>	1st Fl. Bathroom - 1x1 AT Spline Ceiling	Gray Fibrous Homogeneous	60% Min. Wool	40% Non-fibrous (Other)	None Detected
41 <i>131804301-0041</i>	1st Fl. Bathroom - 2x2 SAT	Gray/White Fibrous Homogeneous	20% Cellulose 50% Min. Wool	30% Non-fibrous (Other)	None Detected
42 <i>131804301-0042</i>	2nd Fl. Lunch Room - Gray Sink Coating	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
43 <i>131804301-0043</i>	3rd Fl. Under Floor Boards - Blown-In Insulation	Tan Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
44 <i>131804301-0044</i>	3rd Fl. Under Floor Boards - Blown-In Insulation	Tan Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
45 <i>131804301-0045</i>	Basement - Beige 12x12 VFT	Tan/Beige Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
46 <i>131804301-0046</i>	Basement - Beige 12x12 VFT	Beige Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
47 <i>131804301-0047</i>	Basement - Black Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48 <i>131804301-0048</i>	Basement - Black Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
49 <i>131804301-0049</i>	Basement Stairwell - Tan Stair Treads	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
50 <i>131804301-0050</i>	Basement Stairwell - Tan Stair Treads	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
51 <i>131804301-0051</i>	Basement Stairwell - Yellow Glue	Yellow Non-Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
52 <i>131804301-0052</i>	Basement Stairwell - Yellow Glue	Yellow Non-Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
53 <i>131804301-0053</i>	1st Fl. Under Carpet - Brown Sheet Flooring	Brown Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
54 <i>131804301-0054</i>	2nd Fl. Under Cabinets - Brown Sheet Flooring	Brown Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected

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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
55 <i>131804301-0055</i>	1st Fl. Bathroom - Green Linoleum	Gray/Green Fibrous Homogeneous	20% Cellulose	65% Non-fibrous (Other)	15% Chrysotile
56 <i>131804301-0056</i>	1st Fl. Closet - Green Linoleum	Gray/Green Fibrous Homogeneous	20% Cellulose	65% Non-fibrous (Other)	15% Chrysotile
57 <i>131804301-0057</i>	1st Fl. Bathroom - New Beige Linoleum	Beige Fibrous Homogeneous	20% Cellulose	80% Non-fibrous (Other)	None Detected
58 <i>131804301-0058</i>	2nd Fl. Lunch Room - New Vinyl Stone Pattern Floor	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)

Elizabeth Stutts (28)

John McCarthy (30)

Steve Grise, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method"), but augmented with procedures outlined in the 1993 ("final") version of the method. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. All samples received in acceptable condition unless otherwise noted. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Woburn, MA NVLAP Lab Code 101147-0, CT PH-0315, MA AA000188, RI AAL-139, VT AL998919, Maine Bulk Asbestos LB-0039

Initial report from: 07/17/2018 18:24:46



Laboratory Report

Contact: Ammar Dieb
Client: Universal Environmental Consultants
Address: 12 Brewster Road
Framingham, MA 01702

Batch #: C 296413
Date received: 7/13/2018
Date analyzed: 7/16/2018
Date of report: 7/16/2018

Project # N/A
P.O.# N/A
Project Site: Library Saunders House
Gloucester, MA

AIHA-LAP, LLC Lab ID 102754

Lead Analysis In Paint Using SOP Based on SW846-7420/3051
Results in weight percent on an "as received" weight basis

Lab ID	Client ID	Sample date	Description	Result	Reporting Limit	Comments
C 605719	1		Brick Paint Basement	<RL	0.024	
C 605720	2		Wall Paint (Not Mural) -1st Floor	1.52	0.033	
C 605721	3		Wall Paint (Not Mural) -2nd Floor	<RL	0.028	
C 605722	4		Wood Working Paint - 1st Floor	9.05	0.024	
C 605723	5		Wood Working Paint - 2nd Floor	35.4	0.012	Paint & Wood

Simona Peavey, Tech. Manager Chemistry
Aimee Cormier, Lab Director

Unless otherwise indicated, all samples were received in acceptable condition.
All result apply only to the samples as received and are accurate to no more than three significant figures.
Unless otherwise indicated, all the quality control criteria for the method above have been met.
RL-Reporting Limit(%by weight) Note on units: mg/Kg is the same as ppm by weight.
RL-Reporting Limit; Defined as the lowest concentration the laboratory can accurately quantitate.

STRUCTURAL ASSESSMENT

STRUCTURES NORTH CONSULTING ENGINEERS

Summary

Structures North Consulting Engineers were asked to investigate the existing condition of structural elements to assess their condition, identify any deficiencies requiring repair, and to evaluate the existing floor loading capacities. Additionally, Structures North was to identify the required modifications to increase the floor loading capacity to current code live load minimums.

Among the areas requiring repair are:

- Mortar deterioration at the brick in the foundation (interior and exterior)
- Rotted timber sills at the foundation
- Some severed and modified framing from earlier renovations that need reinforcing
- Framing deficiencies around the fireplaces that have caused displacement of mantels and paneling

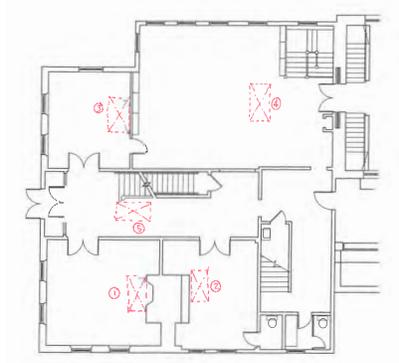
A number of previous assessment studies of floor framing have been done, but each of them stopped short of analyzing the 2nd floor framing. First floor framing is easily assessed as it is exposed in the basement. Third floor framing had been accessed and reviewed fairly easily by lifting floor boards. Accessing the framing for the 2nd floor could be done only by invasive exploration, so it had been avoided by the previous studies. For this study, preservation carpenters Essex Restoration were hired to cut and patch observation holes for the structural engineers at a number of locations (see plans on next page).

The current Massachusetts Building Code requires minimums of 60 pounds per square foot at library reading rooms, and 150 pounds per square foot in stack areas. Rooms that are to be designed for meeting use should meet the assembly capacity of 100 pounds per square foot. The Massachusetts Board of Library Commissions recommends that all library floors be designed for a floor loading capacity of 150 pounds per square foot based on the premise that all space should have the flexibility to accommodate stacks in case space is changed over time.

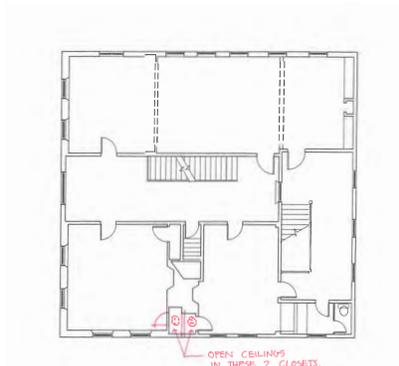
Structures North concludes that the existing floor framing could be improved to reach 60 or 100 psf floor loading capacities through sistering of existing joists. The capacity of beams at the first floor framing could be improved by reducing existing spans by the introduction of columns. To obtain floor loading capacities of 150 psf the existing floor framing would need to be replaced with a new structural system of steel beams, steel columns, and manufactured lumber.

LOCATIONS OF EXPLORATORY STRUCTURAL OBSERVATION HOLES

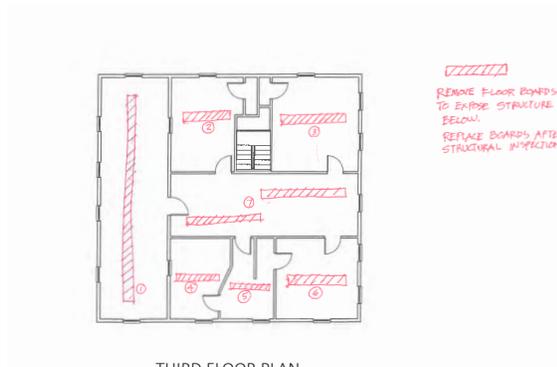
SCALE 1/32" = 1'



FIRST FLOOR PLAN



SECOND FLOOR PLAN



THIRD FLOOR PLAN

15 August 2018

Doug Manley
Spencer, Sullivan & Vogt
1 Thompson Square, Suite 504
Charlestown, MA 02129

Reference: Sawyer Free Library
Conditions Survey and Floor Load Capacities

Dear Doug:

We have completed our inspection, evaluation and analysis of the Saunders House at the Sawyer Free Library. For the purposes of this report the front of the library will be considered to face south.

General Description

The Sawyer Free Library is housed in the former residence of Thomas Saunders, which was constructed in 1764 and repurposed into the library in 1884. This was a grand residence with a two-story central stair hall running north-south and adjoining chambers to the east and west.

Constructed during the Georgian period, the structure was a mix of light sawn lumber joist and stud framing and primary heavy timbers that accommodated the asymmetrical floor plan rather than the more rigid English frames that were built during the First Period. Also unlike the period, Georgian frames often depended, at least in part, on structural support provided by the infilling walls.

The first, second and third floors are constructed with E-W or N-S running sawn lumber joists running between primary framing timbers that basically bound the edges of each room and are supported on occasional exterior and interior posts. The walls of the central stair hall are constructed with heavy planking that works in a quasi-loadbearing fashion, which was common in the Georgian period.

The third floor steps back from the second and along with the perimeter walls and roof, and depends upon the second floor framing for its support.

The foundation is composed of stone rubble walls below grade and brick knee walls above, and brick piers scattered about the interior. There were originally two large multi-flue chimneys running up through the structure, with opposing fireplaces at each level. The western chimney has been removed while the eastern chimney remains.

A three story shed style addition was constructed against the north wall of the house as part of the library repurposing, and then a modern era expansion was constructed many

years later to the north.

One of the challenges of the Saunders house has been that it was not originally built to function as a library, and there have been numerous subsequent strengthenings and repairs implemented over the past century and a half to help it continue to limp along serving this function. One of the purposes of this study is to establish a baseline for future improvements and repairs.

Noted Conditions and Recommendations

Basement and Foundation

B1 There is a moderate amount of damage caused by rising dampness in the lower portions of the foundation, with mortar joints becoming powdery and brick units deteriorating at some of the upper, brick portions of the foundation. This is particularly apparent in the form of numerous brick spalls near the southeast and southwest corners. *Damaged bricks should be replaced and deteriorated joints surrounding the bricks should be cut and repointed.*

B2 The stone base of the east chimney has bowed to the side and toward the front and should be monitored for future movement.

B3 The perimeter sill timber is rotted and rotated at the southern end of the east wall *and should be replaced with new seasoned white oak.*

B4 There is also a portion that has been roughly cut away at the south wall *and should be repaired with a lap-spliced, fitted white oak dutchman.*

B5 The stair opening from the basement to the first floor has several structural issues that have been addressed in previous repair campaigns. These are as follow:

- The west middle girt that runs along the west side of the opening has rotated eastward, deforming the stair to the second floor in a lateral direction. A steel HSS beam and columns have been installed below this timber, along with welded tab plates that restrain the girt from rotating further.
- In addition to the supporting frame, a rigid steel connector was installed between the west side of the west trimmer girt and the south chimney girt intersecting perpendicularly.
- The top of the 8" square brick pier that supports the north end of the east trimmer has been shaved in half, meeting the timber with only a 4" x 8" cross-section. While this is somewhat precarious looking, the reduced area at the top of the pier is sufficient for the limited load that is placed upon it.
- The midspan of the east trimmer is split and discontinuous and a reinforcement timber has been added below it, on the flat.

B6 The west middle girt has a split and a break to the north of the stairway. A column has been added below the break for support. Pipe columns have also been added

to split the south bays of both of the west and east middle girts.

First Floor

- F1** The wall that separates the west rooms of the first floor lands on the floor framing and has caused it to gently dip below it. This deflection is due to the weight of the wall and the flexibility of the framing below.
- F2** The main stair from the first to the second floor has been shifted to the east due to the rotation of the girt below its west side. The middle stringer of the stair is discontinuous and butt-spliced with another piece of wood at its lower portion, at an abrupt kink that follows the lateral shift. *The severed stringer reduces the safe supporting capacity of the stair and should be sistered with a new, continuous member. As it would damage the stair and hallway murals to try to straighten it, the lateral shift should remain.*
- F3** The east knee wall of the main stairway is buckling where it passes through the first floor space due to the eastward shift of the stair opening and the discontinuity of the stair stringers. *We recommend that new cripple studs be added to stiffen the knee wall and brace it against buckling.*
- F4** The southeast mantel and fireplace surround are bulged forward, along with the lower portion of the transom wall above the mantle. We believe that this is due to downward deflection of the wood framed second floor construction with respect to the fireplace surround construction, which lands on the masonry chimney hearth. Because the masonry hearth is unyielding, this forces the wood furred construction around the fireplace act like a supporting wall to try to lift the downward moving second floor. Because it was never constructed to act like a bearing wall, the furred construction has buckled forward. Unfortunately, this is a relatively common problem in houses of this period.

The furred wood construction surrounding the fireplace should be dismantled and concealed posts should be added between the hearth construction and the second floor chimney hearth girt to provide direct support. The mantel, surround and transom wall should then be reinstalled in a straight fashion.

- F5** The corresponding fireplace location on the north side of the east chimney has been covered with gypsum wallboard finishes. *The northeast fireplace should be assumed to be in the same condition and the fireplace to the south and should be treated similarly.*
- F6** There is an outward bulge in the east exterior wall just above the area where the sill is rotting below. The bulge likely relates to a redistribution of force in the wall from the rolling of rotting sill, which causes it to buckle. *This condition should be addressed when the sill is replaced.*

Second Floor

- S1** The fireplace mantels, surrounds and transom walls at the east side of the second floor have undergone the same buckling movements as at the first floor, and presumably for the same reason. *These should be treated in the same manner.*
- S2** In addition to the above noted forward buckling, the short walls that flank both fireplaces slope downward from them and both plaster and paint lines are cracked. On the west side this sloping is due to the difference in wall support between the rigid chimney construction and the surrounding wood construction. On the east side, the sloping is due to the same, but in addition, the downward compression of the rotted sill. *The downward sloping is a given, with this type of construction, however, as noted above, the rotted sill should be replaced.*
- S3** The ceiling sags directly above the tripartite windows at the portion of the east exterior wall. The ceiling appears to have been added during renovations to the house, and the wall may have sagged before or during installation. Because the windows appear not to have been affected by the movement, this does not appear to be a condition of concern.
- S4** The east and west walls of the central stair hall appear to be thick plank partitions at both the first and second floor levels.
- There is a crack between the north end of the west stair hall partition wall and the north wall of the stair hall, which is also the original north wall of the house. The folding of wallpaper along the crack suggests that the west wall has moved down. This downward movement may be a sign that the west stairwell wall, which is a plank partition, is overloaded.
 - The soffited third floor girt sags over the east stairwell partition wall within the north bay. This may also be an indication of downward compression of this plank wall.

For present loading conditions, these walls have served satisfactorily for many generations, but with a mostly unoccupied third floor. If the third floor is to someday be used, or if the live loads are to in any way be increased at the second floor, a secondary system method of support will need to be added to the structure in order to relieve loads from these plank walls.

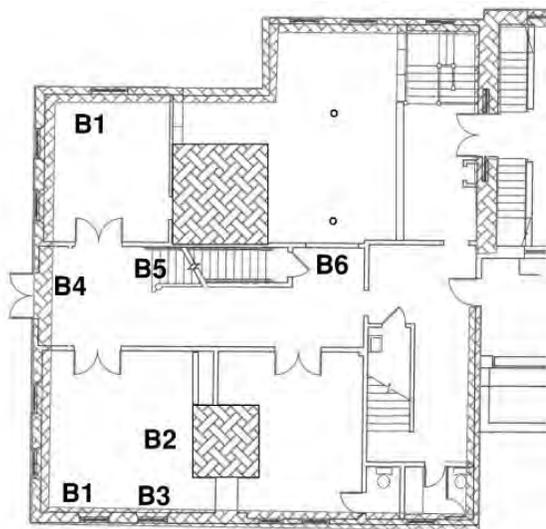
Third Floor

- T1** The floor sags in the northeast room of the original house. This is due to the relative lightness of the floor framing and the age of the structure *and should be monitored.*
- T2** The floor sags in the southeast chamber at the east chimney due to the sagging of the floor girt that runs in front of it. This is also apparent in the compression of the fireplace surround below, *and will be remedied when the surround is taken apart*

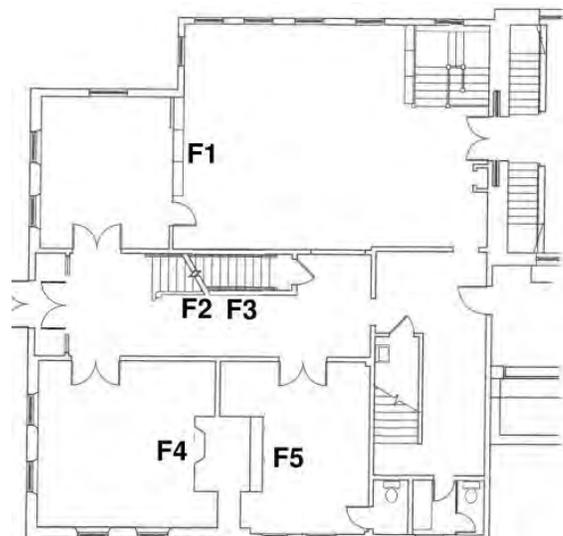
and the furring structure behind it is repaired.

T3 The east edge third floor structure slopes radically toward the east wall, particularly near the east chimney. The wall to the east of the chimney has deformed into an acute parallelogram and there are diagonal cracks throughout. This is due not only to the downward movement of the east wall from shrinkage and a rotted sill, but also to the bending deflection of the girts that support the roof and east exterior wall where it is set back from the supporting wall below. The girts should be exposed when the fireplace surround work is being done at the second floor, and reinforced as needed.

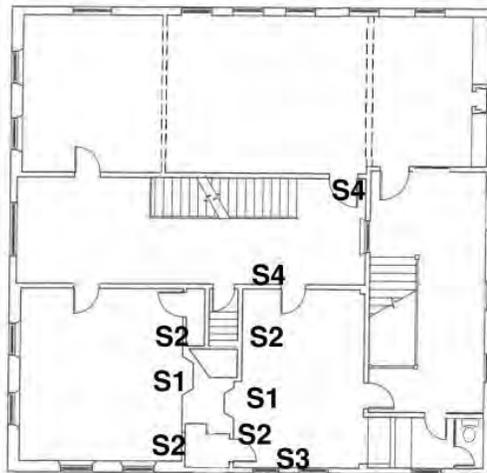
Please see the conditions key plans below.



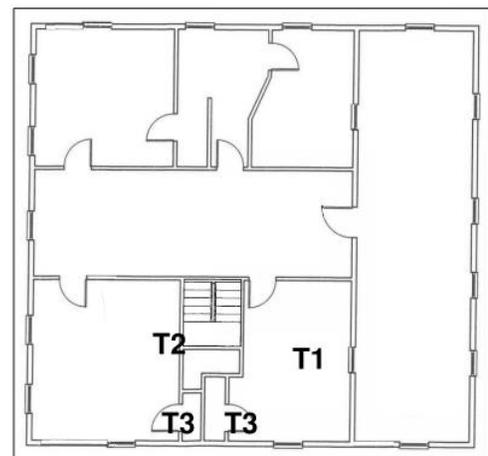
BASEMENT FLOOR KEY PLAN



FIRST FLOOR KEY PLAN



SECOND FLOOR KEY PLAN



THIRD FLOOR KEY PLAN

Structural Framing Survey and Load Rating

On Friday, May 11 we visited Gloucester Public Library to investigate the floor framing on the 1st, 2nd and 3rd floor. For the purpose of this analysis we took samples from the existing joists on the 2nd floor framing to identify the wood.

First floor framing

The joists on the first floor are rough sawn members that have been painted so their conditions were not easily detected, consequently we were not able to spot any rotted members. The joists on one of the spans have undergone damage and have been sistered and the span has been cut in half by placing an LVL beam at the center.

The joists on the floor have been spaced relatively far apart in comparison to modern-day framing so as a result nearly all of the spans are insufficient for the design live load of 60 pounds per square foot. The beam running to the left side of the stair opening has been drastically damaged and buckled. A steel beam with two new columns at each end has been placed under the most severely buckled portion of the beam. Many of the joists have been beetle infested which reduces their capacity even more. The most severely infested joists have been sistered with 2x's and their span has been cut in half by placing a new LVL bolster beam.

Second Floor Framing

We took samples of the existing joists to identify the wood, and they were a mixture of red pine and southern yellow pine. In one of the rooms we noticed that the original framing has been reinforced by adding a new set of joists. The wood identity of the reinforcing joists was eastern spruce which has very similar mechanical properties as red pine which is what the original joists were made out of.

Third floor framing

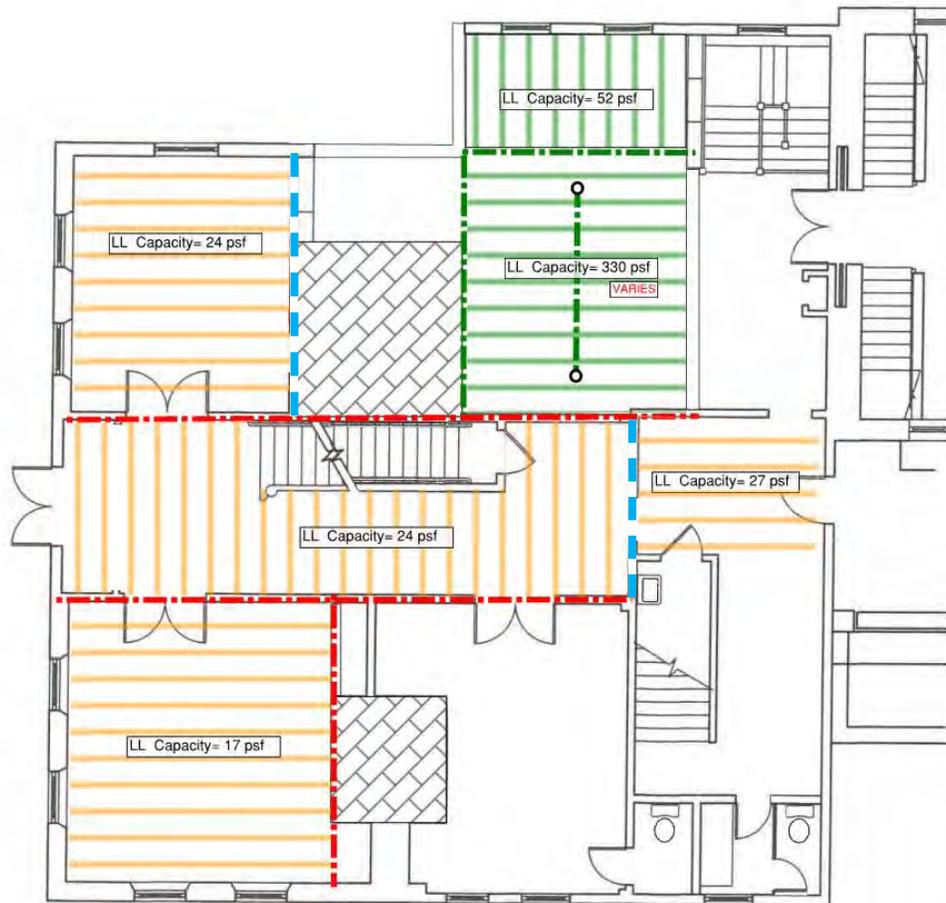
The building has knee walls and a small shed roof on all four sides at the third floor level. The shed roof framing collects the snow load, transfers them to the knee wall and the knee wall transfers the loads linearly to the third floor joists. This has caused the joists on some of the bays to be overloaded.

Load Assumptions

We gathered the results of the member capacity calculations on the attached graphic illustrations of the framing plans. For our calculations we assumed the library floors to be taking the present-day live load of only 60 pounds per square foot and the attic to be taking the live load of 10 pounds per square foot. These assumptions, along with the actual calculated capacities in general are significantly below what would be considered appropriate for both present uses and to an even greater extent, the 150 psf live load

required by current code for library stack rooms (1607.1). It should be noted that the minimum uniform live load for reading rooms is 60 psf.

Beyond just the limitations of the floor framing, the plank walls that flank the central stair hall significantly limit the ability to simultaneously utilize the second and third floors without extensive reinforcement. The most conventional way to reinforce these walls is simply to re-frame them, however the presence of their painted murals makes this untenable. Therefore a system of added beams and columns would be needed.



FIRST FLOOR FRAMING ON FIRST FLOOR PLAN

Joist capacity
lower than 60 psf



Joist capacity
lower above 60 psf



Beam sufficient for
service loads



Beam undersized
for service loads

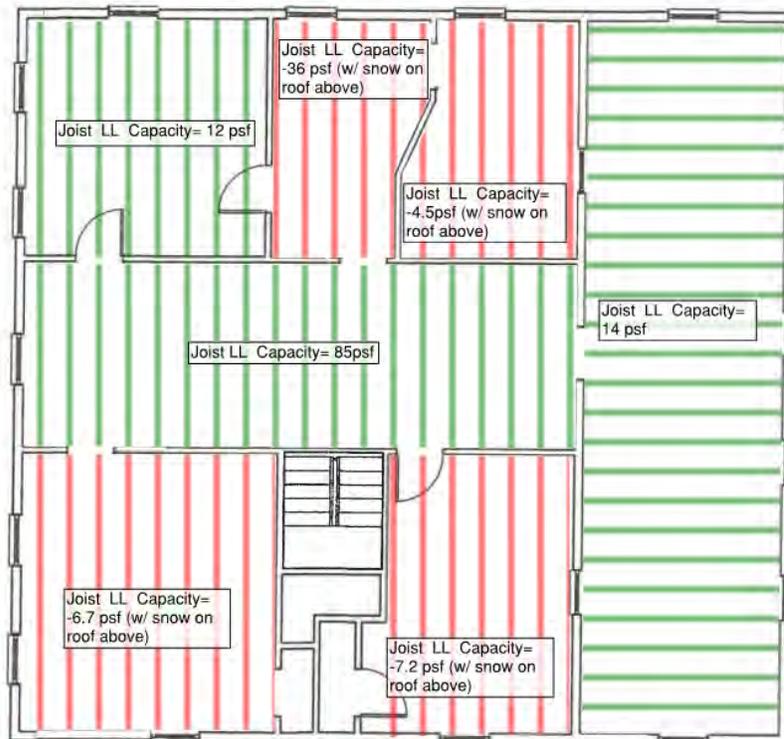


Beam failed under
service loads





SECOND FLOOR LIVE LOAD CAPACITY PLAN



THIRD FLOOR LIVE LOAD CAPACITY PLAN

Planning for Code-Compliant Loading

To bring the structure up to current code would require 150 psf in book storage areas and 100 psf in open plan meeting rooms, halls and lobbies, and 60 psf for reading rooms. 150 psf would require complete re-framing of the floors using composite manufactured lumber and steel beams. 60 or 100 psf could be achieved by sistering the existing framing in place.

Floor structures would be supported by steel columns that would be threaded downward through the structure, most appropriately bypassing the primary members of the timber frame. This would put the columns slightly into the occupied spaces and would require an appropriate aesthetic treatment. Framing would also need to be configured to avoid the historic carved and mural painted finishes, either by staying away from them or flying over them.

Interior columns would run to the basement, where they would land on spread footings. Exterior columns would be supported on concrete unit masonry piers that are inserted or woven into the existing stone foundations and supported on footings.

The level of structural intervention would require full seismic compliance, since the structure is literally being re-framed. Lateral load resistance would most appropriately be achieved by inserting diagonal braces into the steel frame, or by adding plywood diaphragms to the interior surfaces of exterior walls.

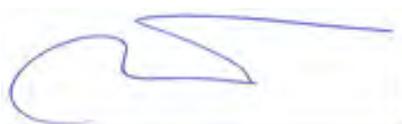
The following pages have illustrated plans that show a suggested layout of re-framing work that would achieve up to a 150 psf live load. We have not included any additional framing at the third floor, assuming it would remain unoccupied, however, this would no longer need to be the case. The steel frame could simply be extended upward through the second floor to pick up a similarly reinforced third floor.

Column cross-sections would need to be as compact as possible in order to minimize their visual intrusion, and many of the girt reinforcements would need to be made from above but lifting flooring in order to save crown moldings in the spaces below.

Please see the schematic re-framing layouts on the pages that follow.

Thank you for the opportunity to investigate this historic structure. Please contact us if you have any questions or if we can be of further assistance.

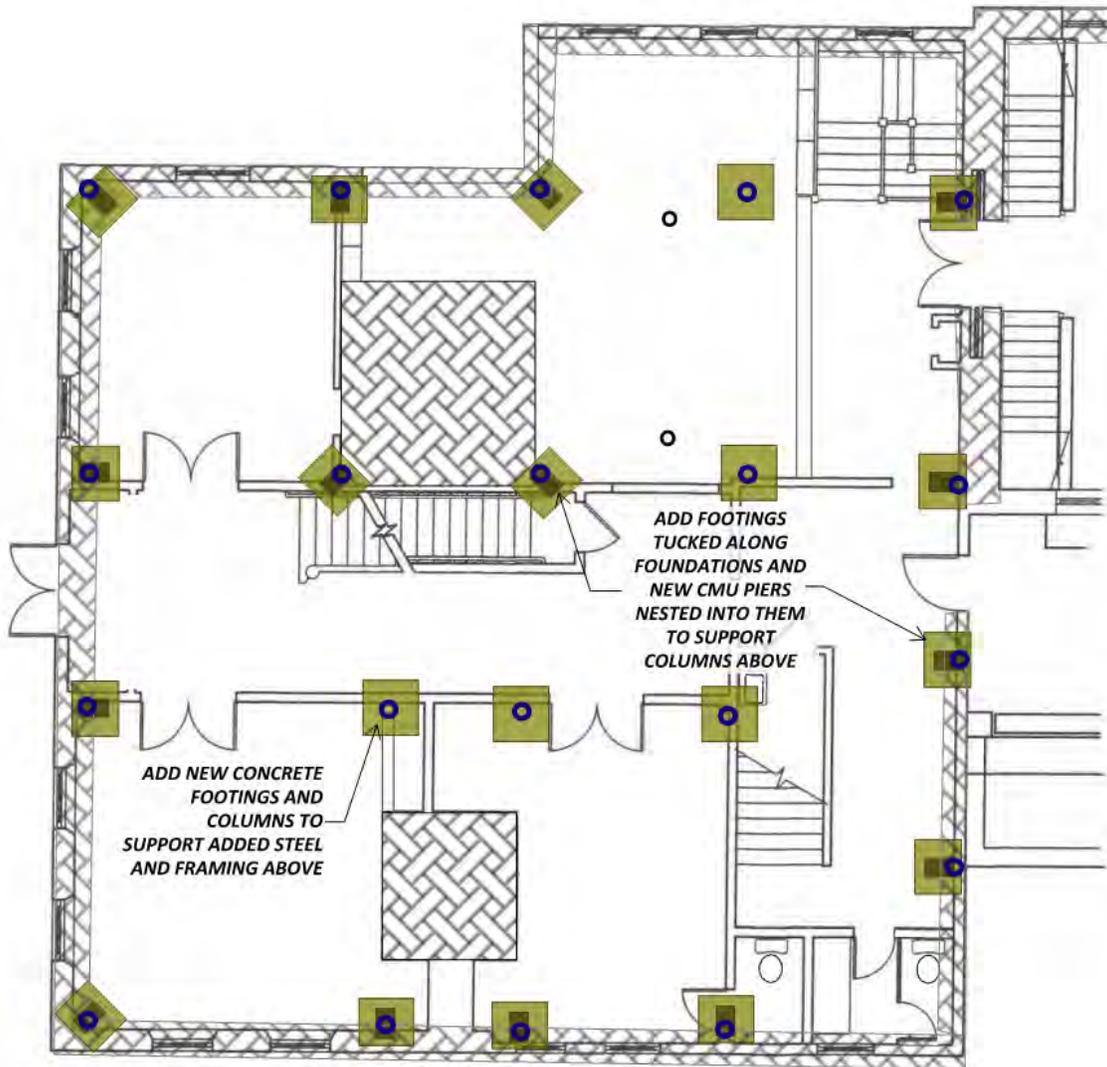
Respectfully Yours,



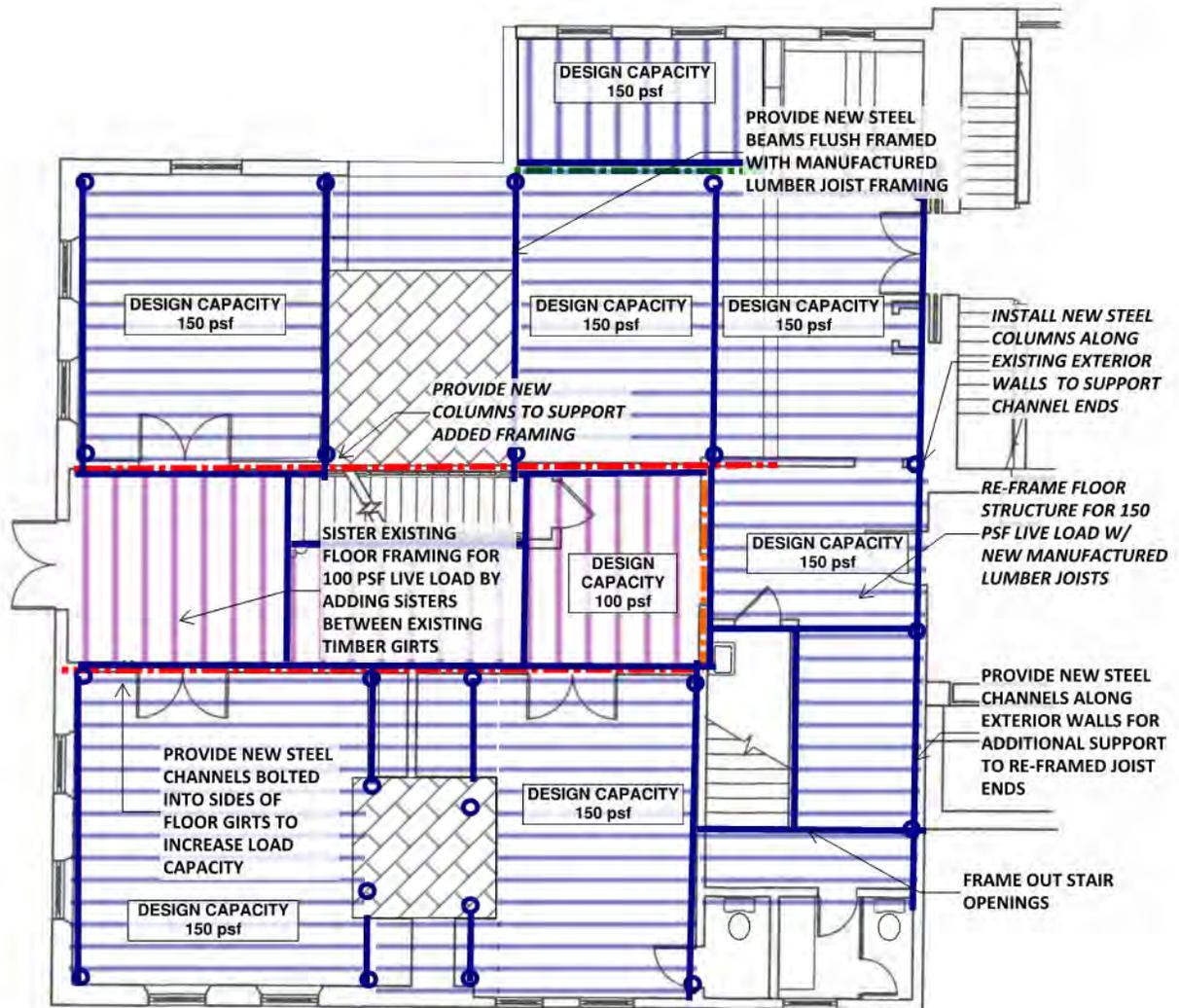
John M. Wathne, PE, President



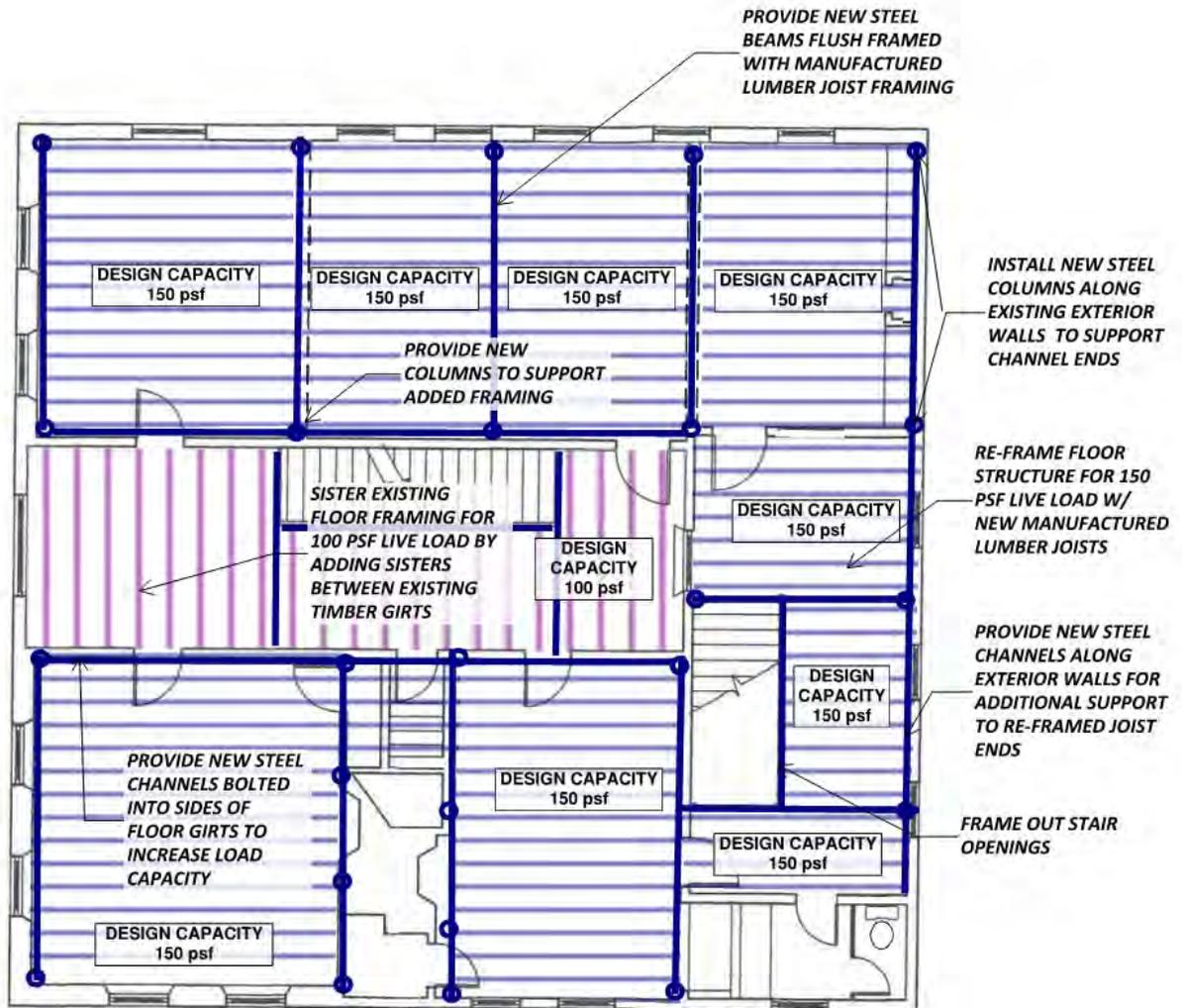
Sara Alinia



BASEMENT ADDED FOOTING PLAN



FIRST FLOOR RE-FRAMING PLAN



SECOND FLOOR RE-FRAMING PLAN

PLUMBING SYSTEM ASSESSMENT

GARCIA, GALUSKA, DESOUSA, INC.

Summary

The plumbing system is in fair condition. Many fixtures do not meet accessibility codes and are reaching the end of their useful life.



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PLUMBING

Executive Summary:

Presently, the Plumbing Systems serving the building are cold water, hot water, sanitary, waste and vent system, and natural gas. Storm drain piping is provided by exterior gutters and down spouts. The exterior gutters are collected into storm drainage boots which are piped underground, it is not clear if this system is piped to the city storm water system or to dry wells on the site. Municipal sewer and water service the Building.

The portion of the Plumbing sanitary systems are original to the building. Portions of the system have been updated as part of building renovation and upgrade projects. The Plumbing systems, while continuing to function, have served their useful life. The same Plumbing systems could continue to be used with maintenance and replacement of failed components; however other non-dependent decisions will likely force the Plumbing upgrade.

The Plumbing fixtures are in fair condition. Majority of fixtures do not meet current accessibility codes. In general, the fixtures appear to have served their useful life. Current Access Code requires accessible fixtures wherever Plumbing is provided. In terms of the water conservation fixtures, their use is governed by the provisions of the Plumbing and Building Code. Essentially, the code does not require these fixtures to be upgraded, but where new fixtures are installed, as may be required by other codes or concerns, the new fixtures need to be water conserving type fixtures.

Cast iron is used for sanitary drainage. Where visible, the cast iron pipe appears to be in fair condition. Smaller pipe sizes appear to be copper. In general, the drainage piping can be reused where adequately sized for the intended new use.

Fixtures:

The water closets are floor mounted tank type vitreous china.

Lavatories are counter drop-in vitreous china. The lavatories faucets are a mix of wrist blade and single type handle.

The Lounge sink is stainless steel drop-in with single handle faucet.

The exterior wall hydrant is not freeze protection type.

A drinking fountain is not provided.

Janitor's sinks are generally trap standard mounted, enameled cast iron sinks. Faucets are equipped with vacuum breakers.

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Typical Water Closet



Typical Lavatory



Typical Corner Lavatory



Typical Lavatory



Typical Counter Sink



Typical Laundry Sink

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Typical Wall Hydrant



Typical Janitor's Sink

Water Systems:

The main domestic water service is located in the Basement Mechanical Room. The service is 2 in. size and includes a 2 in. water meter. The main domestic cold-water distribution is 2 in size. Using the occupancy use of general demand, we feel that the 2 in. domestic water service will be adequate for proposed renovation work.



Domestic Water Service

Piping, where exposed, appears to be copper with sweat joints. The majority of the piping is insulated. Due to the lack of accessibility a major renovation should include all new domestic water piping.

Domestic hot water in the Building is generated through an electric tank type water heater. The hot water system is provided with an in-line recirculated pump system to meet the plumbing code. There is no thermostatic mixing valve or expansion tank on the system which should be provided per code. The electric water heater is 50 gallon storage type, installed in 2006.

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Domestic Water Heater

Gas:

The building is serviced by natural gas with a meter located on the exterior of the building. The service only supplies the building addition rooftop units.



Natural Gas Meter



Exterior Piping

Drainage Systems:

Cast iron is used for sanitary drainage. Where visible, the cast iron piping is mix of bell and spigot and no hub with band clamps. In general, the cast iron drainage piping can be reused even in a major renovation where adequately sized for the intended new use.

The storm is system is gutters with down spouts that are run underground.

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Cast Iron Piping



Cast Iron Piping



Exterior Storm Piping



Exterior Storm Piping

Recommendations:

1. Video inspect the existing sanitary/waste system for blockage and leaks.
2. Replace all Plumbing fixtures with new high-efficiency low flow fixtures to reduce water consumption.
3. Replace the electric water heater with new high-efficiency gas fired water heater with expansion tank, provide new hot water return pump and new thermostatic mixing valve.
4. Provide all new domestic water piping and valves.
5. Replace existing exterior wall hydrant with new non-freeze type with integral vacuum breaker.



FIRE PROTECTION SYSTEM ASSESSMENT

GARCIA, GALUSKA, DESOUSA, INC.

Summary

The existing dry system should be reduced to cover only the attic to improve its delivery time. Provide a new wet system on the first three levels and basement.



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FIRE PROTECTION

Executive Summary:

From the inspection test, it appears the fire protection system was installed in 1996. The building is protected with an automatic dry-type sprinkler system. The system also extends into the new addition.

There is a six-inch fire main that enters into the Basement Mechanical Room. The six-inch supply has a reducing elbow to four inch. A four-inch double check valve assembly with OS&Y valve and tamper switches is installed. Four-inch dry Tyco alarm valve. The dry system is supported with ¾ HP air compressor.

The larger piping is black steel with grooved couplings. The small sprinkler branch piping is threaded steel. In all exposed spaces the sprinkler heads are upright standard response type heads. In areas with ceilings pendent type are provided. There are a number of sidewall sprinkler heads on upper floors.

Existing Conditions:



Fire Service



Dry Alarm Check Valve with Compressor



Typical Dry Sprinkler Main



Typical Riser

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Typical Sidewall Sprinkler



Typical Sidewall Sprinkler



Typical Riser with Sprinkler Head



Typical Attic Sprinkler Piping



Dry Sprinkler Main with Sidewall Head

Recommendations:

1. Remove existing dry sprinkler system from Basement, First Floor and Second Floor. Leave the existing dry system in the Attic space and into the new addition. Reducing the size of the dry system to the attic area will improve the operation delivery time of the dry system.
2. Provide new four-inch wet alarm check valve and fire riser with sprinkler zone control valves stations on each level with drain. Provide all new wet piping and quick response type sprinkler heads to the renovated and existing areas proposed.

HVAC SYSTEM ASSESSMENT

GARCIA, GALUSKA, DESOUSA, INC.

Summary

HVAC systems are overall antiquated and do not meet code operating requirements. There is no air conditioning. Some equipment is not operating in a satisfactory way, and other equipment is not in operation at all. A complete renovation of the HVAC system is recommended.



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HEATING, VENTILATION & AIR CONDITIONING (HVAC)

Executive Summary:

On July 11th, 2018, GGD visited the Saunders House at the Sawyer Free Public Library located at 2 Dale Avenue in Gloucester, MA. The purpose of this visit was to review the condition of the existing heating, ventilation, and air conditioning systems within the building. The entire building heating and cooling systems were reviewed in an attempt to identify any readily apparent potential system deficiencies that may require system repairs and/or upgrades. The original Saunders House building was built in 1764. Several additions have since been constructed to expand the library with a book wing added in 1913 and later a more substantial addition in 1976.

Overall the heating and ventilation systems appear antiquated and do not appear to meet current code operating requirements, required efficiencies, and/or ventilation requirements. The boilers themselves appear to be operational and in fair condition. The current condition of this equipment is less than satisfactory and in some cases the equipment is not functioning properly, or in operation at all. The existing control system appears to be a mixture of stand-alone digital controls, manual valves and mercury switch thermostats that provide minimal overall building temperature control. The control system does not have the ability to easily adjust settings as equipment malfunctions or as space needs change. It also does not provide any software or programming to help reduce energy consumption such as optimal system start, variable speed control systems, or lighting control integration.

Mechanical:

The boiler plant consists of a single cast iron, oil fired Weil-McLain, steam boiler that provides 886 MBH capacity heating to the Saunders House and 1913 addition. The boiler serves steam radiators and a newer hot water heat exchanger serving hot water fin tube radiation in the basement. The boiler plant appears to be well maintained. However, systems will gradually deteriorate to a point exceeding their maximum serviceable life. The boiler is served by an oil-fired burner. Combustion air for the boiler plant is brought into the boiler room through a single louver. Combustion gases are discharged from the boilers into a galvanized metal flue.

Copper piping is routed throughout the basement whereas the remaining piping is threaded steel throughout the building. Piping is typically exposed within the space, running to fin tube radiation or terminating at steam radiators as needed. The majority of the piping is located within the basement level with vertical risers to supply heating equipment as necessary. The return piping is routed back to the mechanical room alongside the supply. Much of the supply steam piping is insulated within the basement, though there are sections with insulation omitted. Return piping is completely uninsulated. All pipe without insulation appeared to be painted and in satisfactory condition. However, before an exact determination of pipe condition can be ascertained, joints and various sections of piping should be removed and examined internally to determine the extent of internal pipe corrosion. A particular location of concern was the end of line vent. This vent appeared worn. The floor joist and flooring above also appear to be suffering from excessive moisture released from the vent.

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The basement is equipped with hot water fin tube radiation which is fed from exposed copper piping routed to and from an indirect hot water heater within the boiler room. The fin tube and associated piping appears to be in acceptable condition; however, is showing signs of aging, such as discoloration of the pipe, fin tube and fin tube cover. The basement also has been equipped with newer “Healthy Aire” humidification control units.

The first and second floor spaces are heated with a mixture of steam radiators and electric fin tube radiation. Steam radiators appear to be controlled by a manual valve, while electric fin tube is provided with a control dial attached to the equipment cover. These spaces are cooled with unitary window air conditioners. Other spaces throughout the Saunders House are not provided with a means of cooling. Window air conditioners are generally less efficient at cooling spaces versus that of a more robust system. Further, window air conditioners typically create significantly high audible noise. Mechanical ventilation is not provided throughout the Saunders House, relying instead on natural ventilation.



Typical Window Air Conditioner



Steam Vent at Basement Level



Typical Hot Water Fin tube



Dehumidifier Located in Basement

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Typical Electric Fin tube



Typical Steam Radiator



Existing Boiler Plant

Recommendations:

In an effort to provide code required ventilation, adequate heating and cooling to the Saunders House, a complete renovation of the existing HVAC system is recommended.

The Saunders House is a historic building and specific consideration shall be taken to minimize the visual impact of new mechanical systems and maintain the integrity of the building as a whole. The suggestions provided below present several options which attempt to minimize visual impact by reducing ventilation ductwork size by providing only code required ventilation. Proposed system piping such as, heating hot water, chilled water, and refrigerant piping assist in this as well, as piping is generally smaller versus that of the existing steam counterparts presently installed.

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In consideration to the above, a complete life cycle cost analysis should be completed, during project schematic design/design development phases, for any potential replacement HVAC system. The lifecycle cost analysis should include a minimum of three heating, ventilation and air conditioning system options, in order to ensure the system option with the overall lowest lifecycle cost when factoring in first, operating and maintenance costs is selected. HVAC system options should also consider architectural aesthetic and structural impacts related to the HVAC system renovation for a historic building.

The following HVAC systems descriptions represent potential system replacement options. The HVAC systems and equipment capacities described below are based on a stand-alone HVAC system approach for the Saunders House. We would also recommend that a study of potential HVAC system integration into the Main Library Building also be included as part of the lifecycle cost analysis. For example, if a hot water heating / chilled water cooling system was selected for the Main Library, HVAC system Option #1 (Induction) and HVAC Option #3 (FCU) could potentially be served with hot and chilled water from the proposed new Main Library HVAC hot water and chilled water plants. Alternatively, if a VRF system was selected for the Main Library, then HVAC Option #2 (VRF) could potentially be integrated with the Main Library VRF system. Integrating both the Saunders building and Main Library HVAC systems could have benefits of overall reduced installation, operating and maintenance costs, due to combining boiler/chiller/VRF equipment.

A general list of pros and cons of each system is also included for consideration.

HVAC Option #1: Boiler/Chiller w/ Hot/Chilled Water/Energy Recovery Air Handling Units, Full Economizer, 4-Pipe Induction

The Saunders House will be served by a (1) 300 MBH condensing boiler and a single 25 ton chiller. The boiler will have a variable speed in-line pump feeding an insulated hot water supply and return piping system. The chiller will have a variable speed in-line pump feeding an insulated chilled water supply and return piping system. The piping from both the chilled water system and hot water system will be distributed to a central air handling unit (AHU). The AHU must have a full sized outside air duct connected to a louver for the code required economizer cycle with a second similar duct and louver for relief air. Throughout the Saunders house, induction units with hot/chilled water coils and ducted supply ventilation air will be used to zone individual rooms and groups of rooms to provide better temperature control. Supply and return air ductwork will run to each room or zone to provide code required ventilation. Return air ductwork will run from each room or zone back to the four air handling units.

HVAC Option#1 System Summary:

- Requires a dedicated mechanical room with access to the exterior for large louvers for indoor AHU's serving the Existing Town Hall
- Requires a mechanical room for boilers, expansion tanks, pumps, buffer tanks, air separators and glycol feed tank(s).
- A single 25 ton chiller will be located outside at grade
- Cooling System Chilled water pumps (primary/standby with VFD's), piping, associated insulation, valving, and accessories.
- One (1) 300 MBH condensing boiler
- Heating Hot water pumps (primary/standby with VFD's), piping, associated insulation, valving, and accessories.

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- Central air handling units consisting of:
 - One (1) Indoor chilled/hot water air handling/energy recovery/economizer unit at 2,000 CFM to serve the Saunders House.
 - Associated supply, return/exhaust ductwork, insulation, dampers, and air distribution devices.
- Louvers for indoor air handling units and potential exhaust fan terminations.
- Induction Units will zone each office/room or group of rooms based on exposure and usage
- Induction Unit system requires approximately 24” of ceiling plenum space for ductwork and other mechanical equipment. Effort should be taken to minimize appearance of system impact with existing architectural features of the building.
- Reuse and possible expansion/relocation of existing mechanical room may be required.

HVAC Option #2: Boiler w/ Hot Water/DX/Energy Recovery Air Handling Units, Full Economizer, VRF System

The Saunders House will be served by (1) one 250 MBH condensing boiler. The boiler will have a variable speed in-line pump feeding an insulated hot water supply and return piping system. The piping from the hot water system will be distributed to central station air handling units. Each AHU must have a full sized outside air duct connected to a large louver for the code required economizer cycle with a second similar duct and louver for relief air. The AHU shall have a dedicated split system condensing unit for cooling. Variable refrigerant flow (VRF) ductless cooling units (DCUs) with refrigerant piping and condensate piping will run throughout the building and connect to an outdoor 20 ton VRF air cooled heat pump unit. Supply and return air ductwork will run to each room or zone to provide code required ventilation.

HVAC Option #2 System Summary:

- Requires a dedicated mechanical room with access to the exterior for large louvers for indoor AHU serving the Saunders House
- Requires a mechanical room for boilers, expansion tank, pumps, air separator and glycol feed tank(s).
- One (1) 10 ton condensing units will be located outside at grade, serving AHU
- One (1) 20 ton condenser/VRF unit will be located outside at grade, serving Ductless Cooling Units (DCU's).
- Refrigerant liquid and refrigerant suction piping based on manufacturer's recommendations from VRF unit to DCUs
- One (1) 250 MBH condensing boiler
- Heating Hot water pumps (primary/standby with VFD's), piping, associated insulation, valving and accessories.
- Central station air handling units consisting of:
 - AHU-1: One (1) Indoor split DX (direct expansion)/hot water/energy recovery/economizer air handling unit at 1,500 CFM to serve the Saunders House.
 - Associated supply, return/exhaust ductwork, insulation, dampers, and air distribution devices.
- Louvers for indoor air handling units and potential exhaust fan terminations.
- DCU's will zone each room or group of rooms based on exposure and usage

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- Requires about 18’’* of ceiling plenum/soffit space for ductwork and other mechanical equipment. *This assumes VRF terminal units shall be wall mounted style units. Horizontal ceiling suspended VRF terminal units would require approx. 24 in. ceiling cavity space.

HVAC Option #3: Boiler/Chiller w/ Hot/Chilled Water/Energy Recovery Air Handling Units, Full Economizer, Fan-Coil

The Saunders House will be served by one (1) 300 MBH condensing boilers and a single 25 ton chiller. Each boiler will have a variable speed in-line pump feeding an insulated hot water supply and return piping system. The chiller will have a variable speed in-line pump feeding an insulated chilled water supply and return piping system. The piping from both the chilled water system and hot water system will be distributed to central station air handling units. Each AHU must have a full sized outside air duct connected to a large louver for the code required economizer cycle with a second similar duct and louver for relief air. Throughout the Saunders House, Fan Coil Units with a dual temperature water coil will be used to zone individual rooms and groups of rooms to provide better temperature control. Supply and return air ductwork will run to each room or zone to provide code required ventilation. Return air ductwork will run from each room or zone back to the four air handling units.

HVAC Option#3 System Summary:

- Requires a dedicated mechanical room with access to the exterior for louvers for indoor AHU’s serving the Existing Town Hall
- Requires a mechanical room for boilers, expansion tanks, pumps, buffer tanks, air separators and glycol feed tank(s).
- A single 25 ton chiller will be located outside at grade
- Cooling System Chilled water pumps (primary/standby with VFD’s), piping, associated insulation, valving, and accessories.
- One (1) 300 MBH condensing boiler
- Heating Hot water pumps (primary/standby with VFD’s), piping, associated insulation, valving, and accessories.
- Central air handling units consisting of:
 - AHU-1: One (1) Indoor split DX (direct expansion)/hot water/energy recovery/economizer air handling unit at 1,500 CFM to serve the Saunders House.
 - Associated supply, return/exhaust ductwork, insulation, dampers, and air distribution devices.
- Louvers for indoor air handling units and potential exhaust fan terminations.
- Fan coils will zone each room or group of rooms based on exposure and usage
- Requires about 18’’* of ceiling plenum space for ductwork and other mechanical equipment. *This assumes fan coil units shall be wall mounted or floor mounted console style units. Generally, utilizing similar locations as current steam radiators. Horizontal ceiling suspended fan coil units would require approx. 24 in. ceiling cavity space.
- Reuse and possible expansion/relocation of existing mechanical room may be required.

All proposed heating, ventilation and air conditioning shall be provided with a new Direct Digital Control (DDC) system for each space/zone to assist in space comfort, effective energy management, and reduce overall operating costs. A total building management system would further be recommended to integrate with each space/zone control to minimize energy usage and maximize comfort.

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OPTION 1	PROS	CONS
<p align="center">ACTIVE CHILLED BEAM/ INDUCTION UNITS</p>	<ul style="list-style-type: none"> • Superior thermal comfort conditions. • Superior thermal comfort control as individual unit with associated controls will be provided for each zone. • Low maintenance costs. Primary maintenance done at air handling unit. • Fewer systems for heating/cooling • Relatively quiet: No fans within space. • Refrigerant is self-contained in outdoor equipment. 	<ul style="list-style-type: none"> • Higher first cost. • Moderate automatic temperature controls cost. • Condensate drain maintenance (for AC). • Maintenance of equipment is in occupied area. • Distribution ductwork system is required resulting in additional architectural features (e.g. ceiling space, soffits, etc.). • Chilled water pumps and associated VFD's required increase capital investment, maintenance, and operating costs.

OPTION 2	PROS	CONS
<p align="center">VARIABLE REFRIGERANT FLOW (VRF) AIR CONDITIONING</p>	<ul style="list-style-type: none"> • Superior thermal comfort conditions. • Superior thermal comfort control as individual unit with associated controls will be provided for each zone. • All new equipment results in increased system life expectancy. • Minimized distribution ductwork system, only required for ventilation. • Lower ceiling plenum height required than induction units. 	<ul style="list-style-type: none"> • Moderate first cost. • High operating costs due to individual space air conditioning, and fans. • High maintenance costs for quantity of units and factory authorized service is required for VRF system. • Highest noise levels of 3 options due to compressor and fan motor located within occupied zone. • High automatic temperature controls cost. • Quarterly filter changes per unit. • Condensate drain maintenance (for AC). • Maintenance of equipment is in occupied area. • Wall mounted evaporators do not provide direct ventilation to the space. Space humidity monitoring is critical to avoid condensation at the evaporator units • Refrigerant piping is located inside building with potential of leaks. ASHRAE 15 provisions must be met. • Manufacturer provided equipment controls to integrate to the Building Management System (BMS).

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OPTION 3	PROS	CONS
<p style="text-align: center;">FAN COIL UNITS</p>	<ul style="list-style-type: none"> • Superior thermal comfort conditions. • Superior thermal comfort control as individual unit with associated controls will be provided for each zone. • All new equipment results in increased system life expectancy. • Minimized distribution ductwork system, only required for ventilation • Refrigerant is self-contained in outdoor equipment. • Lower ceiling plenum height required than induction units. (If ceiling units are needed) 	<ul style="list-style-type: none"> • Moderate first cost. • High maintenance costs for quantity of units • Higher noise levels than induction due to fan motor located within occupied zone. • High automatic temperature controls cost. • Quarterly filter changes per unit. • Condensate drain maintenance (for AC). • Maintenance of equipment is in occupied area. • Fan coil units do not provide direct ventilation to the space. Space humidity monitoring is critical to avoid condensation at the units • Chilled water pumps and associated VFD's required increase capital investment, maintenance, and operating costs.

ELECTRICAL SYSTEM ASSESSMENT

GARCIA, GALUSKA, DESOUSA, INC.

Summary

Electricity is sub-fed from the 1976 addition. The wiring is in fair to poor condition and should be replaced. A new electric supply direct to the Saunders House should be installed, with new wiring to all devices. Provide emergency lights, a standalone fire alarm system, occupancy sensors, and data and power outlets in the floors.



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ELECTRICAL

Executive Summary:

The original building was built in 1764. An addition was built in 1914 to improve the house's function as a library. A larger library addition was built in 1976. This assessment was performed for the 1764 Building. The 1764 house electric and fire alarm services are sub-fed from the 1976 addition. The electrical branch circuit wiring for the building originates in the 1976 addition and is in fair to poor condition and should be replaced. The 1764 Building does not have a standalone power source, all power comes from the switchboard fed panels in the 1914 Building Basement.

Power Distribution System:

Power for the building comes from the existing panels in the Basement of the 1914 Addition. Wiring is run in conduits through the basement and into the Saunders House and distributed throughout the building. The existing service voltage is 120/208 V, 3 Phase, 4 Wire. The panels that are feeding circuits to the 1764 Building are old and reaching the end of their life expectancy, however are of adequate size if the 1764 Building stays a part of the Library.



Main Switchboard in 1914 Building



Conduits Feeding Saunders House Branch Circuits



Conduits Feeding Saunders House Branch Circuits



Branch Circuit Panels in 1914 Building

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Emergency Standby System:

The facility does not have a generator.

Emergency lighting consists of battery units.



Battery Units

Exit signs have integral emergency heads with battery backup.



Exit Sign

The exterior doors do not have emergency lights.

The existing emergency lights and exit signs are in good condition; however, they do not provide full coverage at egress paths.



Existing Emergency Lighting & Exit

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Fire Alarm System:

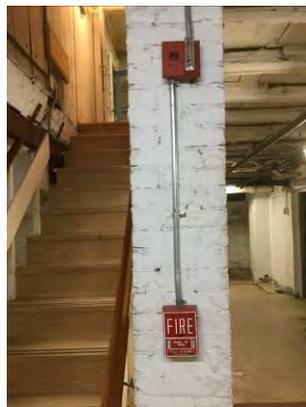
The 1764 Building does not have a standalone fire alarm system. The fire alarm system connects to the existing FCI-72 Series, 24 zone control panel in the existing 1976 Addition. The system is not addressable.

The sprinkler system is supervised, which means that this system is monitored by the building's fire alarm system.



Sprinkler Piping

The audio/visual devices consist of horn/strobes throughout but provide inadequate coverage. Manual Pull Stations generally exceed ADA mounting height.



Horn/Strobes & Manual Pull Station

Smoke detectors exist throughout corridors and stairwells.



Smoke Detector

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The facility is sprinkled and therefore full coverage of smoke detectors is not required by code. Heat detectors exist in the Boiler room and in the upper level.



Heat Detectors

The fire alarm system does not meet code and has inadequate coverage.

Interior Lighting:

The interior lighting was upgraded during 2013 but the existing wiring switches were reused. The corridors and open office areas have 2x2 surface mounted channeled troffers.



Interior Lighting

The Meeting room has recessed 2x4 surface mounted fixture.



Surface Mounted Fixture

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The Conference Room has a period chandelier with LED bulbs.



Conference Rm. Period Chandelier

The upper floor lights consist of surface wall keyless porcelain fixtures.



Surface wall fixtures

The utility rooms and basement have open channel strips with two T8 lamps and wraparound fixtures. (Some with lenses missing)



Open Channel Strip



Wraparound Fixtures



Missing Lens

The lighting for this building is generally in good condition.

There are no occupancy sensors but sensors should be added.

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Exterior Lighting:

The exterior lighting is a wall mounted LED fixture and a surface mounted residential fixture at the Front Entrance.



Exterior LED Fixture



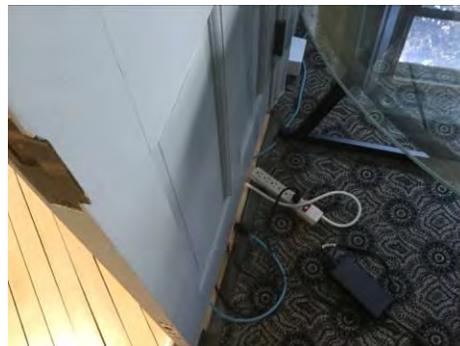
Front Entrance surface mounted fixture

General Power:

Some receptacles are fed with Romex cabling which is not used in Commercial Buildings. Minimal receptacles in Office areas require the use of plug strips.



Romex cable



Plug Strips

Communications/Security/Miscellaneous:

The building has a security intrusion system fed from the main building motion sensors, cameras, and door contacts were observed.



Motion Sensor & Camera

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The MDF/IDF is located in the main building. The cabling is not neatly dressed and secured.



Cabling

Recommendations:

1. Provide a new 400 Amp, 120/208 Volt, 3 Phase, 4 Wire, electric service from the Utility Company with a main distribution panel and branch panels to make the 1764 Building a standalone building, able to have the capacity to handle all new HVAC loads on its own.
Note: If the Building is to remain a part of the existing Library, the existing Electrical services, (1) 600 A, 120/208 V, 3 Phase, 4 Wire and (1) 400 A, 120/208 V, 3 Phase, 4 Wire will be sufficient to provide the required power for HVAC and Elevator upgrades.
2. Provide new wiring to all devices.
3. Provide additional emergency lights to comply with code in egress paths, stairwells and exterior doors.
4. Provide a standalone fire alarm system which will be addressable with voice evacuation.
5. Provide additional occupancy sensors in offices, toilet rooms, utility rooms, etc. to conserve energy.
6. Provide additional data and power outlets in floor areas to eliminate cords on floor.



MURAL ASSESSMENT

PETER WILLIAMS / MUSEUM SERVICES

Summary

The murals are painted directly on the plaster, which in areas requires stabilization. Cleaning and consolidation of flaking paint is also recommended, along with filling and in-painting lost areas.

Uncontrolled temperature and humidity are affecting the mural conditions and should be mitigated. Protective glazing may be an option to protect from abrasions.



PETER WILLIAMS/ MUSEUM SERVICES

Fenway Studios #110, 30 Ipswich Street, Boston, Massachusetts 02215

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April 11, 2018

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TREATMENT PROPOSAL/ESTIMATE OF MURALS BY F.L. STODDARD & HOWARD ALLEN CURTIS AT THE SAWYER FREE LIBRARY, GLOUCESTER

Suggested Treatment:

The prices quoted are to carefully clean each mural, consolidate flaking paint and plaster, fill and in-paint losses and cracks, but not varnish upon completion. These prices do not include the installation of scaffolding on the stairway to the second floor, which will be provided by the contractor.

FIRST FLOOR:

South Entrance Vestibule:

\$3,000

(2) Murals: Each approximately 40"W x 61"H plus
(1) Band: 71"W x 3" H over the doorway.

The murals depict local architecture, and will require stabilization of the plaster and paint surfaces as well as cleaning and in-painting.

Mural Opposite Stairway:

\$11,000

61" H x 15 ½'L

The scene depicts Gloucester's first economy as an agricultural community with a farmer plowing with oxen, and the later economy in the shipbuilding/maritime industry.

The mural is signed F.L. Stoddard 1934. It is painted on a wall that in some areas is roughly plastered, and uneven, especially in the sky. We do not tend to correct this as it would threaten the integrity of the artist's work. This mural has been retouched and patched up during previous restorations and needs cleaning, consolidation of flaking paint and in-painting.

Mural Under Stairway:

\$2,500

60"H x 8'L.

The scene depicts farmers with a boat load of salt marsh hay coming up the Annisquam River at Done Fudgin'. On the right edge there is flaking and chipped paint.

Treatment would include cleaning the mural, consolidating loose and flaking paint, especially on the edge, filling and in-painting losses.

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North Wall:

\$2,500

Left Side: Mural 43"W x 61"H.

The mural depicts clambers at low tide. There are many areas of chipped and flaking paint on this mural to be stabilized and in-painted.

Right Side: Mural 36"W x 61"H.

The mural depicts a man on a dock meeting a dory.

Band: 12"H over the doorway in middle of room. The painted and plaster surfaces on this wall will be stabilized, cleaned and in-painted.

STAIRWAY WALL

\$20,000

The mural is over 17' high from the first floor to the ceiling of the second floor, and is approximately 17' in length. There is also a 12" high area over a 7' doorway on the second floor, which shows much flaking paint in need of treatment. The mural is signed in the lower left corner, F. L. Stoddard 1934.

The mural depicts Gloucester views including profiles of several schooners, 5 Pound Island, fish flakes, processing buildings, etc. On the first and second floor ends of the mural there is much chipping and loss of plaster and paint in the areas of the light switches, which require special attention. Scaffolding will be provided by the contractor to provide a work platform to clean and restore this mural. This mural will be cleaned, consolidated and in-painted as needed.

SECOND FLOOR HALLWAY:

East Wall:

\$11,000

Mural Depicting Dog Town in (3) Sections:

59" x 61" H

78" x 61" H

11' x 61"H

Clean, consolidate flaking paint and in-paint.

West Wall:

\$3000

Good Harbor Beach with Salt Island

About 78" long, 48" high? Note: This mural was painted or restored over a severely gouged plaster wall which is so large a part of the composition that it would be considered unethical to do over, since much of the original surfaces would have to be sanded off. There is also a large crack in the corner where it meets the wall, which would be cleaned, filled and in-painted with the rest of the mural

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SECOND FLOOR: ANDERSON ROOM

North with Part of West Wall: (by H. R. Curtis signed) \$5000

Mural Depicting Lighthouse with Ship Wrecks, (Newfoundland?)

(4) Surfaces:

48"W x 36"H with a 20" crack to repair

78"W x 36"H

6" W x 37"H over window

Clean, consolidate and in-paint

North with Part of East Wall: \$5,000

Newfoundland? signed Howard Allen Curtis 1980

Shows fishing stations with monument to discovery

6" W x 38"H over window

36" W x 84"H

75" W x 24"H

17" W x 36"H

8" W x 36" H

19"W x 36"H

Clean, consolidate and in-paint

Second Floor West Wall: (Curtis) \$5000

Fisherman in Heavy Weather: 31"H x 61"W

Columbia and the Blue Nose Racing? 39"H x 8'L

Landscape: 39"H x 12"W very deteriorated

Champlain's Ship? 17th century ship) 36"H x 62"L

Exploration Vessel: 17th century ship 36"H x 55"L

Wrecked Fishermen Coming Ashore: 36"H x 48"L

Second Floor South Wall: \$2,500

Left Side: Landscape 12"W x 36"H, Right side Landscape 40" x 43"

Mural of Compass Rose with Howard Clock 39" x 42"

Clean, consolidate, in-paint

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East Wall: Anderson Room: \$15000

Gloucester Schooners among Ice Bergs (Labrador?) 27' x 37"
Clean, consolidate plaster and paint in-paint as needed

East Wall (next to door) \$1500

Gloucester Harbor at Beacon Marine 54" x 37"
Clean, stabilize, fill and in-paint

Total: \$87,000

Respectfully Submitted,

Peter Williams/Museum Services

BASIC BUILDING CODE ANALYSIS

ZONING CODE SUMMARY

The building is located in the following zoning district:

Sawyer Free Library: CCD “Civic Center”, Neighborhood C07

This district is intended to include civic uses that serve the entire city (from Gloucester Zoning Ordinance, 10/2008). See Dimensional Requirements (Section III) from the City of Gloucester Zoning Ordinance for all pertinent information regarding lot area, setbacks, frontage, maximum height, floor area ratios, parking requirements, etc. for the CCD zoning district. In general the CCD regulations are very strictly controlled, including the height of buildings.

Any planned additions to the building would need to conform to these zoning requirements.

The CCD zoning district allows for a 30-foot maximum building height and 100% lot coverage.

BUILDING CODE SUMMARY

This section of the report briefly describes the applicability of the 9th edition of the Massachusetts State Building Code (2015 International Existing Building Code – with Massachusetts Amendments) and architectural access regulations (Massachusetts Architectural Access Board, or MAAB).

The purpose of the building code is to:

- Establish minimum requirements to safeguard public health, safety and welfare.
- Provide life safety from fire and other hazards to building occupants.
- Protect the building from loss or damage due to fire or other environmental events.
- Provide safety to fire fighters and emergency responders during emergency operations.

In general, existing buildings are not retroactively required to conform to the current building code, except where existing health and safety conditions are considered hazardous by the local building official.

The International Building Code for new construction (IBC) would be referred to for any substantial renovation of the existing building, or if a new addition was contemplated. Existing buildings are governed by the International Existing Building Code (IEBC). Broadly speaking, buildings that are not being changed in use or occupancy may continue to be occupied and used in the manner they have been used historically. If significant reconfiguration of spaces is contemplated, the requirements for work in affected areas would be required to conform largely to the building code for new construction, although there is some latitude for existing or historic buildings. New building systems (mechanical, electrical, plumbing, fire pro-

tection, etc.), or upgrades to existing building systems, will need to conform to the building code for new construction in effect at the time of their installation.

The IEBC divides work on existing buildings into “Repairs” and “Alterations.” “Repairs” are considered in-kind replacements of existing materials and systems, and would be considered as guidelines for building maintenance. “Alterations” are categorized into three (3) levels depending upon the amount and scale of work involved.

Most recommendations for work to be undertaken at the Saunders House would be considered a blend of **Repairs and Alterations**. Generally speaking, the Code requires any **Repair** work to maintain or improve the life safety of the building. Basically, no condition should be made less code compliant than before work started. An example of a Repair item would be the patching or partial replacement of a damaged wood cornice and gutter assembly.

Two conceptual schemes are proposed as alternates for how the work may proceed. For full descriptions of the work to be undertaken in Conceptual Scheme 1 and Conceptual Scheme 2, see page 139.

In Conceptual Scheme 1 (Saunders House remains attached to SFL), most recommendations for work to be undertaken at the basement, level 1, and level 2 would be considered to fall under the category of **Alterations – Level 2**. **Level 2 Alterations** include the reconfiguration of space, the addition or elimination of any door or window, the reconfiguration or extension of any building system, or the installation of any additional equipment. **Level 3 Alterations** would only apply if the proposed work area exceeded 50 percent of the aggregate floor area of the building, which is not the case with the scope of the proposed work.

In Scheme 2 (demolition of connector to SFL and construction of elevator and stairway in Saunders House), most recommendations for work to be undertaken at the basement, level 1, and level 2 would be considered to fall under the category of **Alterations – Level 3**.

Broadly speaking, buildings that are not being changed in use or occupancy may continue to be occupied and used in the manner they have been used historically.

If significant reconfiguration of spaces is contemplated, the requirements for work in affected areas would be required to conform largely to the building code for new construction, although there is some latitude for existing or historic buildings.

New building systems (mechanical, electrical, plumbing, fire protection, etc.), or upgrades to existing building systems, will need to conform to the building code for new construction in effect at the time of their installation.

The building currently is protected with an automatic fire suppression system (sprinklers). A sprinkler system in an existing (and/or historic) building will typically allow more flexibility in how the various building code sections are interpreted.

We have summarized below what we believe are the most pertinent sections from the Code. We also recommend a consultation with the City of Gloucester Inspec-

tional Services Department to determine their disposition regarding required code improvements to any proposed space improvements on any of the three floors.

See Part Three of this report, “Conceptual Design, Cost Estimates and Planning,” for further information.

Applicable Codes & Standards (Model Code Basis)

International Existing Building Code (IEBC), Base Volume (2015 International Building Code with Massachusetts Amendments)

- Massachusetts State Building code (780 CMR), Ninth Edition, Base Volume (2015 International Building Code with Massachusetts amendments)
- International Energy Conservation Code, 2012 Edition (IECC)
- Massachusetts Board of State Examiners of Plumbers and Gas Fitters Regulations (248 CMR)
- Massachusetts Comprehensive Fire Safety Code (527 CMR 1.00 – 2012 NFPA 1: Fire Code with amendments)
- Massachusetts Electrical Code (527 CMR 12.00 – 2014 NFPA 70: National Electrical Code with amendments)
- Massachusetts Architectural Access Board Regulations – MAAB - (521 CMR)
- Americans with Disabilities Act (ADA)

Rules and Regulations of the Massachusetts Architectural Access Board (MAAB)

Architectural access regulations in Massachusetts (521 CMR) are written to encourage making buildings and spaces barrier free to persons with physical or mental disabilities.

Note that the Saunders House is not retroactively required to outfit its facility for Universal Access. However, there are several “triggers” where work done will need to incorporate accessibility. Note that the guidelines below describe a minimum standard. Exceeding these requirements is at the discretion of the City.

Generally speaking, all new work including construction, reconstruction, alterations, re-modeling, additions, and changes in use should conform to the access regulations. This means all additions, reconstruction, remodeling, and alterations or repairs to existing public buildings or facilities which require a building permit.

If the building permit value of the work being performed amounts to less than 30% of the assessed building value and less than \$100,000, only new work or renovated spaces would be required to comply. The City of Gloucester tax assessment for fiscal year 2018 is \$3,035,800 (old and new buildings), so the 30% threshold would be \$910,740.

If the work value is under 30% of the assessed building value, but over \$100,000, the work must be made accessible and both an accessible entrance and rest room are

required.

If the value of the work to be done is determined to be greater than 30% of the “full and fair cash value” of the building, which is \$910,740, then the entire facility would have to be made fully accessible. If spaces cannot be made accessible, a variance may be sought to allow their continued use by the public, or for exemption for certain uses. Under certain circumstances, this process involves the Massachusetts Architectural Access Board.

Whether performed alone or in combination with each other, the following types of alterations are not subject to 521 CMR 3.3.1 and do not count towards the 30% trigger. When performing exempted work, a memo stating the exempted work and its costs must be filed with the permit application or a separate building permit must be obtained. Exceptions not counting towards the 30% trigger are:

- Alteration work which is limited solely to electrical, mechanical, or plumbing systems, to abatement of hazardous materials, or to retrofit of automatic sprinklers, and does not involve the alteration of any elements or spaces required to be accessible under 521 CMR.
- Roof replacement or repair, window repair or replacement, repointing and masonry repair work.
- Work relating to septic system repairs, site utilities and landscaping.

However, if the above work alone or in concert with additional work exceeds the 30% trigger, then it is as if the work is not exempted. Note that the cost of work is tracked over a three year span, so phased projects may be cumulative.

Currently, the Saunders House could comply with codes via its attachment to Sawyer Free Library, which provides accessibility, egress, and bathrooms. The second floor could be made accessible by manipulating the floor levels in the connector between the two buildings with ramping.

If the Saunders House is detached from the main library building, it would trigger a need for full accessibility compliance with the applicable MAAB regulations. The 2nd floor area and basement are not currently accessible. The proposed rehabilitation would include a new elevator that would provide access to the 2nd floor and basement.

Currently, the Saunders House could comply with codes via its attachment to Sawyer Free Library, which provides accessibility, egress, and bathrooms. The second floor could be made accessible by manipulating the floor levels in the connector between the two buildings with ramping.

If the Saunders House is detached from the main library building, it would trigger a need for full accessibility compliance with the applicable MAAB regulations. The 2nd floor area and basement are not currently accessible. The proposed rehabilitation would include a new elevator that would provide access to the 2nd floor and basement.

CODE SUMMARY

The summary below identifies some basic information about the Saunders House and how it relates to current building code requirements. The review should be used as a guide when contemplating building renovations.

A. Work Area and Classification of Work

1. This code summary is based on the Work Area Method. The renovation in the existing building will be classified as Level 2 Alterations, in that less than 50% of the aggregate area of the building is included in the Work Area. The work of this project must comply with Chapters 6-8 of the IEBC.
2. Structural and framing upgrades will be undertaken at the basement, first, and second levels to bring the load bearing capacity up to 100 lb/sf.
3. Spatial reconfiguration of the building will be undertaken at the basement level, where archival storage will be provided.
4. Spatial reconfiguration in Scheme 1 will be undertaken at the first level to provide study rooms in the northeast corner.
5. In Scheme 2 only, spatial reconfiguration of the building will be undertaken at the basement, first, and second levels, by the addition of an MRL elevator and egress stair placed within the northeast corner of the building. An existing stair to the basement will be removed and a new stair to the basement will be constructed.
6. The main floor stair hall, its balcony and the adjoining chambers on both the first and second levels will all function as study rooms and community spaces.
7. The third level will remain as storage and no modifications will be undertaken.
8. The HVAC system for the entire building will be selectively upgraded. Upgrades to the existing electrical, plumbing, fire alarm systems will also be undertaken.
9. A new fire suppression system will be installed on the basement, first, second, and third levels to upgrade the current system from a dry to a wet system. The dry system will remain on the attic level.
10. Hazardous materials abatement will be performed throughout Saunders House.
11. Summary of square footage at each floor level of Saunders House:
 - a. Basement Level = 2,345 NSF +/- existing
 - b. Main Floor = 2,453 NSF +/- existing
 - c. Level 2 = 2,197 NSF +/- existing
 - d. TOTAL NSF = 8,740 NSF +/- existing
12. It is important to note that the Saunders House is listed on the Massachusetts Historic Register and on the National Historic Register. As such, ex-



ceptions to the building code for existing construction, described in IEBC, 2009 Edition, Chapter 12, “Historic Buildings,” may apply to the present uses and characteristics of the building.

B. Occupancy Classification

1. Present Occupancy – Library / Museum.

- a. (Existing): Present uses and functions most closely resemble a Group A-3 use (Section 303.4 – Library, Museum).
- b. Main Floor (proposed): Most closely resembles a Group A-3 use (Section 303.4 – Library, Museum).
- c. Second Floor (proposed): Most closely resembles a Group A-3 use (Section 303.4 – Library, Museum).
- d. Basement (proposed): Storage support spaces most closely resemble a Group S-1 use (Section 311.2 – Moderate Hazard).

C. Minimum Construction Type- Classification VB

- 1. The Saunders House most closely resembles Construction Classification VB, a wood framed building with no fire resistance ratings.

D. Fire Resistance Ratings:

- 1. The existing building is currently protected with a automatic fire suppression (dry) system to be upgraded to a wet system (retaining dry system in attic only).
- 2. Building Element (Table 601, Fire-Resistance rating Requirements):
 - a. Primary Structural Frame: 0-hr. rating
 - b. Bearing Walls, Exterior: 0-hr. rating
 - c. Bearing Walls, Interior: 0-hr. rating
 - d. Nonbearing Walls & Partitions, Exterior: 0-hr. rating
 - e. Nonbearing Walls & Partitions, Interior: 0-hr. rating
 - f. Floor Construction & Secondary Members: 0-hr. rating
 - g. Roof Construction & Secondary Members: 0-hr. rating

E. Interior Finishes:

- 1. Interior Walls & Ceilings (IBC Table 803.11), Group A-3 (For new construction)
 - a. Exit Enclosures & Passageways: Class A
 - b. Corridors, Use Group A-3: Class A
 - c. Rooms & Enclosed Spaces, Use Group A-3: Class C

F. Level 1 Alteration Requirements: Section 801.1 (Alteration-Level 2) lists an exception for “buildings in which the reconfiguration is exclusively the result of compliance with the accessibility requirements of Section 705.2 shall be permitted to comply with Chapter 7,” Alterations-Level 1.

G. Level 1 alterations as described in Section 503 shall comply with the requirements of Chapter 7. Level 1 alterations to historic buildings shall comply with Chapter 7, except as modified in Chapter 12 “Historic Buildings.”

H. Level 2 Alteration Requirements, Miscellaneous

- 1. To be determined and as listed below:

- a. _____
- b. _____
- c. _____

I. Means of Egress:

- 1. The basement is served by two means of egress. The main floor is served by two means of egress. The second floor is served by two means of egress. The third floor is served by one means of egress and will only be used for storage.
- 2. Egress exit capacity will be adequate for the occupant loads as calculated below.

J. Massachusetts Plumbing Code (248 CMR)

- 1. Proposed Occupancy Count (MSBC Table 1004.1.2 Max. Floor Area Allowances and Section 1004.4 Fixed Seating):
 - a. The current Massachusetts State Building Code calculates occupancy for a library by assuming 50 NSF/occupant in the reading room areas.
 - b. The public areas of Saunders House are approximately 2,750 NSF and could support a maximum of 55 occupants using unconcentrated tables and chairs.
- 2. Plumbing Fixture Counts

Proposed Population (Assembly areas only):	55 persons
@ 50%F / 50%M:	28 Female
	28 Male

Fixture Calculations based on Assembly Use:

Toilets Required, Female @ 1 per 50:	1 required
<i>Toilets Provided, Female:</i>	TBD
Toilets Required, Male @ 1 per 100:	1 required
<i>Toilets/Urinals Provided, Male:</i>	TBD
Lavatories Required, M / F @ 1 per 200:	1 per gender
Lavatories Provided, Female:	TBD
Lavatories Provided, Male:	TBD

K. Required Number of Wheelchair Spaces

- 1. Section 16.2 of 521 CMR requires 4 wheelchair seating spaces for occupancies of between 51 to 300. Using the Plumbing Code calculation for occupancy, 55 occupants could be seated on the main and second floor. Therefore, 2 wheelchair spaces should be distributed on levels 1 and 2.
- 2. Section 16.4.3 requires at least one companion seat be provided next to each wheelchair seating area.



Historic District Review

As a building in a the Gloucester Historic District, the Saunders House is subject to design review by the Historic District Commission (HDC). The HDC reviews and imposes requirements on development proposals within the Historic District in order to prevent developments incongruous with the historic aspects or architectural characteristics of the District. In its deliberations, the HDC shall consider – among other things – the historic and architectural value and significance of the site, building, or structure, the general design, arrangement, texture, material, and color of the features involved, and the relation of such features to similar features of buildings and structures in the surrounding area.

Buildings in Gloucester that have received funding from the Community Preservation Act are subject to design review by the Commission. Proposed changes must meet *The Secretary of the Interior's Standards for the Treatment of Historic Properties*.

PART 3: CONCEPTUAL DESIGN & COST ESTIMATES

CONCEPTUAL DESIGN

The intent of the Saunders House project is to restore and rehabilitate the building for expanded use. The overall goal is to achieve a fully accessible building that can be utilized for various municipal and community needs and activities and function as part of a large, modern public library.

EXTERIOR RESTORATION PLAN

The exterior scope focuses on monitoring existing conditions and stabilizing locally if necessary. The major exterior element that has been identified for work is the repointing of the foundation.

DESIGN FOR INTERIOR SPACES

The interior work would focus initially on updating all mechanical, electrical, plumbing and fire protection systems and removing hazardous materials. Structural reinforcement will be introduced as recommended in the structural analysis report. Concurrent with updating the building systems, the interior will be reconfigured to meet future programming needs and become fully accessible. Overall modifications include stripping away acoustic tile ceilings, restoring plaster ceilings, and restoring damaged sections of the murals. Updates to the functions of the spaces in the Saunders House will make it complementary to the functions in the main building. There will be reading rooms and study rooms, while staff and processing functions will be in the main 1976 building. The spaces in the Saunders House will be specifically tied to Gloucester History, including rooms for the display of local history, Gloucester art, and archival storage. Some of these spaces will also provide accessible meeting space of benefit to the entire Gloucester community.

There are two schemes for the interior work, one contemplating the Saunders House as continuing to be an extension of the main library building (Scheme 1) and one contemplating it as a stand-alone building (Scheme 2). In the former, accessibility will be updated and confirmed for full accessibility and egress use via existing pathways through the main library. This can be achieved by adjustments to the floor levels in the connector to maintain an accessible slope between the buildings. In the latter, a new egress stair and elevator will need to be added along with toilet rooms.

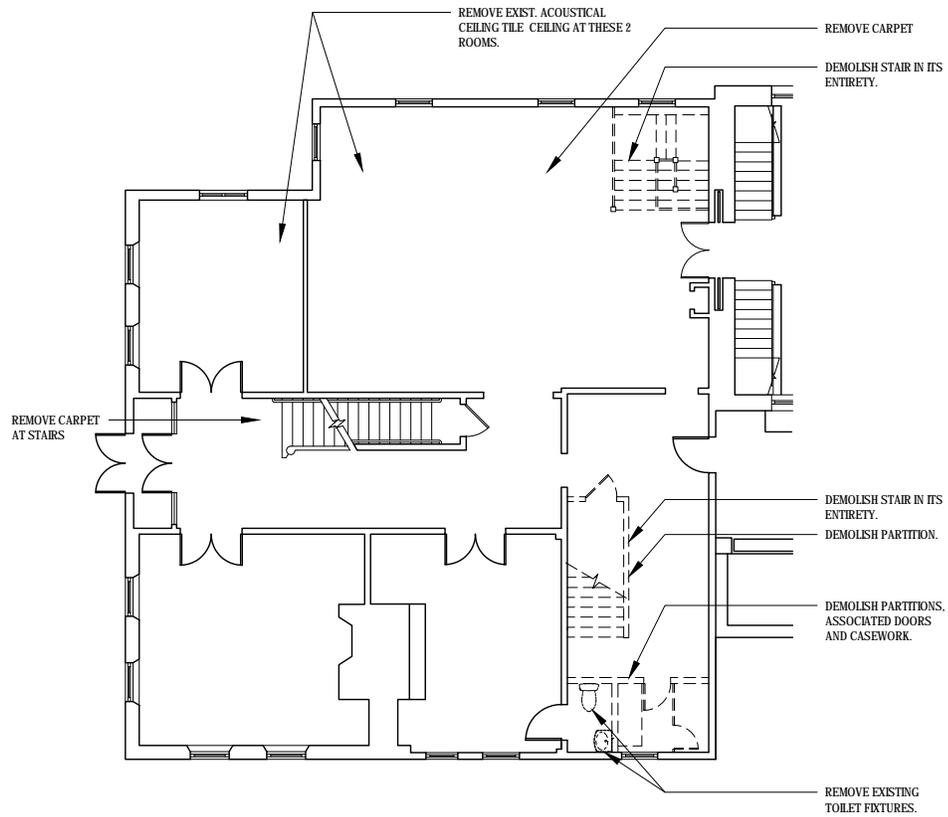
In both schemes, the basement could be converted to an archival storage facility. Special consideration should be taken regarding proper waterproofing and structural reinforcement options in the basement to address potential moisture conditions.

The intent for the first floor is continued and expanded use for special functions and community activities, including public access to the murals and southeast parlor

■
with its original Georgian woodwork.

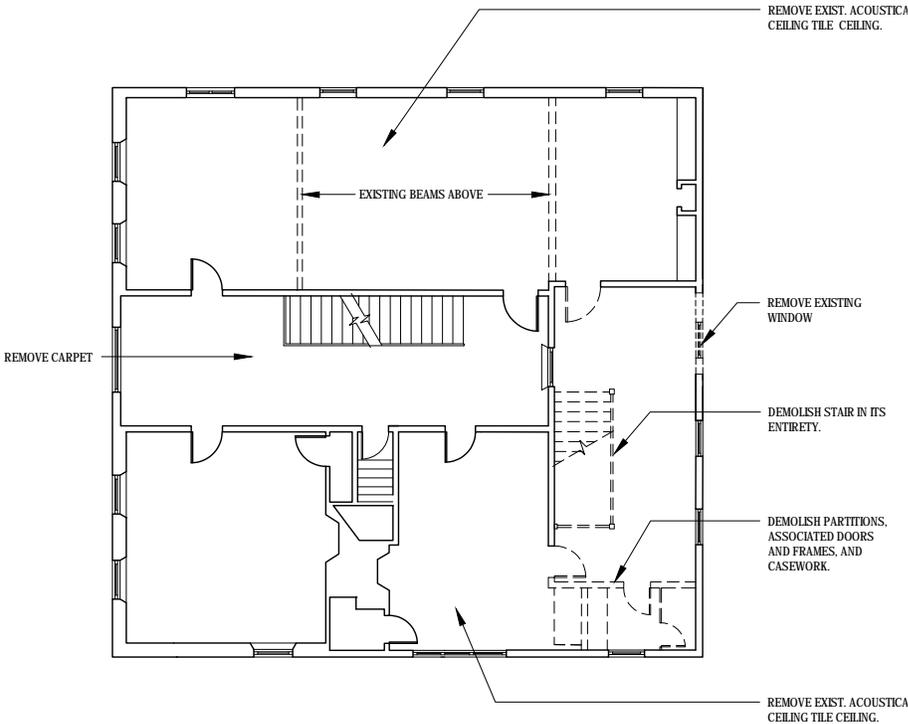
Conceptual design for the second floor provides dedicated offices, community meeting space, and exhibit space. The intent is to maintain the majority of existing wall partitions in order to minimize disruption to the murals and to preserve as many original elements as possible.

There will be no modification to the third floor due to the challenges in providing code compliant means of egress and floor loading capacity in a way that will preserve important surviving finishes.



FIRST FLOOR PLAN - SCHEME 1 - DEMOLITION

SCALE 1/16" = 1'

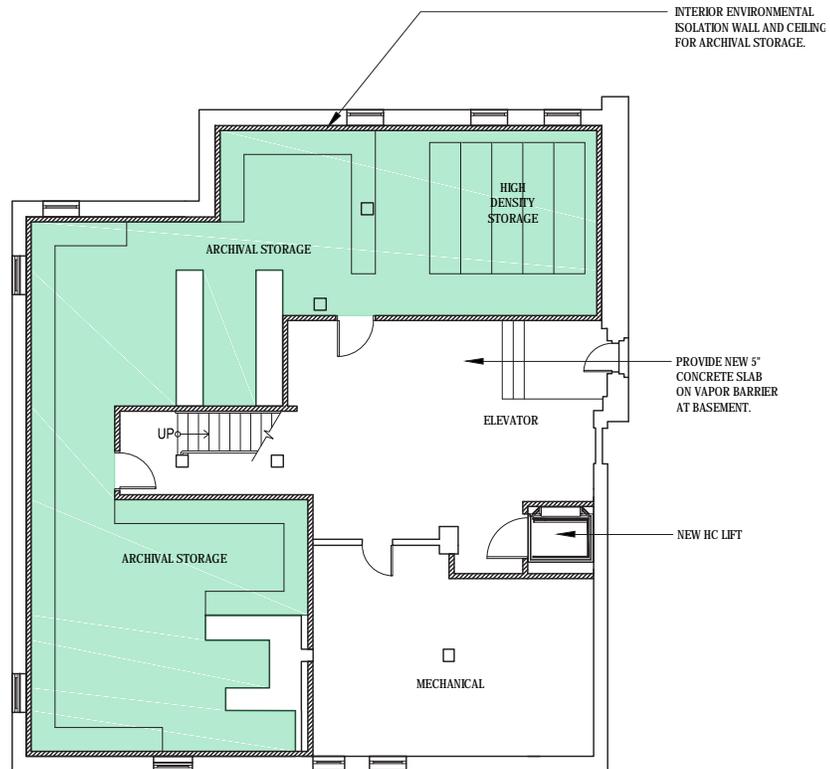


SECOND FLOOR PLAN - SCHEME 1 - DEMOLITION

SCALE 1/16" = 1'

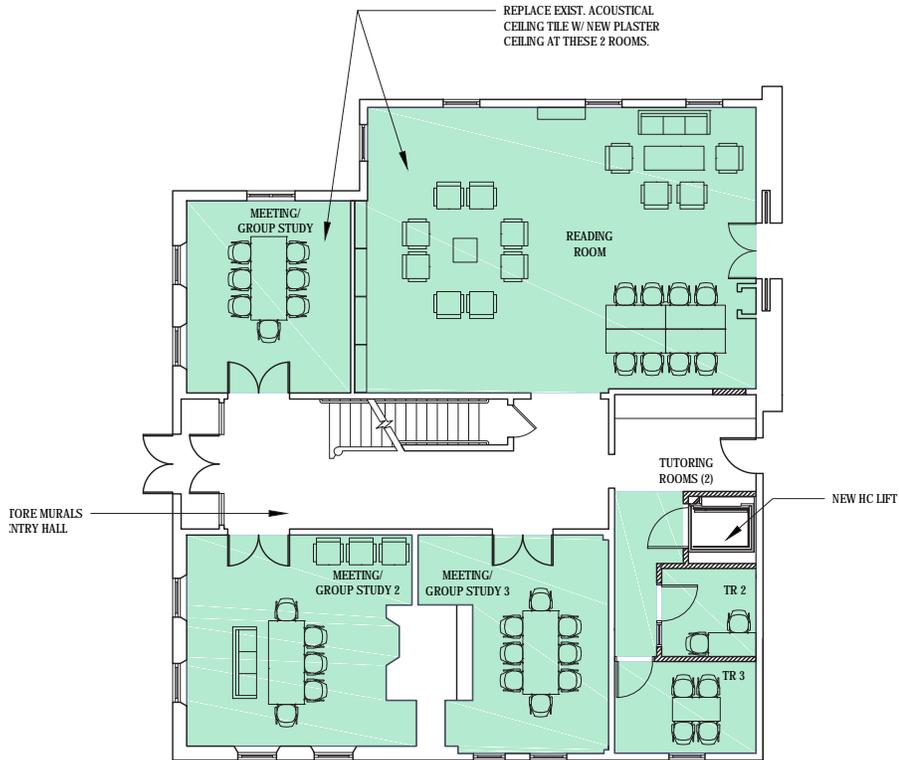
**ALTERNATE 1A:
ARCHIVAL STORAGE:**

1. PROVIDE PRE-ACTION SPRINKLER SYSTEM ZONE.
2. PROVIDE CEILING AND WALL ASSEMBLY WITH SPRAY FOAM URETHANE INSULATION.
3. PROVIDE HUMIDIFICATION SYSTEM.
4. PROVIDE GASKETED DOORS.
5. PROVIDE LIFT FROM 1ST FLOOR TO BASEMENT.



BASEMENT FLOOR PLAN - SCHEME 1
SCALE 1/16" = 1'

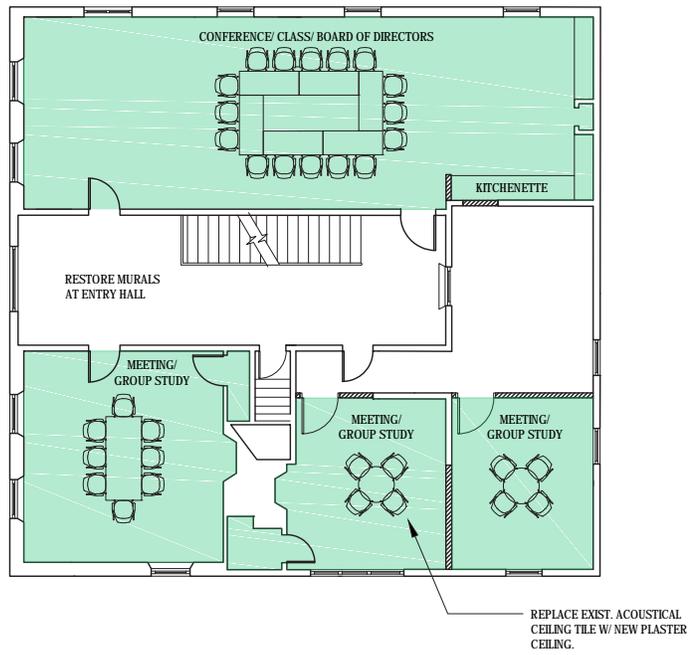
■ scheme 1 area



FIRST FLOOR PLAN - SCHEME 1

SCALE 1/16" = 1'

■ scheme 1 area

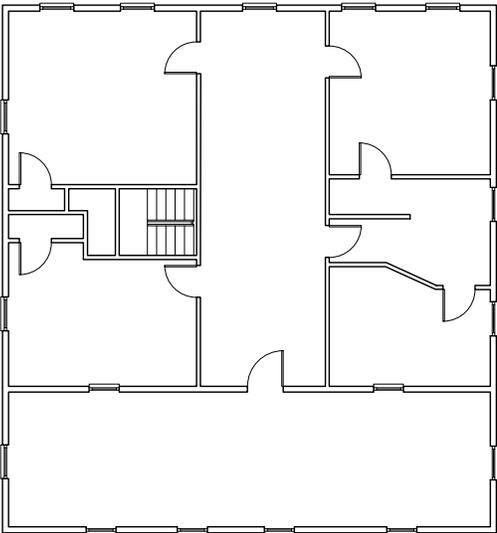


SECOND FLOOR PLAN - SCHEME 1

SCALE 1/16" = 1'

■ scheme 1 area

SCALE 1/16" = 1'

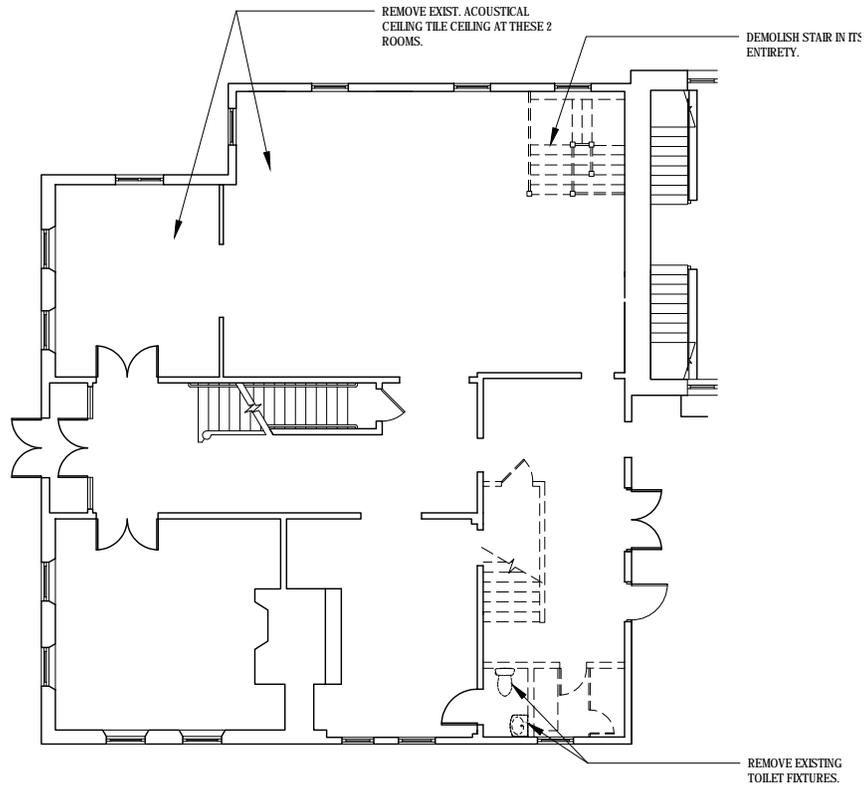


NOTE: NO WORK AT 3RD FLOOR.

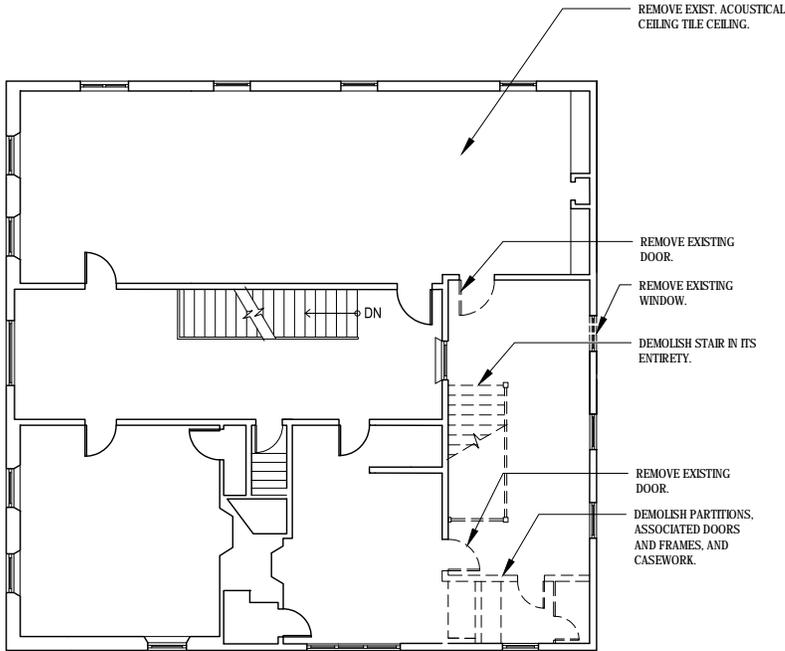
THIRD FLOOR PLAN - SCHEME 1

SCALE 1/16" = 1'

SCALE 1/16" = 1'

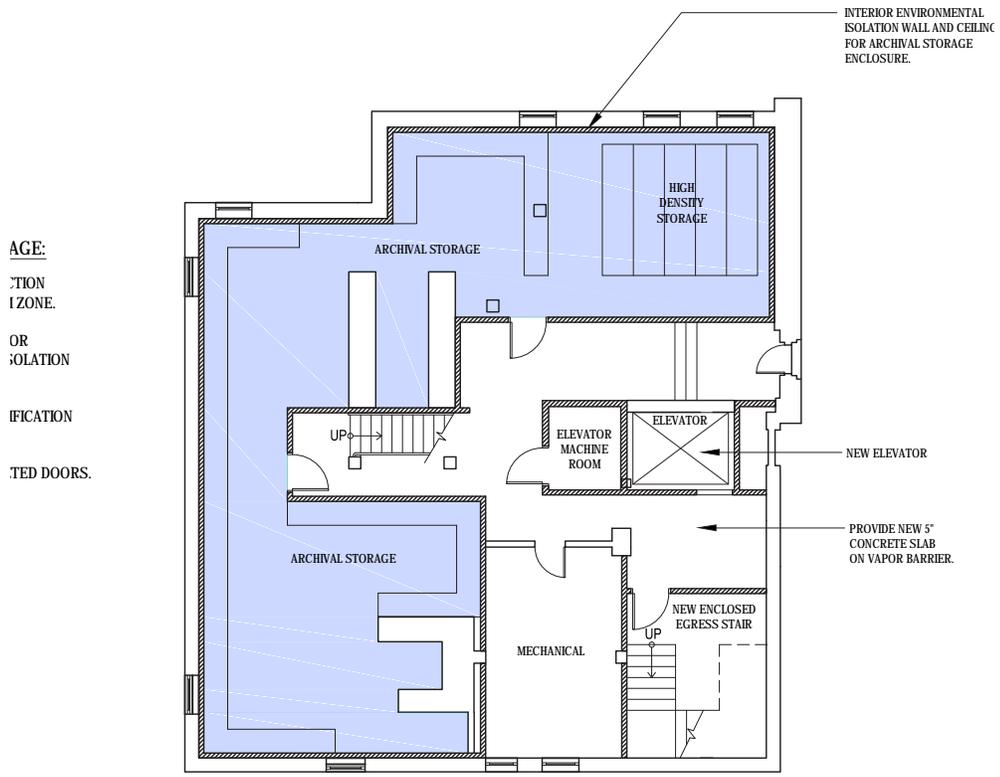


FIRST FLOOR PLAN - SCHEME 2 - DEMOLITION
SCALE 1/16" = 1'



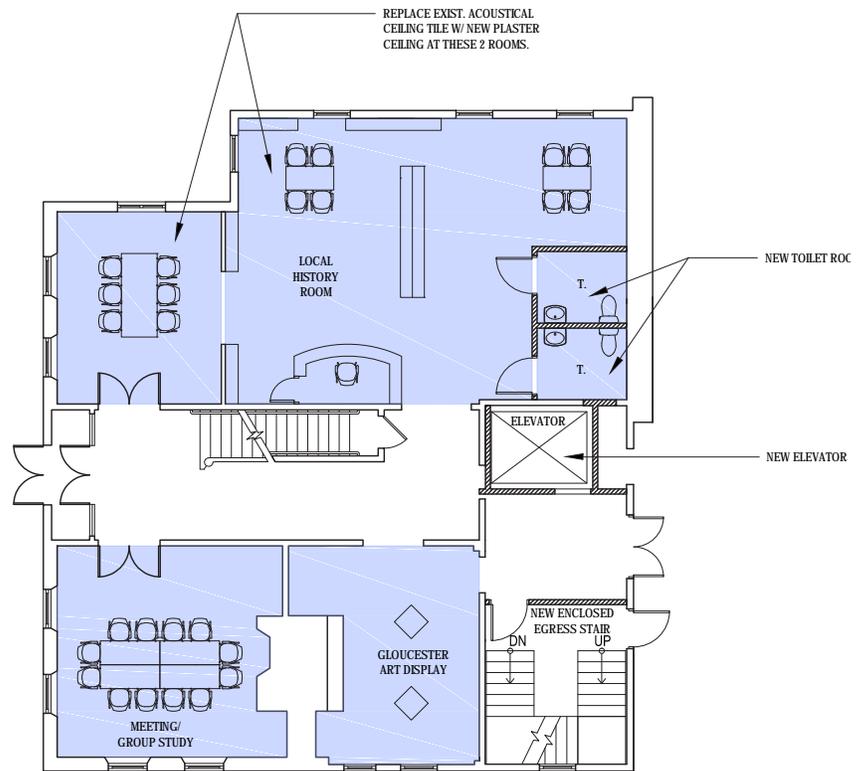
SECOND FLOOR PLAN - SCHEME 2 - DEMOLITION

SCALE 1/16" = 1'

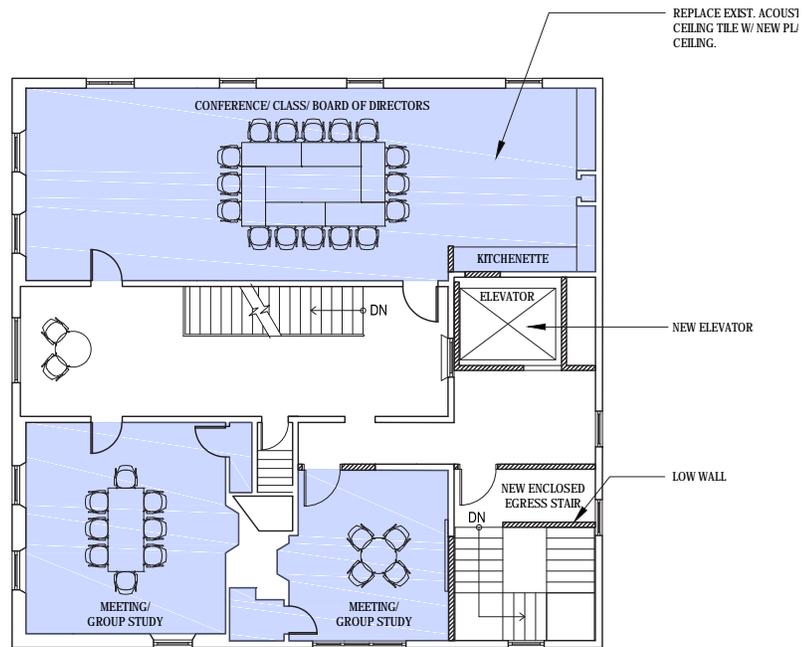


BASEMENT FLOOR PLAN - SCHEME 2
SCALE 1/16" = 1'

■ scheme 2 area

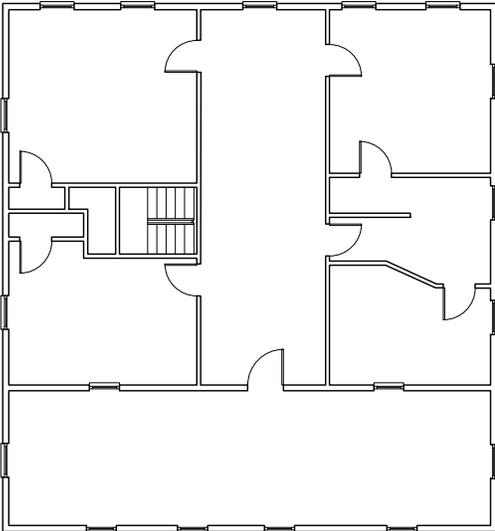


FLOOR PLAN - SCHEME 2 scheme 2 area
SCALE 1/16" = 1'



SECOND FLOOR PLAN - SCHEME 2
SCALE 1/16" = 1"

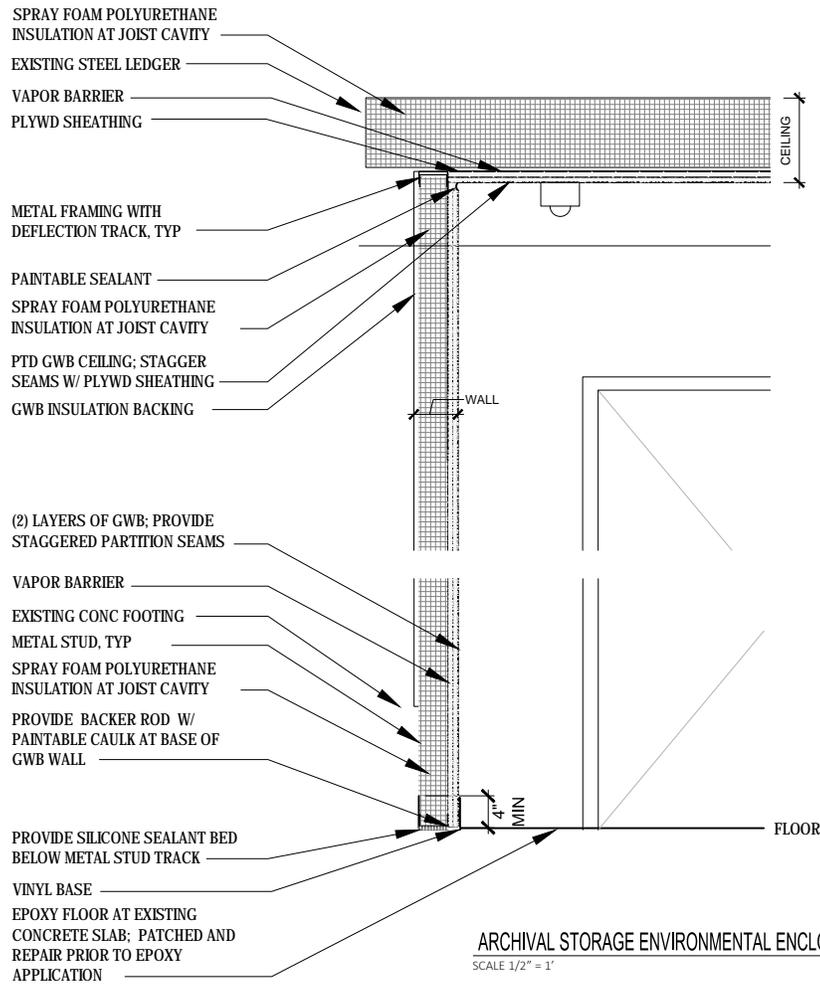
■ scheme 2 area



NOTE: NO WORK AT 3RD FLOOR.

FLOOR PLAN - SCHEME 2

SCALE 1/16" = 1'





REGULATORY ANALYSIS FOR CONCEPTUAL DESIGN

Most of the recommended scope of work in this report would largely fall under the category **Alterations - Level 1** and **Alterations - Level 2**. The paragraphs that follow describe the pertinent sections of the Building Code as they relate to the proposed scope of work at the Saunders House.

Level 1 Alterations cover the replacement of existing materials and systems with new ones. An example would be the replacement of an existing roof with a new roof. Work on historic buildings generally conform to the requirements for **Level 1 Alterations**. The recommended interior **Level 1** work scope at Saunders House would include the removal of acoustical tile ceilings, general carpentry, and repairs.

A very important aspect of any proposed **Level 1 Alteration** work occurs if the building is located in a flood hazard area. If the scope of the proposed work constitutes **substantial improvements** (construction costs exceeding 50% or more of the market value of the building), then the building must be brought into compliance with the flood-resistant provisions of the IBC Code for new construction (IEBC Section 701.3). The Saunders House property does not fall within a **Special Flood Hazard Area (SFHA)**.

Since the building is included on the State and National Register of Historic Places, it would be exempt from the Flood Control requirements of the 2015 Existing Building Code (IEBC Section 1201.4). “If an historic building will continue to be an historic building after the proposed work is completed, then the proposed work is not considered a substantial improvement.”

Level 2 Alterations include the reconfiguration of space, the addition or elimination of any door or window, the reconfiguration or extension of any building system, and the installation of any additional equipment. The recommended interior **Level 2** work scope at Saunders House for Scheme 2 would require the addition of an elevator shaft, a new stairway, and new entries and exits. The recommended interior work scope would include the partial reconfiguration of space on both the 1st floor and 2nd floor. The removal and replacement of the existing mechanical and electrical systems would also fall under this category.

Level 3 Alterations would apply when the proposed work area exceeds 50 percent of the aggregate area of the building. The goal of the proposed work at the Saunders House would be to keep the proposed work areas under 50% so as to avoid triggering the requirements of **Level 3 Alterations**.

New building systems (electrical, plumbing, fire alarm, etc.) will need to conform to the building code for new construction (2015 IBC) in effect at the time of their installation.

Broadly speaking, buildings that are not being changed in use or occupancy may continue to be occupied and used in the manner they have been used historically. The assumption being that whatever building code under which they were constructed had concerns of life safety in mind. Even though most of the Saunders



House structure was constructed before formal building codes were enacted, except for blatant life safety issues, there is no building code requirement for retroactive improvements to conform to current codes.

If additions or significant reconfigurations of spaces are contemplated, the requirements for work in affected areas would be required to conform largely to the building code for new construction, although there is some latitude for existing or historic buildings.

PHASED SCOPE COST AND ESTIMATES

TWO WORK PHASES

We have provided cost estimates for two schemes (see the report from Dore + Whitter on page 143ff. for pricing details):

Scheme 1: \$2,801,367 (including 15% architectural/engineering and 20% contingency)

- Repointing of the foundation and localized maintenance on the exterior envelope.
- All major structural improvements.
- Replacement or upgrades to all existing mechanical, electrical, plumbing and fire protection systems for the first floor and basement.
- Interior space improvements to the first and second floor area.
- Restoration of murals.

Scheme 2: \$3,378,644 (including 15% architectural/engineering and 20% contingency)

- Repointing of the foundation and localized maintenance on the exterior envelope.
- All major structural improvements.
- Replacement or upgrades to all existing mechanical, electrical, plumbing and fire protection systems for the first floor and basement.
- Interior space improvements to the first and second floor area.
- Restoration of murals.
- Installation of an egress stair.
- Construction of the elevator hoistway.*
- Installation of an elevator cab and all control systems.

*The elevator hoistway would be built with solid core-filled concrete masonry units (CMU), which achieves the necessary fire proofing and serves as an important element in structural improvements to provide increased resistance to lateral loads (as required by the Building Code.)





The Saunders House - The Sawyer Free Library

Scheme 1 & Scheme 2 Design Options

Gloucester, Ma

PM&C LLC
20 Downer Avenue
Hingham, MA 02043
(T) 781-740-8007
(F) 781-740-1012

Prepared for:

Dore + Whittier

September 10, 2018



MAIN CONSTRUCTION COST SUMMARY

	Construction Start	Gross Floor Area	\$/sf	Estimated Construction Cost
ALTERNATE 1				
RENOVATE COSTS		6,400	\$229.54	\$1,469,025
SITWORK				No Costs Assumed
SUB-TOTAL	Sep-19	6,400	\$229.54	\$1,469,025
ESCALATION	4%			\$58,761
DESIGN AND PRICING CONTINGENCY	15%			\$220,354
SUB-TOTAL		6,400	\$273.15	\$1,748,140
GENERAL CONDITIONS	10.00%			\$174,814
BONDS	1.25%			\$21,852
INSURANCE	1.80%			\$31,467
PERMIT				Waived
OVERHEAD+ PROFIT	5%			\$98,814
CONSTRUCTION CONTINGENCY				By Owner
TOTAL OF ALL CONSTRUCTION	Sep-19	6,400	\$324.23	\$2,075,087
ALTERNATE 1A (Archival Storage)			ADD	\$526,337



MAIN CONSTRUCTION COST SUMMARY

	Construction Start	Gross Floor Area	\$/sf	Estimated Construction Cost
ALTERNATE 2				
RENOVATE COSTS		6,400	\$276.84	\$1,771,747
SITework				No Costs Assumed
SUB-TOTAL	Sep-19	6,400	\$276.84	\$1,771,747
ESCALATION	4%			\$70,870
DESIGN AND PRICING CONTINGENCY	15%			\$265,762
SUB-TOTAL		6,400	\$329.43	\$2,108,379
GENERAL CONDITIONS	10.00%			\$210,838
BONDS	1.25%			\$26,355
INSURANCE	1.80%			\$37,951
PERMIT				Waived
OVERHEAD+ PROFIT	5%			\$119,176
CONSTRUCTION CONTINGENCY				By Owner
TOTAL OF ALL CONSTRUCTION	Sep-19	6,400	\$391.05	\$2,502,699
ALTERNATE 2A (Archival Storage)			ADD	\$427,637



The Saunders House - The Sawyer Free Library
Scheme 1 & Scheme 2 Design Options
Gloucester, Ma

10-Sep-18

HVAC PRICING OPTIONS (Including Markups)

HVAC Option #2: Boiler w/ Hot Water/DX/Energy Recovery Air Handling Units, Full Economizer, VRF System	DEDUCT	(\$46,953)
HVAC Option #3: Boiler/Chiller w/ Hot/Chilled Water/Energy Recovery Air Handling Units, Full Economizer, Fan-Coil	DEDUCT	(\$68,808)

This Feasibility Design cost estimate was produced from drawings, outline specifications and other documentation prepared by Spencer, Sullivan + Vogt Architects Inc. and their design team dated August 28, 2018. Design and engineering changes occurring subsequent to the issue of these documents have not been incorporated in this estimate.

This estimate includes all direct construction costs, General Contractor's overhead, fee and design contingency. Cost escalation assumes start dates indicated.

Bidding conditions are expected to be public bidding under Chapter 149 of the Massachusetts General Laws to pre-qualified general contractors, and pre-qualified sub-contractors, open specifications for materials and manufacturers.

The estimate is based on prevailing wage rates for construction in this market and represents a reasonable opinion of cost. It is not a prediction of the successful bid from a contractor as bids will vary due to fluctuating market conditions, errors and omissions, proprietary specifications, lack or surplus of bidders, perception of risk, etc. Consequently the estimate is expected to fall within the range of bids from a number of competitive contractors or subcontractors, however we do not warrant that bids or negotiated prices will not vary from the final construction cost estimate.

ITEMS NOT CONSIDERED IN THIS ESTIMATE

Items not included in this estimate are:

- Land acquisition, feasibility, and financing costs
- All professional fees and insurance
- Site or existing conditions surveys investigations costs, including to determine subsoil conditions
- All Furnishings, Fixtures and Equipment including archival storage shelving and compact storage
- Items identified in the design as Not In Contract (NIC)
- Items identified in the design as by others
- Owner supplied and/or installed items as indicated in the estimate
- Utility company back charges, including work required off-site
- Construction contingency
- Rock removal
- Contaminated soils removal



CONSTRUCTION COST SUMMARY					
<i>BUILDING SYSTEM</i>		<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
SCHEME 1					
A10 FOUNDATIONS					
A1010	Standard Foundations	\$33,458			
A1020	Special Foundations	\$0			
A1030	Lowest Floor Construction	\$5,400	\$38,858	\$6.07	2.6%
B10 SUPERSTRUCTURE					
B1010	Upper Floor Construction	\$265,397			
B1020	Roof Construction	\$0	\$265,397	\$41.47	18.1%
B20 EXTERIOR CLOSURE					
B2010	Exterior Walls	\$45,625			
B2020	Windows	\$2,000			
B2030	Exterior Doors	\$0	\$47,625	\$7.44	3.2%
B30 ROOFING					
B3010	Roof Coverings	\$0			
B3020	Roof Openings	\$0	\$0	\$0.00	0.0%
C10 INTERIOR CONSTRUCTION					
C1010	Partitions	\$55,191			
C1020	Interior Doors	\$10,000			
C1030	Specialties/Millwork	\$19,000	\$84,191	\$13.15	5.7%
C20 STAIRCASES					
C2010	Stair Construction	\$900			
C2020	Stair Finishes	\$2,500	\$3,400	\$0.53	0.2%
C30 INTERIOR FINISHES					
C3010	Wall Finishes	\$23,200			
C3020	Floor Finishes	\$52,710			
C3030	Ceiling Finishes	\$52,976	\$128,886	\$20.14	8.8%
D10 CONVEYING SYSTEMS					
D1010	Elevator	\$0	\$0	\$0.00	0.0%
D20 PLUMBING					
D20	Plumbing	\$93,500	\$93,500	\$14.61	6.4%
D30 HVAC					
D30	HVAC	\$363,000	\$363,000	\$56.72	24.7%



Scheme 1 & Scheme 2 Design Options

GFA 6,400

CONSTRUCTION COST SUMMARY					
<i>BUILDING SYSTEM</i>		<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
SCHEME 1					
D40 FIRE PROTECTION					
D40	Fire Protection	\$52,500	\$52,500	\$8.20	3.6%
D50 ELECTRICAL					
D5010	Electrical; Complete system	\$214,310	\$214,310	\$33.49	14.6%
E10 EQUIPMENT					
E10	Equipment	\$5,000	\$5,000	\$0.78	0.3%
E20 FURNISHINGS					
E2010	Fixed Furnishings	\$0			
E2020	Movable Furnishings	NIC	\$0	\$0.00	0.0%
F20 HAZMAT REMOVALS					
F2010	Building Elements Demolition	\$41,858			
F2020	Hazardous Components Abatement	\$43,500	\$172,358	\$26.93	11.7%
TOTAL DIRECT COST (Trade Costs)			\$1,469,025	\$229.54	100.0%



Scheme 1 & Scheme 2 Design Options

GFA 6,400

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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SCHEME 1

GROSS FLOOR AREA CALCULATION

		TOTAL GFA	
Basement	No Work	SF	
First	3,200	SF	
Second	3,200	SF	
Third	No Work	SF	

TOTAL GROSS FLOOR AREA (GFA)					6,400	sf
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A10 FOUNDATIONS

A1010 STANDARD FOUNDATIONS

Excavate and backfill column footings; 20 Locations	27	cy	120.00	3,240
Remove off site surplus excavated material at column footings; 20 Locations	14	cy	80.00	1,120
New column footings in basement - 3'x3'x2' - formwork	480	sf	12.00	5,760
New column footings in basement - 3'x3'x2' - concrete material + placement	13	cy	300.00	3,900
New column footings in basement - 3'x3'x2' - reinforcing - 125# cyd	1,625	lbs	1.50	2,438
New column footings in basement - 3'x3'x2' - install base plates	20	loc	100.00	2,000
New CMU Piers	15	ea	1,000.00	15,000

SUBTOTAL 33,458

A1020 SPECIAL FOUNDATIONS

No items in this section
SUBTOTAL -

A1030 LOWEST FLOOR CONSTRUCTION

Patch SOG after installation of new footings	180	sf	30.00	5,400
SUBTOTAL				5,400

TOTAL - FOUNDATIONS					\$38,858
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B10 SUPERSTRUCTURE

B1010 FLOOR CONSTRUCTION

Floor infill at removed stair area	131	sf	25.00	3,275
First floor framing area - reframed from below (TJI's)	1,790	sf	12.00	21,480
Second floor framing area - reframed from below (TJI's)	1,000	sf	12.00	12,000
First floor framing area - sistered from below	373	sf	10.00	3,730
Second floor framing area - sistered from below	264	sf	10.00	2,640
Third floor framing area - reframed from below	356	sf	12.00	4,272
New columns - basement to first floor level	20	ea	1,800.00	36,000
New columns - first floor to second floor	20	ea	1,800.00	36,000
New beams - first floor level - assume 50# lf	11	tn	6,000.00	66,000
New beams - second floor - assume 50# lf	9	ea	6,000.00	54,000
New channel framing - 50# lf	4	tn	6,500.00	26,000

SUBTOTAL 265,397

B1020 ROOF CONSTRUCTION

No Work in this section
SUBTOTAL -

TOTAL - SUPERSTRUCTURE					\$265,397
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B20 EXTERIOR CLOSURE

B2010 EXTERIOR WALLS

B3 - Replace rotted sill in basement	225	lf	25.00	5,625
B4 - Dutchman sill patch	1	ls	1,000.00	1,000
S2 - replace rotted sill	1	ls	2,500.00	2,500
F3 - Add cripple studs	1	ls	1,500.00	1,500



Scheme 1 & Scheme 2 Design Options

GFA 6,400

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
SCHEME 1								
65	F4 - demo / straighten / re build mantle wall allowance (also T2)	1	ls	30,000.00	30,000			
66	T3 - reinforce girts	1	ls	5,000.00	5,000			
67	SUBTOTAL					45,625		
68								
69	B2020 WINDOWS							
70	Furnish and install new window at second floor	1	ea	2,000.00	2,000			
71	SUBTOTAL					2,000		
72								
73	B2030 EXTERIOR DOORS							
74	No Work in this section				no work			
75	SUBTOTAL					-		
76								
77	TOTAL - EXTERIOR CLOSURE						\$47,625	
78								
79								
80	B30 ROOFING							
81								
82	B3010 ROOF COVERINGS							
83	No Work in this section							
84	SUBTOTAL					-		
85								
86	B3020 ROOF OPENINGS							
87	No Work in this section							
88	SUBTOTAL							
89								
90	TOTAL - ROOFING							
91								
92								
93	C10 INTERIOR CONSTRUCTION							
94								
95	C1010 PARTITIONS							
96	Interior wood stud partitions w/gwb	1,003	sf	12.50	12,538			
97	Patch existing partitions to remain disturbed by new work/ infill at opes	5	dys	650.00	3,250			
98	Blocking and sealants to interior partitions	1,003	sf	1.00	1,003			
99	Framing / gyp column enclosures at rooms - 2' x 2' @10'	40	ea	960.00	38,400			
100	SUBTOTAL					55,191		
101								
102	C1020 INTERIOR DOORS							
103	New interior wood veneer doors, hollow metal frames and hardware, single leaf	5	ea	2,000.00	10,000			
104	SUBTOTAL					10,000		
105								
106	C1030 SPECIALTIES / MILLWORK							
107	Kitchenette on second floor allowance	1	ls	9,000.00	9,000			
108	Trim and Fireplace Repair allowance Meeting Hall	1	allow	7,500.00	7,500			
109	Toilet room specialties	2	ea	1,250.00	2,500			
110	SUBTOTAL					19,000		
111								
112	TOTAL - INTERIOR CONSTRUCTION						\$84,191	
113								
114								
115	C20 STAIRCASES							
116								
117	C2010 STAIR CONSTRUCTION							
118	F2 - Sister Stringer	1	ea	900.00	900			
119	SUBTOTAL					900		
120								
121	C2020 STAIR FINISHES							
122	New treads / risers - wood	1	ls	2,500.00	2,500			
123	SUBTOTAL					2,500		
124								
125	TOTAL - STAIRCASES						\$3,400	
126								
127								
128	C30 INTERIOR FINISHES							
129								



Scheme 1 & Scheme 2 Design Options

GFA 6,400

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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SCHEME 1

130	C3010 WALL FINISHES							
131	Wall finishes, paint to new and existing	6,400	gsf	3.00	19,200			
132	Ceramic tile at bathrooms	160	sf	25.00	4,000			
133	SUBTOTAL					23,200		
134								
135	C3020 FLOOR FINISHES							
136	Replace removed carpet	561	sy	40.00	22,440			
137	New tile at bathrooms	90	sf	28.00	2,520			
138	Vinyl base	980	lf	25.00	24,500			
138	Allowance to patch flooring at existing areas disturbed by new work	5	dys	650.00	3,250			
139	SUBTOTAL					52,710		
140								
141	C3030 CEILING FINISHES							
142	New gyp strapping / gyp board / plaster ceiling	2,534	sf	14.00	35,476			
143	New gyp strapping / gyp board / plaster ceiling at reframed area first floor ceiling	1,000	sf	14.00	14,000			
144	Allowance to patch ceilings at existing areas disturbed by new work	1	ls	3,500.00	3,500			
145	SUBTOTAL					52,976		
146								
147	TOTAL - INTERIOR FINISHES						\$128,886	
148								
149								
150	D10 CONVEYING							
151								
152	D1010 ELEVATOR							
153	No Work in this section							
154	SUBTOTAL							
155								
156	TOTAL - CONVEYING SYSTEMS							
157								
158								
159	D20 PLUMBING							
160								
161	D20 PLUMBING, GENERALLY							
162	<u>Equipment</u>							
163	Plumbing equipment	1	ls	16,000.00	16,000			
164	<u>Plumbing Fixtures & Specialties</u>							
165	Miscellaneous plumbing fixtures	1	ls	8,000.00	8,000			
166	<u>Domestic Water Type L Copper Pipe</u>							
167	Domestic water pipe with fittings & hangers	1	ls	20,000.00	20,000			
168	Domestic water pipe insulation	1	ls	12,000.00	12,000			
169	<u>Sanitary Waste And Vent Pipe w/ Hangers</u>							
170	Sanitary waste pipe with fittings & hangers	1	ls	19,000.00	19,000			
171	<u>Gas And Fuel Distribution Pipe</u>							
172	Gas pipe with fittings & hangers	1	ls	6,000.00	6,000			
173	<u>Miscellaneous</u>							
174	Demolition	1	ls	5,000.00	5,000			
175	Coring, sleeves & fire stopping	1	ls	4,000.00	4,000			
176	Testing and sterilization	1	ls	2,500.00	2,500			
177	Fees & permits	1	ls	1,000.00	1,000			
178	SUBTOTAL					93,500		
179								
180	TOTAL - PLUMBING						\$93,500	
181								
182								
183	D30 HVAC							
184								
185	D30 HVAC, GENERALLY							
186	HVAC Option #1: Boiler/Chiller w/ Hot/Chilled Water/Energy Recovery Air Handling Units, Full Economizer, 4-Pipe Induction							
187	One (1) 300 MBH condensing boiler	1	ea	12,000.00	12,000			
188	A single 25 ton chiller will be located outside at grade	1	ea	30,000.00	30,000			



Scheme 1 & Scheme 2 Design Options

GFA 6,400

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
SCHEME 1								
189	Cooling System Chilled water pumps (primary/standby with VFD's), piping, associated insulation, valving, and accessories.	1	ls	38,600.00	38,600			
190	Heating Hot water pumps (primary/standby with VFD's), piping, associated insulation, valving, and accessories.	1	ls	46,000.00	46,000			
191	One (1) Indoor chilled/hot water air handling/energy recovery/economizer unit at 2,000 CFM to serve the Saunders House.	1	ea	22,000.00	22,000			
192	Associated supply, return/exhaust ductwork, insulation, dampers, and air distribution devices.	1	ls	92,700.00	92,700			
193	Louvers for indoor air handling units and potential exhaust fan terminations.	1	ls	9,600.00	9,600			
194	Induction Units will zone each office/room or group of rooms based on exposure and usage	1	ls	32,000.00	32,000			
195	<u>Automatic Temperature Controls</u>							
196	Automatic temperature controls DDC	1	ls	40,500.00	40,500			
197	Balancing							
198	System testing & balancing	1	ls	9,600.00	9,600			
199	<u>Miscellaneous</u>							
200	Demolition	1	ls	10,000.00	10,000			
201	Coring, sleeves & fire stopping	1	ls	5,000.00	5,000			
202	Equipment start-up and inspection	1	ls	1,000.00	1,000			
203	Rigging & equipment rental	1	ls	8,000.00	8,000			
204	Vibration & seismic restraints	1	ls	6,000.00	6,000			
205	SUBTOTAL					363,000		
207	TOTAL - HVAC							\$363,000
210	D40 FIRE PROTECTION							
212	D40 FIRE PROTECTION, GENERALLY							
213	Provide new 4" wet alarm check valve & fire riser with sprinkler zone control valves on each level with drain. New wet piping and quick response type sprinkler heads to the renovated and existing areas.	1	ls	35,000.00	35,000			
214	<u>Miscellaneous</u>							
215	Remove existing dry system from basement, first floor & second floor	1	ls	7,000.00	7,000			
216	Hydraulic calculations	1	ls	2,500.00	2,500			
217	Coring, sleeves & fire stopping	1	ls	5,000.00	5,000			
218	Shop drawings	1	ls	1,500.00	1,500			
219	Commissioning of system	1	ls	1,000.00	1,000			
220	Fees & permits	1	ls	500.00	500			
221	SUBTOTAL					52,500		
223	TOTAL - FIRE PROTECTION							\$52,500
226	D50 ELECTRICAL							
228	D5010 SERVICE & DISTRIBUTION							
229	Gear & Distribution							
230	Allow for modifications to the existing to remain gear and distribution	6,400	sf	2.00	12,800			
231	<u>Equipment Wiring</u>							
232	Equipment wiring	6,400	sf	3.00	19,200			
233	SUBTOTAL					32,000		
235	D5020 LIGHTING & POWER							
236	<u>Lighting & Branch Power</u>							
237	New Lighting per outline spec	6,400	sf	8.00	51,200			
238	<u>Lighting control system</u>							
239	Lighting controls including occupancy sensors	6,400	sf	1.15	7,360			
240	<u>Branch devices</u>							
241	New devices	6,400	sf	0.50	3,200			
242	<u>Lighting and branch circuitry</u>							
243	Lighting & branch circuitry	6,400	sf	4.00	25,600			
244	SUBTOTAL					87,360		
246	D5030 COMMUNICATION & SECURITY SYSTEMS							



Scheme 1 & Scheme 2 Design Options

GFA 6,400

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
SCHEME 1								
247	<u>Fire Alarm</u>							
248	Fire alarm system	6,400	sf	3.00	19,200			
249	<u>Bi-Directional System</u>							
250	BDA system				NIC			
251	<u>Security System</u>							
252	Security System	6,400	sf	2.00	12,800			
253	<u>Telephone/Data/CATV</u>							
254	Network switches, PBX, IP, VP, CCTV (By owner)				By Owner			
255	Allow for additional telcom devices and cabling where required	6,400	sf	2.00	12,800			
256	<u>Public Address/Clock System</u>							
257	Allow for new PA/Master Clock system	6,400	sf	1.50	9,600			
258	<u>Audio Visual (rough-in and power only)</u>							
259	AV equipment				By Owner			
260	Rough-In conduit and backboxes only	6,400	sf	0.50	3,200			
261	SUBTOTAL					57,600		
262								
263	D5040 OTHER ELECTRICAL SYSTEMS							
264	SITE ELECTRICAL							
265	<u>Power</u>							
266	Power riser	1	ea	2,200.00	2,200			
267	Primary ductbank 2-5" ductbank, empty, allow	50	lf	65.00	3,250			
268	Transformer by utility company				By Utility Co.			
269	Transformer pad	1	ea	2,500.00	2,500			
270	Secondary service 400A feed , allow	50	lf	100.00	5,000			
271	<u>Communications</u>							
272	Connection at riser pole, allow	1	ea	2,200.00	2,200			
273	Telcom ductbank 4-4", allow	100	lf	120.00	12,000			
274	<u>Site Lighting</u>							
275	Site lighting allowance	1	ls		NR			
276	<u>Miscellaneous</u>							
277	Temp power and lights	6,400	sf	0.50	3,200			
278	Lightning Protection System, UL Master label	1	ls	5,000.00	5,000			
279	Fees & Permits	1	ls	2,000.00	2,000			
280	SUBTOTAL					37,350		
281								
282								
283	TOTAL - ELECTRICAL						\$214,310	
284								
285								
286	E10 EQUIPMENT							
287								
288	E10 EQUIPMENT, GENERALLY							
289	Allowance for kitchen appliances	1	ls	5,000.00	5,000			
290	SUBTOTAL					5,000		
291								
292	TOTAL - EQUIPMENT						\$5,000	
293								
294								
295	E20 FURNISHINGS							
296								
297	E2010 FIXED FURNISHINGS							
298	No items in this section							
299	SUBTOTAL					-		
300								
301	E2020 MOVABLE FURNISHINGS							
302	All movable furnishings to be provided and installed by owner							
303	SUBTOTAL					NIC		
304								
305	TOTAL - FURNISHINGS							
306								
307								
308	F20 SELECTIVE BUILDING DEMOLITION							
309								
310	F2010 BUILDING ELEMENTS DEMOLITION							
311	Remove existing doors	6	ea	100.00	600			
312	Remove existing window	1	ea	250.00	250			



Scheme 1 & Scheme 2 Design Options

GFA 6,400

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
SCHEME 1							
313	Remove existing partitions	572	sf	5.00	2,860		
314	Demo flight of stairs	4	ea	1,000.00	4,000		
315	Remove bath fixtures	2	ea	1.25	3		
316	Remove existing ACT	2,336	sf	1.00	2,336		
317	Remove existing carpet	1,309	sf	1.00	1,309		
318	MEP demolition / Make safe	6,400	sf	1.25	8,000		
319	Floor penetrations / patch back for columns	20	ea	250.00	5,000		
320	Temporary Bracing at structure allowance	1	ls	17,500.00	17,500		
321	SUBTOTAL					41,858	
322							
323	F2020 HAZARDOUS COMPONENTS ABATEMENT						
324	HazMat allowance per report	1	ls	43,500.00	43,500		
325	SUBTOTAL					43,500	
326							
327	F2020 MURAL TREATMENT						
328	See mural proposal in report	1	ls	87,000.00	87,000		
329	SUBTOTAL					87,000	
326							
327							
TOTAL - SELECTIVE BUILDING DEMOLITION							\$172,358



Scheme 1 & Scheme 2 Design Options

GFA 3,400

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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SCHEME 1A - ARCHIVAL STORAGE

GROSS FLOOR AREA CALCULATION

	TOTAL GFA		
Basement	3,400	SF	
First	No Work	SF	
Second	No Work	SF	
Third	No Work	SF	

TOTAL GROSS FLOOR AREA (GFA)	3,400 sf
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A10 FOUNDATIONS

A1010 STANDARD FOUNDATIONS

New pit for HC lift	1	ls	10,000.00	10,000	
SUBTOTAL					10,000

A1030 LOWEST FLOOR CONSTRUCTION

15 mil vapor barrier	3,400	sf	1.00	3,400	
New slab on grade - 5"	3,400	sf	10.00	34,000	
Underslab rigid insulation - 3"	3,400	sf	3.50	11,900	
SUBTOTAL					49,300

TOTAL - FOUNDATIONS	\$59,300
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B10 SUPERSTRUCTURE

B1010 FLOOR CONSTRUCTION

Floor opening for lift	1	loc	5,000.00	5,000	
SUBTOTAL					5,000

TOTAL - SUPERSTRUCTURE	\$5,000
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B20 EXTERIOR CLOSURE

B2010 EXTERIOR WALLS

Re-pointing of brick foundation walls; assumed 50%	1,250	sf	35.00	43,750	
SUBTOTAL					43,750

TOTAL - EXTERIOR CLOSURE	\$43,750
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C10 INTERIOR CONSTRUCTION

C1010 PARTITIONS

Interior wood stud partitions w/gwb	300	sf	12.50	3,750	
Blocking and sealants to interior partitions	2,988	sf	1.00	2,988	
Archival wall assembly; 4" metal stud, spray insulation, VB, 2 layers of GWB	2,688	sf	15.50	41,664	
SUBTOTAL					48,402

C1020 INTERIOR DOORS

New interior wood veneer doors, hollow metal frames and hardware, single leaf; gasketed for archival storage	2	ea	3,500.00	7,000	
SUBTOTAL					7,000

C1030 SPECIALTIES / MILLWORK

Compact storage shelving by others					By Owner
Archival storage shelving by others					By Owner
SUBTOTAL					-

TOTAL - INTERIOR CONSTRUCTION	\$55,402
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C30 INTERIOR FINISHES



Scheme 1 & Scheme 2 Design Options

GFA 3,400

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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SCHEME 1A - ARCHIVAL STORAGE

C3010 WALL FINISHES

Wall finishes, paint to new walls	2,988	sf	1.00	2,988		
General painting and patching	3,400	gsf	0.50	1,700		
Sealants and testing for archival storage	1	ls	5,000.00	5,000		
SUBTOTAL						9,688

C3020 FLOOR FINISHES

Epoxy flooring in archival storage	1,277	sf	12.00	15,324		
Vinyl base	344	lf	25.00	8,600		
New flooring allowance in basement lobby	544	sf	7.00	3,808		
SUBTOTAL						27,732

C3030 CEILING FINISHES

Archival room ceiling; GWB ceiling with VB and spray insulation	1,277	sf	21.50	27,456		
Paint lobby ceiling	544	sf	2.00	1,088		
SUBTOTAL						28,544

TOTAL - INTERIOR FINISHES						\$65,964
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D10 CONVEYING

D1010 ELEVATOR

HC lift	1	ls	45,000.00	45,000		
SUBTOTAL						45,000

TOTAL - CONVEYING SYSTEMS						\$45,000
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D20 PLUMBING

D20 PLUMBING, GENERALLY

No work assumed						
SUBTOTAL						-

TOTAL - PLUMBING						
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D30 HVAC

D30 HVAC, GENERALLY

New humidification system	1	ls	30,000.00	30,000		
SUBTOTAL						30,000

TOTAL - HVAC						\$30,000
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D40 FIRE PROTECTION

D40 FIRE PROTECTION, GENERALLY

Pre-Action sprinkler zone for basement archival storage	1	ls	10,500.00	10,500		
SUBTOTAL						10,500

TOTAL - FIRE PROTECTION						\$10,500
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D50 ELECTRICAL

D5010 SERVICE & DISTRIBUTION

Gear & Distribution						
Equipment wiring not yet detailed inc new lift	1	ls	10,000.00	10,000		
SUBTOTAL						10,000

D5020 LIGHTING & POWER

Lighting & Branch Power						
New Lighting to archival storage	1,277	sf	8.00	10,216		
Lighting control system						
Lighting controls including occupancy sensors	1,277	sf	1.15	1,469		
Branch devices						



Scheme 1 & Scheme 2 Design Options

GFA 3,400

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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SCHEME 1A - ARCHIVAL STORAGE

	New devices	1,277	sf	0.50	639		
	<u>Lighting and branch circuitry</u>						
	Lighting & branch circuitry	1,277	sf	4.00	5,108		
	SUBTOTAL					17,432	

D5030 COMMUNICATION & SECURITY SYSTEMS

	<u>Fire Alarm</u>						
	Fire alarm system	1,277	sf	3.00	3,831		
	<u>Bi-Directional System</u>						
	BDA system				NIC		
	<u>Security System</u>						
	Security System	1,277	sf	4.00	5,108		
	<u>Telephone/Data/CATV</u>						
	Network switches, PBX, IP, VP, CCTV (By owner)				By Owner		
	Allow for additional telcom devices and cabling where required	1,277	sf	2.00	2,554		
	SUBTOTAL					11,493	

D5040 OTHER ELECTRICAL SYSTEMS

	<u>Miscellaneous</u>						
	Temp power and lights	1,277	sf	0.50	639		
	Fees & Permits	1	ls	500.00	500		
	SUBTOTAL					1,139	

TOTAL - ELECTRICAL						\$40,064
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E20 FURNISHINGS

E2020 MOVABLE FURNISHINGS

	All movable furnishings to be provided and installed by owner						
	SUBTOTAL					NIC	

TOTAL - FURNISHINGS						
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F20 SELECTIVE BUILDING DEMOLITION

F2010 BUILDING ELEMENTS DEMOLITION

	Remove existing slab	3,400	sf	5.00	17,000		
	Miscellaneous demolition and protection	1,309	sf	1.00	1,309		
	SUBTOTAL					18,309	

TOTAL - SELECTIVE BUILDING DEMOLITION						\$18,309
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SUBTOTAL ARCHIVAL STORAGE	\$373,289
MARKUPS	\$153,048

TOTAL ARCHIVAL STORAGE	\$526,337
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CONSTRUCTION COST SUMMARY					
<i>BUILDING SYSTEM</i>		<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
SCHEME 2					
A10 FOUNDATIONS					
A1010	Standard Foundations	\$73,458			
A1020	Special Foundations	\$0			
A1030	Lowest Floor Construction	\$5,400	\$78,858	\$12.32	4.5%
B10 SUPERSTRUCTURE					
B1010	Upper Floor Construction	\$281,122			
B1020	Roof Construction	\$0	\$281,122	\$43.93	15.9%
B20 EXTERIOR CLOSURE					
B2010	Exterior Walls	\$89,375			
B2020	Windows	\$2,000			
B2030	Exterior Doors	\$0	\$91,375	\$14.28	5.2%
B30 ROOFING					
B3010	Roof Coverings	\$0			
B3020	Roof Openings	\$0	\$0	\$0.00	0.0%
C10 INTERIOR CONSTRUCTION					
C1010	Partitions	\$72,659			
C1020	Interior Doors	\$8,000			
C1030	Specialties/Millwork	\$19,000	\$99,659	\$15.57	5.6%
C20 STAIRCASES					
C2010	Stair Construction	\$23,150			
C2020	Stair Finishes	\$5,000	\$28,150	\$4.40	1.6%
C30 INTERIOR FINISHES					
C3010	Wall Finishes	\$23,450			
C3020	Floor Finishes	\$55,828			
C3030	Ceiling Finishes	\$46,732	\$126,010	\$19.69	7.1%
D10 CONVEYING SYSTEMS					
D1010	Elevator	\$150,000	\$150,000	\$23.44	8.5%
D20 PLUMBING					
D20	Plumbing	\$93,500	\$93,500	\$14.61	5.3%
D30 HVAC					
D30	HVAC	\$363,000	\$363,000	\$56.72	20.5%



Scheme 1 & Scheme 2 Design Options

GFA 6,400

CONSTRUCTION COST SUMMARY

<i>BUILDING SYSTEM</i>	<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
SCHEME 2				
D40 FIRE PROTECTION				
D40 Fire Protection	\$52,500	\$52,500	\$8.20	3.0%
D50 ELECTRICAL				
D5010 Electrical; Complete system	\$229,310	\$229,310	\$35.83	12.9%
E10 EQUIPMENT				
E10 Equipment	\$5,000	\$5,000	\$0.78	0.3%
E20 FURNISHINGS				
E2010 Fixed Furnishings	\$0			
E2020 Movable Furnishings	NIC	\$0	\$0.00	0.0%
F20 HAZMAT REMOVALS				
F2010 Building Elements Demolition	\$42,763			
F2020 Hazardous Components Abatement	\$43,500	\$173,263	\$27.07	9.8%
TOTAL DIRECT COST (Trade Costs)		\$1,771,747	\$276.84	100.0%



Scheme 1 & Scheme 2 Design Options

GFA 6,400

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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SCHEME 2

GROSS FLOOR AREA CALCULATION

	TOTAL GFA						
Basement	No Work		SF				
First	3,200		SF				
Second	3,200		SF				
Third	No Work		SF				

TOTAL GROSS FLOOR AREA (GFA)	6,400 sf
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A10 FOUNDATIONS

A1010 STANDARD FOUNDATIONS

Excavate and backfill column footings; 20 Locations	27	cy	120.00	3,240
Remove off site surplus excavated material at column footings; 20 Locations	14	cy	80.00	1,120
New column footings in basement - 3'x3'x2' - formwork	480	sf	12.00	5,760
New column footings in basement - 3'x3'x2' - concrete material + placement	13	cy	300.00	3,900
New column footings in basement - 3'x3'x2' - reinforcing - 125# cyd	1,625	lbs	1.50	2,438
New column footings in basement - 3'x3'x2' - install base plates	20	loc	100.00	2,000
New elevator pit; complete	1	loc	40,000.00	40,000
New CMU Piers	15	ea	1,000.00	15,000

SUBTOTAL 73,458

A1020 SPECIAL FOUNDATIONS

No items in this section

SUBTOTAL -

A1030 LOWEST FLOOR CONSTRUCTION

Patch SOG after installation of new footings	180	sf	30.00	5,400
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SUBTOTAL 5,400

TOTAL - FOUNDATIONS	\$78,858
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B10 SUPERSTRUCTURE

B1010 FLOOR CONSTRUCTION

Floor infill at removed stair area	160	sf	25.00	4,000
First floor framing area - reframed from below (TJI's)	1,790	sf	12.00	21,480
Second floor framing area - reframed from below (TJI's)	1,000	sf	12.00	12,000
First floor framing area - sistered from below	373	sf	10.00	3,730
Second floor framing area - sistered from below	264	sf	10.00	2,640
Third floor framing area - reframed from below	356	sf	12.00	4,272
New columns - basement to first floor level	20	ea	1,800.00	36,000
New columns - first floor to second floor	20	ea	1,800.00	36,000
New beams - first floor level - assume 50# lf	11	tn	6,000.00	66,000
New beams - second floor - assume 50# lf	9	ea	6,000.00	54,000
New channel framing - 50# lf	4	tn	6,500.00	26,000
Floor opening for lift	3	loc	5,000.00	15,000

SUBTOTAL 281,122

B1020 ROOF CONSTRUCTION

No Work in this section

SUBTOTAL -

TOTAL - SUPERSTRUCTURE	\$281,122
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B20 EXTERIOR CLOSURE

B2010 EXTERIOR WALLS

B3 - Replace rotted sill in basement	225	lf	25.00	5,625
B4 - Dutchman sill patch	1	ls	1,000.00	1,000



Scheme 1 & Scheme 2 Design Options

GFA 6,400

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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SCHEME 2

65	S2 - replace rotted sill	1	ls	2,500.00	2,500			
66	F3 - Add cripple studs	1	ls	1,500.00	1,500			
67	F4 - demo / straighten / re build mantle wall allowance (also T2)	1	ls	30,000.00	30,000			
68	T3 - reinforce girts	1	ls	5,000.00	5,000			
69	Re-pointing of brick foundation walls; assumed 50%	1,250	sf	35.00	43,750			
70	SUBTOTAL					89,375		
71								
72	B2020 WINDOWS							
73	Furnish and install new window at second floor	1	ea	2,000.00	2,000			
74	SUBTOTAL					2,000		
75								
76	B2030 EXTERIOR DOORS							
77	No Work in this section				no work			
78	SUBTOTAL					-		
79								
80	TOTAL - EXTERIOR CLOSURE						\$91,375	

B30 ROOFING

84	B3010 ROOF COVERINGS							
86	No Work in this section							
87	SUBTOTAL					-		
88								
89	B3020 ROOF OPENINGS							
90	No Work in this section							
91	SUBTOTAL							
92								
93	TOTAL - ROOFING							

C10 INTERIOR CONSTRUCTION

97	C1010 PARTITIONS							
99	Interior wood stud partitions w/gwb	841	sf	12.50	10,513			
100	Shaft wall partition at elevator	800	sf	22.50	18,000			
101	Patch existing partitions to remain disturbed by new work/ infill at opes	5	dys	650.00	3,250			
102	Blocking and sealants to interior partitions	1,641	sf	1.00	1,641			
103	Low wall	9	lf	95.00	855			
104	Framing / gyp column enclosures at rooms - 2' x 2' @10'	40	ea	960.00	38,400			
105	SUBTOTAL					72,659		
106								
107	C1020 INTERIOR DOORS							
108	New interior wood veneer doors, hollow metal frames and hardware, single leaf	4	ea	2,000.00	8,000			
109	SUBTOTAL					8,000		
110								
111	C1030 SPECIALTIES / MILLWORK							
112	Kitchenette on second floor allowance	1	ls	9,000.00	9,000			
113	Trim and Fireplace Repair allowance Meeting Hall	1	allow	7,500.00	7,500			
114	Toilet room specialties	2	ea	1,250.00	2,500			
115	SUBTOTAL					19,000		
116								
117	TOTAL - INTERIOR CONSTRUCTION						\$99,659	

C20 STAIRCASES

122	C2010 STAIR CONSTRUCTION						
123	F2 - Sister Stringer	1	ea	900.00	900		
124	New Stair - 16 risers - wood stairs	16	ea	800.00	12,800		
125	Stair railing	54	lf	175.00	9,450		
126	SUBTOTAL					23,150	
127							
128	C2020 STAIR FINISHES						



Scheme 1 & Scheme 2 Design Options

GFA 6,400

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
SCHEME 2							
129	New treads / risers - wood	1	ls	5,000.00	5,000		
130	SUBTOTAL					5,000	
TOTAL - STAIRCASES							\$28,150
C30 INTERIOR FINISHES							
C3010 WALL FINISHES							
138	Wall finishes, paint to new and existing	6,400	gsf	3.00	19,200		
139	Ceramic tile at bathrooms	170	sf	25.00	4,250		
140	SUBTOTAL					23,450	
C3020 FLOOR FINISHES							
143	Replace removed carpet	561	sy	40.00	22,440		
144	New tile at bathrooms	96	sf	28.00	2,688		
145	Allowance to patch flooring at existing areas disturbed by new work	5	dys	650.00	3,250		
146	Vinyl base	1,098	lf	25.00	27,450		
147	SUBTOTAL					55,828	
C3030 CEILING FINISHES							
150	New gyp strapping / gyp board / plaster ceiling	2,088	sf	14.00	29,232		
151	New gyp strapping / gyp board / plaster ceiling at reframed area first floor ceiling	1,000	sf	14.00	14,000		
152	Allowance to patch ceilings at existing areas disturbed by new work	1	ls	3,500.00	3,500		
153	SUBTOTAL					46,732	
TOTAL - INTERIOR FINISHES							\$126,010
D10 CONVEYING							
D1010 ELEVATOR							
161	New three story elevator	1	ls	150,000.00	150,000		
162	SUBTOTAL					150,000	
TOTAL - CONVEYING SYSTEMS							\$150,000
D20 PLUMBING							
D20 PLUMBING, GENERALLY							
<u>Equipment</u>							
171	Plumbing equipment	1	ls	16,000.00	16,000		
<u>Plumbing Fixtures & Specialties</u>							
173	Miscellaneous plumbing fixtures	1	ls	8,000.00	8,000		
<u>Domestic Water Type L Copper Pipe</u>							
175	Domestic water pipe with fittings & hangers	1	ls	20,000.00	20,000		
176	Domestic water pipe insulation	1	ls	12,000.00	12,000		
<u>Sanitary Waste And Vent Pipe w/ Hangers</u>							
178	Sanitary waste pipe with fittings & hangers	1	ls	19,000.00	19,000		
<u>Gas And Fuel Distribution Pipe</u>							
180	Gas pipe with fittings & hangers	1	ls	6,000.00	6,000		
<u>Miscellaneous</u>							
182	Demolition	1	ls	5,000.00	5,000		
183	Coring, sleeves & fire stopping	1	ls	4,000.00	4,000		
184	Testing and sterilization	1	ls	2,500.00	2,500		
185	Fees & permits	1	ls	1,000.00	1,000		
186	SUBTOTAL					93,500	
TOTAL - PLUMBING							\$93,500



Scheme 1 & Scheme 2 Design Options

GFA 6,400

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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SCHEME 2

191	D30 HVAC						
192							
193	D30 HVAC, GENERALLY						
194	HVAC Option #1: Boiler/Chiller w/ Hot/Chilled Water/Energy Recovery Air Handling Units, Full Economizer, 4-Pipe Induction						
195	One (1) 300 MBH condensing boiler	1	ea	12,000.00	12,000		
196	A single 25 ton chiller will be located outside at grade	1	ea	30,000.00	30,000		
197	Cooling System Chilled water pumps (primary/standby with VFD's), piping, associated insulation, valving, and accessories.	1	ls	38,600.00	38,600		
198	Heating Hot water pumps (primary/standby with VFD's), piping, associated insulation, valving, and accessories.	1	ls	46,000.00	46,000		
199	One (1) Indoor chilled/hot water air handling/energy recovery/economizer unit at 2,000 CFM to serve the Saunders House.	1	ea	22,000.00	22,000		
200	Associated supply, return/exhaust ductwork, insulation, dampers, and air distribution devices.	1	ls	92,700.00	92,700		
201	Louvers for indoor air handling units and potential exhaust fan terminations.	1	ls	9,600.00	9,600		
202	Induction Units will zone each office/room or group of rooms based on exposure and usage	1	ls	32,000.00	32,000		
203	<u>Automatic Temperature Controls</u>						
204	Automatic temperature controls DDC	1	ls	40,500.00	40,500		
205	Balancing						
206	System testing & balancing	1	ls	9,600.00	9,600		
207	<u>Miscellaneous</u>						
208	Demolition	1	ls	10,000.00	10,000		
209	Coring, sleeves & fire stopping	1	ls	5,000.00	5,000		
210	Equipment start-up and inspection	1	ls	1,000.00	1,000		
211	Rigging & equipment rental	1	ls	8,000.00	8,000		
212	Vibration & seismic restraints	1	ls	6,000.00	6,000		
213	SUBTOTAL					363,000	
214							
215	TOTAL - HVAC						\$363,000

216	D40 FIRE PROTECTION						
217							
218	D40 FIRE PROTECTION, GENERALLY						
219							
220							
221	Provide new 4" wet alarm check valve & fire riser with sprinkler zone control valves on each level with drain. New wet piping and quick response type sprinkler heads to the renovated and existing areas.	1	ls	35,000.00	35,000		
222	<u>Miscellaneous</u>						
223	Remove existing dry system from basement, first floor & second floor	1	ls	7,000.00	7,000		
224	Hydraulic calculations	1	ls	2,500.00	2,500		
225	Coring, sleeves & fire stopping	1	ls	5,000.00	5,000		
226	Shop drawings	1	ls	1,500.00	1,500		
227	Commissioning of system	1	ls	1,000.00	1,000		
228	Fees & permits	1	ls	500.00	500		
229	SUBTOTAL					52,500	
230							
231	TOTAL - FIRE PROTECTION						\$52,500

232	D50 ELECTRICAL						
233							
234	D5010 SERVICE & DISTRIBUTION						
235	Gear & Distribution						
236							
237							
238	Allow for modifications to the existing to remain gear and distribution	6,400	sf	2.00	12,800		
239	<u>Equipment Wiring</u>						
240	Elevator feeders	1	ls	15,000.00	15,000		
241	Equipment wiring	6,400	sf	3.00	19,200		
242	SUBTOTAL					47,000	
243							
244	D5020 LIGHTING & POWER						



Scheme 1 & Scheme 2 Design Options

GFA 6,400

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
SCHEME 2								
245	<u>Lighting & Branch Power</u>				-			
246	New Lighting per outline spec	6,400	sf	8.00	51,200			
247	<u>Lighting control system</u>							
248	Lighting controls including occupancy sensors	6,400	sf	1.15	7,360			
249	<u>Branch devices</u>							
250	New devices	6,400	sf	0.50	3,200			
251	<u>Lighting and branch circuitry</u>							
252	Lighting & branch circuitry	6,400	sf	4.00	25,600			
253	SUBTOTAL					87,360		
254								
255	D5030 COMMUNICATION & SECURITY SYSTEMS							
256	<u>Fire Alarm</u>							
257	Fire alarm system	6,400	sf	3.00	19,200			
258	<u>Bi-Directional System</u>							
259	BDA system				NIC			
260	<u>Security System</u>							
261	Security System	6,400	sf	2.00	12,800			
262	<u>Telephone/Data/CATV</u>							
263	Network switches, PBX, IP, VP, CCTV (By owner)				By Owner			
264	Allow for additional telcom devices and cabling where required	6,400	sf	2.00	12,800			
265	<u>Public Address/Clock System</u>							
266	Allow for new PA/Master Clock system	6,400	sf	1.50	9,600			
267	<u>Audio Visual (rough-in and power only)</u>							
268	AV equipment				By Owner			
269	Rough-In conduit and backboxes only	6,400	sf	0.50	3,200			
270	SUBTOTAL					57,600		
271								
272	D5040 OTHER ELECTRICAL SYSTEMS							
273	SITE ELECTRICAL							
274	<u>Power</u>							
275	Power riser	1	ea	2,200.00	2,200			
276	Primary ductbank 2-5" ductbank, empty, allow	50	lf	65.00	3,250			
277	Transformer by utility company				By Utility Co.			
278	Transformer pad	1	ea	2,500.00	2,500			
279	Secondary service 400A feed , allow	50	lf	100.00	5,000			
280	<u>Communications</u>							
281	Connection at riser pole, allow	1	ea	2,200.00	2,200			
282	Telcom ductbank 4-4", allow	100	lf	120.00	12,000			
283	<u>Site Lighting</u>							
284	Site lighting allowance	1	ls		NR			
285	<u>Miscellaneous</u>							
286	Temp power and lights	6,400	sf	0.50	3,200			
287	Lightning Protection System, UL Master label	1	ls	5,000.00	5,000			
288	Fees & Permits	1	ls	2,000.00	2,000			
289	SUBTOTAL					37,350		
290								
291								
292	TOTAL - ELECTRICAL						\$229,310	
293								
294								
295	E10 EQUIPMENT							
296								
297	E10 EQUIPMENT, GENERALLY							
298	Allowance for kitchen appliances	1	ls	5,000.00	5,000			
299	SUBTOTAL					5,000		
300								
301	TOTAL - EQUIPMENT						\$5,000	
302								
303								
304	E20 FURNISHINGS							
305								
306	E2010 FIXED FURNISHINGS							
307	No items in this section							
308	SUBTOTAL					-		
309								
310	E2020 MOVABLE FURNISHINGS							
311	All movable furnishings to be provided and installed by owner							



Scheme 1 & Scheme 2 Design Options

GFA 6,400

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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SCHEME 2

312	SUBTOTAL						NIC	
313								
314	TOTAL - FURNISHINGS							
315								
316								
317	F20 SELECTIVE BUILDING DEMOLITION							
318								
319	F2010 BUILDING ELEMENTS DEMOLITION							
320	Remove existing doors	8	ea	100.00	800			
321	Remove existing window	1	ea	250.00	250			
322	Remove existing partitions	755	sf	5.00	3,775			
323	Demo flight of stairs	4	ea	1,000.00	4,000			
324	Remove bath fixtures	2	ea	1.25	3			
325	Remove existing ACT	2,126	sf	1.00	2,126			
326	Remove existing carpet	1,309	sf	1.00	1,309			
327	MEP demolition / Make safe	6,400	sf	1.25	8,000			
328	Floor penetrations / patch back for columns	20	ea	250.00	5,000			
329	Temporary Bracing at structure allowance	1	ls	17,500.00	17,500			
330	SUBTOTAL						42,763	
331								
332	F2020 HAZARDOUS COMPONENTS ABATEMENT							
333	HazMat allowance per report	1	ls	43,500.00	43,500			
334	SUBTOTAL						43,500	
335								
336	F2020 MURAL TREATMENT							
337	See mural proposal in report	1	ls	87,000.00	87,000			
338	SUBTOTAL						87,000	
335								
336	TOTAL - SELECTIVE BUILDING DEMOLITION							\$173,263



Scheme 1 & Scheme 2 Design Options

GFA 3,400

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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SCHEME 2A - ARCHIVAL STORAGE

GROSS FLOOR AREA CALCULATION

	TOTAL GFA		
Basement	3,400	SF	
First	No Work	SF	
Second	No Work	SF	
Third	No Work	SF	

TOTAL GROSS FLOOR AREA (GFA)	3,400 sf
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A10 FOUNDATIONS

A1010 STANDARD FOUNDATIONS

SUBTOTAL -

A1030 LOWEST FLOOR CONSTRUCTION

15 mil vapor barrier	3,400	sf	1.00	3,400	
New slab on grade - 5"	3,400	sf	10.00	34,000	
Underslab rigid insulation - 3"	3,400	sf	3.50	11,900	
SUBTOTAL					49,300

TOTAL - FOUNDATIONS	\$49,300
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B20 EXTERIOR CLOSURE

B2010 EXTERIOR WALLS

Re-pointing of brick foundation walls; assumed 50%	1,250	sf	35.00	43,750	
SUBTOTAL					43,750

TOTAL - EXTERIOR CLOSURE	\$43,750
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C10 INTERIOR CONSTRUCTION

C1010 PARTITIONS

Interior wood stud partitions w/gwb	300	sf	12.50	3,750	
Blocking and sealants to interior partitions	2,988	sf	1.00	2,988	
Archival wall assembly; 4" metal stud, spray insulation, VB, 2 layers of GWB	2,688	sf	15.50	41,664	
SUBTOTAL					48,402

C1020 INTERIOR DOORS

New interior wood veneer doors, hollow metal frames and hardware, single leaf; gasketed for archival storage	2	ea	3,500.00	7,000	
SUBTOTAL					7,000

C1030 SPECIALTIES / MILLWORK

Compact storage shelving by others					By Owner
Archival storage shelving by others					By Owner
SUBTOTAL					-

TOTAL - INTERIOR CONSTRUCTION	\$55,402
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C30 INTERIOR FINISHES

C3010 WALL FINISHES

Wall finishes, paint to new walls	2,988	sf	1.00	2,988	
General painting and patching	3,400	gsf	0.50	1,700	
Sealants and testing for archival storage	1	ls	5,000.00	5,000	
SUBTOTAL					9,688

C3020 FLOOR FINISHES

Epoxy flooring in archival storage	1,277	sf	12.00	15,324	
Vinyl base	344	lf	25.00	8,600	
New flooring allowance in basement lobby	544	sf	7.00	3,808	



Scheme 1 & Scheme 2 Design Options

GFA 3,400

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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SCHEME 2A - ARCHIVAL STORAGE

SUBTOTAL 27,732

C3030 CEILING FINISHES

Archival room ceiling; GWB ceiling with VB and spray insulation 1,277 sf 21.50 27,456
Paint lobby ceiling 544 sf 2.00 1,088

SUBTOTAL 28,544

TOTAL - INTERIOR FINISHES \$65,964

D10 CONVEYING

D1010 ELEVATOR

SUBTOTAL -

TOTAL - CONVEYING SYSTEMS

D20 PLUMBING

D20 PLUMBING, GENERALLY

No work assumed
SUBTOTAL -

TOTAL - PLUMBING

D30 HVAC

D30 HVAC, GENERALLY

New humidification system 1 ls 30,000.00 30,000
SUBTOTAL 30,000

TOTAL - HVAC \$30,000

D40 FIRE PROTECTION

D40 FIRE PROTECTION, GENERALLY

Pre-Action sprinkler zone for basement archival storage 1 ls 10,500.00 10,500
SUBTOTAL 10,500

TOTAL - FIRE PROTECTION \$10,500

D50 ELECTRICAL

D5020 LIGHTING & POWER

Lighting & Branch Power
New Lighting to archival storage 1,277 sf 8.00 10,216
Lighting control system
Lighting controls including occupancy sensors 1,277 sf 1.15 1,469
Branch devices
New devices 1,277 sf 0.50 639
Lighting and branch circuitry
Lighting & branch circuitry 1,277 sf 4.00 5,108
SUBTOTAL 17,432

D5030 COMMUNICATION & SECURITY SYSTEMS

Fire Alarm
Fire alarm system 1,277 sf 3.00 3,831
Bi-Directional System
BDA system NIC
Security System
Security System 1,277 sf 4.00 5,108
Telephone/Data/CATV
Network switches, PBX, IP, VP, CCTV (By owner) By Owner
Allow for additional telcom devices and cabling where required 1,277 sf 2.00 2,554



Scheme 1 & Scheme 2 Design Options

GFA 3,400

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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SCHEME 2A - ARCHIVAL STORAGE

SUBTOTAL 11,493

D5040 OTHER ELECTRICAL SYSTEMS

Miscellaneous

Temp power and lights 1,277 sf 0.50 639

Fees & Permits 1 ls 500.00 500

SUBTOTAL 1,139

TOTAL - ELECTRICAL \$30,064

E20 FURNISHINGS

E2020 MOVABLE FURNISHINGS

All movable furnishings to be provided and installed by owner

SUBTOTAL NIC

TOTAL - FURNISHINGS

F20 SELECTIVE BUILDING DEMOLITION

F2010 BUILDING ELEMENTS DEMOLITION

Remove existing slab 3,400 sf 5.00 17,000

Miscellaneous demolition and protection 1,309 sf 1.00 1,309

SUBTOTAL 18,309

TOTAL - SELECTIVE BUILDING DEMOLITION \$18,309

SUBTOTAL ARCHIVAL STORAGE \$303,289

MARKUPS \$124,348

TOTAL ARCHIVAL STORAGE \$427,637



	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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HVAC OPTIONS

D30 HVAC - OPTION 2

D30 HVAC, GENERALLY

HVAC Option #1: Boiler/Chiller w/ Hot/Chilled Water/Energy Recovery Air Handling Units, Full Economizer, 4-Pipe Induction (1) ls 363,000 (363,000)

HVAC Option #2: Boiler w/ Hot Water/DX/Energy Recovery Air Handling Units, Full Economizer, VRF System

One (1) 250 MBH condensing boiler 1 ea 10,000.00 10,000

One (1) 10 ton condensing units will be located outside at grade, serving AHU 1 ea 9,500.00 9,500

One (1) 20 ton condenser/VRF unit will be located outside at grade, serving Ductless Cooling Units (DCU's). 1 ea 20,000.00 20,000

Refrigerant liquid and refrigerant suction piping based on manufacturer's recommendations from VRF unit to DCUs 1 ls 43,000.00 43,000

Heating Hot water pumps (primary/standby with VFD's), piping, associated insulation valving and accessories. 1 ls 46,000.00 46,000

AHU-1: One (1) Indoor split DX (direct expansion)/hot water/energy recovery/economizer air handling unit at 1,500 CFM to serve the Saunders 1 ea 18,000.00 18,000

Associated supply, return/exhaust ductwork, insulation, dampers, and air distribution devices. 1 ls 77,200.00 77,200

Louvers for indoor air handling units and potential exhaust fan terminations. 1 ls 9,600.00 9,600

Induction Units will zone each office/room or group of rooms based on exposure and usage 1 ls 23,200.00 23,200

Automatic Temperature Controls

Automatic temperature controls DDC 1 sf 38,600.00 38,600

Balancing

System testing & balancing 1 sf 4,600.00 4,600

Miscellaneous

Demolition 1 ls 10,000.00 10,000

Coring, sleeves & fire stopping 1 ls 5,000.00 5,000

Equipment start-up and inspection 1 ls 1,000.00 1,000

Rigging & equipment rental 1 ls 8,000.00 8,000

Vibration & seismic restraints 1 ls 6,000.00 6,000

SUBTOTAL (33,300)

MARKUPS (13,653)

TOTAL - HVAC OPTION 2 (46,953)

D30 HVAC - OPTION 3

HVAC Option #1: Boiler/Chiller w/ Hot/Chilled Water/Energy Recovery Air Handling Units, Full Economizer, 4-Pipe Induction (1) ls 363,000 (363,000)

HVAC Option #3: Boiler/Chiller w/ Hot/Chilled Water/Energy Recovery Air Handling Units, Full Economizer, Fan-Coil

HVAC Equipment



	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
HVAC OPTIONS							
	A single 25 ton chiller will be located outside at grade	1	ea	30,000.00	30,000		
	Cooling System Chilled water pumps (primary/standby with VFD's), piping, associated insulation, valving, and accessories.	1	ea	27,000.00	27,000		
	One (1) 300 MBH condensing boiler	1	ea	12,000.00	12,000		
	Heating Hot water pumps (primary/standby with VFD's), piping, associated insulation, valving, and accessories.	1	ls	35,000.00	35,000		
	AHU-1: One (1) Indoor split DX (direct expansion)/hot water/energy recovery/economizer air handling unit at 1,500 CFM to serve the Saunders	1	ea	18,000.00	18,000		
	Associated supply, return/exhaust ductwork, insulation, dampers, and air distribution devices.	1	ls	92,000.00	92,000		
	Louvers for indoor air handling units and potential exhaust fan terminations	1	ls	9,600.00	9,600		
	Fan coils will zone each room or group of rooms based on exposure and usage	1	ls	21,000.00	21,000		
	<u>Automatic Temperature Controls</u>						
	Automatic temperature controls DDC	1	ls	35,000.00	35,000		
	Balancing						
	System testing & balancing	1	ls	4,600.00	4,600		
	<u>Miscellaneous</u>						
	Demolition	1	ls	10,000.00	10,000		
	Coring, sleeves & fire stopping	1	ls	5,000.00	5,000		
	Equipment start-up and inspection	1	ls	1,000.00	1,000		
	Rigging & equipment rental	1	ls	8,000.00	8,000		
	Vibration & seismic restraints	1	ls	6,000.00	6,000		
	SUBTOTAL					(48,800)	
	MARKUPS					(20,008)	
TOTAL - HVAC OPTION 3							(68,808)





APPENDICES

- A. Strategic Plan (2014-2019)
- B. Finch & Rose Historic Guidelines (2005)
- C. Neshamkin French Expansion Project (2005)
- D. Finegold Alexander Expansion Project (2001)
- E. Boston Building Consultants Structural Inspection (2000)
- F. Past Reports



STRATEGIC PLAN (2014-2019)



Gloucester Lyceum and Sawyer Free Library

Strategic Plan FY2020 – FY2024

Executive Summary

Universally, participants in this strategic planning process were passionate about Gloucester, lovingly describing its quirky character, community ties, quality of life and especially the abundance of natural amenities and scenic beauty. They had a very strong sense of belonging, only desiring to increase their connections to place and people through more venues and vehicles to participate in community.

Participants were very supportive and enthusiastic about the library and held positive views for the vital role it plays in the community. It was described in various thematic terms as a “Secular Sanctuary,” an “equalizer: free – belonging to no *one* group,” a “community center: connecting Gloucester to itself,” an “access point to the world” of knowledge. They also shared aspirational desires for a library that was spacious, welcoming, comfortable, and inviting; respecting the past while meeting the technological and informational demands of an evolving community. People want a library that reflects themselves and their community values.

In the final analysis, the attributes of Place, Belonging and Connection are foundational values and desires of the Gloucester community. And Community is paramount. People care deeply about their community, history and institutions, and they are hopeful for a future in which diversity is embraced, children are safe and educated, and adults have opportunities to sustain both home and work lives. As a civic, egalitarian space, the library is a hub of their intellectual and communal lives. It is the community’s center for connection, access, and learning.

Gloucester Lyceum and Sawyer Free Library

Strategic Plan FY2020 – FY2024

Vision

To foster the values of place, belonging, and connection in the Gloucester community.

Mission

To be a place of learning, innovation, and creativity, to nurture and strengthen the community.

Goals

- Align library assets to inspire learning, drive development, grow social capital, and create opportunities.
- Provide access to content.
- Ensure the long-term sustainability of the public library.
 - Cultivate leadership.

Approved by the Board of Trustees on September 25, 2018

About This Plan

A unique approach to strategic planning for a public library was devised to achieve the best result possible. There were three separate, distinct groups directing the process to create a 360° view of the community about what matters, is valued and needed. From this comprehensive view, the strategic direction and the role of the library in Gloucester's future emerged.

The goal for the Community Strategic Planning Committee (CSPC) was to engage as many of members of the Gloucester community as possible and to listen to them. The Community Strategic Planning initiative invited the Gloucester Community to provide insight and input for the Gloucester Lyceum and Sawyer Free Library's 2020-2024 Strategic Plan. The Library Director, asked the CSPC to "think beyond the usual" and employ an appreciative, open-inquiry approach to engage a representative sample of the population for feedback about the values, sense of connection and desires that motivate the community and, from this data, extrapolate recommendations for the library to innovate and evolve to become a hub for community, connection, access and learning in the heart of Gloucester.

CSPC formulated and developed an effective and extensive outreach campaign, branded thinkGloucester, to build awareness and engage community participation through a range of market research methods. It devised three primary research questions that synthesize to: 1) What residents' value about Gloucester; 2) What they envision for its future; and 3) How the library might sustain these aspirations. A survey was designed, launched, and tabulated, focus groups were facilitated by Gloucester Conversations, Wellspring House, and Committee members, and interviews were conducted resulting in over 700 participants.

The goal for the Board of Trustees was a thought-provoking process to deepen the relationship between members of the Board of Trustees and connect with our shared purpose and values. The Board clarified their personal values; identified the values of the library; drafted a vision, mission, and goals for the Board; and developed a set of attributes to be used to recruit new library trustees.

The Assistant Library Director led a staff working group in a process of research about the community – demographics, assets, and trends and the trends in the library profession as a means of understanding the community and its needs and developing a new service model for the library. The entire staff engaged in a SOAR (Strengths, Opportunities, Aspirations, Results) exercise as part of this process.

Gloucester's Story

Gloucester's proximity to the ocean, significant open space, and rich historic and artistic institutions are important assets. There is a collective a sense of nostalgia for the "ideal" past. However, the community is changing in many significant ways.

In general, the population is white, English-speaking, declining, and aging. The school-age population is diminishing. Persons over 65 now account for more than one-sixth of the total, well above the state average. Gloucester is projected to lose 15.76% of its population over the next twenty years. New immigrants, a small, but fast-growing minority, are contributing to an already culturally diverse city.

Gloucester is considered a Gateway City - targeted for increased state investment because of below average incomes and adult education levels. The median household income in Gloucester is \$61,505, significantly below the state medium of \$68,563 and the Essex County average of \$69,068. Wealth is situated disproportionately in the neighborhoods of Lanesville, Magnolia, Annisquam, and East Gloucester. Each have approximately twice the average household income of Downtown Gloucester. Ten percent (10%) of the adult population lacks a high school diploma or an equivalent.

Technology is gaining on Fishing-related employment, the city's historic economic base. Education, Healthcare, and Social Assistance is the largest sector of employment at roughly 25%. Manufacturing, led by Technology and including Food Processing, employs about a quarter of the labor force and accounts for about half the city's total household income. The balance of local jobs is in Food and Beverage and Tourism-related businesses. Many of these are low-paying, part-time or seasonal. About a quarter of the labor force commutes more than thirty minutes each way to work, twice the number of a generation ago. There has been an influx of sophisticated businesses and individuals working from home that rely on high-speed broadband access. This trend has been the impetus for the CoWork Gloucester initiative.

The educational needs of residents include access to good public schools, development of life literacies: English language – reading and writing, computational, financial, health, and technology, opportunities for vocational skill training and retooling, and support for life-long, participatory learning activities.

Community resiliency and wellness are on the minds of many. There is particular concern about the impact of the opioid crisis on individuals, families, and the community. The bottom line is the people of Gloucester care about each other and rally around those in need.

The region and the City have some very successful, stand-out community organizations that are making a difference by addressing some of the region's most serious needs: food security, affordable childcare, educational support, economic and workforce development, and affordable housing.

Important to the entire community is the environment. People want to enjoy, sustain, preserve and protect the natural assets of the green spaces, beaches, and harbor. They are interested in becoming better stewards of these resources.

The arts and culture scene is very strong with museums, an active theatre and arts colony, and two state-designated cultural districts. The possibilities for expanding the positive creative economy are many with placemaking, affordable live / work space for artists, and preservation and celebration of local history and archives.

Changing Roles of Public Libraries and Librarians:

Most people think about the library as a quiet place with books, a nice-to-have amenity. They assume the library will always be there for those who want to use it. But more is required and should be expected for the community. The value of the library in the 21st century is in its assets – people, place, and platform. Each is essential to identifying and meeting the community's needs.

- Library as people – librarians are members of the community who help identify and solve community problems by offering services shaped to best meet local needs.
- Library as place – where the community works, meets, shares and creates; all functions transcend the boundaries of the building's walls.
- Library as platform – central hub for learning, participation, and community connections with a different kind of access structure, distribution infrastructure, more sophisticated analytics, and interoperability for scaling and facilitation of innovation than the library of the 20th century.

Librarians are stewards of the community's resources: expertise, capital, ideas, spaces, software, data, experiences, services, and / or stories. They are partners with the community through proactive, transformative social engagement for learning and knowledge creation. Librarians work to build human capital, relationships, and knowledge networks in the community.

The library provides easy connections to Wi-Fi and high-speed broadband for mobile devices. There are technology-centric spaces for co-working, collaboration, and making, large spaces for children and teens, and meeting and activity rooms of different sizes to accommodate public events and performances. There is transparency among spaces.

Citizens are engaged in the business of making their personal and civic identities. Communities are being shaped in nontraditional ways by social media, based on mutual interests with networks being the dominant social organization. The library's collections are more about locally produced knowledge and resources in which the true collection is the community – its talent, expertise, and aspirations.

The library is a key partner in sustaining the educational, economic, and civic health of the community during a time of dramatic change. Knowledge is no longer stable and employment is transient with skills quickly becoming obsolete. The library meets the demand for continual renewal and adaptation of skills based on and in response to changing circumstances and amplifies the impact through the community members they empower.

Addenda

- A. Strategic Plan Contributors
- B. thinkGloucester Engagement Project Report July 2018
- C. Staff Strategic Planning Recommendations June 2018
- D. Library Trends as Related to Gloucester Demographic Trends Summary
- E. A Strategic Plan for the Board of Trustees July 2018
- F. Update on the Strategic Plan FY2014 - FY2019
- G. Core Principles and Roles of Libraries and Librarians
- H. Library Building Program February 2016

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thinkGloucester Community Engagement Project Report Connecting to Community | Listening to Community

Presented by the Community Strategic Planning Committee

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Executive Summary

The Community Strategic Planning initiative invited the Gloucester Community to provide insight and input for the Gloucester Lyceum and Sawyer Free Library’s 2019-2024 Strategic Plan. Deborah Kelsey, Executive Director, asked the Community Strategic Planning Committee to “think beyond the usual” and employ an appreciative, open-inquiry approach to engage a representative sample of the population for feedback about the values, sense of connection and desires that motivate the community and, from this data, extrapolate recommendations for the library to innovate and evolve to become a hub for community, connection, access and learning in the heart of Gloucester.

Community Strategic Planning Committee formulated and developed an effective and extensive outreach campaign, branded thinkGloucester, to build awareness and engage community participation through a range of market research methods. It devised three primary research questions that synthesize to: 1) What residents’ value about Gloucester; 2) What they envision for its future; and 3) How the library might sustain these aspirations. Results were consistent with an overwhelming positive, supportive and appreciative perception and attitude of the value of the Sawyer Free Library in the community. Both qualitative and quantitative data sustain the view that the library is an essential social, educational and cultural institution in Gloucester.

While previous strategic planning processes had included community input, this was the first time the library had conducted such wide-ranging outreach to connect and listen to what the community wants for its future and how the library fits into that picture.

Project Objectives

The goal of the Community Strategic Planning initiative was to gather input for the Sawyer Free Library’s 5-year strategic plan, a requirement for state certification. The premise was to explore how people experience the inflection point in Gloucester’s community identity and the library as a reflection of Gloucester’s achievements and challenges. From this primary research focus, the objective of the thinkGloucester initiative has been to collect and extrapolate the will of the community to be

incorporated into library staff and Board of Trustees' strategic direction and align its institutional actions to sustain the library to serve and fulfill its mission for future generations. A integral purpose of the project was to communicate the library and Board of Trustees' commitment to reengage, connect and listen to its constituents, and demonstrate renewed transparency, accessibility, and inclusion to active and dormant patrons.

Among the results achieved were these key objectives:

- Contribute community feedback to incorporate into the strategic vision and direction of the library's 5-year Strategic Plan
- Create and execute a campaign to build awareness and engage participation in providing quantitative and qualitative feedback to the Board of Trustees and library director
- Collect the opinions and perspectives from across the broadest representative sample of the community to articulate and validate the interests, attitudes, and opinions of the population at-large
- Provide a baseline of community data on which the library's annual plans will be developed and measured against, and a framework from which the Board of Trustees measure its annual accountability and performance metrics

Methodology

The Community Strategic Planning Committee, comprised of 10 community members, John Brennan, BOT President, and Katherine Prum, consultant, formed and began to meet in January 2018 to develop a plan to ask the community what it envisions for the future of Gloucester. The group met bimonthly at the Cape Ann Savings Bank Community Room through April, at which time the thinkGloucester campaign launched.

The committee separated into three working groups to tackle the strategic components of the project: Vision/Themes, Virtual Marketing/Social Media, and Direct/Public Outreach. The Vision/Themes team developed the survey questions; Marketing/Social Media created the thinkGloucester campaign with a branded website and social media presence on Facebook and Instagram; and the Direct/Public Outreach team designed the strategy to engage the public in participating in town hall style community meetings.

thinkGloucester became the branded identity of the project. The Marketing/Social Media team designed a logo and campaign launch plan that included both print and social media marketing activities. The Survey launched on April 19th and ran through June 30th. Every household (14,000+) in Gloucester received a thinkGloucester postcard, introducing the initiative and providing a QR code and bit.ly link to the survey. Soon after, press releases were sent to local newspapers and online community calendars with the survey call-to-action and the schedule of Library Dialogues: the series of 6 public meetings facilitated by Gloucester Conversations. Paper copies of the survey were also created and distributed at the library, the Grace Center, and Action (81 hard-copy surveys were collected from these locations).

With the launch of the thinkGloucester website and social media platforms, the committee reconvened to focus on promoting the survey and Dialogues through their personal and social networks. Marketing maintained a schedule of Facebook ads and event notices to increase visibility and expand the range of people who saw the promotions. Facebook ads consistently increased reach throughout the campaign period: by over 85% on April 22 at the start of the campaign, over 50% in early June and by 40% in the home stretch at the end of June. The thinkGloucester page netted a total of 178 followers and 175 likes. Instagram followers totaled 171.

The committee partnered with Gloucester Conversations, a local organization of committed volunteers trained to facilitate challenging community conversations using a structured, mediated framework. They were invaluable in designing a dialogue format, scripts and agenda in support of our goals. They provided small group facilitator training for the committee members and library staff, and created meeting materials including: communication agreements, participant handouts, feedback questionnaires. Lastly, they provided both at-large and small group facilitation at each community dialogue. In total, 12 people gave their time and talent to facilitating six Library Dialogues through May and June in Magnolia, Lanesville, Rocky Neck, and downtown at the Cruiseport and the library.

The Library Dialogues and the survey were promoted through a series of outreach activities. Flyers were posted across the city from Magnolia through Main Street to Rocky Neck and around Lanesville. Bookmarks were created for general distribution at the library and through networking: the tagline, *Connecting to Community* targeted the survey while *Listening to Community* promoted the final two dialogue sessions. The library staff also participated in promoting the campaign via the SFL website, direct conversations with patrons, and email announcements to its Constant Contact list. Additionally, Cape Ann Cinema donated a video ad which was shown during movie previews throughout the month of June.

The board of the West Parish PTO and the director of the Grace Center were both engaged directly to raise awareness and ask for their assistance in asking their constituencies to take the survey and/or attend a community meeting.

During this time, individual community influencer interviews were conducted by a committee member and the library director. And a series of 4 focus groups consisting of community members representing a cross section (age, gender, community) of Gloucester's population were completed.

In total, 580 surveys were collected. 96 community members participated in direct public outreach, including: Library Dialogues (51), Focus Groups (23) and Influencer Interviews (22). Another 35 participated in Wellspring House/Sawyer Free Library cosponsored focus groups representing Gloucester's immigrant community. The total of 711 participants represents a 2.4% response rate, based on the 2017 census population of 30,172 residents.

Findings Summary

The feedback from all data sources is notably consistent in the cares, concerns, considerations and attitudes with respect to the research questions: What do you value about living in Gloucester?, What do you aspire to for its future?, and How does the library fit into that picture. Universally, participants were passionate in their feelings about Gloucester, lovingly describing its quirky character, community ties, quality of life and especially the abundance of natural amenities and scenic beauty. They all had a very strong sense of belonging, only desiring to increase their connections to place and people through more venues and vehicles to participate in community. Immigrant participants also appreciated Gloucester's natural beauty, as well as it offered a peaceful, safe, hospitable place to raise kids, good schools, opportunities for employment and access to support services when needed. They viewed people as respectful and nice, "many good people who are kind to us".

While people's concerns for the future largely fell into the categories of affordable housing and gentrification, economic sustainability and opportunities, and the impact of climate change and the opioid crisis on the community, by and large everyone expressed optimism for Gloucester's future. Responses from the immigrant participants also spoke of affordability as a concern especially daycare

choices for school aged children. They also had a specific desire to have a mall or Hispanic supermarket in Gloucester.

Participants were very supportive and enthusiastic about the library and held positive views for the vital role it plays in the community. It was described in various thematic terms as a “Secular Sanctuary”, an “equalizer: free – belonging to no *one* group”, a “community center: connecting Gloucester to itself”, an “access point to the world” of knowledge. They also shared aspirational desires for a library that was spacious, welcoming, comfortable, and inviting; respecting the past while meeting the technological and informational demands of an evolving community. Developmental programming such as English, math, computer and art classes, along with more foreign language resources, were among the specific desires the immigrant participants articulated for the library.

Survey Results Summary

Q1 What do you value about and/or what connects you to living in Gloucester?

Across all outreach methodologies there is consistent and positive consensus of the reasons people value and feel connected to living in Gloucester and on Cape Ann. The strongest factors participants expressed were the environment and natural beauty (89.7%), its rich creative culture (69.3%), and a deep sense of community and caring for each other (69.1%). Gloucester is universally considered unique with its blend of a rich cultural, working-class, and family-oriented heritage and a “gritty” resiliency and optimism for the future. Affordability, sustainable economic development, climate change, and the opioid crisis are the largely agreed challenges that concern the community and impact the outlook for Gloucester’s future.

Participants expressed a positive appreciation for Gloucester’s authenticity, its character, diversity and history. The greatest positive associations given for what connects people to living in Gloucester after community were family/friends (68.3%), history (54.8%), entertainment (51%) and healthy lifestyle (41%).

Nature / environment / beaches	89.66%	520
Culture / arts	69.31%	402
Community	69.14%	401
Family / friends	68.28%	396
History	54.83%	318
Entertainment / dining	51.03%	296
Healthy living / lifestyle	40.86%	237
Proximity to Boston	37.76%	219
Social diversity	30.52%	177
Volunteer opportunities	25.17%	146
Proximity to Northern New England	24.66%	143
Work / employment	22.24%	129
Faith community	21.72%	126
Family legacy	21.72%	126
Schools	13.62%	79
Sports / fitness	13.10%	76
Other (please specify)	10.86%	63
	Answered	580

Q2 Describe what would increase your sense of connection to Gloucester?

Of the comments offered to what might increase people’s sense of connection to living in Gloucester, the majority of respondents expressed a deep satisfaction, e.g. “I feel very connected.”, “My connection is already at 100%.”, “Nothing else needed!” and “nothing.... I am connected by blood, birth and fishing history.” Other sources of increased connection are opportunities to gather, share interests, and participate in community programming. Additionally, people expressed a desire for more cultural, music and arts events as a means to extend their social networks. Issues of economic development, employment, affordability and greater diversity were also prevalent in comments about what would

increase people’s connection. Additionally, a desire for an easily accessible central source of community news and information was another vehicle to increase people’s sense of connection.

Q3 How do you spend your free time?

When asked what respondents do in their free time, they overwhelmingly said they spend time with their friends and/or family (78%) and reading (74.5%). Cooking at home (56.8%) and pursuing outdoor (52.4%) and physical (51.4%) activities and gardening (50.7%) were also favored recreational pursuits. 44.6% said visiting the library was among their free time activities.

Among the comments for “Other” ways respondents spend their free time top responses included, going to the beaches, walking, and enjoying the island’s natural beauty. Pursuing hobbies, playing and listening to music, spending time with family and participating in spiritual community and volunteering were also frequently mentioned.

Spending time with friends and/or family	78.13%	450
Reading	74.48%	429
Cooking at home	56.77%	327
Outdoor activities (e.g. hiking, golfing, bocce, tennis, etc.)	52.43%	302
Physical activities (e.g. yoga, running, swimming, cycling, etc.)	51.39%	296
Gardening	50.69%	292
Creating / making (e.g. art, crafts, writing, etc.)	45.49%	262
Visiting the library	44.62%	257
Dining out	42.01%	242
Traveling	36.28%	209
Volunteering	35.94%	207
Socializing online (Twitter, Facebook, Instagram, etc.)	32.99%	190
Water sports (e.g. boating, sailing, kayaking, etc.)	26.04%	150
Other (please specify)	20.49%	118
Shopping	20.31%	117
Social / affinity / professional clubs (e.g. Rotary, Veterans, St. Peter’s, Sceptics Society, etc.)	15.80%	91
Electronic games	8.16%	47
Trivia nights / bingo / game nights	5.21%	30
Answered		576
Skipped		4

Q4 Libraries are always evolving spaces for community, learning, connection, and access. In your opinion, which of the following support the purpose of the library?

In answer to how libraries are spaces for community, learning, connection, and access, 77% of respondents selected community meeting space as the primary purpose of a library in the community, followed by a research center for history and archival information at 75.3%. Support of arts and culture (68.6%), reading (68.6%) and dedicated study (66.3%) areas, as well as programming for children (65.9%) adults (63.2%), afterschool (62.1%) and literacy/equivalency (60.2%) followed closely. 43.5% want support for self-directed learning and homeschool programming. The desire to access digital resources

(57.7%), digital materials (52.8%) and technical assistance and training (40.7%) was also strongly expressed. Collaborative space (44.9%) for job/career (50.1%), community/group (43.7%), creative (30.4%) and business/economic (23.4%) development pursuits were seen as an important function of libraries.

Community meeting space	77.09%	434
Archival and/or local history research center	75.31%	424
Arts and culture support	68.56%	386
Reading room	68.56%	386
Dedicated study space	66.25%	373
Early childhood education, family literacy, story times	65.90%	371
Educational seminars	63.23%	356
Afterschool programming	62.17%	350
Basic reading and high school equivalency classes	60.21%	339
Digital resource access and electronic device lending	57.73%	325
Digitally formatted materials	52.75%	297
Job and career resources	50.09%	282
Collaborative spaces	44.94%	253
Community organization / group support	43.69%	246
Self-directed learning and homeschooling support	43.52%	245
Technical assistance and training	40.67%	229
Visitor information	36.77%	207
Makerspace for innovation and creative projects	30.37%	171
Nontraditional library materials (e.g. musical instruments, tools, mobile devices, toys)	25.93%	146
Business / economic development support	23.45%	132
Other (please specify)	20.43%	115
Answered	563	
Skipped	17	

As one respondent commented, “I dream of a library that serves all of the above – a learning, living, socializing community center. A place where so many people go to so many things that one comes to expect to be in the library multiple times a week and to see friends and neighbors there...”

Q5 How often do you visit the Sawyer Free Library?
The majority of respondents (30.6%) visit the library at least once a week. 27.9% visit once a month. Almost half of respondents are infrequent library users, with 6.7% never visiting.

At least once a week	30.57%	173
At least once a month	27.92%	158
A few times a year	23.50%	133
Once a year or less	11.31%	64
Never	6.71%	38
Answered	566	
Skipped	14	

Q6 What prevents you from using the library more often?

Time (32.8%), downtown parking (23.7%) and greater accessibility elsewhere (18.1%) were the strongest responses to why people might not use the library. 41.8% provided a range of commentary that reflect the listed results; everything from exclamations of “Boring!” and comments about the building and difficulty getting there, to accolades about library services.

I have other reasons for not using the library (please specify):	41.75%	210
I am too busy.	32.80%	165
Parking downtown is difficult.	23.66%	119
Everything I can get from the library, I get elsewhere.	18.09%	91

I don't know what information, resources or programs are offered through the library.	13.72%	69
The hours don't work for my schedule.	13.52%	68
The library is uncomfortable and uninviting.	10.93%	55
There's not enough quiet or dedicated work/study space.	9.34%	47
I use another library.	8.75%	44
I don't want to wait for materials to become available.	7.16%	36
I am concerned about safety at the library.	5.17%	26
I have physical limitations that make it difficult to visit the library.	4.57%	23
The library doesn't have what I need.	4.57%	23
I don't feel welcomed at the library.	3.78%	19
It's not easy to find what I'm looking for at the library.	3.78%	19
I lack transportation.	2.39%	12
The location is inconvenient for me.	2.39%	12
Libraries are old-fashioned and boring.	1.79%	9
I owe fines to the library.	1.39%	7
Answered	503	
Skipped	77	

Q7 How often do you use library's online collections and resources?

When asked if respondents use the library online services, 37% said never. As one respondent explained, "Mainly I am ignorant of what the library currently offers and have sufficient resources elsewhere to meet my needs - in other words, I do not know what I might be missing! However, another respondent said, "... Though I only visit the library's physical location monthly, I use the library's resources daily. OverDrive is an essential part of my day."

Never	36.97%	210
At least once a month	18.31%	104
A few times a year	16.90%	96
At least once a week	15.67%	89
Once a year or less	12.15%	69
Answered	568	
Skipped	12	

Q8 If you use other libraries, which ones do you use?

In response to what other libraries people use, fewer than half answered the question. Overwhelming the other libraries used are Beverly, Boston, Rockport and Manchester Public Libraries. The reasons given are generally about better amenities and access.

Demographic Profile

The majority of respondents identify as female (68.8%) and white/Caucasian (92.5%). Boomers make up the greatest number of respondents with 27.9 % between ages 65-74 and 26.1% between ages 55-64. Respondents predominantly speak (99.8%) and read (84.75%) English, and are highly educated holding Masters (34.8%), Bachelors (32.3%) and Doctoral (7.4%) degrees. 30.50% state they are employed fulltime, while 27.7% are retired. 94.1% are year-round residents. 25.7% live in the Downtown/Harbor neighborhood. Another 21.6% live in East Gloucester and 14.6% live in West Gloucester. 44% of

respondents have lived in Gloucester for longer than 11 years while another 16.9% have lived in Gloucester less than 5 years.

Beyond these highlights, there is an interesting story in the numbers:

While 29.2% of respondents identified as male, 2% of respondents identified as non binary.

Female	68.79%	368
Male	29.16%	156
Other: does not identify	1.12%	6
Other: does identify	0.93%	5
Answered		535
Skipped		45

29.8% of respondents are Gen X (35-54) and 9.3% (18-34) are Millennial, compared to the 54% from the Boomer generation. This correlates to the age profile of Gloucester overall.

65-74	27.93%	150
55-64	26.07%	140
45-54	18.25%	98
35-44	11.55%	62
25-34	7.64%	41
75 or older	6.70%	36
18-24	1.68%	9
12-17	0.19%	1
Under 12	0.00%	0
Answered		537
Skipped		43

There was a mix of “Other” (5.4%) responses to specifying ethnicity, mainly expressing European roots or a blend, along the order of “Human Mutt” and multiracial. Gloucester’s racial diversity was identified in community outreach forums as desirable and positive and a goal for the future.

White	92.51%	482
Other (please specify)	5.37%	28
Hispanic / Latinx	0.96%	5
Native American	0.58%	3
Black / African American	0.38%	2
Asian / Pacific Islander	0.19%	1
Answered		521
Skipped		59

Of those who responded to the survey, very few speak other languages at home or work. Among the primary home languages were Portuguese, Spanish, Italian (Sicilian), German, Dutch, Arabic, and Czech. Two speak American Sign Language at home. Of those who responded, nine speak Spanish at

work/school/public, while two speak Japanese and one speaks Portuguese and French. 9% read in another language other than English: predominantly Spanish, French, Italian and German.

Speak at home:	99.81%	517
Speak at work/school/public:	82.63%	428
Read in:	84.75%	439
	Answered	518
	Skipped	62

While the majority of respondents hold advanced degrees, respondents reflect a variety of educational and training levels that potentially speak to the working-class character and diversity of the population.

Master's degree	34.76%	187
Bachelor's degree	32.34%	174
Some college, no degree	8.74%	47
Associate's degree	7.43%	40
Doctorate degree	7.43%	40
High school graduate or equivalent	5.58%	30
Trade / technical / vocational training	2.79%	15
Some high school, no diploma	0.93%	5
	Answered	538
	Skipped	42

Though most respondents say they are employed full time, 9.8% are employed part-time and another 2.6% hold multiple jobs. 9.1% own businesses, 3.9% are entre- or solopreneurs, and 2.8% are independent contractors. 2.2% parent full time, and another 1.7% are homemakers.

Employed full time	30.50%	165
Retired	27.73%	150
Employed part time	9.80%	53
Business owner	9.06%	49
Entrepreneur / solopreneur	3.88%	21
Unemployed, looking for work	3.14%	17
Independent contractor	2.77%	15
Employed multiple jobs	2.59%	14
Unable to work	2.59%	14
Volunteer	2.40%	13
Full time parent	2.22%	12
Homemaker	1.66%	9
Student	0.92%	5
Home care provider	0.37%	2
Unemployed, not looking for work	0.37%	2

Military	0.00%	0
Answered		541
Skipped		39

As with previous questions, the 4.6% of responses to “Other”, were a mix of comments including living elsewhere on Cape Ann, splitting residency between Cape Ann and another location, and being homeless.

Year-round Gloucester resident	94.10%	510
Summer / seasonal Gloucester resident	1.29%	7
Other (please specify)	4.61%	25
Answered		542
Skipped		38

There was a good distribution of responses from all neighborhoods, while the harbor area generated the most.

Downtown / Harbor	25.70%	137
East Gloucester	21.58%	115
West Gloucester	14.63%	78
Riverdale	10.51%	56
Lanesville	8.07%	43
Magnolia	5.63%	30
Annisquam	5.44%	29
Portuguese Hill	5.07%	27
Bayview	2.63%	14
The Fort	0.75%	4
Answered		533
Skipped		47

The responses to the how long respondents have lived in Gloucester possibly reflect the changing face of Gloucester’s population in attracting more people from “over the bridge” who are looking for a lifestyle community with an ocean view. That said, 29% have a legacy connection with Gloucester.

11+ years	43.97%	237
Less than 5 years	16.88%	91
All my life	16.51%	89
6-10 years	13.17%	71
Generations	9.46%	51
Answered		539
Skipped		41

Conclusions

In the final analysis, the attributes of Place, Belonging and Connection are foundational values and desires of the Gloucester community. And Community is paramount. Participants in the Community Strategic Planning initiative are representative of the extended community and provide clear, useful guidance about what matters to Gloucester's people and becoming the library the community deserves. Their greatest concern is losing the unique character that makes Gloucester special, its history, traditions, eccentricities, when so much has already changed in such a short timeframe. The future is difficult to conceive, and the Committee took great care and deliberation in developing questions that indeed did capture the Spirit of Community. The results are consistent with what we anticipated at the beginning of the project: that people care deeply about their community, history and institutions, and they are hopeful for a future in which diversity is embraced, children are safe and educated, and adults have opportunities to sustain both home and work lives. As a civic, egalitarian space, the library is a hub of their intellectual and communal lives. It is the Community's center for connection, access, and learning.

The feedback is positive and the good will is strong. People want a library that reflects their community values. There is tremendous energy and passion fueling their desire to see the library become the institution they deserve and want. There is incredible willingness to participate in the growth of the library. They need to be meaningfully engaged, because essentially they don't know the library needs them and vice versa. What is clear is that people who use the Sawyer Free Library will use it regardless. What is also clear is that the Sawyer Free Library has a challenge to attract people who have outdated perceptions about the purpose libraries serve or else feel marginalized. While Sawyer Free can't be all things to all people, it can reinvigorate its relationship with the community to shift perceptions and build connections that expand its reach throughout the community.

The areas of focus for the next five years are: Communicating, Partnering and Community Engagement. Libraries are taken for granted, assumed they'll always be there. Participants value the library exists, and very much want the library to thrive. They don't know what the library needs from them, especially if they don't have a current need for the library. Libraries serve the public. And the public wants to reciprocate. It just needs to be asked.

The project succeeded through its openness to connect and listen appreciatively to the opinions and feedback of a spectrum of the community. And they were delighted to be asked for their input. It awakened a number of participants to rethink their relationship to the Sawyer Free Library and reconsider how to become involved. One participant reported she got a library card for the first time since she moved here years ago. Others very much wanted to share their ideas for the library of the future.

Recommendations:

Focus on two-way communication. People are overwhelmed with information and pressed for time. Make it easy for people to navigate information about services and programming. Leverage a multimedia approach to providing information about resources and events. Invite the community to respond with their input.

Collaborate with non-profits, businesses, associations, and government to co-sponsor and co-brand synergistic activities. People respond positively to public partnerships among artists, writers, musicians, historians, environmentalist, conservationists etc and the various organizations that support and showcase them such as the Bookstore, Cape Ann Museum, Gloucester Marine Genomics Institute, and YMCA. And seek opportunities to initiate partnerships with service agencies and, as one participant suggested, the library can work with local artists to create a lending library of their art to take home to enjoy. Another suggestion was to develop an archive of oral histories before the stories are forgotten.

Engage Community. thinkGloucester has been an effective campaign and is positively associated with the idea of Connecting to Community. Sawyer Free Library can continue to use this tool to reach out to the community and foster participation and solicit feedback and share information. Becoming open to the voices of the community is what this project was all about and in the end has provided the library the vehicle to demonstrate its intention to stay open and listen.

The aspiration for the 2019-2024 Strategic Plan is:

Vision: Become the library Gloucester deserves to have

Mission: Engage community at all levels (demographic and democratic) on every occasion

Goals: Communicate | Collaborate | Include

Last Words:

At the end of each focus group, we asked participants to complete the following sentence.

Dear Sawyer Free Library, I want you to know:

- You're still relevant and important.
- I'm pretty sure I returned [the book] in second grade but I'm afraid to find out.
- That I'm excited for the future that you will help shape.
- That we still love books.
- I wish I could come to the library more often.
- That I'm grateful for everything you do.
- That you are very important.
- You have potential.
- You should do better.
- You are important for people and the community.
- You're appreciated.
- We will help you.
- I'm here.
- We want to be part of the community with you.
- You are important to our community.
- I'm grateful and very lucky I have this library.
- I appreciate you want to know what folks have to say.
- Keep listening to the community.
- You're a great resource for Gloucester.
- I look forward to seeing the changes you'll be making.
- You're a great place to research whatever questions we have.

C. Staff Recommendations - Goals and Objectives FY2020 - 2024

1. Services: Meet the changing needs of the community
 - a. Staffing adequate to meet the changing needs of the community.
 - b. Children and young families - provide equal access to technology, media mentorship, early literacy expertise, support to local schools and child services
 - c. Immigrant populations - augment existing services provided by Wellspring House
2. Facilities: Create public space that is well-maintained, safe, clean, comfortable, modern, and accessible
 - a. Continue to update and improve furnishings and space allocation
 - b. Develop and implement a comprehensive set of security practices
 - c. Determine the safest use of existing restroom facilities
 - d. Improve parking situation
 - e. Respond to needs of ongoing building/renovation program by increasing opportunities for remote access.
 - f. Develop co-working space
 - g. Create comfortable, welcoming seating areas for all ages.
 - h. Develop outdoor garden and recreation space for children and families
 - i. Establish satellite locations in order to break down barriers to access
3. Technology: Offer up-to-date, easily accessible technological resources
 - a. Technological training for library staff and the public at all ability levels.
 - b. Support Gloucester's economic goal of becoming center for innovation
 - c. Market the library's electronic resources to diverse populations through a variety of locations
 - d. Ensure all staff have proficiency in use of mobile devices, electronic resources and applications, and website navigation in order to demonstrate resources.
 - e. Expand access and use of assistive technology.
 - f. Create opportunities to explore, learn new skills and train on emerging technologies
4. Collections: Meet demand for materials in multiple formats for the range of subjects and genres.
 - a. Design and maintain collection management practices that adapt to changing trends
 - b. Expand International and English Language Learning collections
5. Programming: Connect, complement, and promote existing community programming as a visible and vital partner
 - a. Allocate more space for informal, independent learning
 - b. Analyze needs and current resources for each population group.
 - c. Seniors - Consider offering technical training, tax resources, intergenerational programming, more volunteer opportunities
 - d. Collaborate with community organizations to develop partnerships that foster learning. encourage community growth, and extend reach.
 - e. Children, teens, and adults - Diversify program offerings

D. SUMMARY OF DEMOGRAPHIC TRENDS AND CIVIC NEEDS

The Gloucester Lyceum and Sawyer Free Library seeks to align its work to both the changing environment in which it exists and to the community's current needs and expectations. This alignment is required in order for the library to remain integral to the future of the Gloucester.

THE LOCAL PICTURE

Population Trends

Gloucester's population of individuals aged 60+ has grown steadily since 2010 and will continue to grow. According to the U.S. Census, the median age of all people in Gloucester is 49.5, significantly higher than the Massachusetts median age of 39.5. This reflects a national trend and introduces many new opportunities for the library to extend its services to this growing population.

Incomes

The median household income in Gloucester is \$61,505 which is significantly above the national median of \$53,889. But there is a stark disparity in the distribution of wealth. Residents in Lanesville, Magnolia and East Gloucester each have approximately twice the average household income, \$37,000 of residents in Downtown. Additionally, Gloucester's median household income is significantly lower than both the state median of \$68,563 and the Essex County median of \$70,866 (US Census).

Ethnic Distribution

While 94% of Gloucester's population is white, trends show that it is slowly diversifying (down from 98% white in 2010). At least 11% of the population speaks a language other than English at home. As with libraries across the nation, the library needs to recognize the growing diversity in the population and tailor services to meet the needs of more diverse users. In addition to hosting Wellspring House's English language classes, growing collections in first languages, and developing Portuguese story times, the library must keep the growing immigrant and naturalized citizen community in mind throughout the process of redesigning both physical and virtual spaces and retooling programs and services.

Socio-Economic Strata of Downtown Neighborhood

Gloucester's downtown residents, within walking distance of the library, are disproportionately affected by the city's changing economic factors. The library must be prepared to become a place where people can learn relevant skills and/or support the skills they are developing elsewhere. For children and their families, this starts with early education and literacy initiatives. For teens and young adults, it requires curriculum enhancement, academic support and skill building. Adult needs include access to technology and the internet, collections and

programming centered on skill building, job seeking support, small business incubation, and co-working. The library must also serve as a clearing house to connect people to the wide range of available community services.

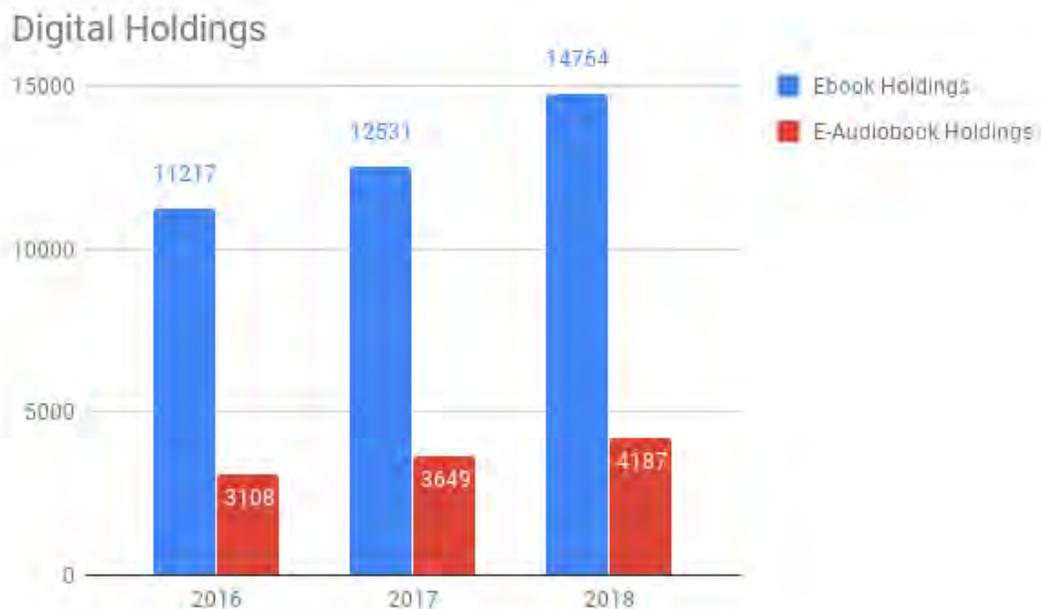
The socio-economic divide in Gloucester affects the library's space and those who use it. Libraries remain one of the few public places everyone can enjoy. The proximity of the library to services for the homeless, such as the Grace Center, brings segments of the population some might consider undesirable into the library. The library must balance individual needs to create a space that is welcoming, comfortable, and safe for everyone.

BROAD CULTURAL TRENDS SHAPING LIBRARIES

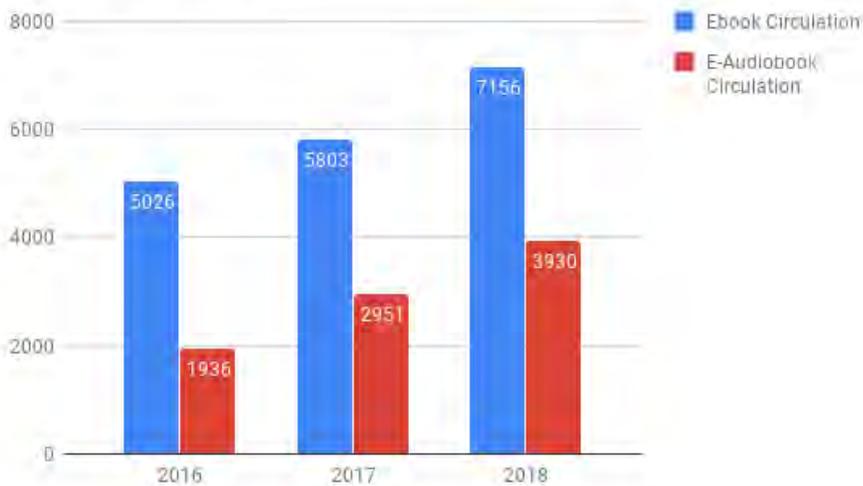
Libraries across the nation are reshaping themselves to meet the needs of their individual environments. Library success also requires aligning the library's individual goals with broad cultural trends shaping libraries today.

Expanding Access and Reach

Along with the rapid changes in technology our communities are experiencing is increased access and use of digital collections. The library offers digital material through OverDrive, Zinio and Hoopla and is beginning to lend devices to expand access to these collections. Circulation of digital material shows increased use over the past three years, correlated with the increased size of these holdings. There are marked increases in Ebook and E-Audiobook circulation. Through its website, the library provides 24/7 access to the digital collections and virtual information services.

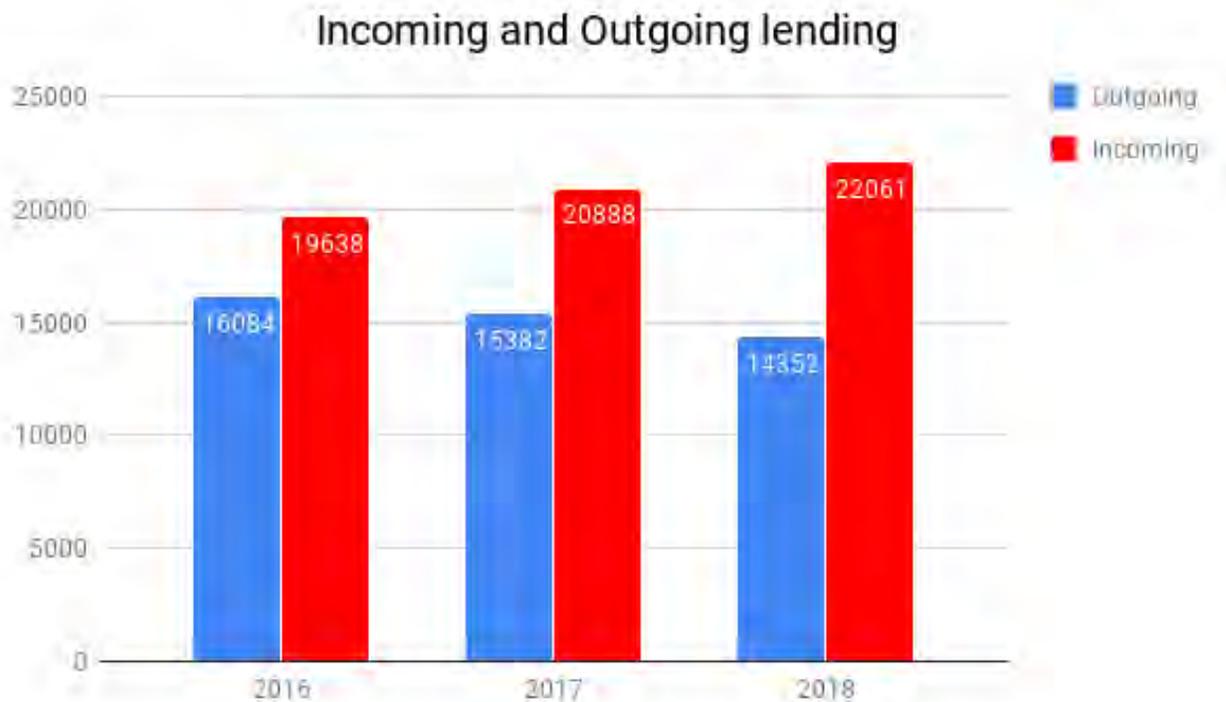


Digital Circulation



Digital literacy among Gloucester’s residents is varied. The library needs to provide training and support for those seeking digital literacy while offering a wide array of digital materials for those acquainted with the changing technological landscape. Based on the demographic data, the library must meet the needs of a young, increasing diverse community of digital natives, as well as an aging population with less native technical ability.

Analysis of Interlibrary borrowing and lending trends indicates that the library’s collections are not fulfilling demand. Collection development practices must become more responsive to meeting rapidly changing local demands.



Increasing accessibility to library programs, services, and collections outside of the library building is also expanding the library’s reach. The library must become prepared to take all aspects of what it does and what it has to offer to the people wherever they are. This is especially important in Gloucester, as the library is not accessible to pedestrians outside of the Downtown neighborhood, parking is extremely limited and accessibility for those who rely on public transit is difficult.

The Community’s Meeting Place

Increasingly, people come to the library for much more than borrowing materials. Oftentimes, people come simply to be with one another. The days of “shushing librarians” is in the past and today the library can be one of the community’s best venues for socialization. This requires moveable, comfortable, reconfigurable furniture to provide places for quiet conversation, collaboration, learning and play.

The library should increasingly facilitate not only private but public conversations as well. For example, income inequality and housing shortages are two topics needing civil and productive conversation. The library’s resources provide a natural place for leadership in furthering these conversations.

Now more than ever, the library must play a role in Gloucester’s educational and social ecosystem. Opportunities for collaborations with other cultural and civic institutions provide ways to improve services for the entire community. For instance, the community provides a

wealth of resources for making and creating. The library should help to break down the barriers and facilitate access to all of the community's resources. Collaborations allow the library to extend its reach to new regions and populations within the city.

Co-working is a major societal trend and the library has always been and continues to be an appropriate space to engage in co-working endeavors. Gloucester is working to become a center of innovation in maritime manufacturing and technology. The library needs to provide both space and technical capacity to help organizations and individuals achieve this community goal.

Lifelong Literacy

Today, many types of literacy are required to empower individuals to achieve their full potential. These include digital, language, multicultural, and visual literacies. Support for each of these, within each age group, must become a central goal of any library. Developing literacy across diverse populations and all age groups is central to the library's mission. Foundational to this mission is a staff trained in cultural literacy and devoted to the values of innovation and collaboration. A successful, holistic approach to literacy also rests on partnerships with local organizations within the community's infrastructure. Digital literacy for all must be supported by training and mentoring as well as the creation of an online hub for digital literacy that is accessible to all. Multicultural literacy is promoted by identifying community partners and volunteers who will increase the multicultural reach of the library. By defining and supporting the entirety of literacies required for growth and success, the library becomes more responsive to the needs of the whole community. An empowered staff and a comprehensive plan toward this goal will yield a full range of community benefits and ensure the library's role in this community for years to come.

E.

A Strategic Plan for the Board of Trustees of the Gloucester Lyceum and Sawyer Free Library, Gloucester, MA

Introduction

Creating a strategic plan for the volunteer Board of Trustees of the Gloucester Lyceum and Sawyer Free Library is a complex task. Most boards are comprised of volunteers with little or no experience of serving, yet with a passion for the organization of which they serve. Also, for the most part, the governance that a board provides is often rote in nature, moving the organization along incrementally. There are seldom large issues to manage.

That is not the case with this Library board. The board is comprised of members with significant board level experience, an extraordinary passion for the Library, deep roots in the community and a large building project on their doorstep. Also, the board members have the time and interest to become quite involved in the intricacies of the Library and its future. Many have been board members for quite some time.

I was asked to create a strategic plan for the Board of Trustees. I began the process with several meetings with the library director and the president of the board. I then facilitated a half day retreat with the Trustees to discuss values and strategy. A follow up meeting with the Trustees focused on board attributes and their personal connection to the board. We also looked at the attributes of what constitutes a Trustees for the Library.

Using the information collected from those meetings, I have attempted to provide a “strategic structure” moving forward, focusing on crafting the Trustees’ statements on vision, mission, values, and strategy. This plan is offered as a draft. It includes three parts: Part A provides the context that I used. It describes the fundamentals of a governing board and changes in libraries that trustees need to be aware. Part B is the vision and mission statements of the Library. It is provided for reference and as a bridge between the theory and practice. Part C focuses on the vision, mission, values, attributes and strategy of the Board of Trustees of the Gloucester Lyceum and Sawyer Free Library.

Part A: The Theory

Board of Trustees

Each governing board is, in essence, an organization within an organization—with its own responsibilities, mandates, culture, goals, members and practices. It should be intention when defining its own boundaries, obligations, and aspiration. Board mission and strategy statements should present concise language and be built on the following principals:

- Be consistent with, not repetitive of, the organizations mission, vision, and values statements.
- Be compatible with the organization’s bylaws that reflect the responsibilities of the board.
- Be straightforward about the boards function, culture, goals, and expected trustee behaviors and teamwork.

(March 2018 Trustee)

The Library as People

As the library’s roles change and expand, library staff have refined and broadened their skills to meet new needs and define the library’s continuing value to the community. They serve many roles, as coaches, mentors, facilitators, and teachers---more than simply as sources of information. Measuring outcomes is more important than measuring outputs. An intelligent community, not large circulation numbers is the primary library goal. The public library comes alive when it is teaming with people from all walks of life: families, teens, students, job seekers, entrepreneurs, immigrants, retirees, authors, and artists.

(The Aspen Institute | Action Guide for Re-Envision Your Public Library Version 2.0)

Part B: Vision, Mission and Goals of the Library

Gloucester Lyceum and Sawyer Free Library Vision Statement

To foster the values of place, belonging, and connection in the Gloucester community.

Gloucester Lyceum and Sawyer Free Library Mission Statement

To be a place of learning, innovation, and creativity, to nurture and strengthen the community.

Gloucester Lyceum and Sawyer Free Library Goals

1. Align library assets to inspire learning, drive development, grow social capital, and create opportunities.
2. Provide access to content.
3. Ensure the long-term sustainability of the public library.
4. Cultivate leadership.

Part C: The Trustees

Board of Trustees Vision Statement

Ensure the effective delivery of free public library services to the people of Gloucester while honoring the past and enabling the future.

Board of Trustees Mission Statement

The mission of the Board of Trustees of the Gloucester Lyceum and Sawyer Free Library is to work as a collaborative, cooperative, and consultative body to:

- Set the long term goals and priorities of the Library, adapting as necessary to address evolving internal and external needs and priorities;
- Ensure the maintenance and sustenance of the corporation's physical assets necessary to sustain Library functions
- Safeguard, grow and wisely use the financial resources of the Corporation;
- Support functional plans and ongoing Library operations; and
- Advocate on behalf of the Library and its mission in the greater Gloucester community.

Board of Trustees Values Statement

The Board of Trustees of the Gloucester Lyceum and Sawyer Free Library is an inclusive, empathetic and diverse body committed to the success of the Library through personal and professional integrity, fiduciary stewardship, organizational accountability, and an appreciation of the strengths, challenges, and opportunities in the community in which it serves.

Board of Trustees Strategy Statement

This is an important and challenging time for the Library and therefore the Board of Trustees. The ongoing planning of a new library building is compelling the Trustees to make long term and complex decisions and consider actions relative to financing, fundraising, design, planning, and public relations. This additional complex project is in addition to the regular responsibilities of the Trustees. It is critical that this does not create division within the Trustees or impact regular

library management and operations. It is important that the ongoing work on both routine business and the building project is kept in perspective.

There is an identified need to increase the size of the Board of Trustees. When queried about the skills that would be required to be an effective member of the Board, the following attributes were identified. These skills can be found throughout the current Board.

1. Advocate for community support and goodwill
2. Able to work in a collaborative environment
3. Socially adept and with the good interpersonal skills
4. Gregarious, empathetic, and with a positive personality
5. Dedicated to the community
6. Diverse; multilingual; reflective of the community
7. Comfortable and knowledgeable in working on large projects
8. Fundraising experience and financial expertise preferred
9. Exhibit leadership skills
10. Be a strategic thinker

The Board of Trustees has fiduciary responsibility for the governance of the Library, serving to oversee and shape its broad strategies and policies. Boards are, as indicated, are an organization within an organization. By directly supporting the Executive Director of the library, library staff, essential programming, and community engagement, the Trustees of the Gloucester Lyceum and Sawyer Free Library fill an important and strategic role in the growth and success of the institution.

Respectively submitted,

Richard G. Weissman

July 29, 2019, Revised September 13, 2018

F. Update on the Strategic Plan FY2014 – FY2019

Vision

To be fully relevant as the needs of Gloucester's public evolve.

Mission

The mission of the Gloucester Lyceum and Sawyer Free Library is to inspire lifelong learning, foster intellectual curiosity, and strengthen our community by:

Goals

- Actively promoting the open exchange of ideas;
 - *The Lyceum Committee continues to offer bi-monthly programs of local interest featuring local people who want to share their passions and engage with community members*
 - *The library staff is creating a quarterly newsletter with think pieces on a particular topic*
 - *Created a process for the community curated Gloucester Collection of beloved materials*
- Providing inviting and attractive physical and virtual spaces that encourage connections among people of all ages;
 - *Substantial financial resources have been invested in the existing facility to:*
 - *Create an environment in compliance with the Americans with Disabilities Act (ADA)*
 - *Reallocate space for Teen Services*
 - *Provide accessible space for all programs*
 - *Create two medium sized public meeting rooms in the Saunders House*
 - *Modernize the technological infrastructure by installing electrical and data wiring and adding wireless access points to modernize the facility*
 - *Improve safety by installing an updated surveillance system*
 - *Repair and maintain the facility*
 - *Appropriate furnishings were purchased for Adult and Teen Services*
 - *The library's website has been redesigned for better communication, access to digital collections, and exchange of ideas between the community and the library*
- Acquiring and maintaining collections that celebrate the history of Gloucester;
 - *Relocated local history holdings to a more environmentally stable place near Information Services*
 - *Acquired secure archival cabinets to house unique items*
 - *Formed the Local History and Archives Advisory Committee*
 - *Inventoried the local history collection of the library and the archival collection of the city*
 - *Oversaw conservation, preservation, and digitization of the oldest city records and the city directories*
 - *Provided access to city's digitized collections via the sites of the Digital Public Library of America, the Digital Commonwealth, and the North of Boston Library Exchange Digital Heritage*

- Collaborating with community partners to better serve a more diverse population; and
 - *Community Services and Wellspring House continue to maintain and expand their partnership to better serve the community's immigrants by offering program space for English language tutoring and collection development for ELL (English Language Learning) and native, non-English languages*
 - *Children Services brings the library into the constellation of collaborating community organizations for Countdown to Kindergarten*
 - *Children Services works in close collaboration with the public schools in support of their literacy initiatives*
 - *Children Services works in close collaboration with the preschools and Early Intervention Program in support of their readiness for school initiatives*
 - *Teen Services is working to forge effective relationships with the middle and high school librarians, and the Business and Education Collaborative of the Cape Ann Chamber of Commerce*
 - *Senior Outreach Services works with the Council on Aging, the Housing Authority, and local senior care facilities to provide library services to people who are unable to come to the library.*
 - *Programming has augmented by several community-wide and regional collaborations*
 - *The Cape Ann Reads Project with the Cape Ann Museum, the Gloucester Writers Center, the four public libraries on Cape Ann*
 - *The Henry David Thoreau: A 200th Birthday Celebration with the Cape Ann Museum and The Thoreau Society*
- Sustaining an environment for the Library staff that nurtures creative thinking and problem-solving.
 - *The Board of Trustees is funding development activities involving the entire staff and individual professional development upon request*
 - *Staff have been organized into public service teams – Children's, Borrower's, and Information*
 - *Staff have been and will continue to be cross-trained in the various departments*
 - *Interdepartmental staff groups have been formed to envision goals and brainstorm actions to improve access, technology, collection activity*
 - *Staff is rewarded for their creative attempts to bring solutions, go beyond the status quo, and overcome existing constraints*

G.

Core Principles of Public Libraries and Librarianship

- Equity
- Access
- Opportunity
- Openness - broad input and transparency
- Participation
- Service
- Learning – continuous striving for excellence
- Intellectual freedom and society
- Self-reflection
- Empathy and respect
- Collaboration

Core Roles of Public Libraries and Librarians

- Collective buying agent
- Economic stimulus
- Center for learning
- Safety net
- Steward of cultural heritage
- Third place
- Hub of civic engagement
- Symbol of community aspirations
- Community anchor

H.

Gloucester Lyceum & Sawyer Free Library Building Program



Deborah Kelsey, Library Director

Accepted by Rosemary Waltos, Library Building Specialist,
Massachusetts Board of Library Commissioners

Approved by the Board of Directors
February 24, 2016

Contributors:

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Strategic Planning Committee:

Jerry Ackerman, Barbara Braver, Carol Gray, Meredith Fine, William Fonvielle, and Frejya Sanger

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Accessibility

Acoustics

Aesthetics

Data & Telecommunications & Electrical

Ergonomics

Functional Areas

Furniture, Fixtures & Equipment

HVAC

Lighting & Electrical

Security

Signage

Sustainability

Windows

Executive Summary

Gloucester's public library consists of an historically significant four-story wooden house with WPA murals on the first and second floors, built in 1764 and converted for library use in 1884; the South Wing, a two-story brick addition built in 1913; and the Monell addition, a three-story brick-faced addition built in 1976. The gross square footage of the library buildings is about 23,500, but only 18,500 square feet are useful programmatically. The Library is situated in the heart of the City's Downtown within an historical district and a cultural district.

Gloucester would like to renovate and expand its existing library facility or build a new 30,000 to 35,000 square foot library on another site in the City.

Knight Soul of the Community 2010: Why People Love Where They Live and Why It Matters – A National Perspective, Knight Foundation states there is a positive correlation between community attachment and local gross domestic product (GDP) growth. This is a key metric in assessing community success because local GDP growth not only measures a community's economic success, but also its ability to grow and meet residents' needs.

Community attachment is dependent on what matters most to residents:

- Social Offerings – places for people to meet each other and the feeling that people care about each other;
- Openness – welcoming to different types of people, including families with young children, minorities, and talented college graduates;
- Aesthetics – the physical beauty of the community including the availability of parks and green spaces; and
- Education – the quality of local colleges, universities, and K-12 public schools.

The City of Gloucester wants to attract new businesses, retain its college-educated young adults, and be home to families with young children. The public library should be integral to achieving these goals as a place supported by and accessible to all citizens. The library should convey the impression that the community cares about all of its residents by providing a place with enclosed spaces for inspiration, creation, and contemplation and social spaces for learning, meeting, and performance.

The public library should be an essential educational facility to support learning throughout the life of each resident as the community's "learning commons." It is the primary institution to support parents as their children's first teachers. Everyone, especially young adults, needs a public library with access to up-to-date and emerging technologies, online learning opportunities, and a "smart" enabled environment to realize their potential and thrive.

There is and will continue to be a strong need for well-curated print collections even though use of the library is changing as traditional collections share increasingly the library's platform with electronic, remotely accessible collections.

Gloucester's diverse population, with equally diverse interests, has led to an unusually large number of social, artistic, literary, and other types of organizations whose goals are often parallel

and even overlap. The library encourages, supports, and fosters community collaborations and partnerships. The library should to be a “culture house” for the community.

Gloucester loves the Sawyer Free Library. At least they love the idea of their library as a vital place for people to innovate, experience, participate, and be empowered. They want it to be a place for the community to gather for discovery, reflection, and learning. They describe the public library as a treasure, a centerpiece, a wonderful resource, important, and serving a unique role.

However, it is clear by every measure that the current library building is inadequate to meet the community’s needs. It is unwelcoming, uncomfortable, unsafe, and out of compliance by today’s standards for accessibility and fire prevention from the front steps and throughout the entire interior.

Gloucester needs a new or renovated library that embodies the community’s aspirations to be a hub of innovation, a place where arts and culture thrive, where its history is preserved and cherished, and where all are and feel welcome.

History of the Library and the Community

Originally called “le Beau Port” (Beautiful Port) by Samuel Champlain who visited in 1605-06, Gloucester was colonized by an expedition of men from Dorchester, in the county of Dorset, England, chartered by James I in 1623. Around the same time, a group of Pilgrims from the Plymouth Bay Colony also sailed to Gloucester and built the first racks for drying fish. It was one of the first English settlements in what would become the Massachusetts Bay Colony. The town of Gloucester was incorporated in 1642. It grew steadily and prospered, becoming a city in 1873 with a population of 16,000.

The antecedent of the current library dates back to February 15, 1830 when nearly 100 Gloucester residents met and formed the Gloucester Lyceum. The purpose of the organization was to bring community members together to participate in lectures and debates that fostered ideas, information and learning. The lectures had both “literary and philosophical merit.” Samuel Sawyer became an active member in the 1840s. He recognized that in a true democracy, individual success means success for the community as a whole, and the key to individual achievement is education. His values led to the formation of a library.

Mr. Sawyer’s involvement and financial support enabled the continuing growth of the library. He purchased a prominent residence on the corner of Dale Avenue and Middle Street, the Saunders House built in 1764, and donated the four-story wooden building along with an endowment with the purpose of providing free library services to Gloucester. In 1884, The Gloucester Lyceum & Sawyer Free Library was dedicated in the same building it occupies today with the motto “Books are lighthouses on the sea of time.” At the dedication, Mr. Sawyer said “It has always been a prominent motive or object of my life to do something to promote the best interest of the young, for in them lie the germ, the roots and fibres of civilization. Books are the food of the mind; from the earliest years of childhood books are sought to feed the intellect, and so from school to college; later on they are a course of recreation to the idler, the tools of the student, the scholar and the man of letters.”

Community Analysis

Gloucester is a city located in northeastern Massachusetts, thirty-one miles from Boston, in the North Shore region of Essex County, on the Cape Ann peninsula. The total area of Gloucester is forty-two square miles with a total land area of twenty-six square miles of varied terrain, coastal natural resources and spectacular views. A large part of the city is an island, shared with the Town of Rockport, separated from the mainland and remainder of the city by the Annisquam River, an estuary, and Ipswich Bay. The island side is reconnected to the mainland by two automobile bridges: the beautiful 20th century A. Piatt Andrew Bridge, and the Blynman Drawbridge, affectionately called “The Cut,” and a railroad bridge. This rocky cape is defined by the sea around it, with more than thirty-five miles of coastline along the Atlantic Ocean, harbors and coves, and the Annisquam River.

Nearly half of the land area of the city comprises the West Gloucester and Magnolia neighborhoods, which are less densely populated than the city as a whole. Much of this land is underdeveloped and maintains its natural qualities – from beach dunes and marsh to inland wetlands to massive ledge outcropping. A large part of it is set aside for watershed protection, recreation and preservation purposes.

The busy downtown Gloucester, adjacent to Gloucester Harbor, reflects the commercial history of the city from late Federal brick and solid Victorian building, with varied uses, to working wharves, and a lumber yard and the Coast Guard Station at the water’s edge. Residents and visitors like to be in the downtown, doing business or just walking. Traffic is sometimes heavy and parking is often tight. It is truly a mixed-use district, with retail and commercial services, the Post Office and City Hall, Library, social institutions, and a new generation of residents and businesses. The area requires continued attention and investment. Much of the downtown remains underused; some public and private properties are in relatively poor condition. The future offers continued opportunity for upgrading and face-lifting.

The population is socioeconomically diverse with working-class residents and first-generation immigrants as well as old wealthy families and newer summer visitors. Summer people displace off-season renters and homeowners who migrate to rent them their residences. People are attracted by the beautiful harbor, the picturesque fishing fleet, seaside restaurants, colorful festivals, the Cape Ann Museum and Gloucester Stage Theatre Company, and large green spaces and beaches.

The city is home to one of the oldest continuously operating art colonies in the United States, Rocky Neck. Gloucester is a rare community with two Cultural Districts, Harbortown and Rocky Neck, newly designated by the Massachusetts Cultural Council. The city received a Commonwealth Award for Creative Community for providing leadership, funding and infrastructure to the places where art and culture are presented and where artists live and work.

The city has had a tradition of innovation since it was first settled. Early industry included subsistence farming and logging. Fishing was limited to close-to-shore. The town became a shipbuilding center with the first schooner reputedly having been built here in 1713, followed by the building of Georges Bank and Gloucester dories. The community became an important

fishing port. With the advent of steam, the eastern-rig dragger was designed, followed by the western-rig fishing boats. In the 1800s Gloucester developed a thriving granite industry. In the 1900s Clarence Birdseye developed flash-freezing technology and John Hays Hammond, Jr. invented radio control and held more than 400 patents.

Today, Applied Materials is a leader in ion implant systems and the Gloucester Marine Genomics Institute launched the first DNA sequencing study on the cod genome. Innovation House, a meeting place for entrepreneurs who want to network and collaborate with others in tech space, or get away from their home offices to recharge in a peaceful rural setting, was started in 2014. The new Gloucester Life Sciences Academy will be offering an intensive laboratory training program funded by the state to prepare graduates for technician positions in the local biotechnology industries.

In the future, Gloucester could emerge as an innovation and marine biotechnology hub. At present the city needs a more diverse economy. Roughly a third of the jobs are tied to fishing and marine-related sectors.

A need for modern, business-friendly accommodations with Wi-Fi and conference rooms will be met with the new 96 room Beauport Hotel, opening spring 2016.

The city's infrastructure is aging. Because most of Gloucester is on top of rocky ledge, improvements to the infrastructure are costly. There has been and needs to be significant capital investment to upgrade and improve the water supply, public water and sewer systems, sewage treatment plants, and high-speed internet services. Since 2000 considerable public and private funds have been expended to separate storm water runoff from downtown sewer lines, install sewer primarily in North Gloucester, and via the implementation of our Wastewater Management Plan, upgrade onsite septic systems to Title 5 to greatly abate coastal pollution. Simultaneously, new water lines have been laid wherever possible to eliminate "summer water" lines and to replace fragile occluded deep water lines. Gloucester has vast fresh water resources. The water treatment and distribution system has undergone extensive renovation. Water Emergencies are declared in high volume use times because of distribution pressure concerns that affect fire suppression capability in the outlying areas. Contracts were negotiated with internet providers to have the City rewired for high-speed internet access.

Education (*Massachusetts Department of Education*)

The Gloucester School district has 2,963 students enrolled. The census has declined from 4,100 students in 2000 to 2,600 in 2015, and is projected to decline to less than 2,000 students by 2035.

Gloucester has five elementary schools for 1,452 students without the services of a school librarian. Beeman Memorial, Veterans Memorial, and East Gloucester are Title I schools where at least 40% of the children are from low-income families. Parents in Gloucester may use School Choice to send their children to schools in other districts. More than 30% of the incoming kindergartners in neighboring Rockport are Gloucester residents.

The O'Maley Innovation Middle School has 629 students. After more than a decade of no school librarian in the middle school, a process has begun to create and staff a learning commons for 2015-2016 school year.

The Gloucester High School has 882 students. The school's librarian oversees the learning commons, teaches bibliographic instruction and coordinates Gloucester U, an after-school program that offers more learning opportunities with community partners.

A social services organization called Action offers alternative education programs and support services to teens and young adults experiencing barriers to learning in the public school system through Compass Youth Program with community partners, Cape Ann Art Haven, Maritime Gloucester and Santander Bank.

Action's Job Training and Education program offers classes, training, job-readiness and support to help unemployed and underemployed adults gain new skills and better jobs. Adult education includes reading, writing, math, and work skills; preparation to take the High School Equivalency Test; and supportive services. Healthcare career training includes home health aide and nurse aide training programs; and life skills and job readiness services. Job readiness includes working with the Gloucester branch of the North Shore Career Center; running a career transitions class to help with basic skills; and providing individual assistance on the development of career goals, resume building, interview skills, and address barriers to employment. In the next three years, there are plans to offer multiple classes in CPR, ServSafe, money management, and computer skills. Other skill development activities being considered are culinary training, an EMT course, childcare and babysitter related courses, health/nutrition/exercise education, parenting skills education, a program for those raising grandchildren, and life skills/soft skills for high school students and recent graduates.

Endicott College began offering classes in downtown Gloucester in 2012. The College hopes to have a permanent facility in the City.

High school drop-out rate: 5.2% (Massachusetts 5.6%)

High school graduation rate: 89.5% (Massachusetts 86.1%)

High school graduates attending colleges and universities: 63.4% (Massachusetts 76.6%)

High school graduate or higher (% of persons age 25+): 89% (Massachusetts 89.4%)

Bachelor's degree or higher (% of persons age 25+): 34% (Massachusetts 39.4%)

An unusually high number aged 45 to 65 have advanced or professional degrees.

Employment and Income

Technology is gaining as fishing-related employment, the city's historic economic base, shows few signs of recovery after decades of decline. Manufacturing, led by technology and including food processing, employs about a quarter of the labor force and accounts for about half the city's total household income. The balance of local jobs is mostly in health care, retailing, government, or food and beverage and tourism-related businesses, with tourism gaining. Many of these are low-paying, part-time or seasonal. The downtown area supports almost half of the largest employers – Gorton's, Shaw's Markets, Gloucester High School, Strong Leather, Action and the YMCA contribute substantially to the employment base.

About a quarter of the labor force commutes more than 30 minutes each way to work, twice the number of a generation ago. There has been an influx of sophisticated businesses and individuals working from home that rely on high-speed internet access.

Incomes

Although there are highly visible pockets of wealth, Gloucester incomes are well behind much of the state. The gap between rich and poor is widening. Overall income lags state averages by about 10 percent and income growth by about 20 percent. Incomes adjusted for inflation fell between 2000 and 2010 by 20 to 40 percent in nearly all brackets below \$50,000 a year, but about doubled in brackets over \$100,000 a year. Even well-off households, those reporting \$100,000 a year or more, averaged about 20 percent less in 2010 than the same quintile statewide. Unemployment is persistent, currently at about 7% after topping 12% between 2008 and 2011.

Labor force in June 2015:	15,796	
Unemployment in June 2015:	5.9% - 925	(Massachusetts 4.9%)
Median household income:	\$62,059	(Massachusetts \$66,866)
Median per capita income:	\$36,919	(Massachusetts \$35,763)
Persons below poverty:	8.3%	(Massachusetts 11.4%)

Housing (2010-2012 Census estimates)

Gloucester's desirable qualities are linked to variable density, from the clustered buildings of Downtown and village centers to the concentrations of homes in neighborhoods to rural, low-density areas.

The Downtown is densely developed and densely populated. With only five percent of the city's land area, it is home to nearly twenty-two percent of the population, in a combination of single family and multi-family housing units.

Housing units:	13,813	
Housing units in multi-unit structures:	43.1	
Owner-occupied:	7,496	
Renter-occupied:	4,603	
Vacant:	1,714	
Homeownership rate:	65.3%	(Massachusetts 62.7%)
Medium value of owner-occupied housing:	\$374,900	(Massachusetts \$330,100)

Population (Donahue Institute, University of Massachusetts)

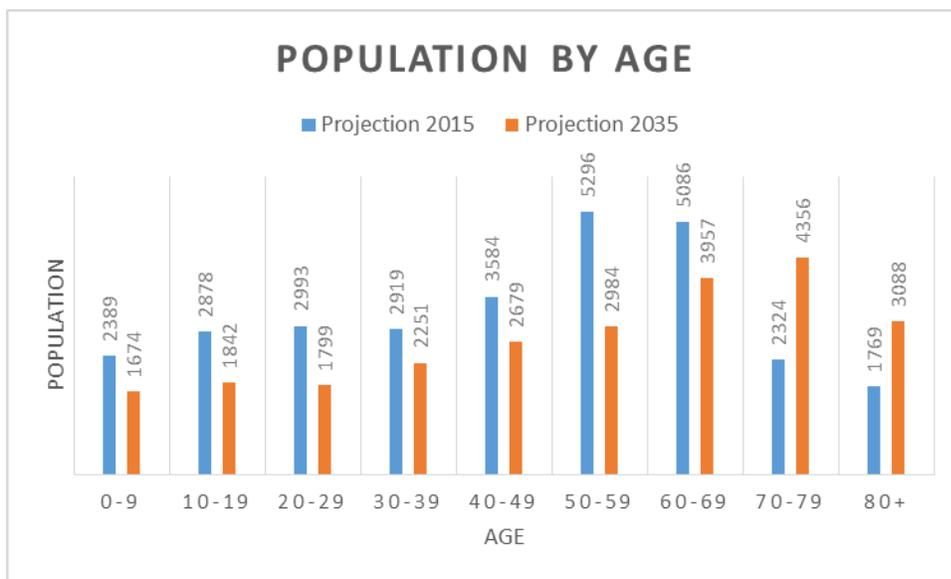
Gloucester's population is steadily shrinking and aging. The school-age population is diminishing. Persons over 65 now account for more than one-sixth the total, well above the state average. The median age now is about 42, or two years older than in 2000, apparently driven in part by retirees or empty-nesters relocating to a coastal community.

Gloucester's population reflects the changes in the state's population more dramatically.

Gloucester’s population will decrease from an estimated 29,238 in 2015 to 24,634 in 2035. The only segment of the population to increase will be the elderly, those who are 70 years of age or older.

Of individuals 65 and older, the state’s population will increase from 14% to 21% versus Gloucester’s population from 17.71% to 36.94% between 2010 and 2030. Conversely between the same time period, of individuals 19 years old or younger, the state’s population will fall from 25% to 22% versus Gloucester’s population from 20.66% to 14.66%.

Gloucester is projected to lose 15.76% of its population over twenty years, for a loss 4,608 residents, a trend that is opposite the trend for the whole Northeast region of Massachusetts.



Race/Ethnicity

Currently, about 8% of the population is foreign-born, more than half from Italy, Brazil and Hispanic America. 11% percent speaks a second language at home, led by Italian/Sicilian and Portuguese. The racial and ethnic diversity will remain very similar, primarily white. The exception will be the Hispanic or Latino population will increase to about 1,232 or 5%.

White: 28,126

African American: 516

Asian: 310

American Indian or Alaska Native: 219

Native Hawaiian or Pacific Islander: 0

Two or more races: 473

Hispanic or Latino: 826

Not Hispanic or Latino: 28,111

Transportation and Access

Gloucester is the northeastern terminus of Route 128, which forms the inner belt around Boston. The city is also served by Routes 127 and 133. Commuter rail service to North Station, Boston, is available from the downtown and West Gloucester. The Cape Ann Transportation Authority provides fixed route service within the city, between Gloucester and Rockport and Dial-A-Ride service for the elderly and disabled. Lahey Health and the Council on Aging coordinate volunteers to provide transportation to medical appointments. Ambulance service is provided by the Fire Department and Beauport Ambulance Services, Inc. There are several taxi-livery services. Enterprise Car Rental has an office in the city.

Library’s Mission, Values, and Service Roles

Vision:

The vision of the Gloucester Lyceum and Sawyer Free Library is to be fully relevant as the needs of Gloucester’s public evolve.

Mission:

The mission of the Gloucester Lyceum and Sawyer Free Library is to inspire lifelong learning, foster intellectual curiosity, and strengthen our community.

Values:

The values of the Gloucester Lyceum and Sawyer Free Library are:

- Available freely to all,
- The open exchange of ideas,
- Intergenerational connections,
- Relationships and collaborations with community partners,
- Environments that nurture creative thinking and problem solving,
- Basic literacy, education, intellectual curiosity, and lifelong learning, and
- The history and culture of Gloucester,

Service Roles:

The core role of the library is grounded in the ancient role of libraries as places of community and collaboration. For Gloucester this translates into a third place, not home, or school/work, for collaborative learning and community interaction. The public library is no longer a warehouse for collections or a central point of information service, although the library’s hybrid operational environment of both analog and digital services and collections will continue to fulfill both these roles. *Susan Montgomery and Jonathan Miller, “The Third Place: the library as collaborative and community space in a time of fiscal restraint” 2001*

- Providing inviting and attractive physical and virtual spaces;
- Encouraging connections among people of all ages;
- Acquiring, maintaining and providing access to local history collections;
- Serving the whole community including governmental entities, nonprofits, businesses, and civic groups as well as marginalized and underserved people;
- Providing free access to information, literature, and ideas; and
- Providing access to current technologies and supporting technological literacy.

Previous and Current Facility and Organizational Planning Efforts

Twice the library facility has been expanded to meet the growing needs of Gloucester. In 1913 the library corporation funded the construction of a brick-faced wing that allowed the library's books to be housed on a two-story metal shelving structure built to hold the weight of the collection. In 1976 the library celebrated the opening of a three-story, brick-faced addition after several acts of the state legislature, with city funds, grants, and the library corporation.

Through the efforts of the library community, the city was awarded a \$4 million grant for public library renovation, expansion and modernization in 2005. However, the community did not vote to approve the referendum on a debt exclusion of \$7 million in 2007. Consequently, the city could not accept the state funds.

Proposal for an Archives Research Center for the City of Gloucester, Massachusetts, Platt Anderson Freeman Associated Architects, 1995

To preserve the City's extensive collections of historical records and enhance their accessibility. The study determined that it was feasible to construct a storage facility in the Sawyer Free Library that would meet recognized standards for archival storage with an adjacent archive study area. The Archive Committee identified the solution described as a best available alternative. The proposed solution provides a usable facility that is adequate for storage and available on a part-time basis as an archive research center and anticipates that future expansion of the library may provide, among other things, a new meeting room to take the place of the Friend Room, thereby making it available full time for an expanded research center.

Feasibility Study for the Renovation and Expansion of the Gloucester Lyceum and Sawyer Free Library, Gloucester, Massachusetts, Finegold Alexander and Associates Inc., March 2001

Report of a Preservation Survey, Millie O'Connell, Preservation Consultant to Northeast Document Conservation Center, February 2003.

Building Condition Survey and Capital Reserve Plan, Andrea M. Gilmore, Building Conservation Associates, Inc., March 2003

Americans with Disabilities Act – ADA Transition Plan Update/Site Access Survey for the Gloucester Lyceum & Sawyer Free Library, John C. Miller, Community Advocacy Liaison, Northeast Independent Living Program, Inc., ADA Access Group, May 2006

Building Envelope Condition Survey, Noblin & Associates, LLC, October 2009

Pertinent Trends and Statistics, including Staffing and Public Use

Direct circulation of library materials has increased over the last two years, while use of the library building continues to decline. Many potential users are put off by the indigent population that uses the library building and its grounds. Others find the physical environment too uncomfortable due to scary restrooms, poor air quality, and lack of modern heating and cooling.

The Sawyer Free Library is the only one of the four Cape Ann libraries to still provide professional reference services. The library will become the go-to place and portal for regional information and history.

The current staff is becoming more professional in terms of their education, skills, and capacity. Additional well-trained professional staff dedicated to public service in a world of rapid change are needed to provide modern library services. However, competition for municipal financial support is significant. Therefore, adding staff is unlikely. Future hiring decisions will be based on the need for staff with high levels of special skills in technology, communications, graphic design, web portal management, service design, archives, and the community's languages.

As part of the library's most recent strategic planning process the following significant trends were identified:

Historical Fragmentation among Community Institutions: Gloucester's diverse population, with equally diverse interests, has led to an unusually large number of social, artistic, literary, and other organizations whose goals are often parallel and even overlap. As a place supported by and accessible to all citizens, the library can help foster collaborations and partnerships.

Historical Opportunity in Programming: The number of potential adult learners in the community is growing and economic change is creating new demands for new knowledge and training. The library, which already hosts classes in English as a second language, is a clear candidate to fill this learning void.

Changing Space Needs: The current library was built well before the advent of the Internet age. Recent investigation has revealed not only potential for reducing or consolidating print collections in favor of digitally accessed information, but a large amount of space available for conversion to other uses, including meeting, classroom, and activity spaces.

The Sawyer Free Library staff identified five trend areas in Gloucester: demographic, economic/business climate, educational, lifestyle/social value, and technological.

Demographic:

- Move toward urbanization
- Greater generational differences
- Growth in indigent population
- Continued substance abuse & crime
- Growth in senior population
- Decrease in customer service; increase in self-service

- Decline in youth population
- Increase in minority populations
- Increase in well-educated professionals
- Increase in people with physical limitations

Economic/Business Climate

- Shorter economic cycles
- Decline in the fishing industry
- Growth of visitor-based economy
- Gap between skills and employers' needs
- Demand for innovation
- Decline in local industry
- More residential tax base
- Flat funding for municipal services

Educational:

- Rise in online learning
- Prioritization of STEM/STEAM
- Preference for participatory and self-directed learning
- Education falling behind workforce needs
- Escalating cost of education
- Women higher educational achievement
- Increase diagnosis of learning disorders

Lifestyle/Social Value

- Growth in obesity
- Decrease in ownership
- Interest in "Do It Yourself"
- More people working from home
- Preference for all things local
- Desire for vibrant, walkable neighborhoods
- Value the natural world
- Decreasing privacy, increasing surveillance
- Willingness to spend discretionary funds on experiences rather than material goods
- Difference between social and leisure time
- Less willing to wait

Technological:

- Explosive growth in use of mobile devices
- Growth in cloud computing
- Increase in cyber attacks
- Expanded access to platforms and applications
- Iniquitousness of social media
- Unbundling services

- Digital haves and have nots
- Bring your own
- Availability of Amazon and Netflix
- Change in publishing
- Smart devices as portals for targeted marketing
- Less privacy
- Device standardization or a universal device

Description of the Existing Building

Summary

Gloucester's public library consists of an historically significant four-story wooden house with WPA murals on the first and second floors, built in 1764 and converted for library use in 1884. A two-story brick addition was built in 1913, and a three-story brick-faced addition was built in 1976. The library is situated in the heart of the City's Downtown within an Historical District and a Cultural District.

It has been nearly forty years since the most-recent addition was built and the interior looks every day of its age.

Positives

- Thirty-five dedicated parking spaces, of which two are for handicapped use.
- Attractive grounds with permanent outdoor seating.
- Outdoor amphitheater.
- Potentially light, airy, open feeling in the 1976 addition, especially where the windows are not obstructed.
- The public frequently describes the library as welcoming, peaceful, inviting, and comfortable. (These words reflect what their public library should be, rather than what it is.)
- Separate, large meeting room with adequate technological infrastructure.
- Separate, self-contained children's space.
- Accessible entrances to the lower level.
- Centrally located in Downtown Gloucester, the heart of the city, including the core civic center
- Convenient
- Walkable for downtown residents
- Public restrooms

Negatives

- Lack of balance among an opposing range of functions and needs, especially in terms of acoustics, i.e. quiet versus noise. There are no reading and study spaces, collaborative workspaces, spaces for groups, learning and teaching spaces, technology-free zones
- Lack of climate-controlled archives and special collection spaces.
- Lack of self-contained, safe teen-specific space. The teen zone is located in an area where the expectation is for quiet.
- Children-specific space does not contain family restrooms, an area for stroller parking, or story time and maker areas.
- Security and safety are inadequate especially on the lower level due to poor design decisions. Restrooms are access-restricted due to the presence of individuals who are known to behave in socially inappropriate and unsafe ways.
- Lack of full accessibility throughout the facility from the main entrance, elevator, restrooms, and stacks. Not all exterior exits have panic bars. Some of the doors have correct handle hardware. The restrooms for children have undersized doors and inadequate square footage. There are several areas on all levels where the stacks prevent

wheelchair access. In general, the shelving practices create challenges as materials are shelved at floor level and above fifty-four inches.

- Inadequate lighting throughout the building, especially in 1913 wing, and parts of the Saunders House. There is no task lighting used in 1976 addition.
- Poor climate control throughout the building creating a library that is excessively hot, muggy, and oppressive in the summer in the areas without air conditioning, and too cold in many places in the winter. Vulnerable archival materials are housed in an area with the most variable and extreme environment.
- Antiquated and broken HVAC systems. Saunders House and 1913 wing are heated primarily by steam from an oil-fueled furnace boiler with one zone. There are electric wall heaters in the 1913 wing stacks that have ignited wooden stepstools. The 1976 addition's primary heat source was one gas-fueled rooftop unit condemned after filling the building with CO. The secondary heat sources are electric under-window units. The lower level is heated with hot air blowers from the boiler.
- Poor adjacencies throughout with no staff offices near or within their department areas. The library administration is located in inaccessible space. The archival and local history materials are housed in multiple areas on different levels. The adult nonfiction print collection is housed on different levels. There are no restrooms on two of the three levels the public use.
- Inadequate data and telecommunications. The facility lacks sufficient technological infrastructure for high-speed Wi-Fi, wired internet, VOIP telephone system.
- Inadequate electrical outlets.
- Furnishings are tired and do not meet fire code.

Description of the Existing Building

The three connected buildings provide different perspectives and views that are pleasing and stand as one bookend to the Downtown civic center of the city, City Hall, with the Cape Ann Museum the other bookend. Donald Monell, a local architect, designed the additions of both the Cape Ann Museum in 1967 and 1976 respectively, with similar basic lines and design. The library is situated within an Historic District and a Cultural District designated by the State of Massachusetts.

The gross square footage of the library buildings is about 23,500, with 18,500 square feet useful programmatically. The 1976 addition contains most of the useable space with large, attractive windows letting in natural light and air on all three levels. There is Wi-Fi throughout the facility.

The lower level has two accessible exterior entrances: one off of a thirty-five space parking lot and the other on the side facing Central Grammar Apartments. Access to the main and upper levels requires the use of a small elevator or one of two fire exit stairs. Lower level has a self-contained children's space, a large community meeting room with artificial light only, some storage, full kitchen and a secure space for technology infrastructure and equipment storage, and four small restrooms with restricted access. Keys for the children's restrooms access are available in the children's room through staff mediation. Keys for the adults' restrooms access are available in the circulation department on the main level of the library. Users are expected to obtain a key and return it, which results in two trips between levels.

The main exterior entrance on Dale Avenue to the main level is forbidding and accessible by stairs only. The main level has a mixture of open floor plan with soft seating and task seating at tables. There is an art gallery, display cases, a new materials browsing area, the library Friends' ongoing book sale, open holds, promotional displays, community bulletin board, photocopier, and the library's adult collections in world languages, literacy, music, fiction, recorded books, and serials. There is an overly large main circulation services desk with self-check stations and staff workstations with one telephone. The stacks are very high with oak end panels blocking most of the windows. In the near term, the teen space will be relocated to this level.

The upper/mezzanine level is open to the main level in the center with a metal and oak surround railing. The upper level has teen services, reference and research services, study carrels, wired computer workstations and print-release station, microforms and readers, and print collections in local history, teen fiction and nonfiction, reference, and most of the adult non-fiction print collection, and all of the teen fiction and nonfiction collections. The stacks are very high with oak end panels blocking most of the windows. In the near term, this level will house all of the adult and teen nonfiction books and all archival and adult non-circulating collections.

The first level of the 1913 wing connects the Saunders House to the 1976 addition. The space has narrow, fixed stacks, opaque windows, dim lighting and climate that is widely variable in terms of temperature and humidity. This area houses the entire video and game collections and the rest of the archival and some of the adult nonfiction collection. In the near term, the staff plan to move the Friends' ongoing book sale to this area. The second level is accessed by climbing narrow stairs only. Currently, the second level houses some of the adult nonfiction collection. In the near term, the staff plan to use the space for storage only.

The Saunders House front and rear exterior entrances are restricted and accessible by stairs only. Two of the main floor rooms are available to the public for small meetings and tutoring sessions. There are two small restrooms restricted to staff use. One room is functioning as secure space for technical services. The rest of the space is open for tutor sessions, shipping and receiving, storage, and mail distribution.

The second floor of the Saunders House is dedicated to the staff with one room a shared office for the library director and assistant director, a large double room for staff/director meetings, staff workstations, files and supplies, and one room for a staff lounge. There are very wide hallways in which more staff workstations and meeting space are located. There is a small restroom.

There are historically significant WPA murals on the first and second floors. The murals were restored and repainted with different images in 1954 and washed and retouched in 1976. At that time, the restorer painted murals in a similar style in the large double room on the second floor.

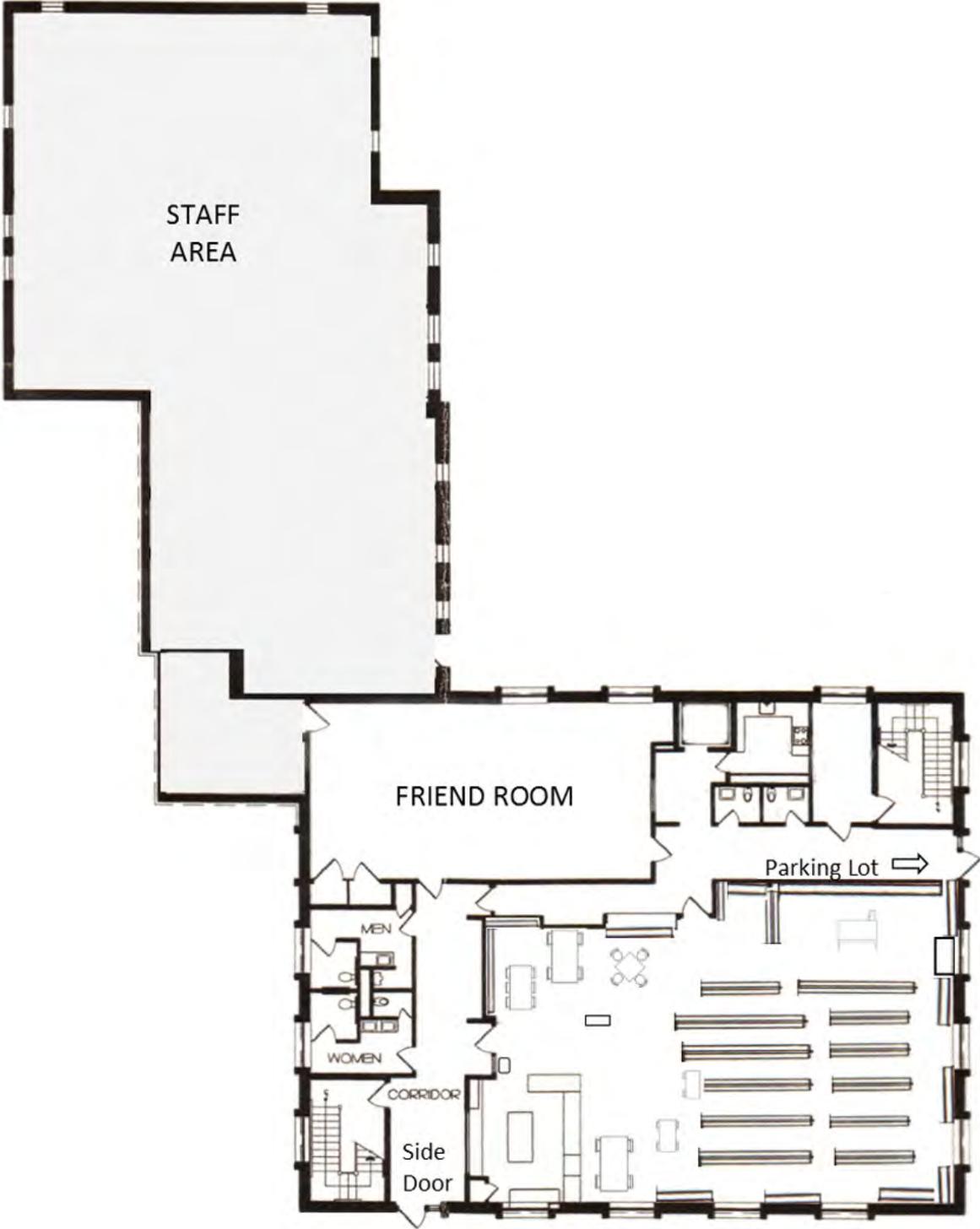
The chimneys in the Saunders House are stable, but the wooden house is shrinking naturally and settling over time. The second floor was stabilized in the last few months with new footings, posts, and beams after a severed main weight-bearing beam was discovered.

The third floor of the Saunders House has been used for storing local history materials, art work, financial records, and outdated equipment and furnishings for decades. The staff is working on clearing out the space.

There are interconnected basements via stairs under the Saunders House and 1913 wing. There is significant water seepage. These spaces have been used for storing periodical back file, discards, financial records, Friends donation sorting, and disc cleaning. The connecting doors are not fire-proof and there are no emergency exits. The staff is working on clearing out as much of the space as possible.

Most of the building's systems: furnace, electrical panels and data hubs and switches are located in the Saunders House and 1913 wing basements and the lower level of the 1976 addition. There is one rooftop air handling unit on the 1913 wing for the 1976 addition main and upper levels. There are window air conditioning units cooling the children's area and about half of the Saunders House. There are small windows at the apex of the 1976 addition's roof that can be opened to vent the building of heat during the warmest months. Air circulation is aided by large, noisy fans on the main and upper levels of the addition. There is a water sprinkler protection system for the entire facility.

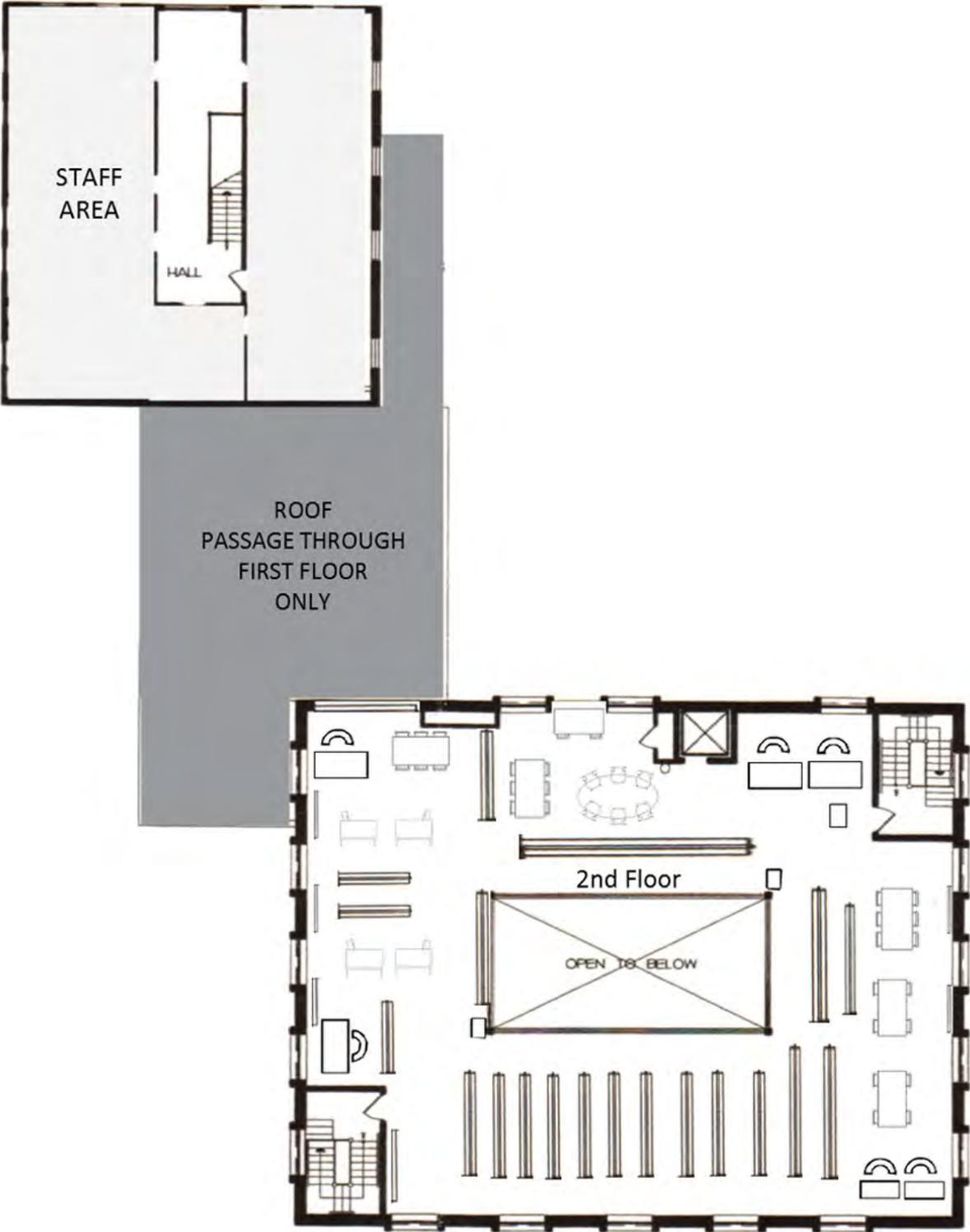
Lower Level with the two accessible entrances and the only public restrooms.



Main Level with Saunders House, 1913 South Wing, and 1976 Monell Addition from top to bottom with the non-accessible main entrance on the left in the middle.



Upper Level



Impressions of the Library Building from interviewees and survey respondents:

- Tired
- Dark
- Unsafe
- Hot in summer
- Uninviting, not welcoming
- ADA non-compliant
- Not up-to-date technologically; doesn't reflect the need for electronics
- Teen area not enclosed
- Children's too small
- Makes the Senior Center look hip
- Warehouse for books
- Doesn't have the space needed for teens
- A little shabby
- Challenged to feel welcome
- No modern HVAC system
- Disgusting
- Poor air quality; Smelly
- Scary
- Cannot see into the library from the entrance
- Hate having the only public restrooms outside the children's room
- Poor sightlines

Analysis of current collections and services

Summary

The use of collections in physical formats is decreasing while use of electronic formats is increasing. Remote use is increasing. Gloucester is a net borrower through the interlibrary loan program. The library will be undergoing a comprehensive weeding program over the next two years to reduce the number of physical items, increase the currency, and curate the entire collection. Overall goal is to provide excellent, professionally curated collections in print and electronic formats.

Ideally staff would be increased to provide library services through outreach to underserved populations, preschool and elementary school students and their parents, and the five neighborhoods; to forge and maintain effective community partnerships and collaborations; to develop and provide access to local history and archival collections; to perform ongoing technology planning, implementation, maintenance, and training; and to develop and provide access to the virtual library.

Wisconsin Public Library Standards, Fifth Edition, Wisconsin Department of Public Instruction, 2010

Quantitative Standards by Service Population of 25,000 to 49,999

Gloucester's population 29,393

+ the additional population served 3,148

= a service population of 32,541.

FTE Staff as of November 2015

Gloucester 16

Administration 3

Technical Services 1

Visitor and Member Services 4

Information and Research Services 2

Teen Services 1

Children's Services 4

Pages 1 (3 part-time positions 10 hour per week)

Basic/Moderate 16.27 Enhanced 19.52 Excellent 22.78

Volumes Held (Print) as of June 2015

Gloucester Actual 109,381

Basic 91,112 Excellent 133,481

Gloucester E-Books 10,012

Periodical Titles Received as of July 2015

Gloucester Actual 132

Gloucester Downloadable Digital 53 titles

Basic 176 Excellent 335

Audio Recordings Held as of June 2015
Gloucester Actual Physical Formats 7,141
Gloucester Downloadable Digital 3,108
Basic 6,183 Excellent 11,389

Video Recordings Held as of June 2015
Gloucester 4,526
Gloucester Downloadable Digital Video 0
Basic 6,833 Excellent 13,993

Public Use Internet Computers
Gloucester 28
Basic 17 Moderate 21 Enhanced 26 Excellent 45

Hours Open
Gloucester 59
Basic 59 Moderate 63 Enhanced 67 Excellent 69

Materials Expenditures
Gloucester \$125,894
Basic \$107,382 Excellent \$234,946

Collection Size (Print, Audio & Video)
Gloucester Physical Format 121,305
Gloucester Downloadable 13,120
Basic 107,383 Excellent 159,446

Current Library Capacities

Print Volumes – Adult	70,525
Print Volumes – Children	31,689
Print Volumes – Teen	7,167
Periodical Subscriptions - Adult	226
Periodical Subscriptions – Children	21
Periodical Subscriptions - Teen	10
Audio Recordings - Adult	6,423
Audio Recordings – Children	718
Audio Recordings - Teen	0
Video Recordings - Adult	3,013
Video Recordings – Children	1,513
Video Recordings - Teen	0
Fixed Computer Stations – Adult	12
Fixed Computer Stations – Children	7
Fixed Computer Stations – Teen	0
Parking Spaces – Staff	0
Parking Spaces – Library Patrons	33
Parking Spaces - Handicapped	2
Meeting Rooms Seats (Main)	75
Other Room Seats	37
Children’s Program Room Seats	N/A
Adult Space Seats	73
Children’s Room Seats	41
Teen Space Seats	25

Comparison of similar libraries statewide

Compared Gloucester’s library with nine similar libraries in Massachusetts using Annual Report Information Survey (ARIS) FY14 data. The comparison libraries were identified based on the population served, geographic location, economic indicators, diversity, and needs, with outliers removed.

Location	Kind of Community Code	County	Population Served by Library	Registered users (borrowers)	Network*
Dracut - Moses Greeley Parker Memorial Library	Growth Community	Middlesex	30,220	18,024	MVLC
Tewksbury - Tewksbury Public Library	Economically Developed Suburb	Middlesex	29,669	18,089	MVLC
Gloucester - Gloucester Lyceum & Sawyer Free Library	Urbanized Center	Essex	29,191	20,013	NOBLE
North Attleborough - Richards Memorial Library	Rural Economic Center	Bristol	28,806	14,934	SAILS
Agawam - Agawam Public Library	Growth Community	Hampden	28,608	18,996	C/WMARS
West Springfield - West Springfield Public Library	Urbanized Center	Hampden	28,574	15,694	C/WMARS
North Andover - Stevens Memorial Library	Economically Developed Suburb	Essex	28,422	20,143	MVLC
Milford - Milford Town Library	Urbanized Center	Worcester	28,184	16,539	C/WMARS
Saugus - Saugus Public Library	Economically Developed Suburb	Essex	27,338	12,404	NOBLE
Danvers - Peabody Institute Library	Economically Developed Suburb	Essex	27,020	17,066	NOBLE

* Network

C/W MARS – Central/Western Massachusetts Automated Resource Sharing

MVLC - *Merrimack Valley Library Consortium*

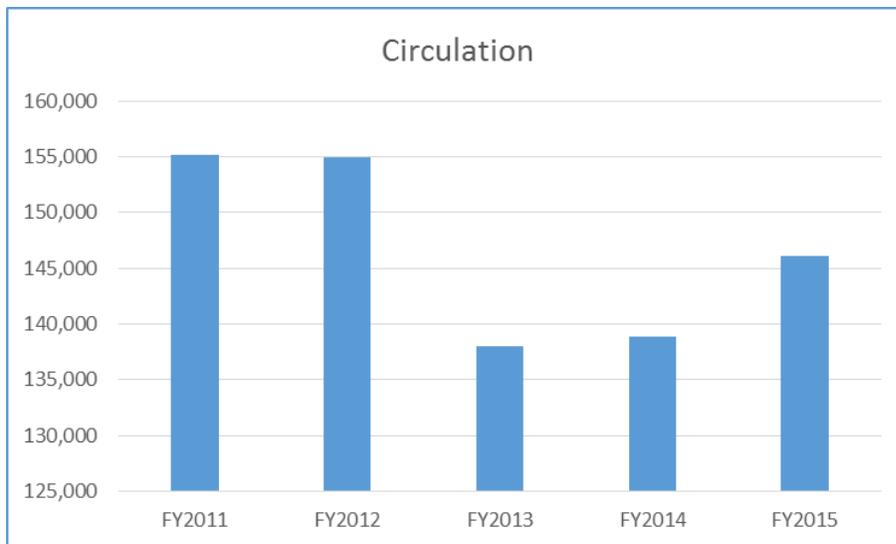
NOBLE – North of Boston Library Exchange

SAILS - SAILS

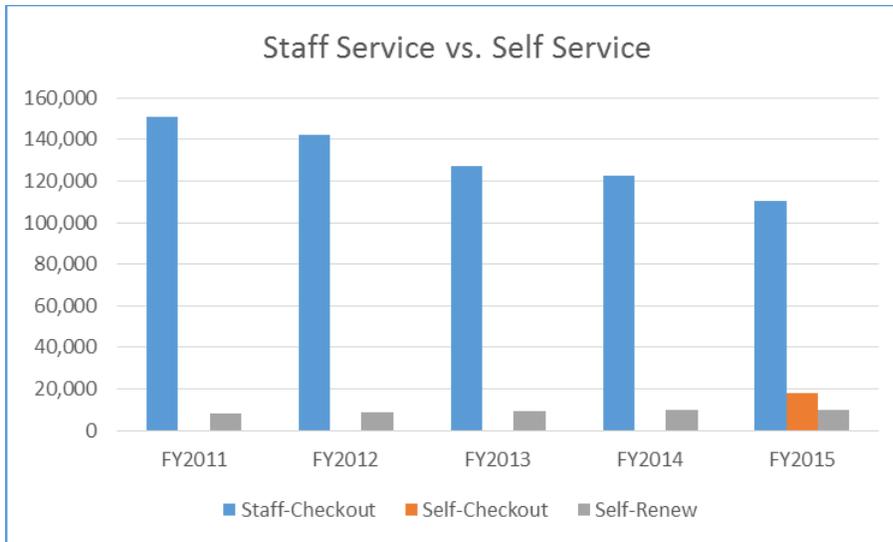
Collections, Programs and Services



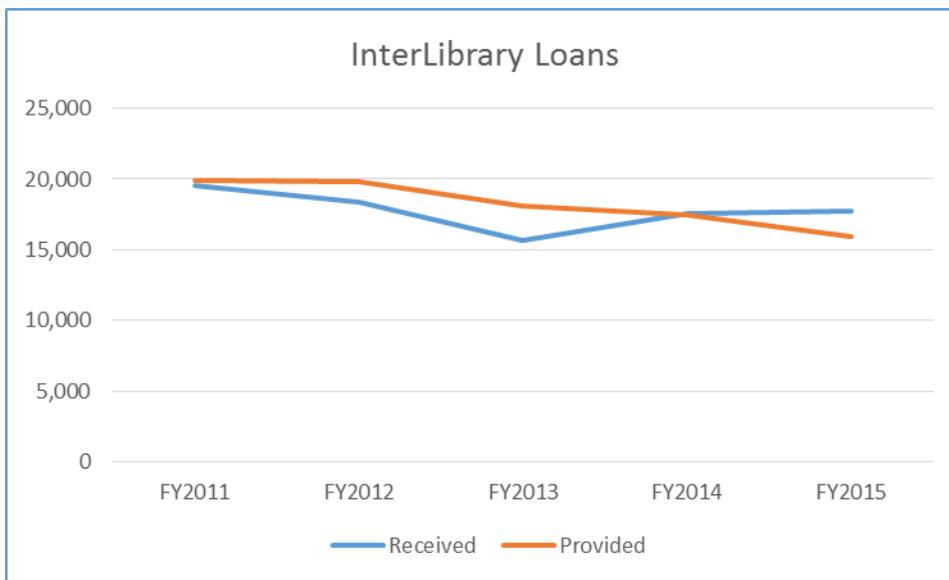
Nearly two-thirds of the city’s residents are library card holders. However, a significantly smaller number actually use the library.



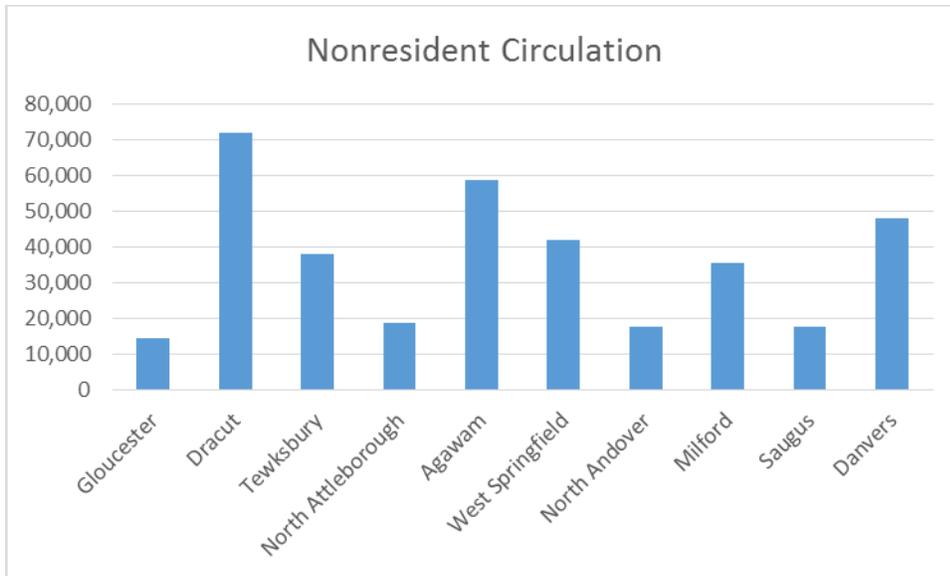
Circulation has declined by half from the highest level in the mid-2000’s, due in part to poor collection management practices and access, i.e. acquisition and deaccessioning of materials, physical arranging and cataloging, and shelving practices non-compliant with ADA. Actions to mitigate these issues have been implemented. Where possible, shelving practices are being corrected. Cataloging of non-fiction, audio visual collections has begun. Acquisition methods have been changed to be responsive to user needs and forecasted demands. Necessary deaccessioning has begun in earnest now that the user community has been invited to create a community collection of their favorites, the “Gloucester Picks” program.



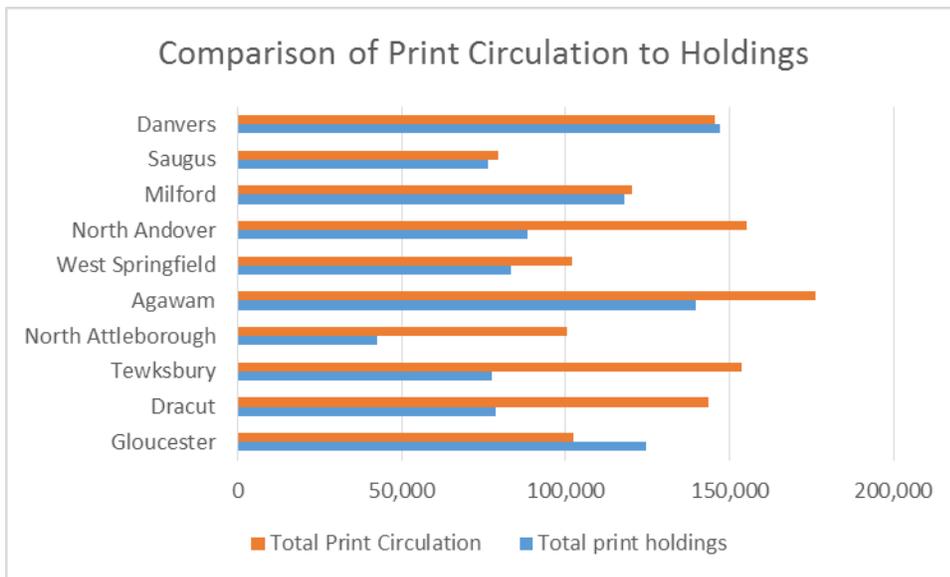
Self-checkout, first offered in the fall of 2014, has been well received by users and has reduced some of the staff’s materials handling activities.



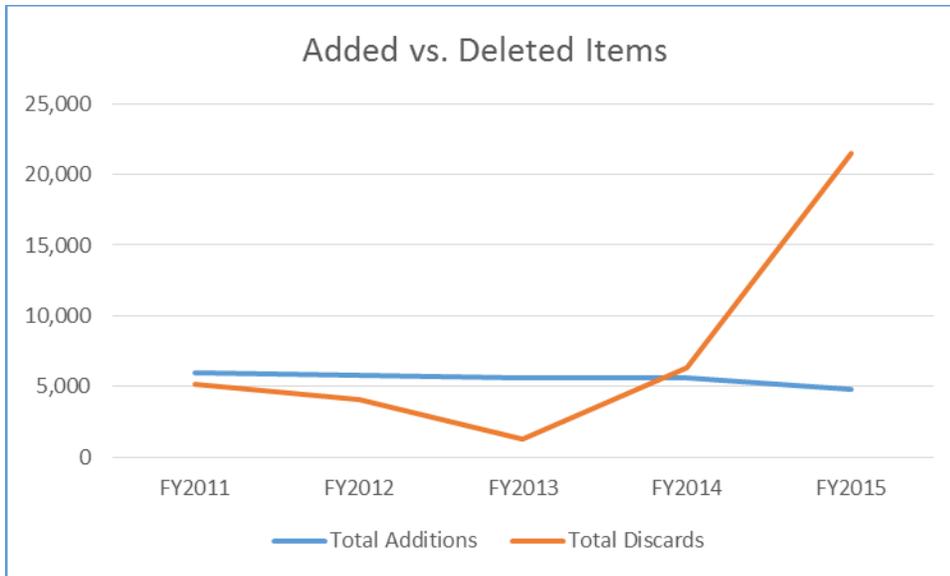
The library was a net lender of materials until FY2014. Becoming a net borrower indicates that the library’s holdings are not meeting the needs of the users. Every effort will be made to reverse this trend as soon as possible.



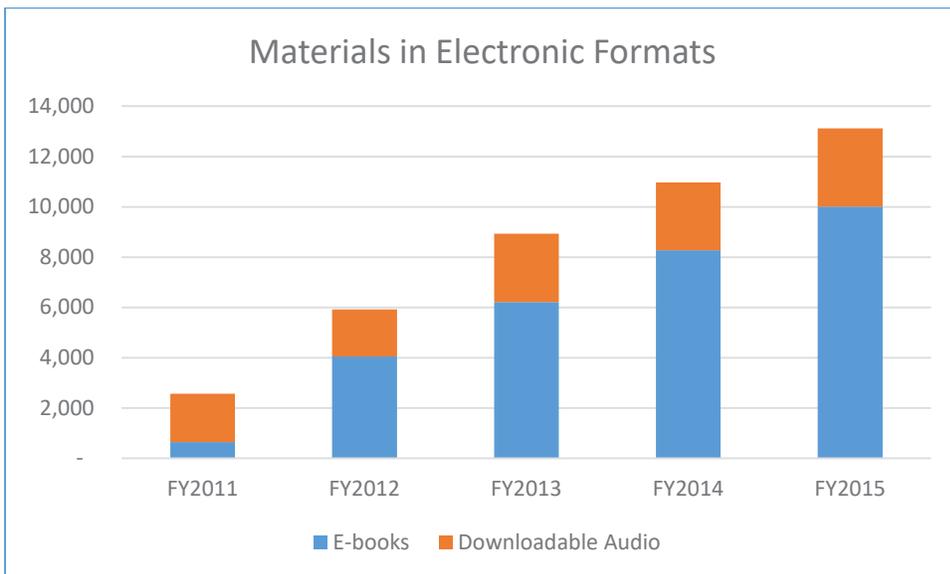
Gloucester is circulating significantly less than its cohorts to nonresidents. Again, this indicates the general lack of demand for Gloucester’s collection, but also, that it is isolated geographically as an island.



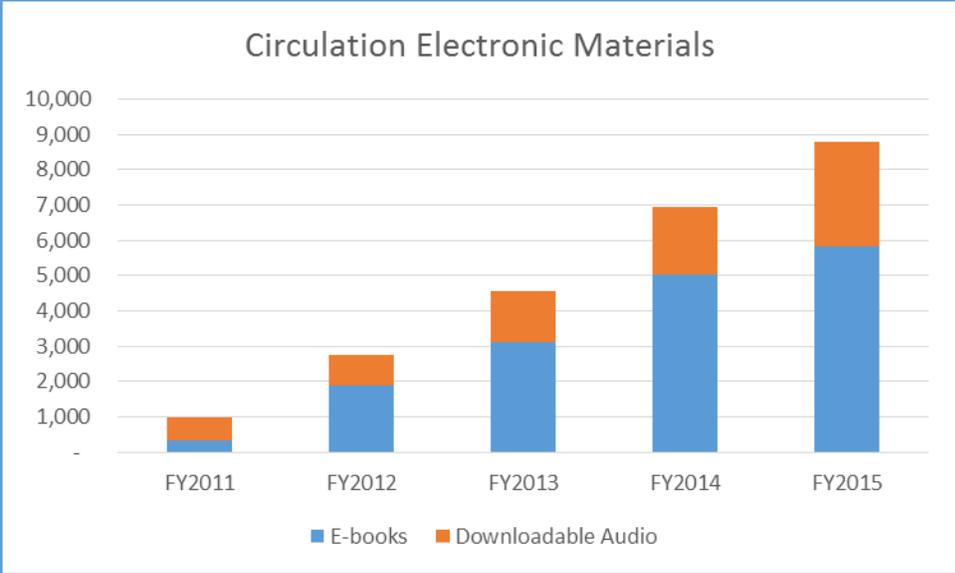
This chart shows the “turn” of the print collections for the ten libraries. Gloucester has the lowest “turn,” but one of the largest collections. This indicates the need to eliminate titles no longer of interest to borrowers. A library with a good working collection would have a “turn” of two or more, meaning circulation is double the holdings, as is the case for North Andover, North Attleborough, Tewksbury and Dracut.



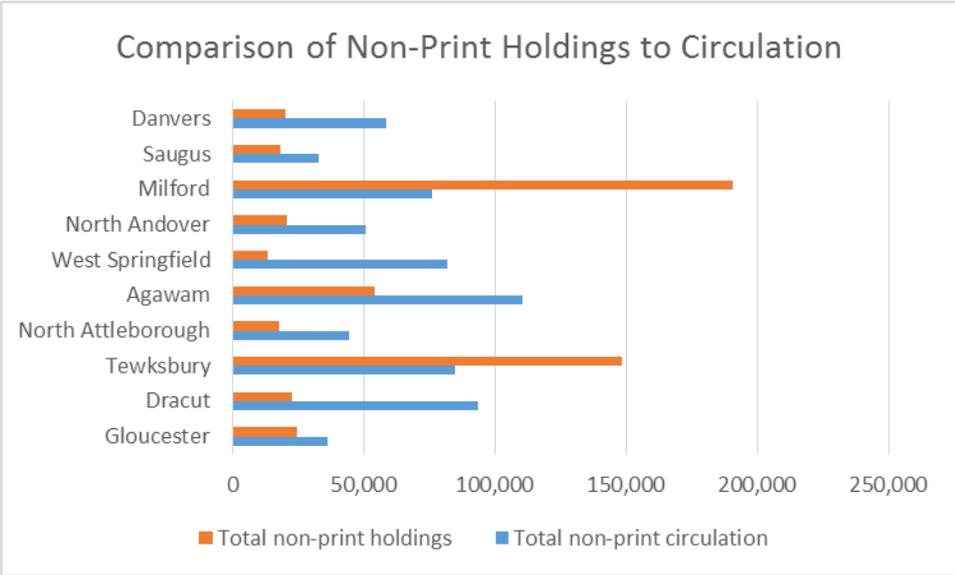
Collection management has a direct effect on circulation. In FY2013 little deaccessioning occurred and circulation dropped significantly. In contrast, deaccessioning increased in FY2014 and FY2015, resulting in an increase in circulation both years. Better and regular collection management will be part of best practices for the library staff.



Holdings of e-books and e-audio books have been increasing over the last 5 years and will continue to increase for the foreseeable future.

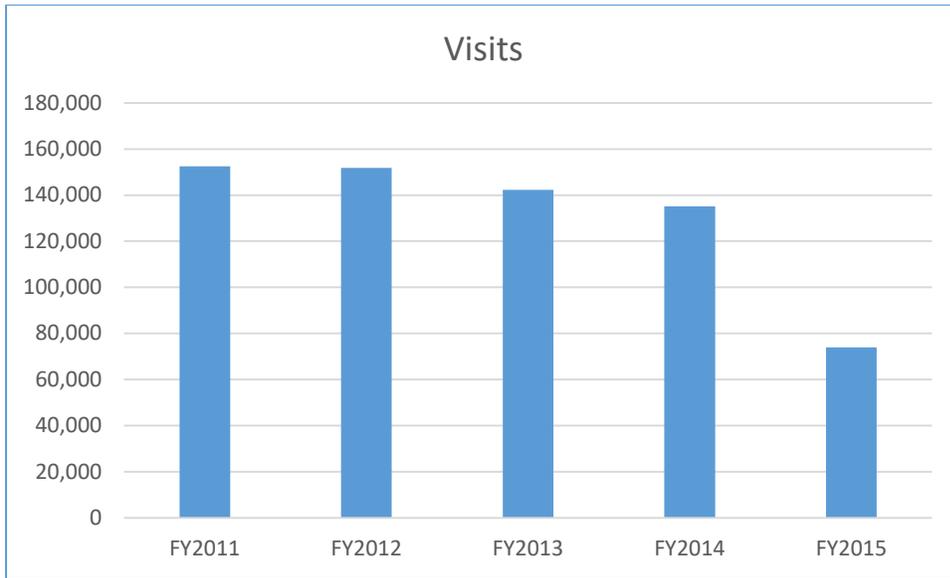


Borrowing of e-books and e-audio books has increased since introduced. We assume demand for these items will continue to rise in the near future. We project that about 25% of the future collection should be electronic, easily accessed remotely anytime.

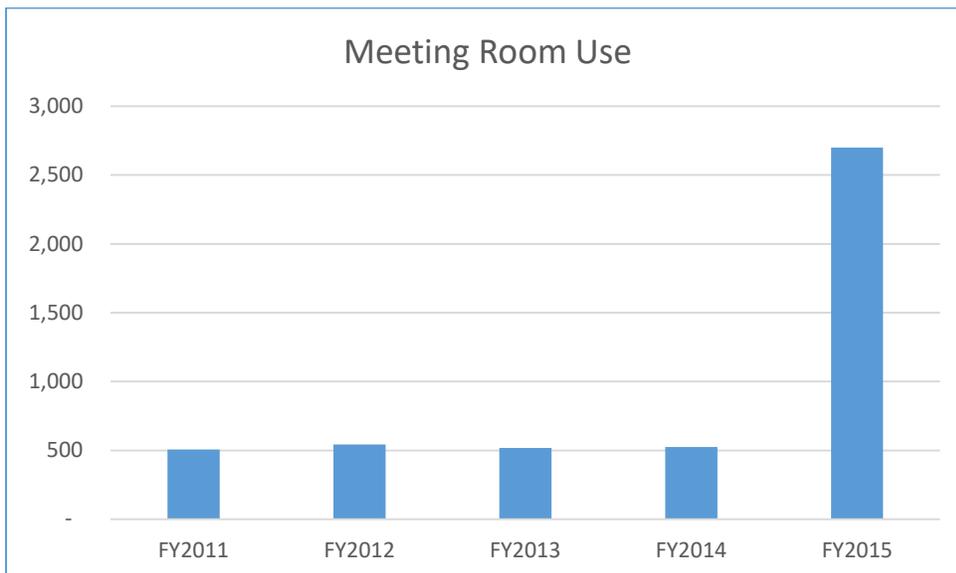


This chart shows the “turn” of the non-print collections for the ten libraries. Gloucester has one of the smaller collections and lowest circulation. Note libraries with smaller collections, North Andover, West Springfield, North Attleborough, and Dracut, exceed Gloucester’s circulation significantly. Clearly, Gloucester needs to promote its electronic resources more effectively.

Services

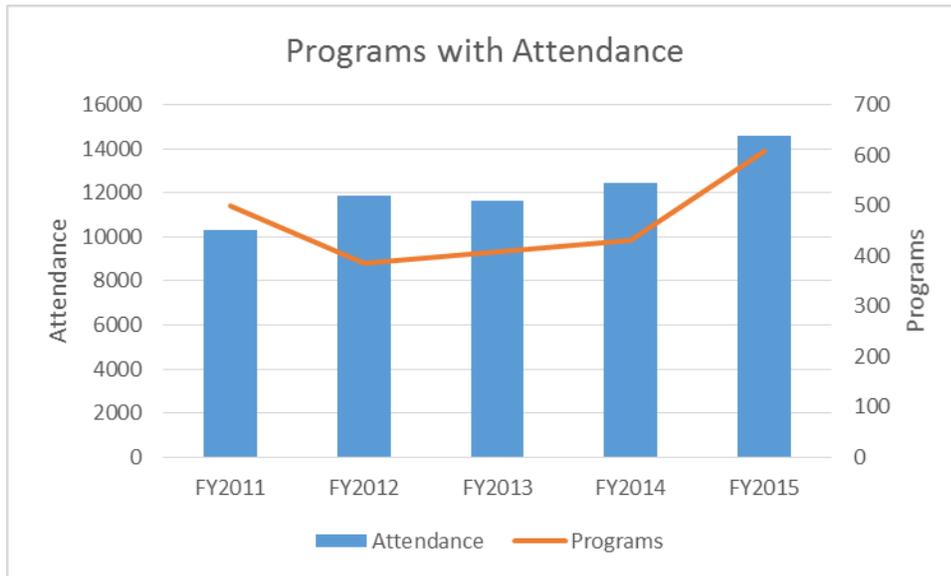


Actual physical use of the library has declined in part due in part to the uncomfortable experiences of users, e.g. exposure to users with serious social problems, lack of materials to meet needs, insufficient new/current materials available on the shelves, inadequate regulation of temperature and humidity, undersized elevator, insufficient parking, and poor customer service. We are working to improve our customer service by doubling staffing at service points, providing the option for self-check, purchasing materials to meet popular demand, and curating a balanced collection to meet the community's needs.



Meeting room usage was flat until FY015. The change in usage was due to a change in how usage was measured, but also, to the repurpose for public use of three accessible, enclosed areas formerly used by staff only.

Programs



Programming is constrained by lack of availability of program spaces, technological infrastructure, staff capacity and funding.

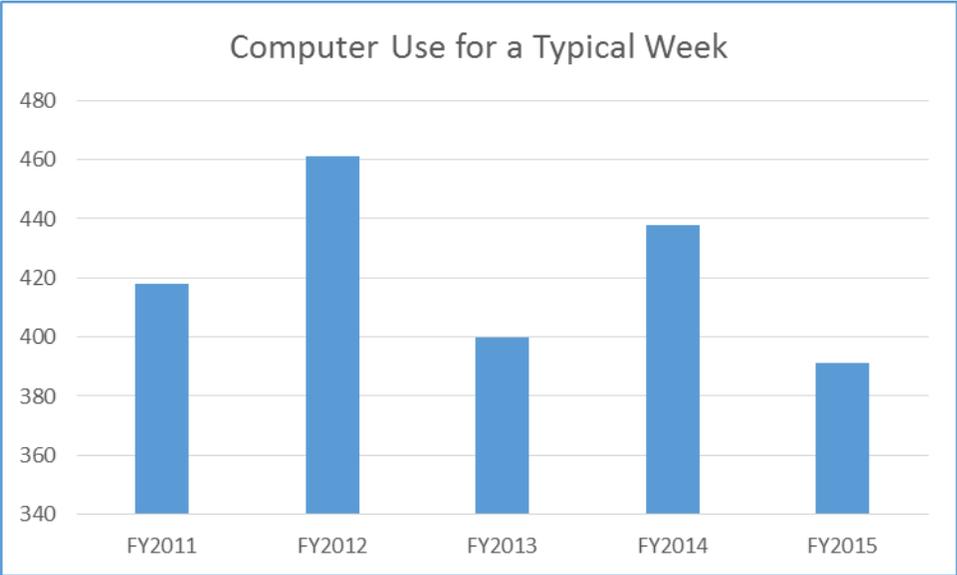
Children’s programming is well attended and greatly appreciated by all, especially parents of young children. At this time children’s programming is very traditional, mostly story times and crafts with a few performances. Participation in summer reading program is low relative to the size of the community. There is good staff support of several preschools and the public elementary schools.

Teen Services is very constrained by the physical space available. Staff is working to identify types of programming needed and determine the feasibility to deliver the programming without disrupting other library users. Currently, a summer reading program to teens is not offered.

The Lyceum, an all-volunteer committee of the library, provides programs of interest to adults. Adult Services staff began offering a summer reading program, technology-focused classes, and book discussions in restaurants and pubs.

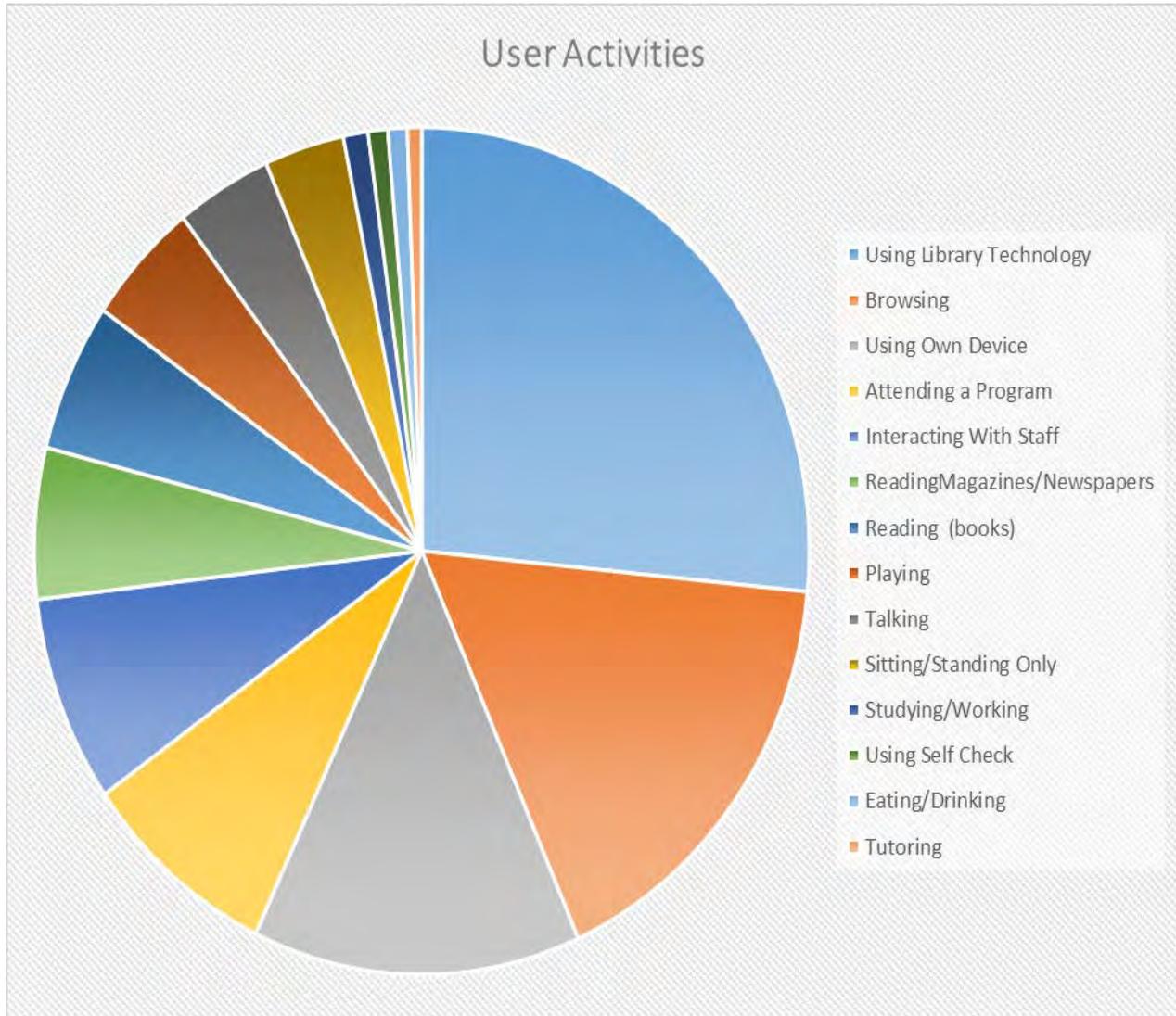
ARIS FY14	Programs	Attendance	Meeting Rooms	Meeting Room Use	Visitors	Dedicated Parking Spaces
Gloucester	430	12,435	4	525	135,078	2
Dracut	287	6,123	1	345	140,242	74
Tewksbury	707	18,711	4	3,051	161,329	86
North Attleborough	176	2,858	1	375	108,837	0
Agawam	320	6,572	2	593	176,025	101
West Springfield	338	8,845	2	383	144,522	0
North Andover	582	6,631	3	923	176,385	38
Milford	257	6,126	2	1,230	163,132	29
Saugus	557	10,109	3	1,131	91,578	16
Danvers	368	11,196	1	351		54

There is a relationship between the availability of parking and facility use; size and accessibility of meeting rooms, and number of staff and programming. Gloucester has 35 dedicated spaces. There is metered street parking surrounding the library in the Downtown, shared by City Hall, YMCA, Cape Ann Museum, religious organizations, funeral homes, and other businesses. Gloucester’s one accessible meeting room is used heavily. Gloucester’s staff has become very creative about using non-traditional open space for programming inside and outside the building.



The variation from year to year in internet-enabled workstation usage may be in part due to fluctuations in stability and robustness of the Wi-Fi.

Activities based on observation during a one week sweep survey, most to least observed.



Almost half of all user activity is related to technology. They are using the library’s internet enabled workstations or using their own devices to access the library’s Wi-Fi. There is equal use of the facility as a social space, learning space and a work space. The rest of the use is driven by the library’s collections, programs, and other services.

Special circumstances for the library and/or community

Public use of the library building continues to decline. Most potential users are put off by the indigent population that uses the grounds and the library.

The Sawyer Free Library is the only one of the four Cape Ann libraries to still provide professional reference services. The library will become the go-to place and portal for regional information, history and research.

Library Building Program, Thomas Jewell, July 1999

Two options were suggested:

One – the library can attempt to renovate and expand upon the existing site.

Two – the library can locate to a new site with ample room for parking and construct a new building that will efficiently meet all of the square foot requirements.

Library Building Program, Thomas Jewell, Revised September 2004

Board of Directors rejected option two as impractical (no good alternative publicly owned site was available), too expensive (purchase of a private site, in the unlikely event one became available, would eat up too much of the project budget), and politically impossible (opposition to leaving the Downtown site was overwhelming).

“Starting in 2001 the Board of Directors secured private funds to purchase three adjacent parcels of land to provide sufficient room for expansion and parking....”

Through the efforts of the library community, the city was awarded a \$4 million grant for public library renovation, expansion and modernization in 2005. However, the community did not vote to approve the referendum on a debt exclusion of \$7 million in 2007. Consequently, the city could not accept the state funds.

Since 2005, the Board of Directors has made significant capital investments in the current site. There is a lighted parking lot with thirty-five dedicated spaces and a drive-up book drop, a beautifully landscaped park and garden, and an outdoor amphitheater.

The Community Needs Assessment led to the conclusion that there is still overwhelming opposition to locating the library on a different site. However, it may be more cost effective to build a new library with more flexible space to better meet the community’s future needs on city-owned land.

A Needs Assessment

Gloucester needs the library to continue to be an anchor institution in the Downtown campus providing diverse services to residents and visitors. It is a center for literacy, art and culture. However, the existing library building limits the capacity and capability to meet the current and future needs of the city.

The library should be part of the city's educational infrastructure as the community's learning commons, an epicenter of information and training with a focus on current computer technologies, workforce development, business start-up and support, local history, and self-directed, participatory learning.

Overall the library building should be aesthetically pleasing, welcoming, comfortable, accessible, flexible, secure, and safe with a robust technological infrastructure and adequate climate controls. Children and their families need separate space for social engagement, learning, and play. Teens and 'tweens each need their own space with trusted adults present to hang out and/or learn. Adults need quiet spaces to work, study and create and noisy spaces for social activities. All need access to digital technology and tools and opportunities to innovate and create. The community needs a place to gather with free, technology enabled performance, presentation, meeting, learning, and working spaces, both large and small. Visitors need a welcoming place that is intuitive to use with amenities and information.

Wisconsin Public Library Standards, Fifth Edition, Wisconsin Department of Public Instruction, 2010

Quantitative Standards by Service Population of 25,000 to 49,999

In 2035 Gloucester's population is projected to be 24,634

+ the additional population served 2,638

= a service population of 27,273.

FTE Staff 17

Future Need: Basic/Moderate 13.5 Enhanced 16.2 Excellent 18.9

Volumes Held (Print) 92,750

Future Need Basic 76,500 – Excellent 109,000 + e-books

Periodical Titles Received 150

Future Need Basic 146 – Excellent 278 + e-periodicals

Audio Recordings Held 7,400

Future Need Basic 5,300 – Excellent 9,500 + e-audiobooks, e-music

Video Recordings Held 8,800

Future Need Basic 5,800 – Excellent 11,800 + e-content

Public Use Internet Computers 31

Future Need Basic 17 Moderate 21 Enhanced 26 Excellent 45

Collection Size (Print, Audio & Video)

Future Need 111,800

Basic 90,000 Excellent 133,600

Future Library Capacities Needed

Print Volumes – Adult	62,750
Print Volumes – Children	20,000
Print Volumes – Teen	5,000
Print Volumes – Tween	5,000
Periodical Subscriptions – Adult	110
Periodical Subscriptions – Children	20
Periodical Subscriptions – Teen	10
Periodical Subscriptions – Tween	10
Audio Recordings – Adult	4,900
Audio Recordings – Children	1,500
Audio Recordings – Teen	1,000
Video Recordings – Adult	4,800
Video Recordings – Children	2,500
Video Recordings – Teen	1,500
Fixed Computer Stations – Adult	20
Fixed Computer Stations – Children	10
Fixed Computer Stations – Teen	5
Fixed Computer Stations – Tween	5
Parking Spaces – Staff	17
Parking Spaces – Library Patrons	58
Parking Spaces – Handicapped	5
Meeting Rooms Seats (Main)	150
Other Room Seats	85
Children’s Program Room Seats	35
Adult Space Seats	80
Children’s Room Seats	50
Teen Space Seats	14
Tween Space Seats	14

The existing library building is not adequate to meet Gloucester's needs. The following are the community's suggestions for an improved library facility:

Comfort

- Convenient parking
- Less noise
- More children's space
- More efficient layout
- Reading areas
- Quiet spaces to work
- Niches/Nooks
- Space for tutoring
- Café
- Comfortable chairs
- Lounge for reading
- Chairs with window view

Accessibility

- Restrooms on each floor
- Handicapped/elderly access
- More convenient site
- Front door handicapped accessible
- Curbside drop off
- Open to anyone
- A Community center
- ADA accessible
- Easier navigation
- Larger elevator in which wheelchair users can fit and turnabout

Flexibility

- More meeting rooms
- Common areas
- Small community rooms
- Conference space
- Place for local artists
- Co-working space
- Multi-generational learning commons
- More gallery space
- AV rooms with green screen and editing tools
- After hours meeting rooms
- Study carrels
- Conference room with projection and virtual meeting capabilities

Safety and Security

- Clean furniture
- Updated restrooms
- Restrooms on each floor
- Improved lighting
- Building better maintained
- Safe place for underprivileged children
- Safe, well-ventilated restrooms
- Clean environment
- Less scary restrooms
- Lots of light

Robust Technological Infrastructure

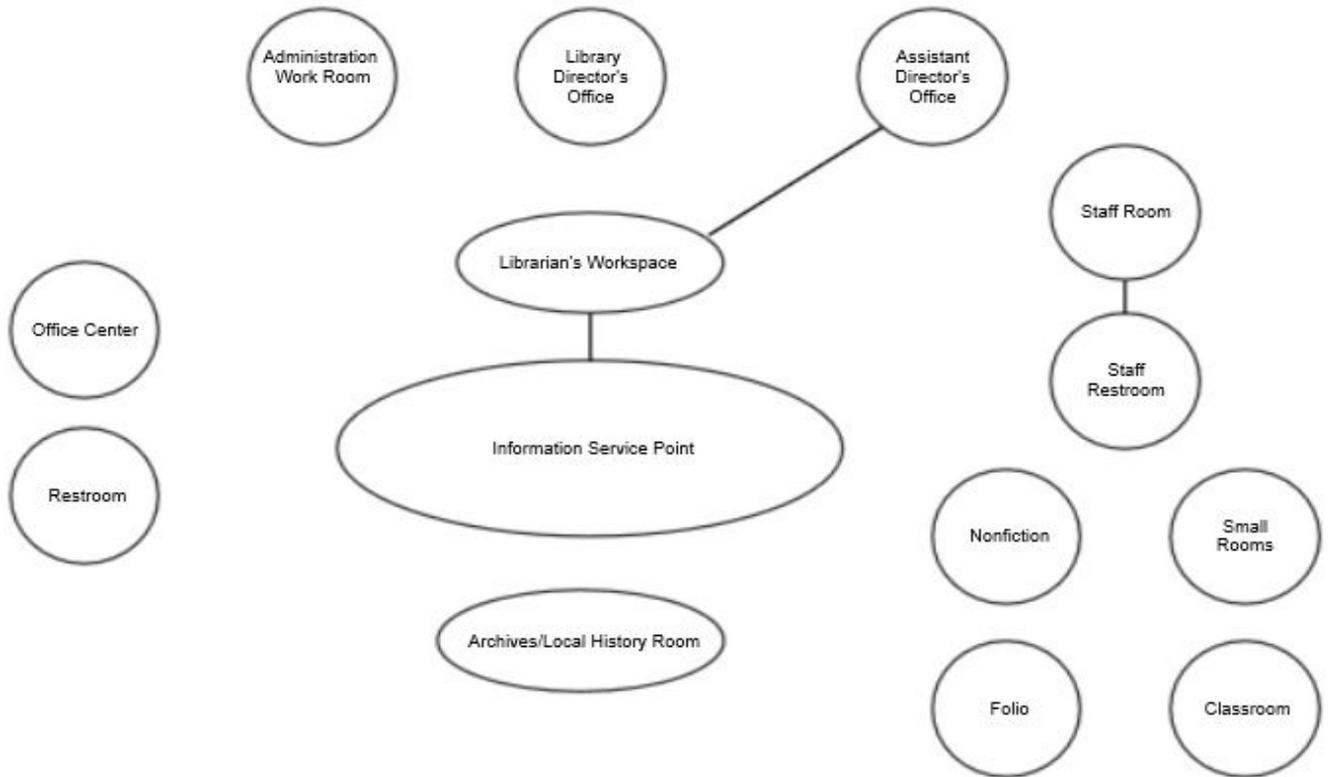
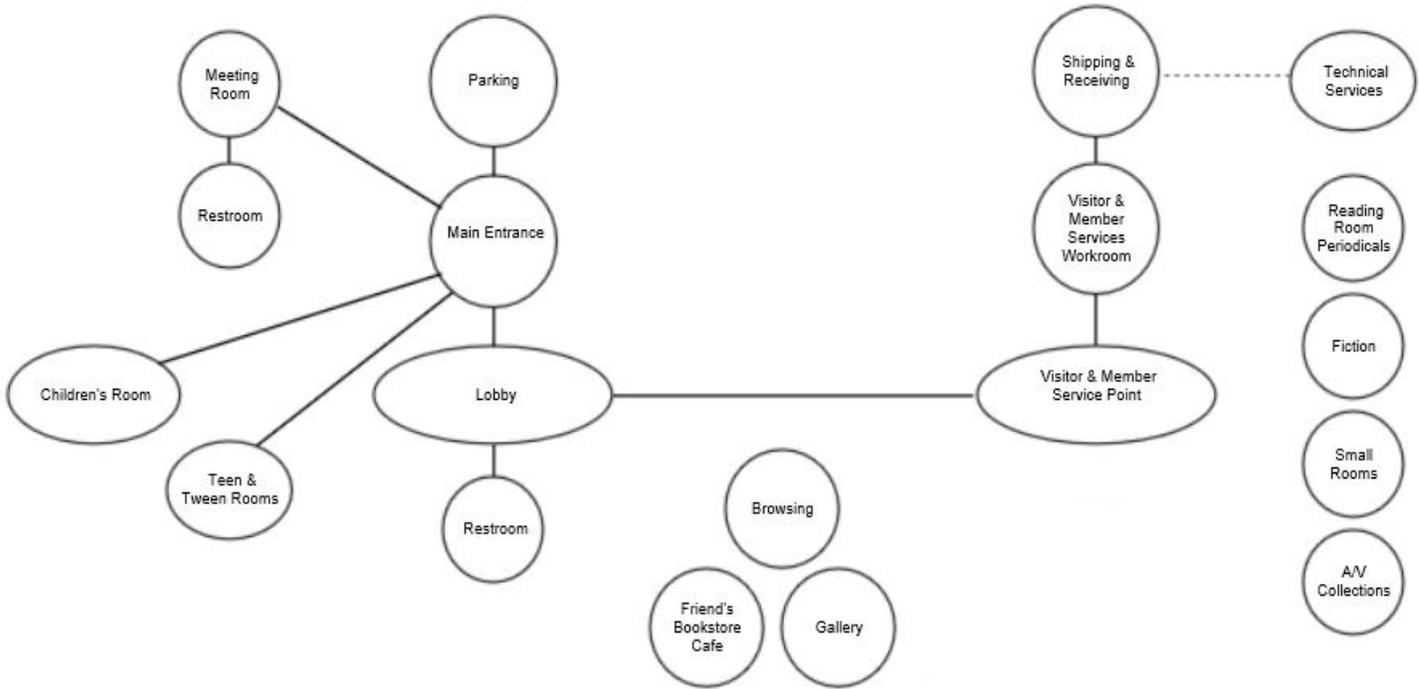
- Wi-Fi (Although offered currently, the community may not be aware of this service.)
- Technology needs for research and development
- Gaming
- High-speed internet
- Multiple banks of computers
- Access to the Cloud
- Integrated technology
- Facilities for e-learning
- Meet current technological needs

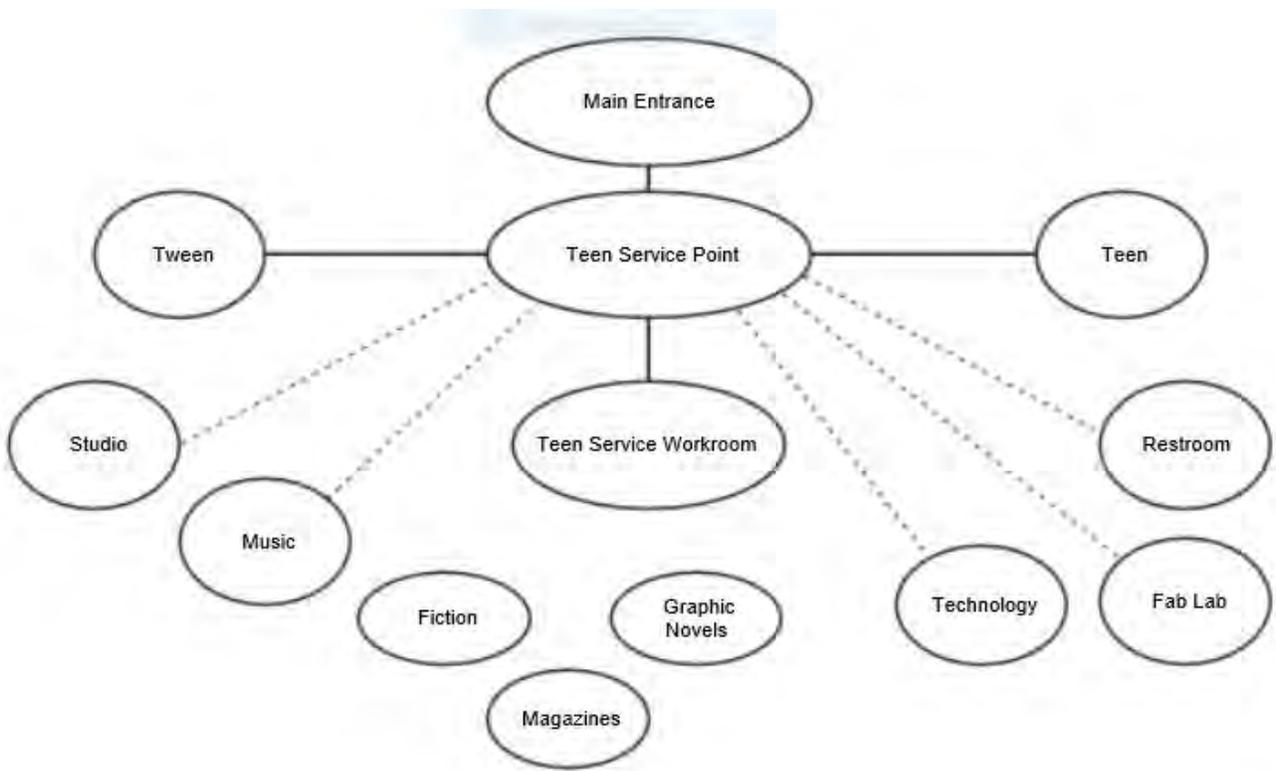
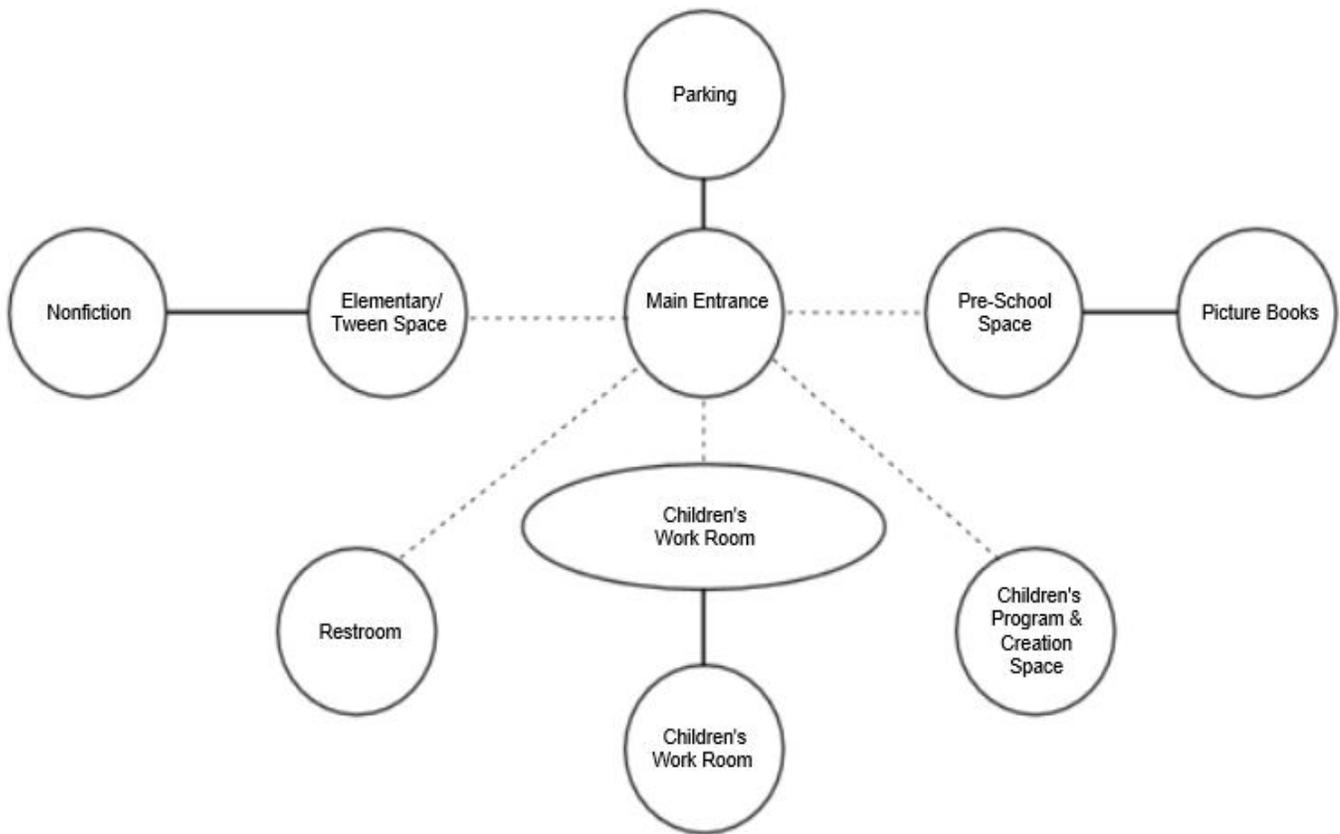
Adequate Climate Controls

- Air conditioning
- Less oppressive air
- Updated green systems
- Modified windows on southwest side to reduce solar impact
- Environmentally friendly
- Improved air quality

Space Descriptions & Adjacencies

Adjacencies





Space Needs Summary

Spaces	Net Square Feet	Seats	Collections
S.1: Administrative Staff Workroom	440		
S.2: Adult Collections – Fiction & Large Print	3,278	40	30,000
S.3: Adult & Teen Collections - Nonfiction	3,385	42	32,000
S.4: Archives/Local History Room	2,995	6	TBD
S.5: Assistant Director's Office	185		
S.6: Browsing	980	6	12,000
S.7: Children's Service Point & Children's Room	4,537	50	24,000
S.8: Conference/Class/Board of Directors Room	780	15-25	
S.9: Creation Spaces	652	19	
S.10: Custodial Closets & Custodian's Room			
S.11: Director's Office	200		
S.12: Entrance/Lobby		4	
S.13: Family Restroom			
S.14: Friends Shop & Café	0-724	0-12	
S.15: Gallery	225	2	
S.16: Information & Research Service Point	451	12	
S.17: Large Meeting Room	1,542	100	
S.18: Librarians' Office	301		
S.19: Office Center	128		
S.20: Parking			
S.21: Public Restrooms			
S.22: Reading Room	720	18	110
S.23: Small Meeting Rooms	900	36	
S.24: Staff Restroom			
S.25: Staff Room	300		
S.26: Technical Services Workroom	210		
S.27: Teen & Tween Restroom			

Spaces	Net Square Feet	Seats	Collections
S.28: Teen & Tween Room	1,621	32	10,000
S.29: Teen & Tween Service Point	96		
S.30: Visitor & Member Service Point	515	4	
S.31: Visitor & Member Services Staff Workroom	420		
S.32: Youth Program/Creation Room	650	50	
S.33: Youth Services Staff Workroom	420		
Sub-Totals	25,931 – 26,655	446 - 458	108,000
Non-assignable Space 30%	7,780 – 7,997		
Totals	33,711 – 34,652	446 - 458	108,000

Site & exterior considerations

The City's goals related to the site for a library building from *The Community Development Plan for the City of Gloucester, The Cecil Group, Inc., 2001*

Community Focal Points – addresses protection and enhancements of special districts of Gloucester.

- Downtown– recognizes the importance of the downtown to the civic and economic life of the city and provides recommendations to bring renewed resources to its stewards, the Downtown Development Commission and City departments. Downtown is densely developed and populated with only about 5 percent of the city's land area, it is home to nearly 22 percent of the population and supports almost half of the largest employers. The district should be animated by activity, as the venue for delightful public events and art displays. The adjacent civic center is a pleasant place for the Library, museums, YMCA, City Hall and other resources.
 - Implement improvements, including public restrooms, sidewalks and streetscapes.
 - Maintain diversity of downtown services that attract residents and visitors.
 - Expand opportunities for both market and affordable housing.
 - Develop design guidelines to support a consistent quality of development and protect historic character.
 - Implement a comprehensive traffic and parking management strategy.
 - Improve signage to destinations, attractions, and parking areas.

Public Infrastructure – asserts that public infrastructure should be managed to meet planning goals. The health of the city is determined in large part by the infrastructure that supports it.

- Public Facilities – places high value on quality services to maintain quality-of-life and value to the entire community. It recommends linking decisions on public facilities and services to the larger context of the City's goals through the Capital Improvement Program.
 - Provide quality facilities and services that meet the fundamental quality of life, and make investments in facilities to promote long-term value.
 - Provide for routine maintenance of existing public facilities and infrastructure to protect their long-term value
 - Develop design guidelines to guide design, use and settings of civic buildings, ensuring that public buildings are located to meet the public's needs and fit the historic and cultural context.
 - Provide for a centralized public safety building, an updated public library, and public restrooms in the downtown and waterfront sections of the city.
 - The Sawyer Free Library is inadequate for today's usage. It is not air-conditioned, discouraging use in summer and threatening its valuable collection.
 - The Library serves many civic purposes and has one of the few public meeting rooms in the city.
 - All new, renovated and repaired public buildings should be designed to meet American with Disabilities Act (ADA) standards.
 - Update and maintain educational facilities, including state-of-the-art provisions for technical education.

Library Building Program, Thomas Jewell, July 1999

Two options were suggested:

One – the library can attempt to renovate and expand upon the existing site.

Two – the library can locate to a new site with ample room for parking and construct a new building that will efficiently meet all of the square foot requirements.

Library Building Program, Thomas Jewell, Revised September 2004

Board of Directors rejected option two as impractical, too expensive, and politically impossible. “Starting in 2001 the Board of Directors secured private funds to purchase three adjacent parcels of land to provide sufficient room for expansion and parking....” Since 2005, the Board of Directors has made significant capital investments in the current site. There is a lighted parking lot with thirty-five dedicated spaces and a drive up book drop, a beautifully landscaped park and garden, and an outdoor amphitheater.

It is difficult for the community to consider other sites for their public library based on emotional attachment and political realities. Considerable investment has been made in the current site, especially parking and landscaping. However, the ideal space allocation for a library building cannot be achieved at the current site: structure 10%, parking, etc. 30%, and landscaping, setbacks, amenities, etc. 60%. It may be more cost effective, meet a greater number of needs, and allow a more flexible facility if a new library were built. There are a few publicly owned parcels of land that should be considered: the Fuller School property off of Blackburn Circle where the YMCA wants to relocate and I4C2 property near the waterfront.

Important criteria that are or could be achieved at the current site:

- Visibility from street
- Access: pedestrian, auto, public transport
- Exterior seating and activity areas
- Parking - The recommended number of parking spaces is 1 space per 400 square feet of building area. The current site has 35 dedicated spaces and metered street parking
- Bike racks – The current site has 2 small racks. The public would like more.
- Garbage cans/dumpsters – The current site has adequate space for a small dumpster, but access is blocked sometimes with illegally parked cars.

Whether other important considerations are achievable at the current site is less clear:

- Soils & geotech
- Safety & security
- Maintenance
- Deliveries
- Outbuildings
- Room for future expansion

Requirements

Accessibility

The library should be in strict compliance with the latest state and federal ADA requirements and designed for universal access to all services and areas.

Particular attention should be given to:

- Primary and secondary entrances,
- Walks and ramps length,
- Automatic door openers,
- Elevator size,
- Elevator visibility,
- Layout of restrooms,
- Height of drinking fountains,
- Stack aisle widths,
- Stack heights,
- Ambient and task lighting, and
- Appropriate ratio of sitting to standing for OPACs, self-check stations, internet-enabled workstations, and service points.

Acoustics

The open space will be noisy, but the building design and building materials should aim to reduce sound travel throughout as much as possible.

- Walls should meet the ceilings
- Soundproofing should be considered for isolated high noise spaces: teen, ‘tween and children’s rooms, program, conference, and meeting rooms, creation spaces, and restrooms.
- Mezzanines and atriums should be avoided.
- Quiet areas separate from noisy, high-traffic areas.

Aesthetics

- Architecturally integrated with the historic buildings of the city.
- Reflect the aspirations, arts and culture, and maritime history of the city.
- Inspire future generations.
- Attractive with a comfortable atmosphere that invites use.

Data & Telecommunications & Electrical

The library’s technological infrastructure should be modern and robust with a well-designed raceway system.

- Coordination with the City’s IT department will be required to connect the library to the City’s network and telephone system.
- Copper telephone lines installed where needed, e.g. elevator.

- CAT6 cabling and electrical wiring throughout the building with outlets for data and electric in close proximity to each other, adequately distributed to maximize flexible use.
- Secure, ventilated room large enough for the NOBLE library network, City, and Library telecommunications equipment.
- Capacity for efficient wire management
- Wiring hidden but easily accessible by staff
- System for surge suppression to protect equipment.
- Install circuitry for generator
- Provide charging stations for users' mobile devices.
- Wireless access without building elements inhibiting use throughout.

Ergonomics

Workstations for staff should be height adjustable with adjustable keyboards and monitors and appropriate, comfortable, ergonomic, adjustable height task seating and help to minimize repetitive strain.

Materials handling area should have adequate space to stack and maneuver bins with lift assistance.

Functional areas

- Expandable for future growth
- General use program room available for use when the library is closed
- Private areas for tutoring and solo working or studying.
- Adequate storage in each area.

Furniture, fixtures & equipment

Factors for consideration are usefulness, flexibility, movability, comfort, age-appropriateness, and fire code compliance.

- Service points should be small, mobile, impermanent, kiosk style
- High density, light weight, stackable chairs and mobile, flip-top tables for larger meetings.
- Task chairs with wheels for computer workstations and conference rooms.
- Sturdy tables with two to four seats for individual or small group work with integrated task lighting, outlets and USB ports.
- Soft, durable single seats designed to move easily for adults and teens.
- Children's
 - Soft seating to accommodate a care provider and child together.
 - Child sized furnishings.
 - Consider adjustable height tables
 - Sturdy chairs with backs that will not catch children's feet.
- Shelving
 - Shelving not more than 5 high, 72 inches.
 - Stack runs no longer than 18 feet, 9 feet ideally.

- As many mobile shelves as possible to allow more flexibility in high use and possible programming areas, e.g. children's room.
- Consider tablets built into the end panels to connect users to electronic collections.
- Portable storage units

HVAC

- Efficient.
- Expandable to accommodate increased occupancy.
- Easily maintained and repaired.
- Convenient access to mechanical rooms and roof top units.

Lighting & Electrical

The entire library should have the most energy efficient, low maintenance, humanly comfortable lighting for the tasks being performed. Natural light wherever appropriate and possible.

- Stack lighting should be uniform for all shelves. Usually this is accomplished by a variety of methods: lighting fixtures that run perpendicular to stacks; stack canopy tops and end panels that don't block light; wide enough stack aisles; natural light.
- LED lighting using the same bulbs throughout
- Automatic sensors of the amount of natural lighting available and adjustment system based to regulate the amount of artificial light provided should be included.
- Low traffic areas should have motion/occupancy sensors that automatically turn off lights.
- Dimmers should be installed in all areas where there may be the need to vary the illumination, e.g. program, conference, and meeting rooms.
- Reading and work areas should have task lighting and electrical and data outlets available.
- Emergency lighting system and generator hookup should be part of the lighting plan.
- Scaffolding or other special equipment should not be required to change bulbs
- Sufficient power for HVAC systems

Security

The library needs to be designed for safe use by everyone in the community from preschoolers to elders.

Particular attention should be given to:

- Clear sight lines,
- Less dense, lower shelving near the entrance, and
- Glass enclosed, externally lockable rooms for separate activities: quiet or collaborative work.

Recommendations include:

- Keyless entry for exterior entrances and restrooms and a master lock plan for entire facility

- Surveillance cameras and motion detectors with monitoring capability.
- Panic alarms at public service areas and remote staff areas to summon public safety personnel.
- Paging system to summon support staff.
- Full compliance with the fire code with respect to fire alarms, smoke and heat detectors, fire suppression systems, fire doors, exit signs, emergency lighting etc.
- Service point on every floor.

Signage

- Clear floor plans with emergency exits designated.
- Use of color to provide connection and direction to specific spaces.
- Multilingual in the community's languages, e.g. English, Spanish, Italian, Portuguese

Site

- Conveniently located, with high visibility
- Access by public transportation, sidewalks, private vehicles – cars and bikes
- Adequate space for on-site parking

Sustainability

Create a “green” facility. Design for highest LEED certification.

- Minimize impervious surfaces.
- Install low-flow water devices
- Native species landscaping
- Use non-potable water for irrigation
- LED lighting throughout
- Solar sensitive light fixtures
- Maximize passive and natural sources of heat, cooling, ventilation, and light
- Enable the building and grounds to be used for non-library activities
- Building envelope and systems designed to maximize energy performance
- Use locally sourced materials
- Construct with materials, methods and systems that ensure healthy indoor air quality
- Consider a green roof or cool roof.

Windows

- Good views
- At eye level
- Operable for ventilation between seasons
- At least double, if not triple pane windows with appropriate window treatments.
- Windows that take advantage of solar gain in cold weather and control solar radiation in hot weather.





FINCH & ROSE HISTORIC GUIDELINES REPORT (2005)



HISTORIC DEVELOPMENT & PRESERVATION GUIDELINES

THE SAUNDERS HOUSE

THE SAWYER FREE LIBRARY

GLOUCESTER, MASSACHUSETTS



Finch&Rose

PRESERVATION & DESIGN CONSULTANTS

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JANUARY 31, 2005

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Street Atlas Plans 1851-1917	7 Sheets
Excerpts form 1884 Library Dedication Booklet	9 Sheets
Newspaper Articles from 1914 (3) and 1934 (1)	5 Sheets
Sawyer Free Library Image Inventory	5 Sheets
Excerpts from City Records Guide Re. Library	2 Sheets
Library Account Entries during 1914 Renovations from City Archives	6 Sheets

Historic Development and Preservation Guidelines Report
The Saunders House
The Sawyer Free Library
Gloucester, MA
January 24, 2005

Finch&Rose
January 31, 2005

Introduction

The primary purpose of this report is to identify and evaluate the existing historic architectural features of the Saunders House as an aid in planning proposed renovations and additions to the Sawyer Free Library complex. As a background to the inventory of existing historic features, the report also presents a developmental history of the architectural features of the Saunders House from its initial construction in 1764 up to the present.

Thomas Saunders was a successful merchant and a Representative to the Massachusetts General Court. Based on the surviving original features, Saunders built the house to reflect his success and status in the community and it was probably the grandest dwellings in Gloucester at that time. Of the surviving eighteenth century houses in Gloucester, only the Sargent House and the Babson House have architectural features that approach its grandeur.

In the 241 years since its original construction in 1764, the Saunders house has been through at least five major renovations as well as many minor changes. The alterations of 1802 and 1878 added elements in the latest style to maintain the image of the house as a grand residential dwelling while keeping the major original features intact. Alterations carried out in 1914 and 1934 were intended to enhance its functionality as a library, but still preserved its most significant early architectural features. The work in 1934 added the wall murals to the stairhall painted by John J. Stoddard, and in 1976 additional murals were painted in the community room by Howard A. Curtis. Both sets of murals have substantial cultural value to Gloucester.

Today the original grandeur and detailing of the house has become obscured by delayed maintenance on the exterior as well as the day to day clutter generated by administering a large urban library. The focus of current planning is to add needed additional space and upgrade additions of 1912 and 1976 to modern library standards. However, the anticipated project must also address both the functional problems and maintenance issues of the Saunders House. It is hoped that this report will enable the project planners and architects to better understand the cultural importance of the Saunders House to the city of Gloucester and continue the long tradition of preserving its significant architectural features.

The long sequence of alterations to the house has made the task of unraveling its architectural development challenging and complex. That the front facade still retains its original rusticated boarding that was intended to look like dressed stone, its pedimented window frames, and its elaborate denticulated cornices is remarkable. It is the only eighteenth century house in Gloucester with this combination of exterior features. The center stairhall retains its original detailing on both floors including paneled wainscot, spiral twist turned balusters, and the arched and pilastered compass head window at the upper landing. The southeast parlor retains most of its original finely crafted woodwork including bolection molded paneling on all four walls, modillioned cornice, and pilastered overmantel. This level of paneled interior finish on all four walls was used only in the grandest of houses. The only other surviving example in Gloucester is in the Babson House, and there are only a handful of other examples in all of Massachusetts.

Methodology

The developmental history was first researched to provide a framework for evaluating the existing fabric of the house. The initial steps in the developmental history were to search the archives of Historic New England (formerly SPNEA), the Cape Ann Historical Association, and the Sawyer Library for historic photographs, documents, street atlases, and plans that show the house. Relevant items were photographed or otherwise copied, and are included in the appendix of this report. The most important items were the following:

- Three exterior photographs on stereo view cards from the 1860s or 70s were located that show the house prior to the renovations of 1878.
- A surveyed site plan dated 1878 illustrating the footprint of the house prior to the 1878 renovations.
- A considerable number of exterior photographs from 1884 up to the 1950s that illustrated the progression of changes from 1878 to the present.
- Additional anecdotal documents regarding John Beach's alterations of 1802 were provided by Prudence Fish of the Library Historical Committee.
- Architectural plans for the 1914 renovations by Boston architects Coolidge and Carlson that were located on the third floor of the Library.
- Current floor plans prepared by the project Architects.

The next step was to examine the house on site in relation to the historic photographs, the 1914 renovation plans, and other documents. Paint samples were taken from original woodwork in each of the principal interior spaces and selected early exterior features. Samples were also taken from exterior elements installed in the 1802 alterations that had been encapsulated on the third floor by the 1914 rear addition. The samples were examined with a 10-125x binocular zoom microscope to establish basic paint sequences for each room with particular reference to distinctive colors and graining treatments that might be characteristic of each major period of alteration. Items that could be tentatively dated based on style and the 1914 drawings were then examined *in situ* for their paint history in relation to the basic sequence for the room. Other items in each room were checked *in situ* for their paint history, molding profiles, etc, and assigned an approximate date based on where they fit into the basic sequence. The same process was used to identify the original location of several items that had been moved between rooms or were stored in the attic as fragments. During this process all the rooms, exterior features, and typical historic details, were photographed.

The information from the *in situ* examination, historic photographs and documentary material was then synthesized and expressed graphically on existing condition floor plans. A set of 1/8" scale plans summarizes the locations of existing historic fabric and recommends the preservation level for each room. More detailed information on existing historic fabric using annotated photographs and room plans is presented on fourteen 11"x17" sheets covering each of the more significant interior spaces and the exterior facades. The findings are also summarized in the following text section "Summary of Findings".

The drawings of existing conditions used in this report have been adopted from schematic drawings prepared by the architects for the current renovation project and are intended only to locate the primary spaces and features. Some details on the 11x17 sheets have been revised to more accurately show existing window and door layouts, but the drawings should still not be considered fully accurate as to existing details and dimensions.

This project also included review of preliminary schematic design plans prepared by the project architects for potential conflicts with historic preservation concerns. First and second floor plans were annotated to identify areas of conflict.

Copies of relevant historic documents used in this study such as the 1914 renovations plans, various historic photographs, and probate inventories of Saunders and beach are included in the report Appendix.

The research and report writing was carried out by William B. Finch of Finch&Rose during the fall and winter of 2004. All current photographs are by William Finch. Unless otherwise credited, all historic photographs and plans are reproduced courtesy of the Cape Ann Historical Association (abbreviated as CAHA in captions). Valuable research assistance in locating historic photographs and plans was provided by Stephanie Buck, Librarian of the Cape Ann Historical Association. Important documentary research assistance was also provided by Prudence Fish, Peggy Flavin, and Mary R. McCarl of the Saunders House Preservation Committee of the Sawyer Free Library, and Sara Dunlap of the City of Gloucester Archives.

Summary of Findings

Significance – The Saunders House originated in the eighteenth century as one of the grandest houses of its period in Gloucester and Boston’s North Shore. Although it has seen many alterations over the years and has lost much of its detailing in secondary rooms, the house still retains its most architecturally important exterior and interior features from the eighteenth and early nineteenth centuries and has a high level of cultural and architectural significance to the City of Gloucester.

Timeline – Refer to “Developmental History” section for a more detailed timeline.

- 1764 Initial Construction by Thomas Saunders as a two story center hall house with high style Georgian detailing including rusticated front facade and 12/12 window sash.
- 1774 - 84 Thomas Saunders dies in 1774; probate not settled until 1784, and house is purchased by Capt John Beach.
- 1802 Beach adds the current third story with 6/6 sash and an octagonal observatory 22’6” in diameter above it. 12/12 sash in lower stories are replaced by 6/6 sash either in 1802 or with other changes during the 1820s.
- 1819 Capt. Beach dies.
- 1822-30 House is sold to Thomas Penhallow, (Beach’s son-in-law); Penhallow sells house to Dr. William Ferson in 1827. The observatory is probably removed and replaced with the current hipped roof during this period.
- 1849 Dr. William Ferson sells house to Madame Phoebe Davidson; thence by descent of her son, Dr. Herman Davidson. Exterior changes are limited to bay window above front entry.
- 1878 William A. Pew purchases house and makes major alterations to the exterior in Italianate Victorian style (4 story entrance tower, bay windows, porch, 1/1 window sash).
- 1884 Samuel Sawyer purchases house from Pew and donates it to the Library. The exterior remains as Pew remodeled it.
- C.1900 Roof balustrades removed.
- 1912/13 Brick stack wing added to west rear corner.
- 1914 Interior alterations remove west side chimney stack to combine west side rooms into single spaces, and rear addition is enlarged to three floors and provides rear entry and stairs.
- 1934 Exterior remodeling removes 1878 entry tower, porches, and bay windows.
- 1976 Construction of large new wing with minor interior alterations to Saunders House to convert it to strictly administrative functions.

Preservation Priority 1 – Fully intact eighteenth century spaces include the grand center stair hall with its spiral carved balusters and compass head window flanked by pilasters at the second floor landing, and the fully paneled Southeast parlor (known as the Davidson Room) with modillioned cornice. The exterior retains its eighteenth century rusticated front facade with pedimented windows and modillioned cornice. These spaces and features place the Saunders House among the handful of eighteenth century houses that remain in Essex and Middlesex counties with this level of craftsmanship and detailing, and warrant full preservation and careful conservation treatment.

Preservation Priority 2 – Other important largely intact original eighteenth century spaces include the southeast chamber with its chimney wall woodwork, corner posts, cornice, and plaster (its mantel is mid-nineteenth century and moldings applied to the plaster are early twentieth century), the southwest parlor (currently the Assistant Director's office) with the paneled wainscot, cornice, and window paneling on three walls (its north wall is modern). On the exterior substantial areas of original clapboards and many original window frames remain on the east and west facades. These spaces and exterior features should be preserved in their current form.

Preservation Priority 3 – Eighteenth century casings still remain on the cornerposts and ceiling plates of the northeast first floor room (currently Director's office), the former southwest chamber (now part of the second floor Anderson Room), and the northeast chamber (currently staff lounge), which also has an eighteenth century paneled chimney breast. The entire Anderson Room has significant wall murals. Although these spaces have undergone substantial changes and can be readily adopted for new functions, the early woodwork and murals within them still warrants preservation.

Preservation Priority 4 – The rear stair hall and the westerly first floor work room date to 1914 and later. There are no significant historic preservation concerns constraining the usage and modification of these spaces. The one story addition forming the westerly extension of the work room has been so extensively extended and reconfigured from its appearance in the mid-nineteenth century that it does not have any significance to the house, and could be removed entirely if required by the building program.

Murals – The 1934 murals in the center hall and the 1976 murals in the community room are culturally important to the City of Gloucester and warrant preservation along with needed conservation treatment.

The second floor westerly Anderson Room dates to 1914 and later except for its southern end (the former southwest chamber). However, its 1976 wall murals are culturally and aesthetically significant, and with the bookcases below them define a unified space that warrants preservation. Any redivision of this space should be constrained by the design and layout of the murals.

Third Floor and Attic – The third floor is largely intact from its 1802 construction in both plan and materials including its very delicate Federal style staircase, and retains exposed paint, wood graining, and wallpaper finishes from 1878 that are in clean and largely intact condition. The attic floor retains the outline of the 22'6" diameter eight sided observatory that crowned the building in the early nineteenth century, and the unique canvas roofing that was installed around the observatory as a deck in 1802.

The third floor and attic are a rare time capsule from the nineteenth century that has survived because the limited access to the space has prevented renovation for modern usage throughout the twentieth century. Although relatively esoteric and without the dramatic appeal of the parlor and center hall, these spaces should be preserved largely as is and utilized only for very low impact uses that will not effect the existing finishes.

Basement – The basement retains the original 1764 brick bases and arches for both chimney stacks (the westerly stack was removed from the first floor up in 1914). The very substantial original framing and subflooring for the first floor are exposed as the basement ceiling. Both the chimney bases and the ceiling framing should be fully retained and preserved, the usage of the basement is otherwise not constrained by historic preservation concerns.

Framing – The house appears to retain most of its original framing. Based on the limited areas where the floor framing was visible (most of the basement ceiling and the northeast corner to the third floor where some flooring was removed), the original 1764 framing is unusually heavy for eighteenth century residential construction (6x6 floor joists in the basement, and 3x8 joists forming the second floor ceiling). The only obvious substantial deterioration observed in visible early framing was the badly twisted beam under the west wall of the central staircase. Some alterations of unknown extent to the original framing were carried out with the 1914 renovations that created the current first floor work room and the second floor Anderson Room. A visible sag in the northerly beam in the Anderson Room suggests that the framing where walls were removed in 1914 should be reviewed for capacity and soundness.

Plaster – The house appears to retain much of its original 1764 ceiling and wall plaster in the southeast parlor, southeast chamber, and the stairhall, and 1802 plaster throughout the third floor. Considerable areas of plaster were likely replaced in the westerly first and second floor rooms in conjunction with the 1914 alterations (the 1914 drawings call for the replacement of the entire ceiling on the west side). In the secondary rooms, the 1976 alterations installed acoustic tiles directly over a number of plaster ceilings, and wallboard over some wall plaster. The 1802 plaster was observed to be installed over accordion wood lath (boards that are partially split with an axe and then pulled apart). The type of wood lath used with the original 1764 plaster was not observed, but is more likely to be individual riven lath rather than accordion lath. The 1914 plaster is on sawn lath of uniform dimension.

Flooring – The flooring on both the first and second floors is entirely covered by modern wall-to-wall carpeting and was therefore not examined. As the removal of wide pine flooring to patch the floor in the stair hall is documented in 1934, some of the original flooring probably survives in the hall and perhaps the other fully intact rooms. The extent of alterations in 1914 to the westerly rooms implies these spaces received new floors at that time. Shallow ramps at the doors into the Anderson Room and notes on the 1914 about sound deadening suggest this room may have had a raised floor constructed over the original. The third floor retains its original painted wide pine flooring intact and fully exposed.

1976 Alterations – A number of interior doors and some interior plaster finishes date to 1976 when the current main library wing was added to the complex. In most cases the existing cased openings have been expeditiously blocked down to fit the new stock doors. New plaster finishes usually consist of wallboard applied over existing plaster surfaces. Transitions to existing exposed finishes are made with stock moldings or standard modern clips. In the first and second floor west rooms, acoustic tile ceilings have been added over the historic plaster, and fluorescent lighting installed. While the 1976 alterations have not affected the historic plan or damaged the primary historic features, they are of mediocre quality and tend to degrade the overall character of the building. Hopefully, the renovations currently being planned will be carried out with greater respect to the historic fabric of the Saunders House.

Window Sash – The existing 1/1 window sash date to the 1878 alterations, at which time they replaced the 6/6 sash visible in the pre-1878 photographs. As a number of the 1/1 sash are in deteriorated condition, and energy efficiency is usually a concern, replacement of the existing sash should be considered during the final design phase of the proposed project. One issue will be selecting the configuration of the window panes and muntins (sash bars). The logical choices are:

- Replicate the existing 1/1 sash on the basis that these Victorian sash have become significant as part of the changes to the building over time.
- Replicate the early nineteenth century 6/6 sash on the basis that they were likely installed by the time the current hip roof was constructed in the 1820s or 30s, if not with the 1802 alterations. Five 6/6 sash dating to 1802 remain in the west and rear sides of the third floor. These could serve as models for new 6/6 sash.
- Use 12/12 sash on the first and second floors to restore the appearance of the house to its Georgian appearance based on the c. 1764 compass head sash that is present in the arch over the stair to the third floor. Third floor windows would be 6/6 based on the surviving 1802 sash.

As all of the features added in 1878 except the base of the entry tower and the sash were removed in 1934, the significance of the 1/1 sash has been greatly diminished. The original 12/12 sash were either removed in 1802 when the appearance of the house was substantially altered by the addition of the third floor in 1802, or some years later when the hip roof was added. Restoring the 12/12 sash would seem inconsistent with the current exterior appearance of the house, which essentially dates to the early nineteenth century Alterations. Replicating the 6/6 sash therefore seems to be configuration most consistent with the current appearance of the house. The windows in the two front parlors were lengthened by about 10" when the 1878 sash were installed. It would be appropriate to restore these openings to their original size if either 6/6 or 12/12 sash are restored. The 1934 drawing from the White Pine Series included in the Appendix illustrates restoration of the southeast parlor with 6/6 sash.

Whether to use double glazing of the individual panes, or applied muntin grids, or storm windows are also issues that will need careful consideration. Single glazed wood windows with historically accurate muntins together with storm windows are the most appropriate solution from an historical perspective.

Physical Condition Issues – Although evaluation of conditions was beyond the scope of this project, extensive physical deterioration that threatens historic fabric was apparent on much of the building's exterior. Severely peeling paint obscures the detailing of the rusticated boarding and is leading to extensive weathering of wood surfaces. The damage is particularly bad at the third floor level where the window sills were becoming deeply checked, and the glass is literally ready to fall out of the window sash, and asphalt shingle roofing is cracking from wear.

Obvious interior problems include the splitting and twisting of the cellar beam that carries the 1934 wall murals along the staircase, and visible sag in the 1914 second floor ceiling beam spanning the location of the original rear wall of the house in the westerly community room. Repair of the cellar beam must be done with special care to avoid damage to the murals painted on the plaster, which is applied directly to the vertical plank wall supported on the rotating beam.

The design phase of the renovation project should include a detailed survey of existing physical conditions of the house with recommendations for the appropriate repair, conservation, and preservation of significant historic fabric on both the exterior and interior.

Exterior Appearance – The current appearance of the front facade of the house is somewhat severe due to a combination of peeling paint and the loss of several significant character defining features over the last century. The 1/1 windows sash made aesthetic sense in the context of the 1878 porches, entry tower, and multi-toned paint scheme. Following the removal of the other Victorian features in 1934, the 1/1 windows simply read as voids in the facade that contribute to its severity and lack of scale. The pattern of the window muntins in 12/12 or 6/6 sash gives considerable visual scale and texture to the facades of Georgian and Federal period buildings that the 1/1 sash lack.

Other significant changes from the pre-1878 nineteenth century appearance of the house include the removal of the roof balustrades around 1900 and the exterior shutters by the 1930s. These were understandably removed to reduce maintenance problems. The pre-1878 photographs make it clear that both the shutters and balustrades add considerable character and visual scale to the facade. While the restoration of the shutters and the balustrades is clearly a luxury in relation to the primary mission of the library, their presence would add considerably to the visual impact of the building as a significant community and historic landmark. In the case of the balustrades, using fiberglass rather than wood to fabricate them may be a viable option to reduce future maintenance needs.

Funding Sources for Historic Preservation – The primary public funding source for historic preservation projects in Massachusetts is the Massachusetts Historic Preservation Projects Fund (MPPF) administered by the Massachusetts Historical Commission. The restoration of the balustrades and shutters would make a good project for MPPF funding. The rationale would be that without MPPF support these are important

features that the Library would be unable to restore within the larger library renovation project, and the work can also be clearly defined as a separate project from the overall renovation. The next round of applications for MPPF funding are due in June.

The Institute of Museum and Library Services (IMLS) provides funds on a Federal level for the conservation of significant architectural and artistic features of museum and library buildings. They do not fund routine maintenance or the restoration of missing features, but a project to conserve the 1934 wall murals would be a good fit to their funding criteria. Applications for architectural conservation are due in October, but the deadline for the conservation of artworks may be different and should be researched on their website.

On a more local level, The Essex Heritage Commission provides funds for institutions throughout Essex County for relatively small preservation projects including preservation planning. The execution of a detailed physical conditions survey of the house would fit within their funding parameters. Applications for their next round of funding are due in April.

The National Trust For Historic Preservation has several grant programs including one that focuses on historic interiors. Although the awards are relatively small, this could be an ideal funding source for a project to restore the grain painted finishes in the Davidson Room.

Areas for Further Study – Aspects of the Saunders House that warrant further study include the following:

- Physical Conditions – Detailed physical condition survey of both interior and exterior historic architectural materials and finishes with treatment recommendations.
- Wall Murals – Condition evaluation and conservation treatment plan for the wall murals. A detailed condition evaluation and treatment plan prepared by a qualified conservator must be included in funding applications to IMLS.
- Paint and Historic Decorative Treatments – More in depth study of historic paint treatments, particularly in the Davidson Room if it is decided to interpret this space as a period room with a low intensity usage such as Trustees Meetings. The initial treatment of the Davidson Room appears to have been a multi-tone treatment with decorative grain painting in keeping with its extravagant formality, and exposure of a section of its grain painting could be used for interpretive purposes even if the overall treatment is not restored.
- Structural Concerns – Engineering to developing a repair methodology for the twisted beam under the main stair west wall that will not damage the wall murals above the beam; associated restoration of the stair railing and paneling to plumb condition. Review of sagging beam at north end of Anderson Room. Review of the framing of the third floor wall plates over the second floor ceiling would also be prudent.

Developmental History

DATE EVENT AND DOCUMENTATION

1764 Original construction by Thomas Saunders as a 2 story house with a center hall double pile plan having 12/12 light sash. By tradition the roof was gambrel, but physical evidence suggests a hipped roof similar to the Collins House, formerly on Main Street.

The date is based on July 10, 1764 entry in the Journal of Parson Chandler, minister of the adjacent First Church (from 1884 Library Dedication Booklet, not verified, but diary believed to be in the Peabody-Essex Museum Library)

COMMENTARY

Existing exterior fabric from this period includes 1st and 2nd floor rusticated siding on front, many clapboards on east and west sides, 2nd floor roof cornice, pedimented window heads, and some window frames.

Existing largely intact interior fabric includes the SE parlor and center hall on both floors. Much woodwork also remains in the SE chamber. Woodwork elements remain in the SW parlor, SW chamber, NW office and NW chamber.

Reused 18th century compass head window in second floor hall verifies that original sash were 12/12.

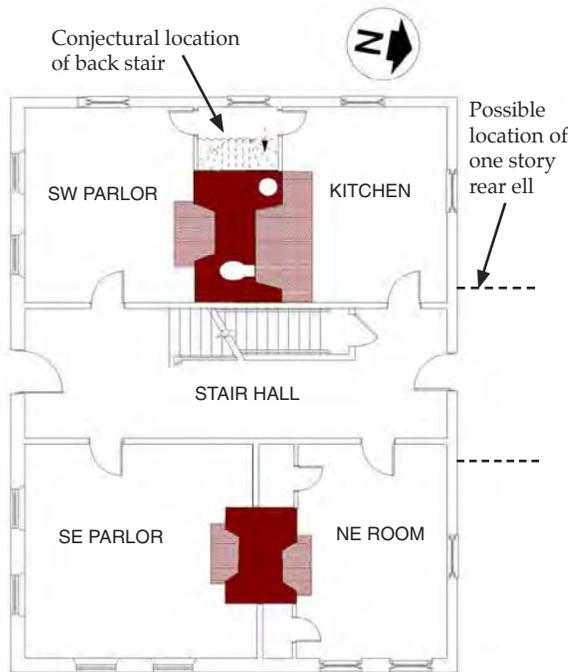


Figure 1: Reconstructed plan of first floor in 1774.

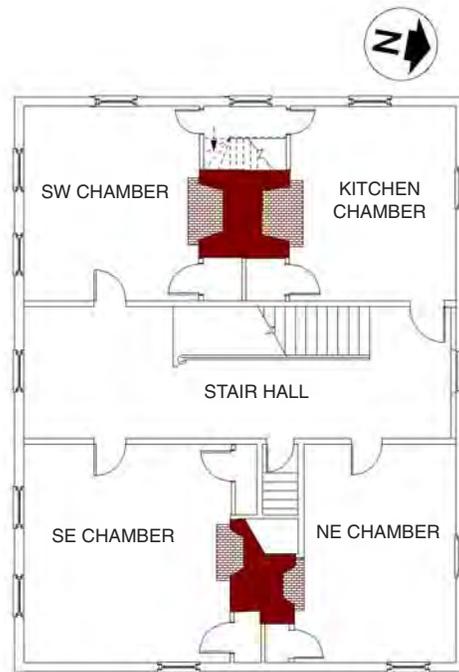


Figure 2: Reconstructed plan of second floor in 1774.

1774 Thomas Saunders dies at age 45.

1784 Probate of estate of Thomas Saunders is completed. House is sold by Saunder's heirs to Capt. John Beach. Date of sale is not known, but presumably is after the probate was finalized.

Beach is known to have a ropewalk on the rear portion of the property.

It is possible that some of the exterior detailing such as the window pediments and rusticated siding were added by Beach to make the original house more imposing. A rusticated board would have to be removed to verify if the boarding is original to 1774 or replaced clapboards later in the eighteenth century.

1802 Beach adds the current third story with an octagonal observatory 22'6" in diameter above it. The third storey roof around the observatory is a flat deck covered with tarred canvas over a bed of mortar, and was likely used as a balcony.

Documentation includes the following:

Account Book of builder Jacob Smith – Entry of April 28, 1802; "Surveyed for Capt. Beach three thousand seven hundred and seventy one feet of merchantable boards. Four hundred and seventy five feet of refuge."

Rev. William Bentley's Diary:

July 1, 1802 – "Beach is giving to his house uncommon elegance. He has added a third story in an octagon, which is surrounded by a dome which has an elegant effect. This eccentric man has great ambition and good taste. We found the little children, but not the worthy mother who had so often welcomed and delighted us."

October 3, 1803 – "After 10 I went with the district G M and the master of the lodge, (Tyrian Lodge of Masons) Capt. Beach, to his house where I was kindly received and where I lodged."

October 4, 1803 – "In the morning after breakfast at Capt. Beach's and a view of his elegant house which he is painting with his own hands, I went and received my charge at Mrs. Plummer's and returned to Salem.

The third story woodwork remains intact both inside and outside including a very delicate Federal Style stairway leading up to the Observatory level from the second floor hall. The tarred canvas roof and the outline of the observatory remain visible in the attic floor. Traces of Federal period wall stencils are visible on the plaster in the stair. Presumably Beach also added the roof balustrades that are visible in later 19th century photographs as their style is typical of the Federal period.

Beach used 6/6 sash in the third story based on 5 original 1802 sash that still remain in place. The original 12/12 window sash on the first and second floor were changed to more fashionable 6/6 sash by the mid-19th century, but whether this occurred when Beach added the third floor or was done by subsequent owners is not clear from the limited surviving evidence.

Babson says of Beach; "He bought the Sanders Estate on Middle Street and added two stories to the house in a fanciful style. He was principally distinguished for his wild pranks on convivial occasions."

1819 Capt. John Beach dies in Chillicothe, Ohio

The Octagonal observatory is removed and replaced with the current hipped roof sometime during this period prior to 1844 when a Fitz Hugh Lane lithograph shows the house with a hip roof. The roof balustrades are reinstalled on the new pitched roofs at the third story and main roof.

1822 William Beach (son) sells house to Thomas Penhallow (Beach's son-in-law).

1827 Thomas Penhallow sells house to Dr. William Ferson

Surviving interior elements from this period, if any, are limited to a few doors and trim that cannot be dated with certainty. Some of the grain painted finishes observed through paint analysis may be from this period or as late as 1878.

- 1849 Dr. William Ferson sells the house to Madame Phoebe Davidson; it passes by descent of her son, Dr. Herman Davidson.

The exterior appearance of the house is documented in two stereo view photographs from the 1870s, and a plot plan drawn in 1878.



Figure 3: Front of the house from an undated stereo view taken before 1878. Note the sunporch on the left side. (Courtesy CAHA)

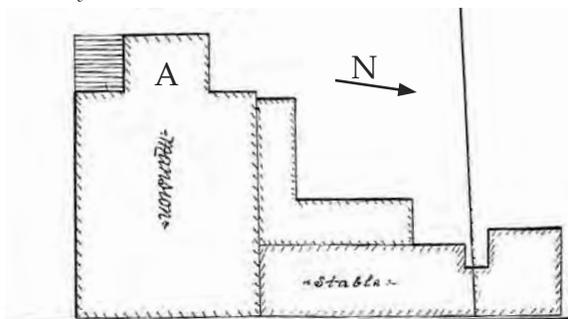


Figure 5: Footprint of the house drawn in 1878. The ell marked "A" on the plan was one story is visible in an 1870s photo of the adjacent church. Its date is not known. (Courtesy CAHA)

- 1878 Davidson sells the house to William A. Pew

The exterior appearance of the house as remodeled by Pew is documented in two photographs taken in 1884 shortly after it had been purchased for the Library.

The front entry is modified by adding heavy brackets supporting a new Italianate style bay window above it on the second floor. The form of the original front entry is not known. The 1876 photo and 1878 plot plan document a small stable and other 1 story ells attached to the rear of the house that likely date to the 19th century. The photo from the front shows a Federal style wood fence on a granite base. Both photos show the windows have been changed to 6/6 sash.

The fireplace mantel and coal grate in the SE chamber may be from this period.

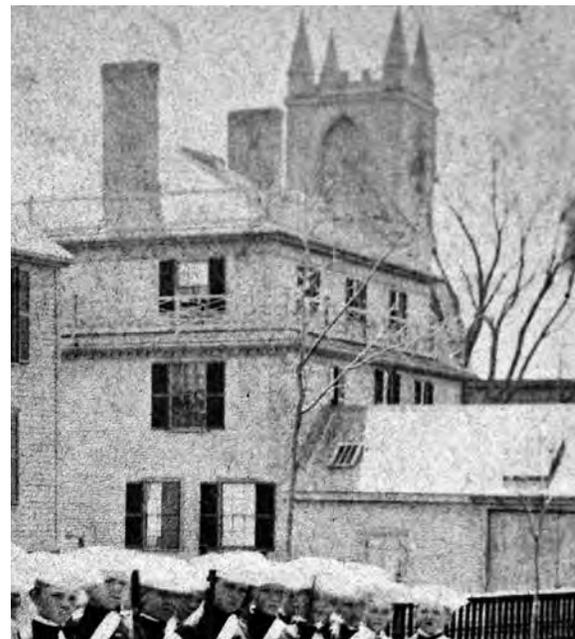


Figure 4: Rear and side of the house from an 1876 stereo view. The visible ell is a stable. The glass in the 2nd floor side window has the distinct visual characteristics of crown glass, which was not commonly used after about 1850. (Courtesy Historic New England)

Pew carries out extensive remodeling of the exterior of the house and grounds in Victorian taste. The major changes included a 4 story entry tower at the center of the front facade, a balustraded porch around the front and sides linked to new bay windows on the sides, a new 1 story addition in the rear yard linked to a porte cochere over the driveway, the first floor windows were lengthened and 1/1 sash installed in most windows, and the a dressed granite wall replaced the Federal style fence. The extent that he remodeled the interior is not evident except on the third floor where the wall-papers and paint he installed are still place.

1884 William A. Pew sells the house to Samuel Sawyer for \$20,000. Sawyer then donates the house for use as a Library and to display his collection of paintings to the Public.

The exterior appearance of the house during this period is documented in several photographs. Interior usage is described in the 1884 dedication booklet published by the library.

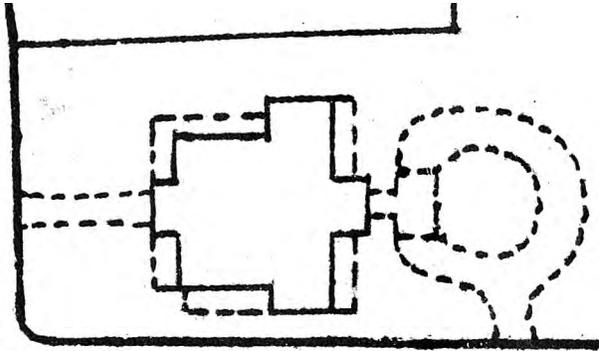


Figure 6: Footprint of the house from an 1899 street atlas showing that the Library did not initially remove the rear driveway and port cochere that Pew had constructed. (Courtesy CAHA)



Figure 7: The front facade of the house as remodeled by Pew in 1878 and converted to Library usage in 1884. The style of the addition is Italianate. Rusticated boarding is often used in high style Victorian Italianate architecture; Pew therefore kept the Georgian rusticated boarding and extended it to the new 4 storey tower. He changed all the primary windows to 1/1 sash, and made the first floor windows about 10" longer. (Courtesy CAHA)

The library did not make major changes to the exterior of the house and grounds during the initial years of library usage. Although not documented, interior changes were likely limited to removing the kitchen and other service elements from the first floor, and adding book cases.

The books were housed in the first floor rear rooms with a circulation desk at the rear of the center hall. One front room, probably the SE parlor, housed the catalogue and apparently served as a reading room. The other front room was "elegantly frescoed and furnished" to display paintings. More paintings were hung on both floors of the center hall. One room on the second floor, probably the SE chamber, was reserved for the Trustees. Two others were used by the Female Charitable Association, and the remaining room was used for art works. The third floor was not initially used, and still remains largely as last papered and painted by Pew in 1878.



Figure 8: The rear and Dale st. facades as remodeled by Pew in 1878 and converted to Library usage in 1884. He changed what had been a utilitarian rear yard into a formal entry with a carriage drive through a port cochere linked to a columned rear porch. (Courtesy CAHA)

C. 1906 The balustrades had been removed from the roof by 1906 as documented in a postcard photo postmarked that year.



Library functions were spreading into the second floor with a reference room established at the rear of the east side.

Figure 9: Undated photograph at left taken between c. 1900 and 1914 after the roof balustrades had been removed. The rear port cochere also appears to have been taken down. (Courtesy CAHA)

1912-3 A “fireproof” brick stack wing is added to the northwest corner of the house. The architect is not known. Cost was \$8,900.

1914-5 Major remodeling of the house interior and the construction of a deeper three story addition across the rear by Architects Coolidge & Carlson of Boston. Cost was \$11,000.

The changes are documented in two sets of blueprints, although some of the changes were not carried out as drawn, and a newspaper article. The exterior changes are evident from several c. 1920 photographs.

This remains as the two level stack area behind the house.

Exterior changes were limited to the replacement Pew’s 1878 1 story rear addition with a deeper 3 story addition across the entire rear, and some minor window changes. Pew’s 4 story entry tower, porches, and bay windows were retained.

Interior changes included removal of the westerly chimney stack and related partitions on the first floor and above to create single large open rooms on the west side of the house. The first floor west side became the “general delivery” room with circulation desk and the most frequently used books. The second floor west room became the children’s room with direct access from a new stair in the rear addition. The new stair was to rise to the third floor where partitions would be removed to create a large picture gallery. This was never done, and the third floor of the addition remains unfinished today.



Figure 10: Photograph at left from c. 1920 showing the Library after the alterations of 1914 had been completed. The only visible exterior change is third row of windows at the rear of the side facade marked by an arrow. The rear addition was designed to blend seamlessly with the existing historic building. (Courtesy CAHA)

1934 Major exterior remodeling to remove Pew's 1878 entry tower, porches, and bay windows and restore the "Colonial" appearance of the house. Noted restoration architect Joseph E. Chandler along with Henry J. Carlson of Coolidge & Carlson, and H.A. Bellows donated their services for the work. Labor was provided by the CWA and ERA programs. The only documentation is a July 25, 1934 Gloucester times article marking the 50th anniversary of use of the saunders House by the library.

Murals were painted on the center hall walls by Frederick L. Stoddard. The July 25, 1934 article provides extensive background information on Stoddard who was noted for a number of murals he had painted in civic buildings across the country.

Architect Frank C. Brown took photographs and did measured drawings documenting the SE Parlor and center hall that were then published in the "White Pine Series" of exemplary early American architecture.

Figure 11: Photograph at right from 1938 showing the result of the work completed in 1934. Today, the exterior is unchanged from this view except the rear side door has been replaced by a window, and the 1976 rear addition. (Courtesy Sawyer Free Library Archives)

1976 Major new addition was constructed off of the 1912 stack wing designed by Gloucester architect Donald F. Monell. The 1764 house underwent modest internal changes to utilize it primarily for administrative functions.

New wall murals were painted in the second floor west room by Howard A. Curtis, who also did restoration work to the 1934 murals in the hall.

2005 No major changes have occurred since 1976.

Interior work included replacing the Victorian mantel and hearth surround in the SE Parlor with Eighteenth century style elements. Although not documented, the work may also have included adding the current wood panel moldings over the plaster walls of the SE Chamber.

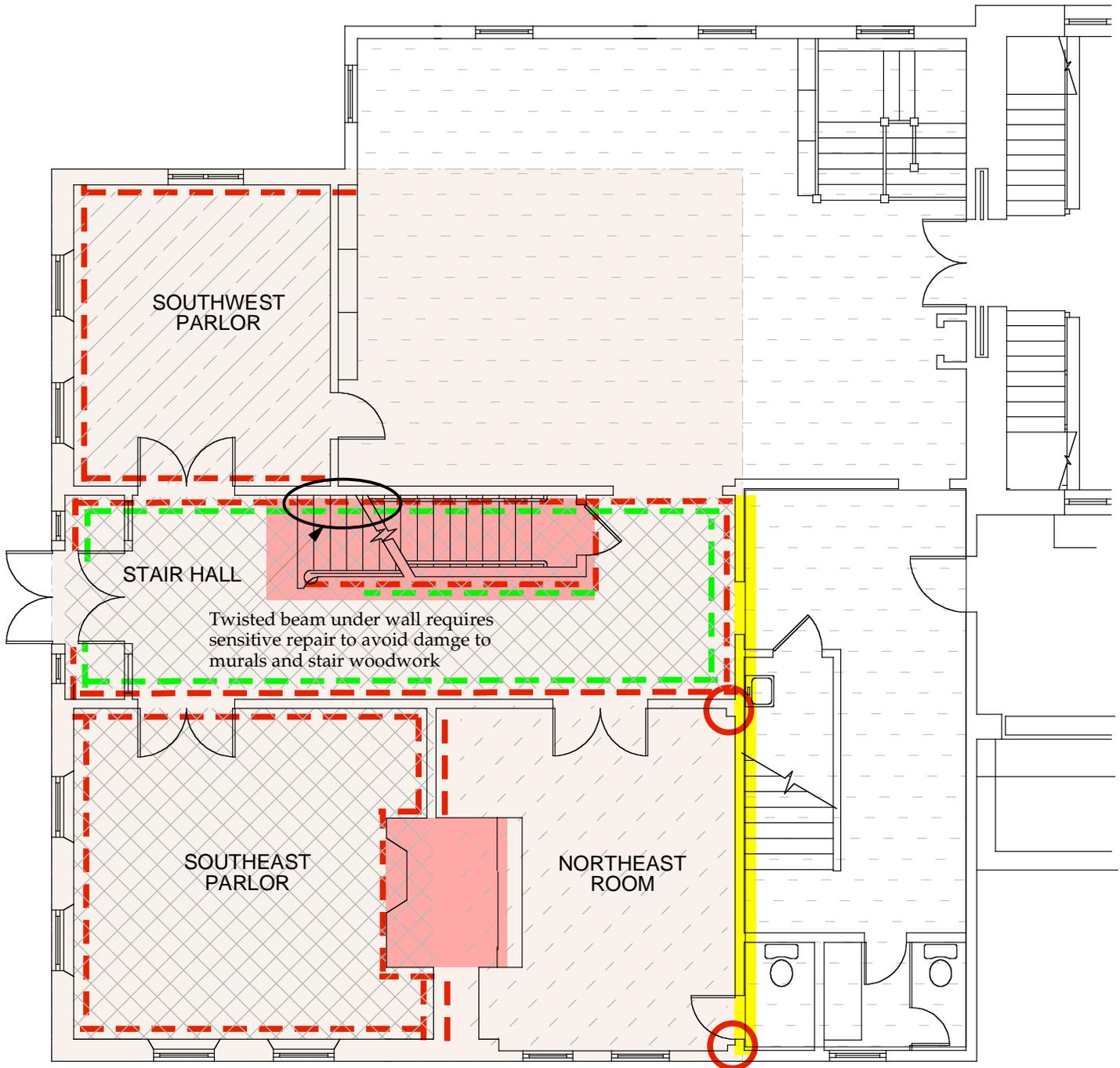
A 12/12 sash was installed at the south end of the second floor hall to fill the opening that previously led into the tower. Probably lack of funds for materials prevented the replacement of all the 1/1 sash with 18th century style 12/12 sash.

The base of the 1878 entry tower was retained to provide a covered entry porch with balusters from the Victorian porch being reused to form side railings. The exterior shutters that been present since at least the mid-19th century removed, probably for maintenance reasons. One window and one door shutter remain in storage in the third floor addition. They are hidden on top of the paneled overmantel stored on the ceiling joists.



Much of the work to the house consisted of applying sheetrock in an expeditious manner over existing old plaster walls, and adding partitions to create a front office room on the first floor, bathrooms, and an employee lunchroom on the second floor. Some doors were also replaced within existing openings. The former children's room was converted to a multi-function room for library and community meetings. The basement was utilized for periodical storage. Sprinklers were installed throughout the building.

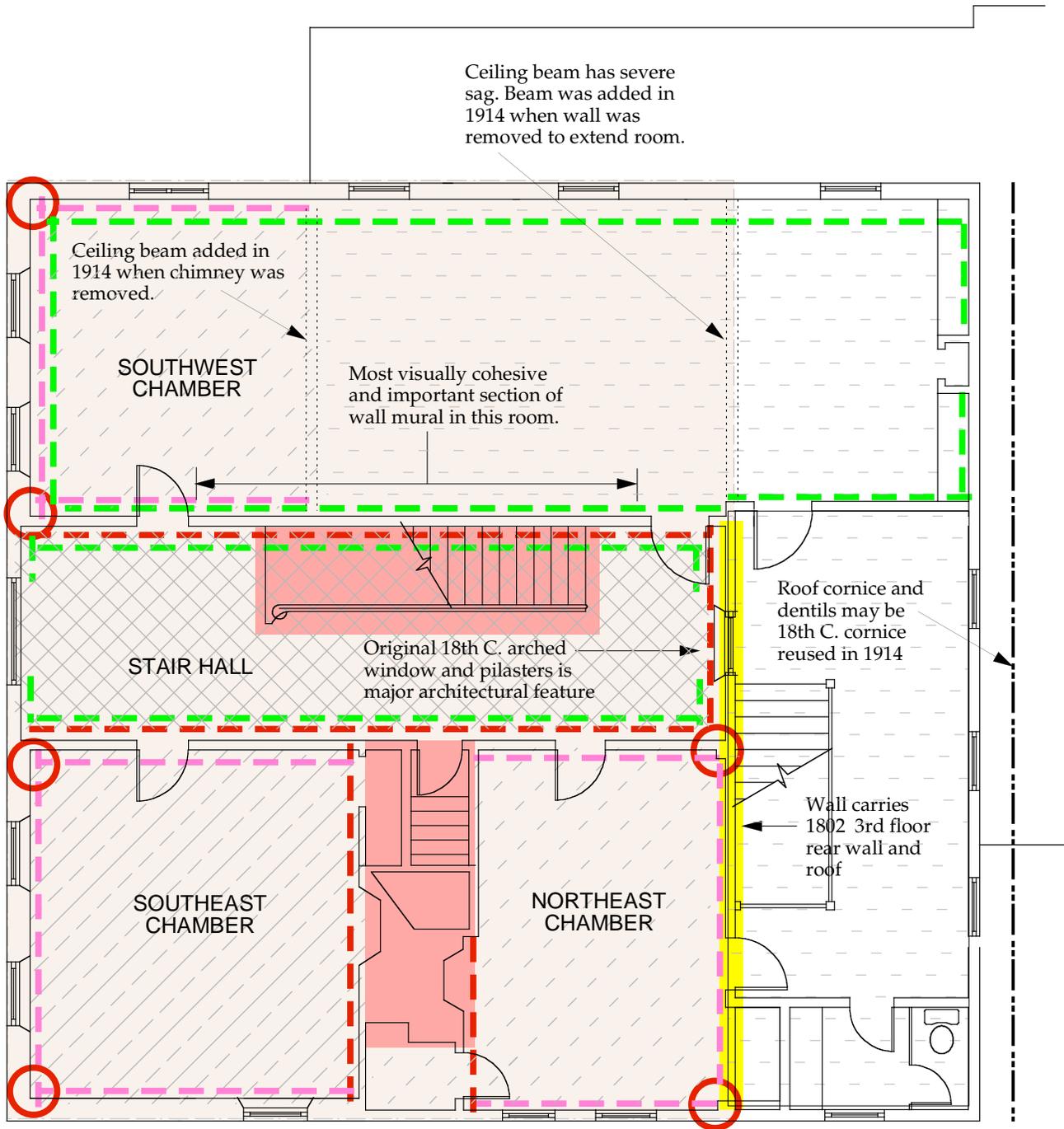
Planning initiated for a major expansion of the library with enlargement of the 1976 addition.



- - - Entire wall having significant 18th C. features
- - - 18th C. Cornice or cased beam over later wall
- Orig. 18th C. structural rear wall (some finishes are modern)
- - - Important painted murals on plaster
- Orig. corner post with 18th C. casing
- Indicates extent of original 1764 building
- Indicates significant early stair or chimney

- Zone 1 – Highest significance; preserve entire space and features with special care
- Zone 2 – Retain spatial configuration and preserve historic elements
- Zone 3 – Preserve early woodwork and wall murals
- Zone 4 – No preservation constraints

FIRST FLOOR PLAN
HISTORIC FEATURES & PRESERVATION ZONES
 Sanders House – Sawyer Free Library, Gloucester, MA
 Finch&Rose, Beverly, MA January 18, 2005



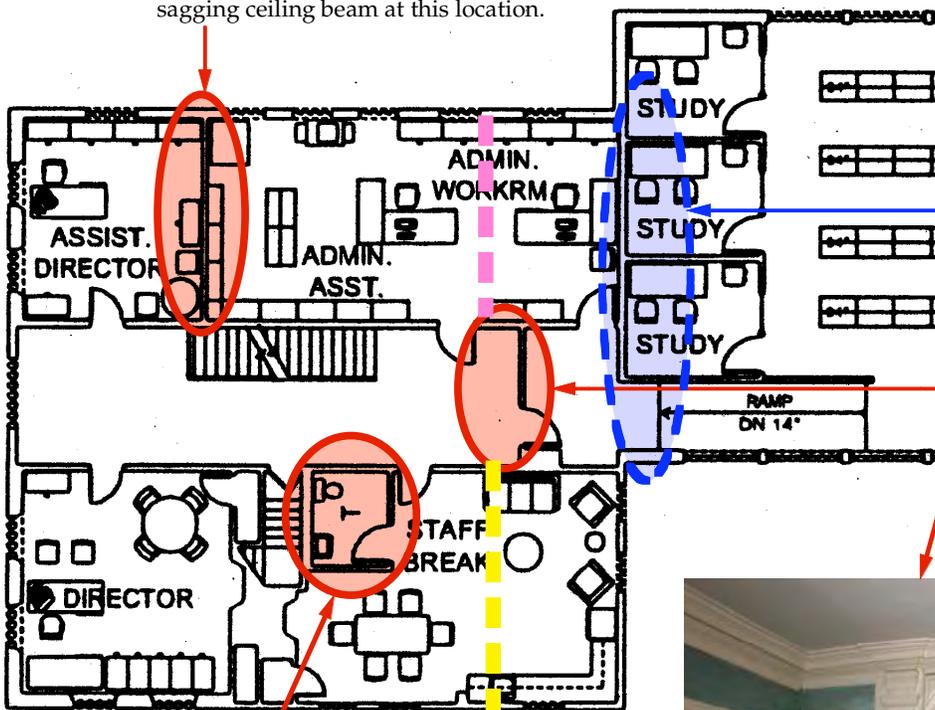
- - - - Entire wall having significant 18th C. features
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- - - - Important painted murals on plaster
- Orig. corner post with 18th C. casing
- Indicates extent of original 1764 building
- Indicates significant early stair or chimney

- Zone 1 – Highest significance; preserve entire space and features with special care
- Zone 2 – Retain spatial configuration and preserve historic elements
- Zone 3 – Preserve early woodwork and wall murals
- Zone 4 – No preservation constraints

SECOND FLOOR PLAN
HISTORIC FEATURES & PRESERVATION ZONES
 Sanders House – Sawyer Free Library, Gloucester, MA
 Finch&Rose, Beverly, MA
 January 18, 2005



The partition shown on the drawing to create a separate office in the front of the current large room intrudes on the most cohesive and impressive part of the wall mural in this space as shown by the red dashed line. Flipping the arrangement of the room to place the separate office at the rear would place the partition where there is already a break in the wall (purple line) and would also provide a means to support the severely sagging ceiling beam at this location.



Creating a full second floor on the 1912 stack wing and connecting it to the house will likely cover much of the existing 2nd floor roof and cornice at the rear of the Sanders House. This should be done in way that preserves the cornice and dentils intact within the addition to the greatest extent possible, particularly if further investigation reveals that the original 1764 dentils and cornice woodwork was reused when this section was added in 1914.

Creating the passage from the center hall to the new addition as drawn would require the removal of the original 18th C. arched window and pilasters shown below that is the major architectural feature of the hall. The circulation path should be through the staff room instead.

Placing the bathroom in the staff room corner may result in damages to historic finishes from running new plumbing and vent stacks on both the first floor and third floor. It would be better to keep all plumbing within the 1914 addition on the rear of the building.

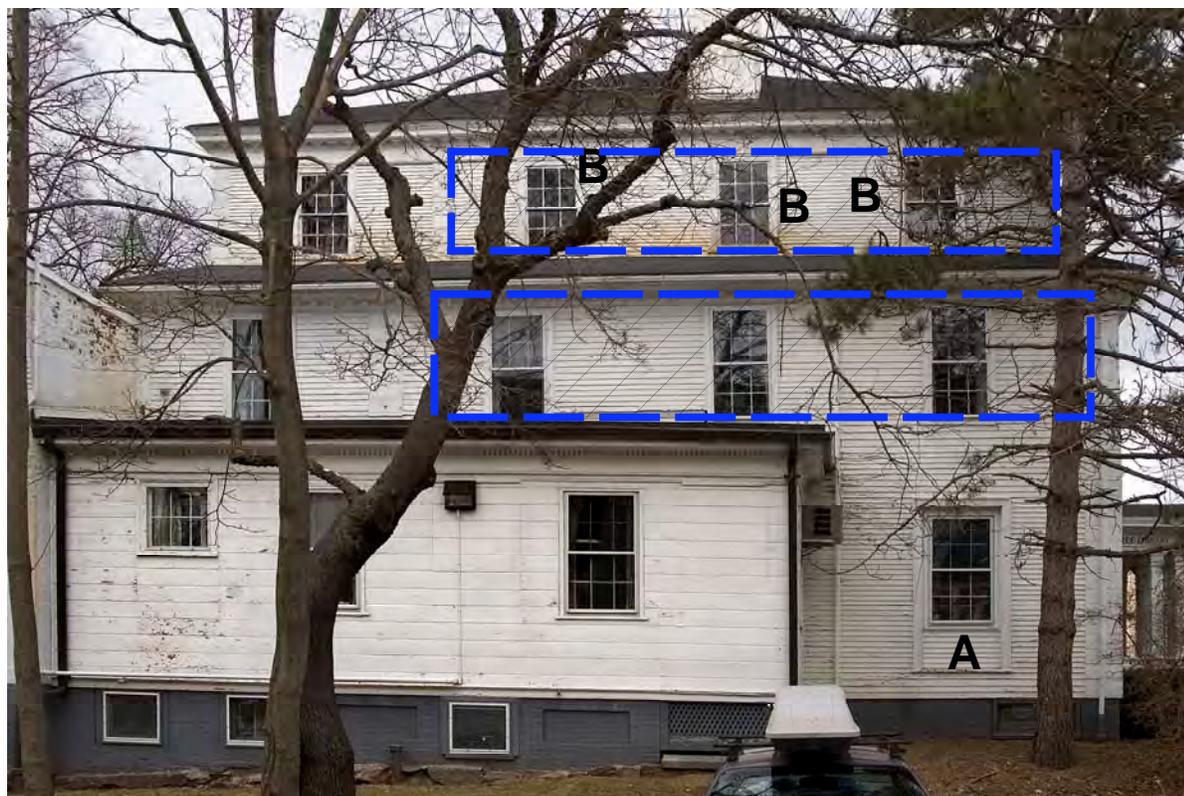
Complete removal of the rear wall of the current staff room (yellow line) to enlarge the staff room as proposed has structural consequences regarding the support of the 3rd floor wall and roof directly above. Although the plaster current finishes on this wall are modern, we presume the original 1764 structural elements remain under the plaster.



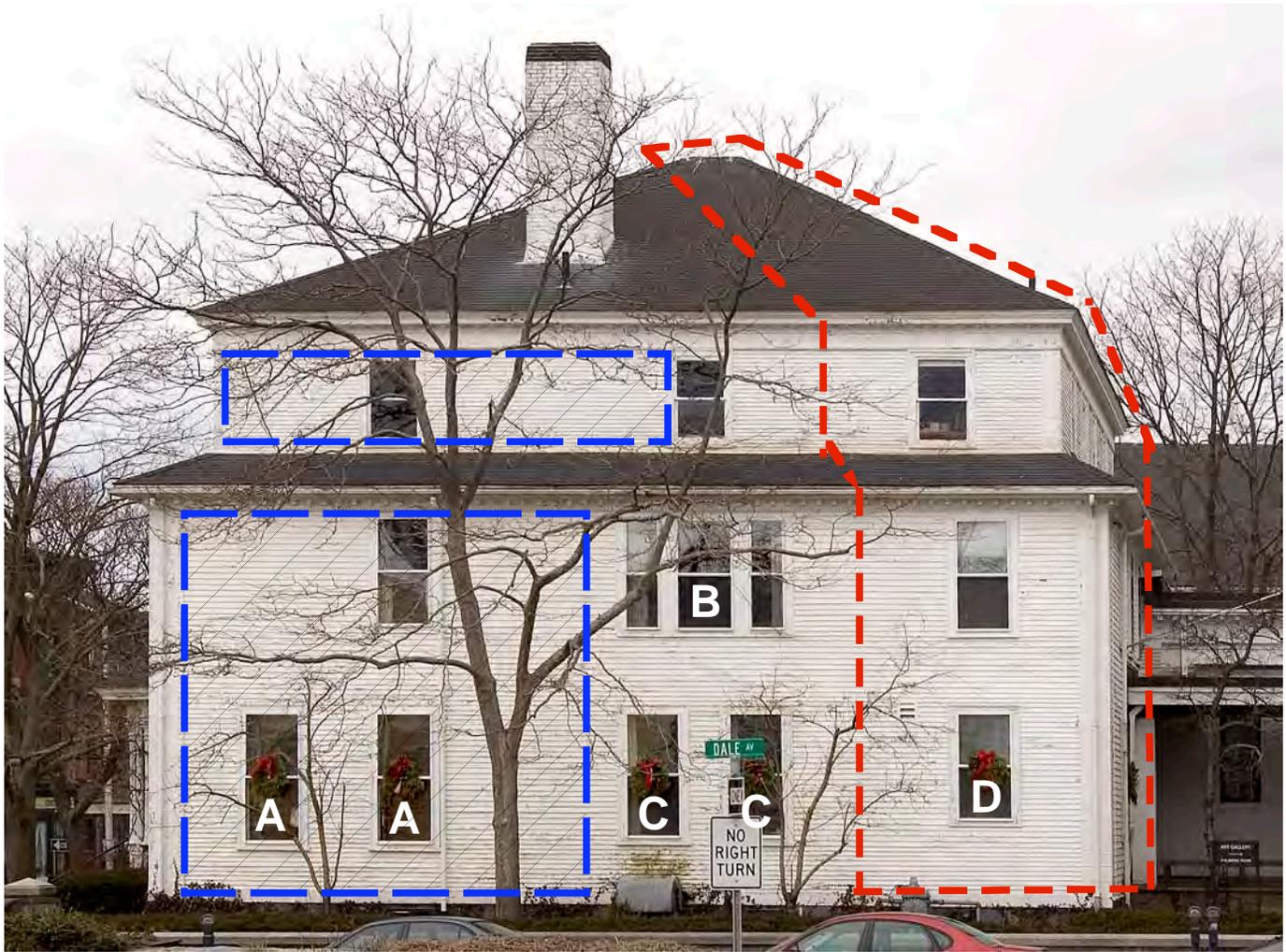
Observations regarding impact of renovation Scheme G.2 on historic fabric of second floor of Sanders House
 Finch&Rose, Beverly, MA
 October 28, 2004 – Draft



1.1: Front (south) Facade – The first two floors constitute the original house constructed in 1764. The third floor was added in 1802 together with an octagonal observatory 22'6" in diameter. The observatory was removed sometime before 1844 and the current hip roof installed. The red dashed line indicates rusticated boarding and windows that date to 1934 when the 1878 entry tower was removed. The entry porch is the base of the 1878 tower. The 4 window pediments (A) are original to 1764, but the frames were lengthened about 10" in 1878. The 1/1 sash date to 1878. Areas of rusticated siding and window frames that are not marked along with both roof cornices are original to 1764 and, for the third floor, 1802. In the 19th century both roofs had balustrades and the windows had louvered shutters.



1.3: West Side Facade – The foot print of the first floor addition dates to 1878, but its fenestration and internal plan have had repeated alteration since then. Both a pre-1878 stereo view and site plan show a previous one story ell with a different footprint. The window marked "A" was a French window and still has its 1878 frame. The third floor windows marked "B" retain their original 1802 6/6 sash. The other 6/6 sash are 20th century. The remaining area with original 1764 or 1802 clapboards is enclosed in the blue dashed line.



1.2: East Side Facade – The area enclosed by the red dashed line was added in 1914. Clapboards within the blue dashed line are largely original to 1764 or 1802. The windows marked "A" were lengthened about 10" in 1878. The triple window marked "B" was installed in 1914 to replace a single window. The two windows marked "C" were installed in 1934 when the 1878 bay was removed. The window marked "D" was installed in 1976 to replace the 1914 side entry door.



1.4: Rear (North) Facade – This facade dates to 1914 when the rear of the building was extended. The third floor window marked "A" dates to 1802 and was moved to this wall in 1914 (see 2.2). The sash was likely shortened c. 1830 when the pitch of the roof below it was raised. Some of the elements of the second and third floor cornices may be original material reused on the 1914 extension (checking the paint should be done verify the extent of reuse).

EXTERIOR FACADES
Historic Fabric Inventory

1

Saunders House
Sawyer Free Library – Gloucester, MA

Scale: NTS Date: January 31, 2005

FINCH&ROSE
50 Front Street • Beverly, MA 01915 • 978-922-4950



2.1: Detail of front entry porch which is the base of the 1878 entry tower as reconfigured in 1934 to serve as a covered entry after the tower was removed. The railing and balusters at left were reused from the 1878 veranda that ran across the front and sides of the house. The columns and balusters are the only remaining exterior elements from the 1878 alterations that are distinctly Victorian in character.



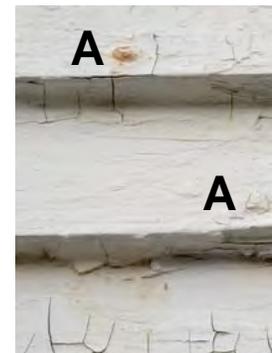
2.2: This rear third floor window frame and sash is original to the 1802 and was repositioned from the 1802 front wall to the 1802 rear wall in 1878 due to the tower, and then to the rear wall in 1914. The detailing on the frame is distinctly Federal period in character. The cornice above the window is also likely includes material reused from the 1802



2.4: Southeast corner showing original rusticated boarding of front facade and original clapboards on side facade. The corner is expressed as quoins that are visually coursed into the rusticated boards. The term "rusticated" refers to the deep beveled horizontal and vertical cuts in the boards that are intended to make them look like blocks of dressed stone. Rusticated boards were expensive and were only used on the most pretentious houses. Rusticated boards were used both on the original first two stories, and on the third story added in 1802. T-headed hand wrought nails were used to fasten the boards on all three floors. This nailing proves that the boarding dates to no later than 1802. On the lower two stories the boarding was likely installed in 1764 rather than 1802, but this cannot be proved without removing a board to look for nailing from previous clapboards. In the 18th century, rusticated boards were often finished with sanded paint to make them appear even more like stone.



2.5: Detail of a pediment above a window. Examination of its paint and dentil band indicates that it is no later than 1802. The band of small dentils similar to those seen in the 1802 rear wall is also likely includes material reused from the 1802



2.6: Detail of "skived" joint between clapboards on the east side facade. The joint is intended to lap over each other as shown. The clapboards are not longer than the all rose headed wrought nails characteristic of 18th century



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window
cornice.



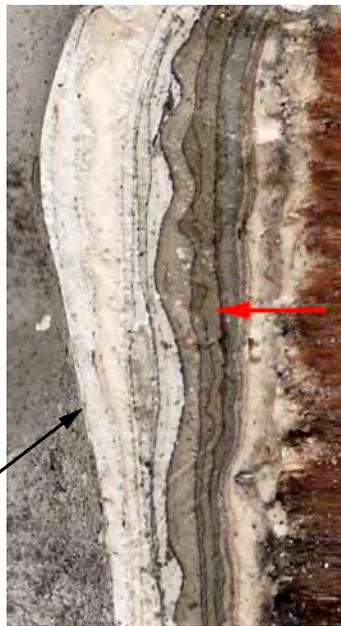
2.3: Detail of the original 1764 roof cornice compared with the 1802 third floor roof cornice above it. The combination of large modillion blocks (A) and a small band of dentils (B) is repeated in the cornice of the SE parlor (see 3.1). The "gothic" style modillions (C) in the 1802 cornice are typical of the early Federal period.



ped window head on the front facade.
and the use of wrought nails in it confirm
02, and likely is original to 1764. Note the
similar to the cornice.



joint between original clapboards
the clapboard ends are beveled
a water tight joint (arrow), and
nger than 4'6". The nails (A) are
nails. All these features are
tury clapboards.



Current
finish
layer

Wood
substrate

2.7: Cross section of paint from dentil on pedimented window head. The red arrow points to the layer that was exposed at the time of the 1914 alterations (based on an 1802 exterior window frame that was enclosed by the 1914 addition). It is clear in comparing the paint from the two elements that the window head is no later than 1802, but the earliest layers of white paint are so deteriorated that it is difficult to determine if there is pre-1802 paint on the dentil.



2.8: Original 1764 clapboards on the front corner of the east facade showing that the weather exposure of the clapboards tapers from about 4" at the top to 2 3/4" at the bottom. This is a detail characteristic of 18th century carpentry that is becoming very rare because relatively few houses survive with their original clapboards intact.



2.9: Original T-head wrought nail removed from 1764 rusticated board (A), same from 1802 rusticated board (B), and early type cut nails from 1802 clapboards (C).

EXTERIOR DETAILS		2
Historic Fabric Inventory		
Saunders House Sawyer Free Library – Gloucester, MA		
Scale: NTS	Date: January 31, 2005	
FINCH&ROSE 50 Front Street • Beverly, MA 01915 • 978-922-4950		



3.1: Detail of original 1764 cornice and overmantel showing unusually elaborate detail. Arrow at "A" points to the raised bolection molding around panel, which is a high style detail used around all the panels in the room.

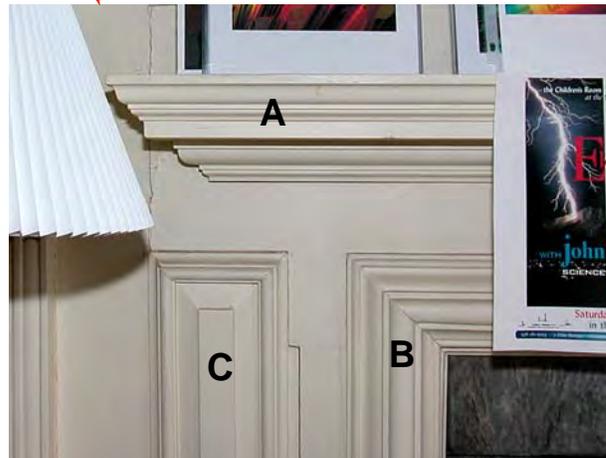


3.2: East and west walls with bolection molded panels. The circular scars indicate that a Victorian plaster center rosette was removed in the early 20th century.



3.4: North wall. Overmantel panel (1) and pilasters (2) are original to 1764, but the elements in the red circle are restorations dating to 1934. (see 3.5 below). The panels marked "3" and "4" are original but were reworked to form doors to the adjoining room, probably in the late 19th century by the library.

3.5: Mantel shelf (A), fireplace surround (B), and vertical panel (C) installed in 1934 to replace a Victorian mantel with elements in keeping with the original 1764 woodwork. The original fireplace was likely wider than the current one.



3.6: The window openings were installed in 1878 and the current 1/1" lite sash and the original windows were replaced. The space below it was filled with a horizontal panel matching the jamb, marked "A" on the jamb. The panels (marked B) were probably for a door originally that were fixed in place. The panels appear to have been reworked to accommodate a piece on the side to accommodate the window frames for the sash were only 1" thick, whereas the current sash were 1 1/2" thick. Temporary removable shutter might yield more information. The current finishes and alterations made were installed.



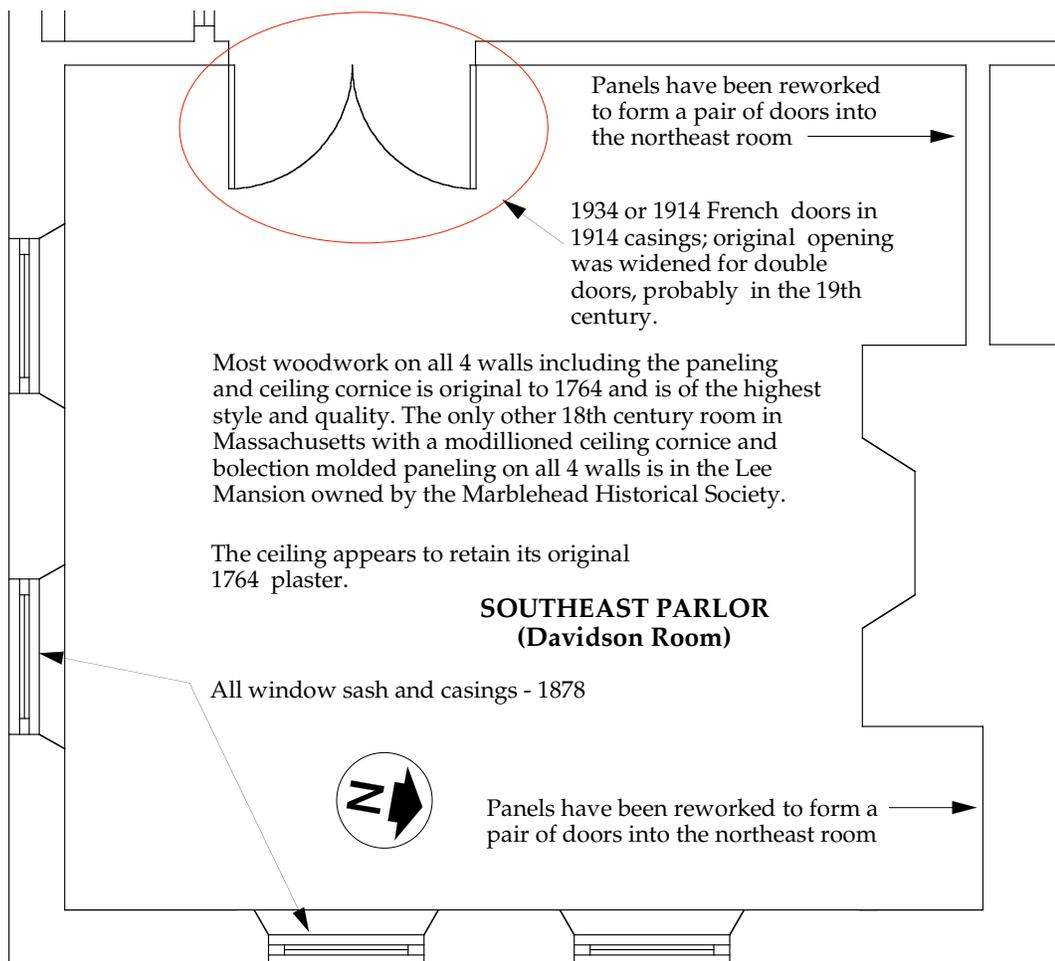
in the ceiling (A)
18th century.



were lengthened in
sash installed. The
was at the red line,
tted with a
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panels of the jamb
lding shutters
place in 1878. They
d with an added
date the alterations
1878 sash. The 1764
reas the 1878 sash are
oval of a paneled
ormation on early
e when the 1878 sash



3.3: West wall – The original doorway to the center hall would have been for a single door, and was widened for double doors in the late 19th century. Based on scars at the chair rail to the right of the door frame, the original door opening was on the left side.



Paint sequence on panels below chair rail:
 Coarsely ground tan topped by a reddish graining layer, 2-3 light tans, a dark graining layer on a grayish tan ground (walnut graining?), and 4-5 off-whites and creams.
 Paint sequence for rails and window soffit lacks the initial reddish graining layer but are otherwise the same.
 Original treatment appears to be grained panels with other elements plain tan, but further study may reveal more complexity.

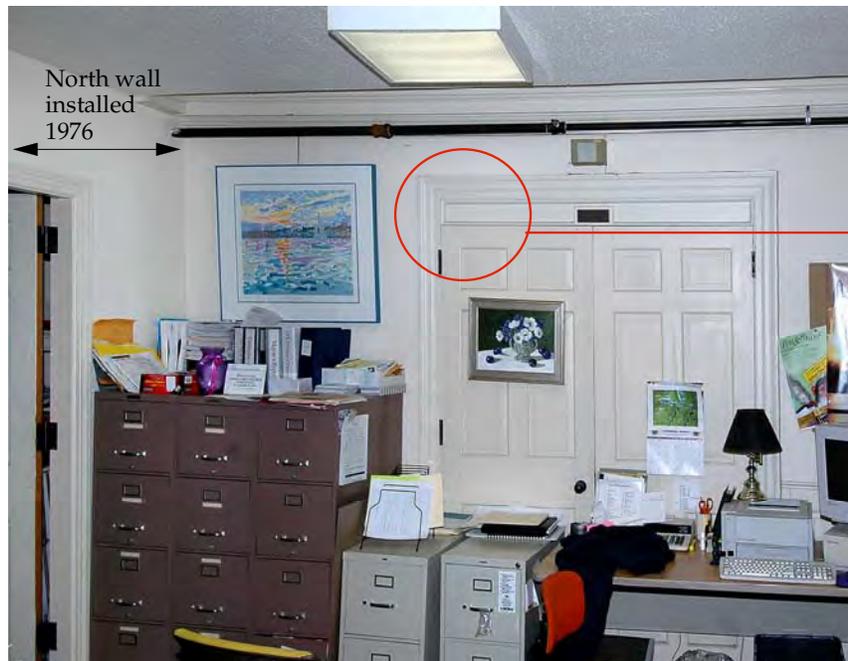
SOUTHEAST PARLOR (Davidson Rm) 3	
Historic Fabric Inventory	
Saunders House Sawyer Free Library – Gloucester, MA	
Scale: NTS	Date: January 31, 2005
FINCH&ROSE 50 Front Street • Beverly, MA 01915 • 978-922-4950	



4.1: South & west walls – South wall is largely original to 1764 including cornice, window paneling, wainscot, and wall plaster. See detail photos for alterations to the 1764 woodwork. West wall (right) retains original cornice and wainscot panels, but plaster, chair rail, and window casing have been altered. Ceiling is 1976 acoustic tile over old plaster (1914 or original).



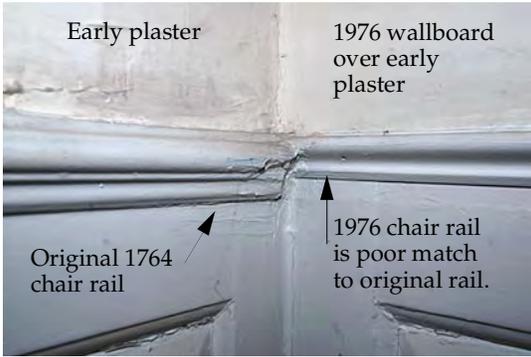
4.4: Detail of window seat with alterations to woodwork indicated. All panels are original to 1764. Line at "A" indicates original base of window.



4.5: East wall showing widened door frame installed in 1914 or possibly in 19th century. The door was replaced in 1976 likely matched the French doors to the SE parlor across the hall.

1878
Fre
sash
193
to 6

4.3:
fram
sho
stock

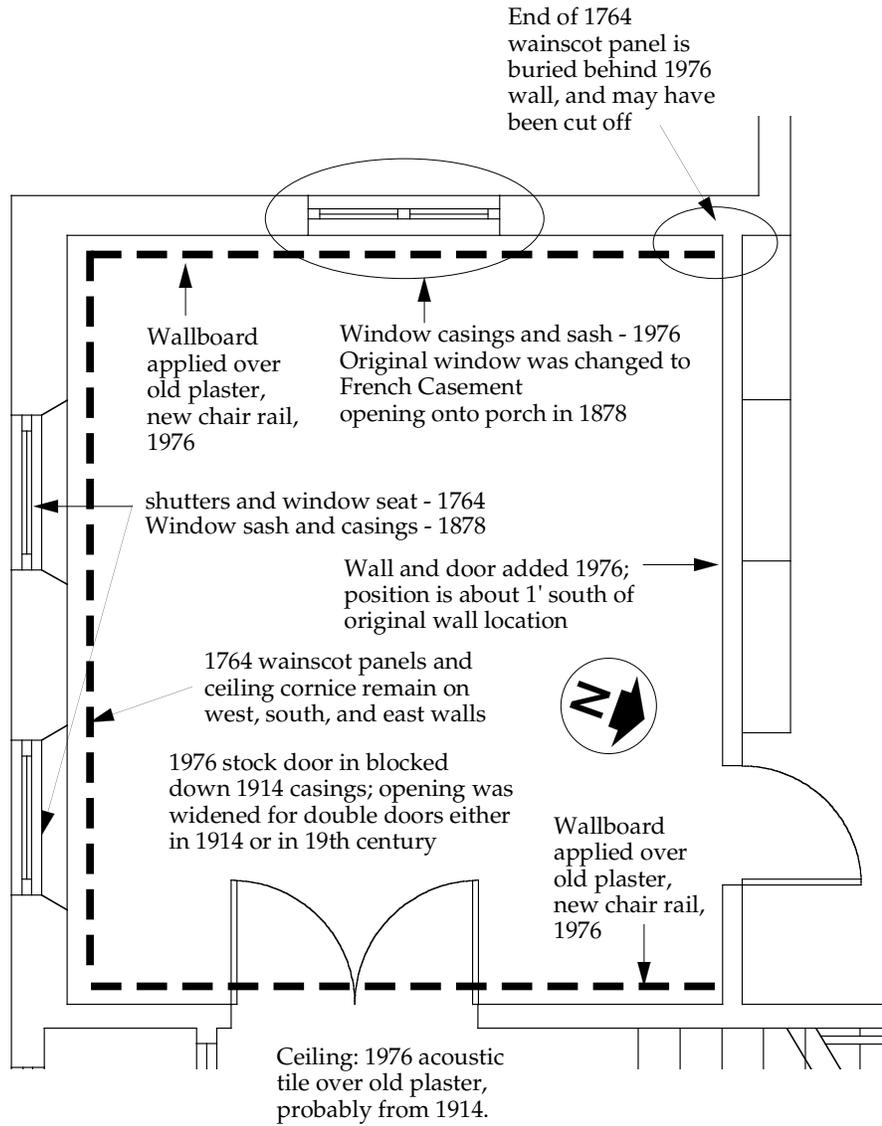


4.2: Detail of wainscot and plaster at SW corner showing poorly executed 1976 "restoration" of west side chair rail and plaster. East wall is similar.

8 floor length
inch casement
shortened in
4 and changed
5/6 sash in 1976.



Detail of window
sill and sill at west wall
showing awkward use of
moldings in 1976.



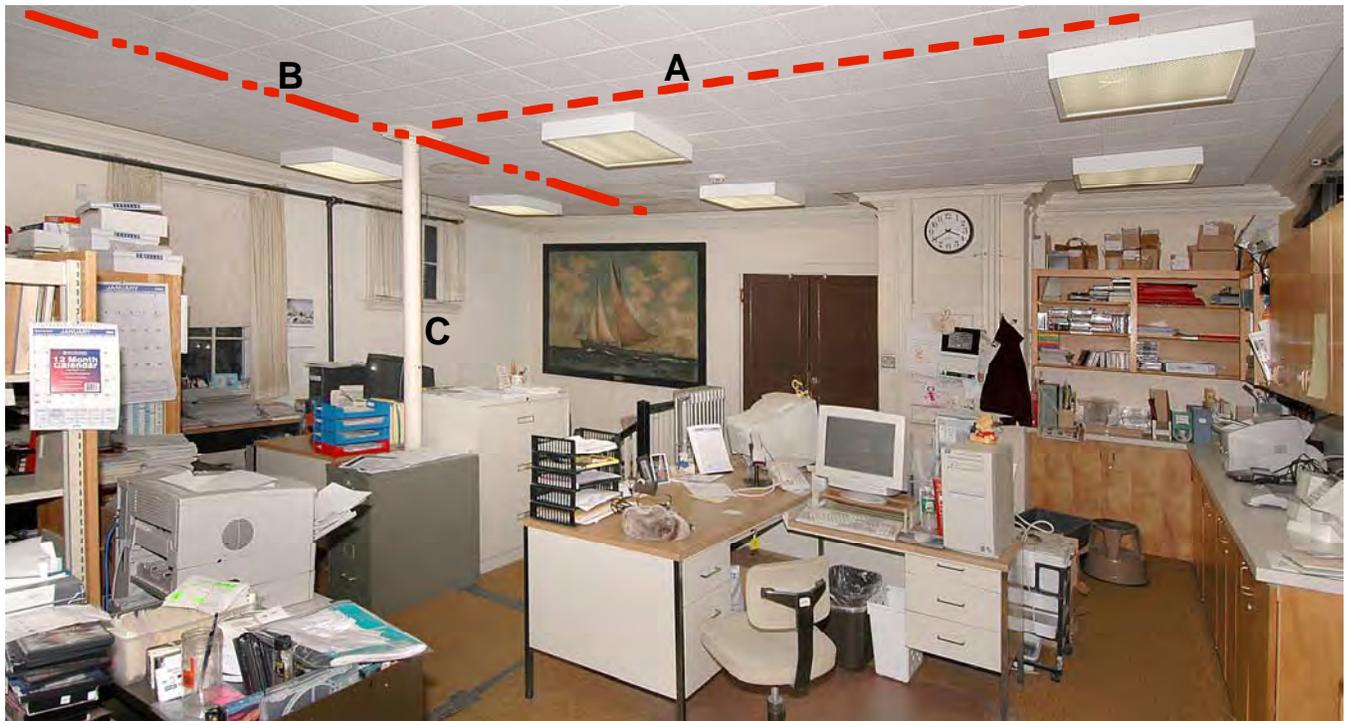
century. The doors
l.



4.6: Detail of expedient installation of replacement doors using stock material in 1976.

Paint sequence from panel under window seat: several alternating layers of light tan and light bluish green followed by three graining sequences, then several whites and off-whites.

SOUTHWEST PARLOR	4
Historic Fabric Inventory	
Saunders House Sawyer Free Library – Gloucester, MA	
Scale: NTS	Date: January 31, 2005
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5.1: Northern end of work room – The current configuration of this room dates to the 1912 and 1914 alterations. "A" is the line of the rear wall of the original house, and "B" is the line of the original west wall of the house. The area to the left of line "B" is in the one story west ell. The load of the 2nd floor west wall of the house is apparently carried the lally column "C" and another one that is out of the photo. The 1914 drawings called for an entire new ceiling in this room, and it is likely the ceiling structure was reworked at that time. The only decorative detailing in the room is the 1914 wood cornice around the ceiling (see 5.2). The window casings and sash date variously to 1914 and 1976.



5.2: C
room
moldi
SE par
Acous



5.3: South wall of the Northeast room on the first floor – The chimney breast marked "A" is entirely covered with wallboard or plaster installed in 1976. Originally there would have been a fireplace in this location. It is not known if any elements of that fireplace and related woodwork survive behind the modern finishes (no holes were cut into it for investigation). The back side of the paneled doors from the southeast parlor are exposed behind the bookcase at "B". The east wall at "C" dates to 1934 when the 1878 bay was removed to restore the original external appearance of the house.



5.4: West wall of the northeast room on the first floor – The chimney breast marked "A" is entirely covered with wallboard or plaster installed in 1976. Originally there would have been a fireplace in this location. It is not known if any elements of that fireplace and related woodwork survive behind the modern finishes (no holes were cut into it for investigation). The back side of the paneled doors from the southeast parlor are exposed behind the bookcase at "B". The east wall at "C" dates to 1934 when the 1878 bay was removed to restore the original external appearance of the house.



6.1: South end of stair hall – The inner doors with sidelights, transom, and panels all date to 1914 or 1934. The cornice over the transom windows is presumed to also date to 1914, but its paint was not checked. The door frames in the side walls date to 1914, but the doors in the right hand frame leading to the SW parlor date to 1976 when the frame was blocked down.



6.2: Detail of door frame in stair hall showing distinctive profile that was used as door and window casings in the 1914 work (casing type 2). The same profile also appears to have been used in some of the 1934 work.



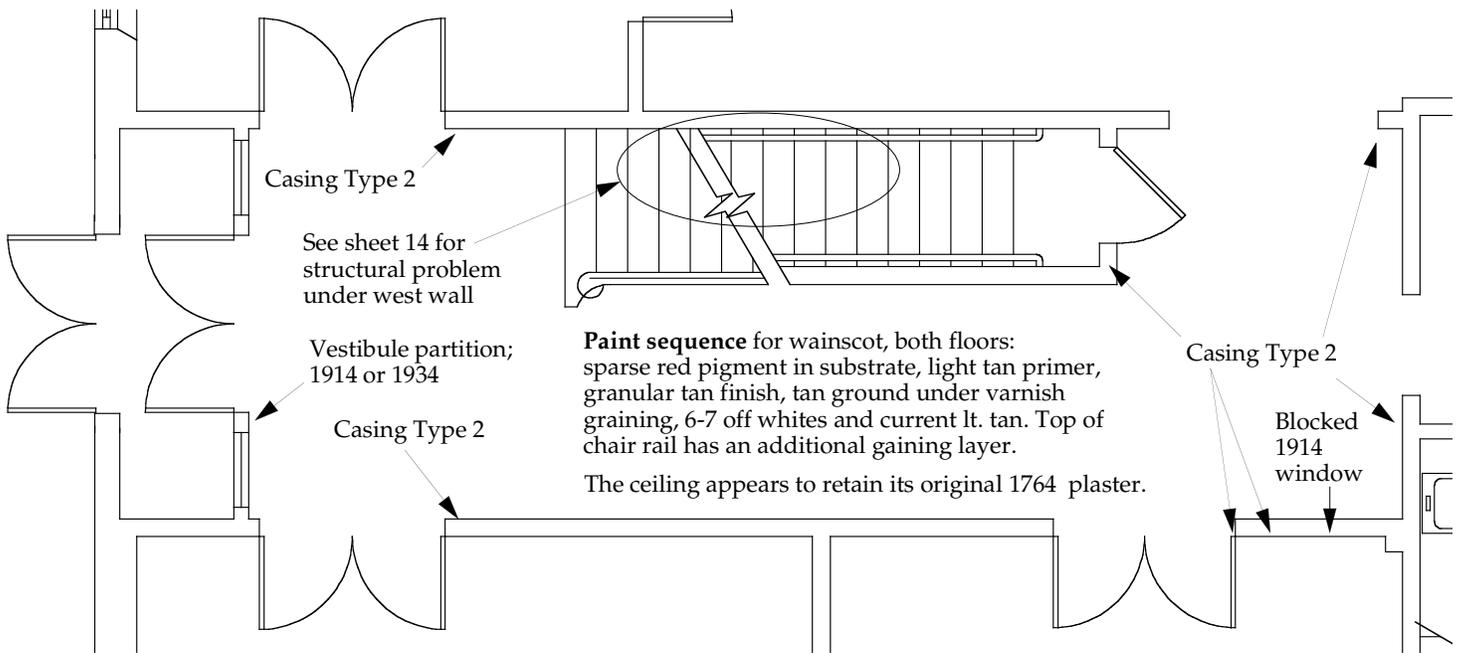
6.3: Detail of newel post showing spiral turned section. This detail is characteristic of high quality Gregorian newel posts.



6.4: Interior of entry vestibule – The wainscot paneling and cornice on both walls is original to 1764. The door dates to 1914 or 1934. The door frame has been blocked down for the current doors and may date to the mid-19th century. Its paint was not checked.



6.5: Overview of stair hall – The stairs with its turned balusters, the paneling and the cornice are all original to 1764. The wall murals were painted by John in 1934. The visible lean of the newel post is due to a structural problem in supporting the left hand wall (see sheet 14 for details).

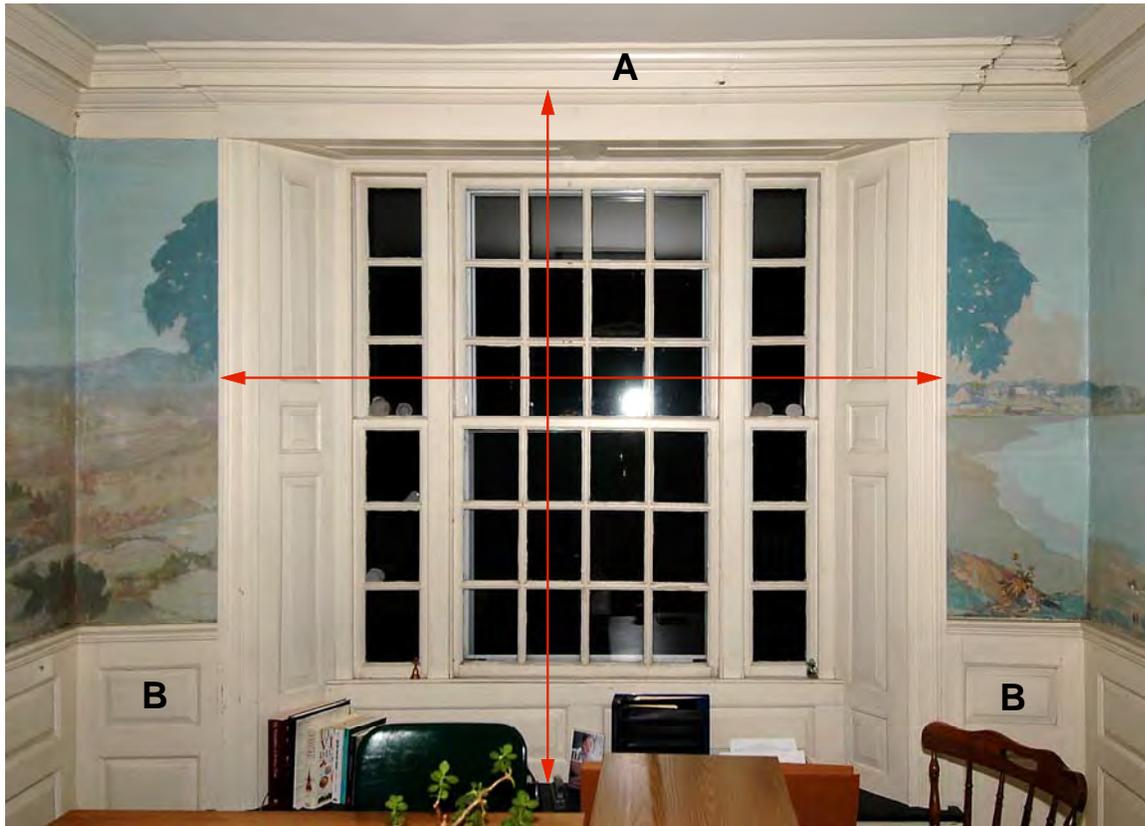


6.6: Rear of stair hall – cellar door on left (A) is 1764 door in a 1914 door frame. Door frame in center to workroom (B) dates to 1914, but was blocked down in 1976 with a single leaf door and solid panel. The cornice and wainscot panels date to 1764, but show evidence of being reconfigured to adapt to minor changes in plan.



6.7: Rear of stair hall – Door in rear wall dates to 1764, but its door frame dates to 1914 or 1934. The wainscot is also original to the hall but has been reworked to accommodate the current door (the two narrow panels may have been cut down from larger panels that were removed to widen the other hall doorways). As this was made a major entry in 1878, it may have been made wider with two door leaves at that time, and then was restored back a single door in 1914 or 1934. The wall is the original rear wall of the house.

STAIR HALL – 1st Floor	6
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7.1: South wall – The window and paneling (red arrows) were installed in 1934 following removal of the 1878 entry tower. The 12/12 sash is a correct restoration of the 1764 sash, although the basis for the sidelights and overall width of the opening is not clear. The cornice (A) above the window is original. The flanking panels (B) are original, but were reduced in width in 1934 to accommodate the new window.



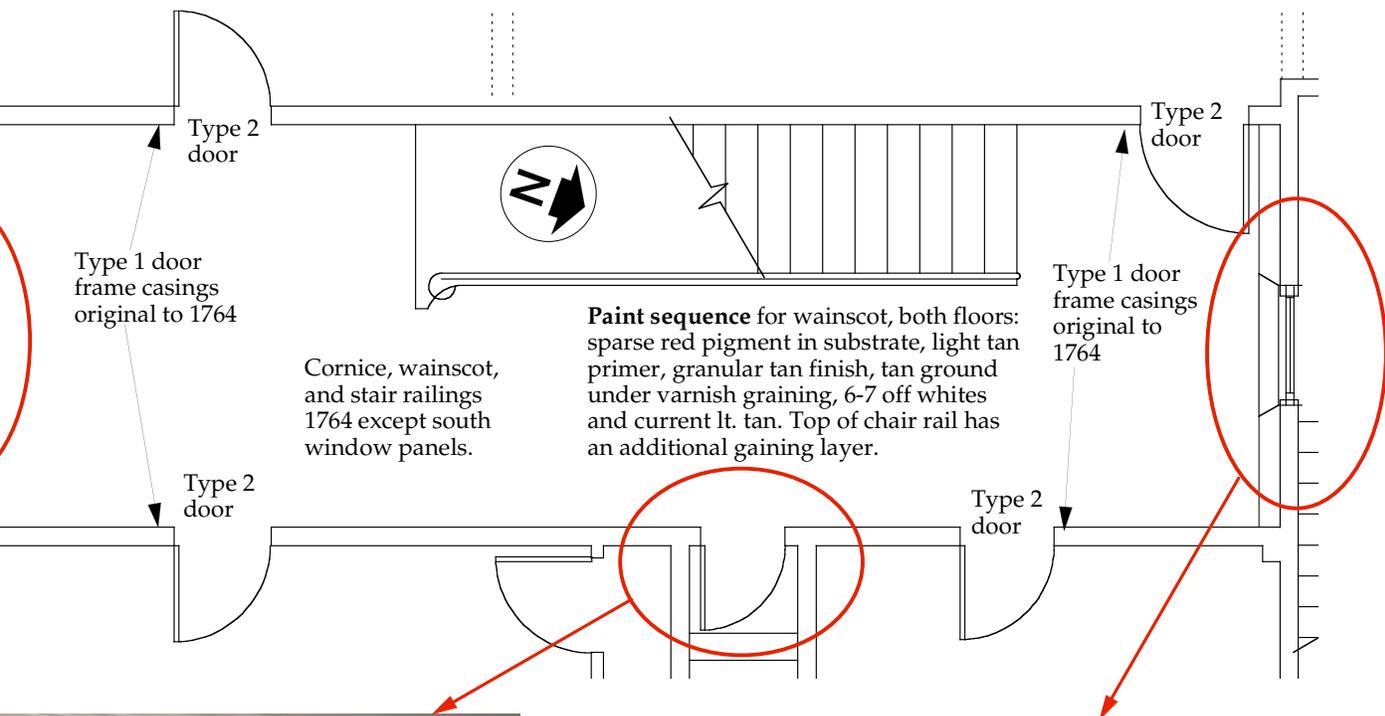
7.2: 1764 railing around the stair opening showing the elaborate twisted turnings that are characteristic of high style Georgian stair railings.



7.3: Detail of the pilasters flanking the third floor stair – The flat panels with astragal moldings (arrow) seems more characteristic of the 1802 Federal Period work than 1764, but it has the same early paint layers as the original paneling.



7.4: Muntin of the compass head window showing 1 1/4" width characteristic of 18th century sash muntins.

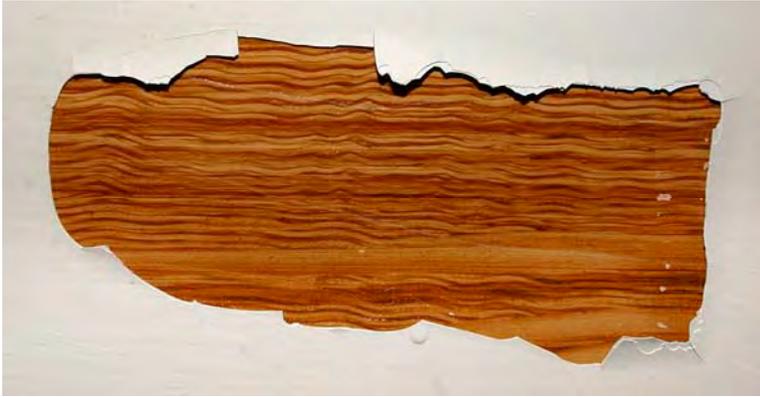


7.5: Entry to third floor stair – The side pilasters and the arch (A) appear to date to 1764 as they have the same early paint layers as the hall wainscot panels. The pattern of pegs in the adjacent wainscot also indicates there has always been an opening in this location. Before 1802 there was likely a simple steep stair to the attic. The sash in the arch (B) is the 1764 compass head sash cut down and reused from the arched opening shown in 7.6. A groove in the arch soffit (arrow) may have held a previous sash or louvers. The door (C) and frame (D) were likely added in 1802 or later, as they have a single first layer of light blue instead of the two initial layers of light tan on the 1764 woodwork.



7.6: North wall – The arched paneling and pilasters date to 1764 and originally housed the compass head sash that was cut down and relocated to the attic stair arch (see 7.5). The current sash dates to the the mid-19 century and was reglazed with obscure glass in 1914.

STAIR HALL – 2nd Floor	7
Historic Fabric Inventory	
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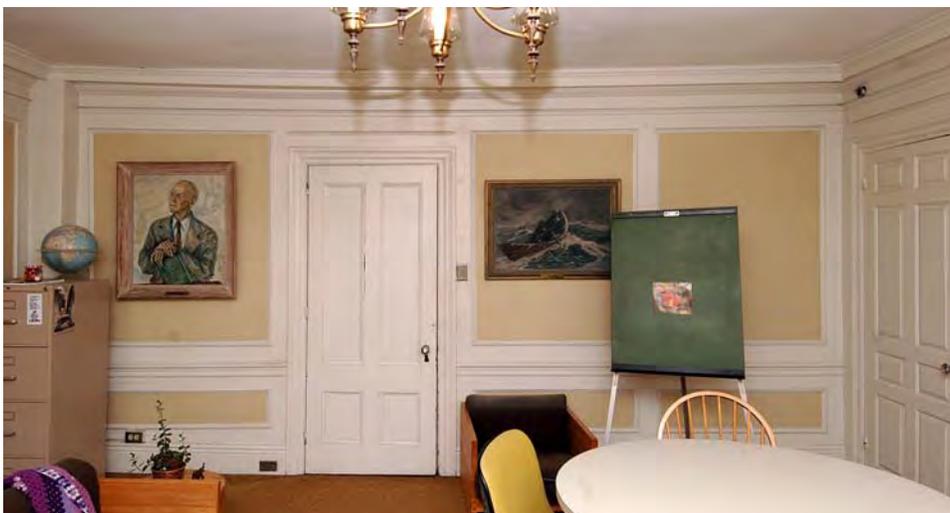
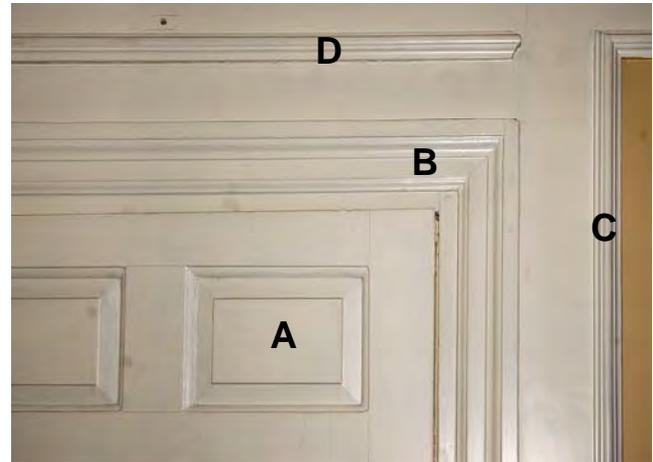
8.1: Detail of the faux wood graining that is the first finish layer on both sides of all type 2 doors on the second floor. On the stair hall side of the doors, the second finish layer is also graining in a slightly lighter shade. In the SE chamber, the second finish is a light grey. The casings were not grained. Similar graining is present on the original doors on the north wall of the SE chamber.



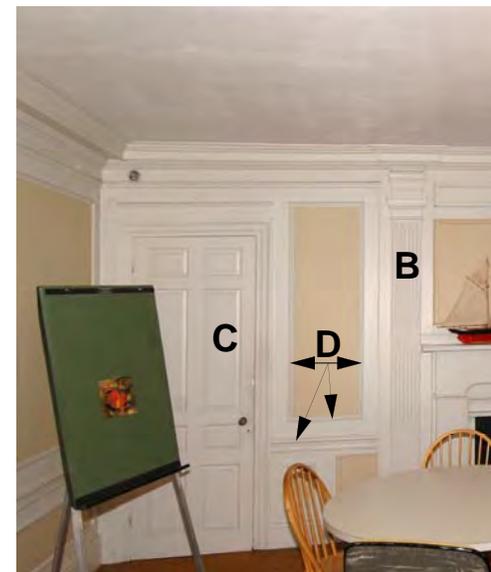
8.3: Detail of door to stair hall (door type 2) – Door is 1 1/2" thick with flat panels (B) and mid-19th century style panel moldings. The first paint finish on the door is the graining shown above. The door frame casings (A- casing type 3) date to 1934 but copies the 1764 casing still present on the hall side of the door. The 1934 casing probably replaced a Victorian style casing.



8.2: Detail of mantel with inset iron coal grate. This simple design was popular from the 1840s through the 1880s. The hearth (arrow) is a black and white checkered tile material that was popular in the 1870s and 80s. The coal grate is a simple design popular in the 1870s. The first finish on the mantel is black, followed by a layer of faux wood graining that follows the graining on the doors. Mantels were often painted black or faux painted to imitate black marble. The mantel, lining, and tile may date to either the 1850s or 1878, but the coal grate and tile date to 1878.



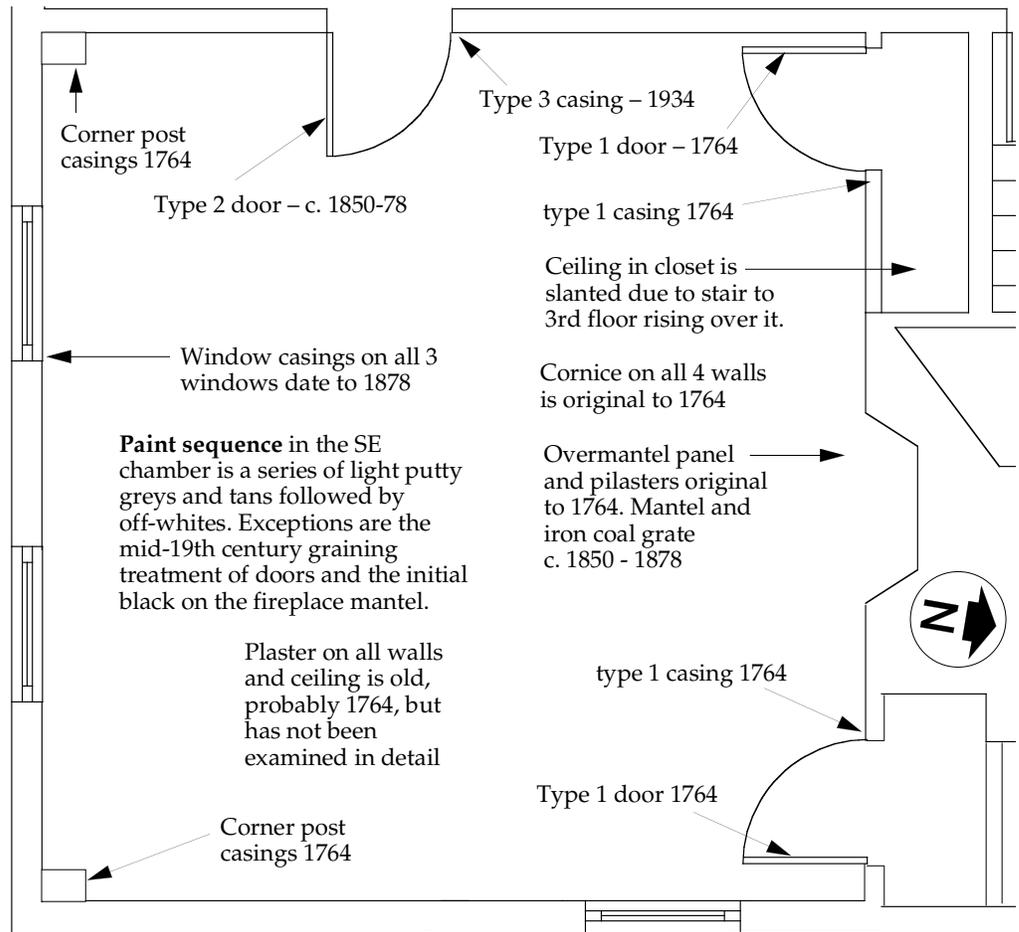
8.5: West wall showing division into panels to look similar to the parlor paneling below. The wall is actually plaster (probably original) with wood moldings applied to the surface to simulate panels and a chair rail. This was probably done in 1934. The 4 panel door (door type 2) to the stair hall dates to c. 1850 or 1878.



8.6: North wall with original overmantel paneling (B) and 8 panel doors (C – door type 1) and original. The wall panel moldings and chair rail date to 1934. The ceiling rosette (E) probably dates to the 1850s or 1878.



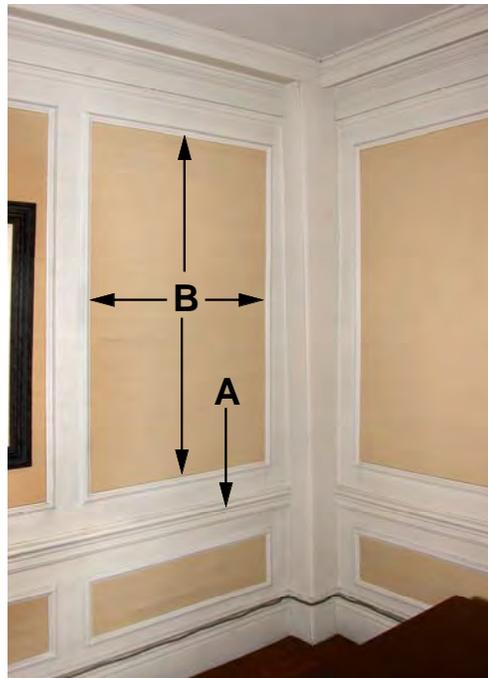
style of mantel was
(w) is encaustic tile, a
te is also typical of
y the same light grey
painted either plain
like the type 2 doors,
ile hearth are likely



8.4: Detail of original 1764 door (Type 1) – Door is 1" thick with raised panel (A) and "thumbnail" profile panel molding. Its paint sequence matches other original woodwork in the room except that the faux graining occurs in the middle of the sequence. The door casings (B – casing type 1) are also original to 1764. The molding "C" is typical of the wood moldings applied to the plaster wall in 1934 to form panels. Molding "D" above the door also was added in 1934.



el (A) and flanking pilasters (B) still in
d their casings (casing type 1) are also
rail (D) are applied over plaster and date to
1878.

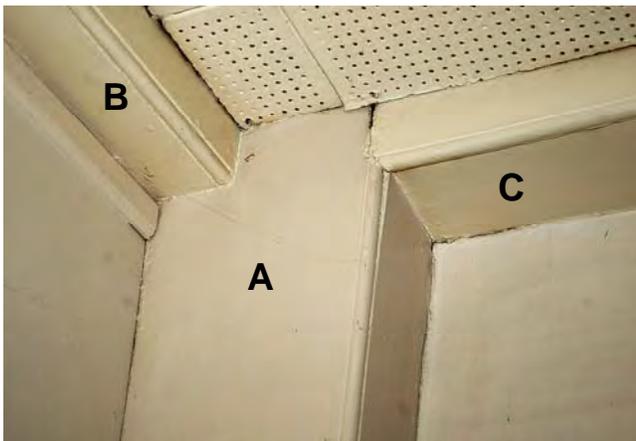


8.7: Southeast corner with original cased corner post that flares outwards at the top to form an "English Tie Joint" with the front roof plate and side girt. Cornice is also original. Chair rail (A) and the moldings (B) defining panels above and below it all date to 1934 and are applied directly on the wall plaster. The wall plaster is probably original to 1764, but was not examined in detail. See 8.8 for baseboard.



8.8: Victorian style base board that is used in this room, the NE chamber, and the NE room on the first floor. It probably dates to 1878 or c. 1850, but in some locations it may have been reproduced in the 1914 and 1934 renovation work.

SOUTHEAST CHAMBER		8
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9.1: Detail of original 1764 corner post (A), rear roof plate (B), and end wall girt (C) with original beaded casings still in place. Note ceiling plaster has been covered with modern acoustical tile. Examination of this ceiling from 3rd floor above indicates the plaster remains in place on accordion type wood lath, and likely dates to 1802.



9.2: North wall – This is the original rear wall of the 1764 house. Its plaster surface and original framing is likely still present behind the plaster. The original roof plate casing is visible at the top of the wall, and the cased corner posts at the kitchen niche was cut into the wall in 1976. The door (A) dates to 1802 and was installed on the third floor in 1914. The 1802 third floor rear wall and roof bears on the ceiling joists at the approximate location marked by the red dashed line. Camera lens distortion could be sagging in this photo, but in reality it does not show deflection.



9.4: Victorian style base board that is used in this room, the SE chamber, and the NE room on the first floor. It probably dates to 1878 or c. 1850, but in some locations it may have been reproduced in the 1914 and 1934 renovation work.



9.5: Early 20th century Cast iron reproduction of 18th century wrought iron latch. These reproduction latches are present on several secondary doors.



9.6: South wall – Overmantel paneling (A) dates to 1764 but was originally in the SW chamber in 1914 when the west chimney was removed. The plain boards around the fireplace opening are a 20th century addition. The closet door (B) and its casing are original to this room. The door panels now facing into the closet. The flat wall surface (C) encloses the stair to the 1802 wallboard installed in 1976 directly over what appears to be old plaster.



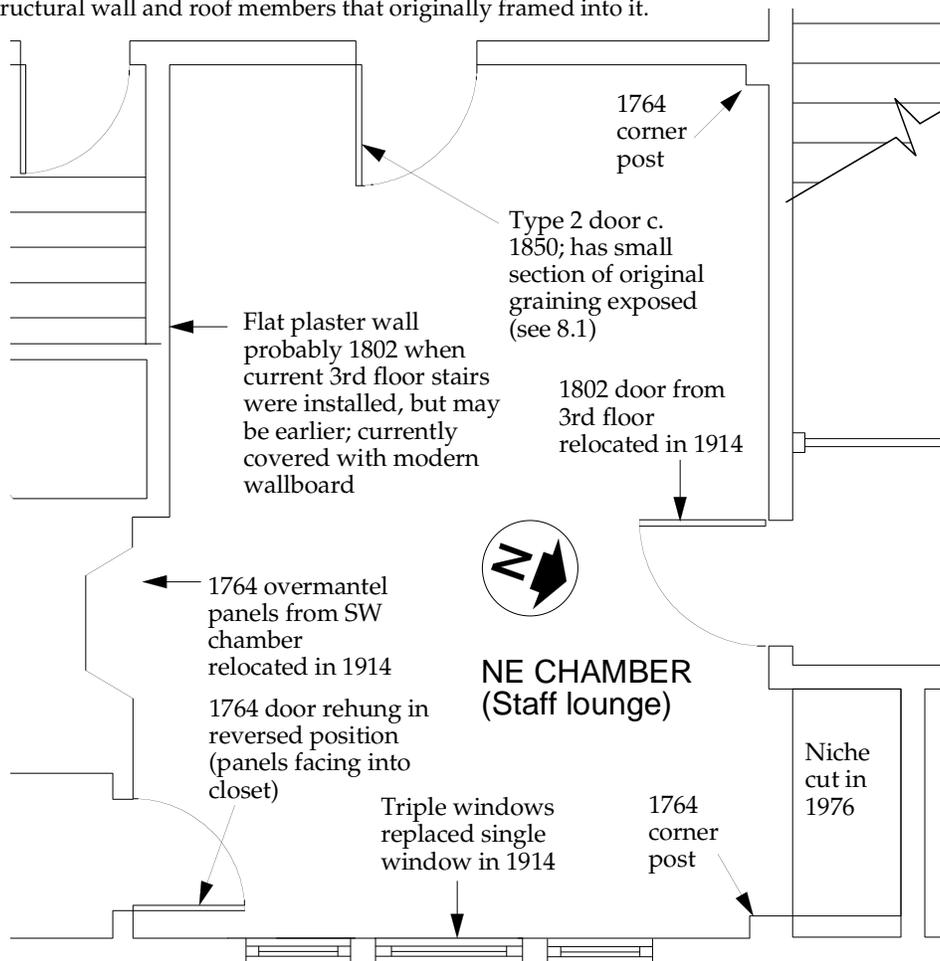
Surface dates to 1976, but the date with its original beaded at each end of the wall. The was moved to this location from framing of this room at the causes the roof plate to appear



9.3: East wall – The triple window configuration was installed in the 1914 alterations and has the typical 1914 type 2 casings. According to the 1914 drawings, the center pair of sash was reused. The original cased end girt is visible at the top of the wall. The rear corner post on the left tapers to be wider at the top in order to receive the structural wall and roof members that originally framed into it.



chamber; it was moved to this location in date to 1914. The mantel shelf is a floor has been reversed with its raised third floor. The current finish is a thin



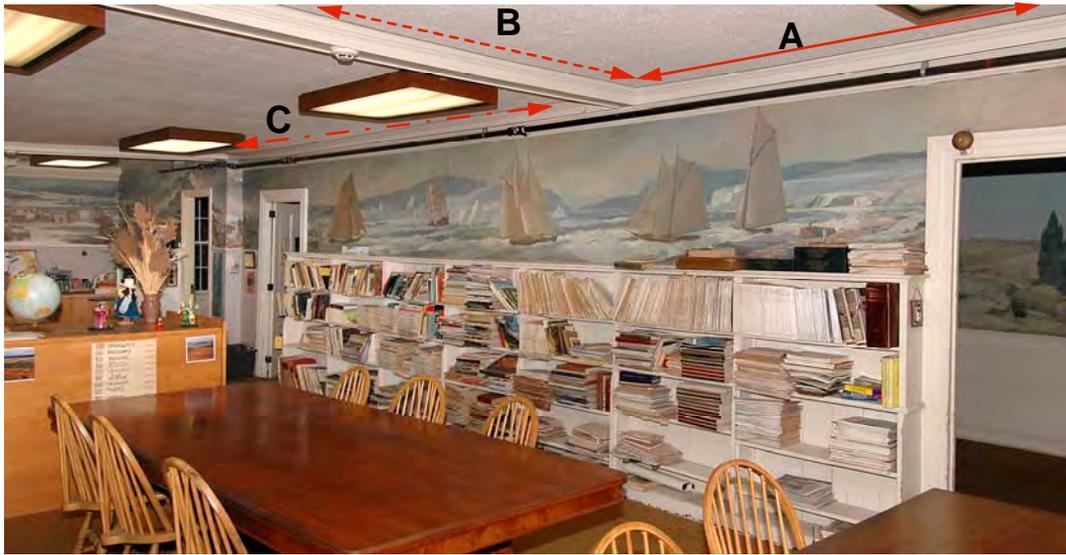
Paint sequence from NE corner post: fragments of red pigment in wood pores, 2-3 tans, 1-2 creams, very light blue green, very light grey, 5-6 off-whites and creams

NORTHEAST CHAMBER		9
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10.1: South wall. The cornice (A) and corner posts are original to 1764, but the window casings are 1878 or 1914. Note that the cornice breaks forward over the windows.

Paint sequence in SW Chamber starts with a deep blue over a grey primer, 2-3 coarsely ground greys, and off-whites.



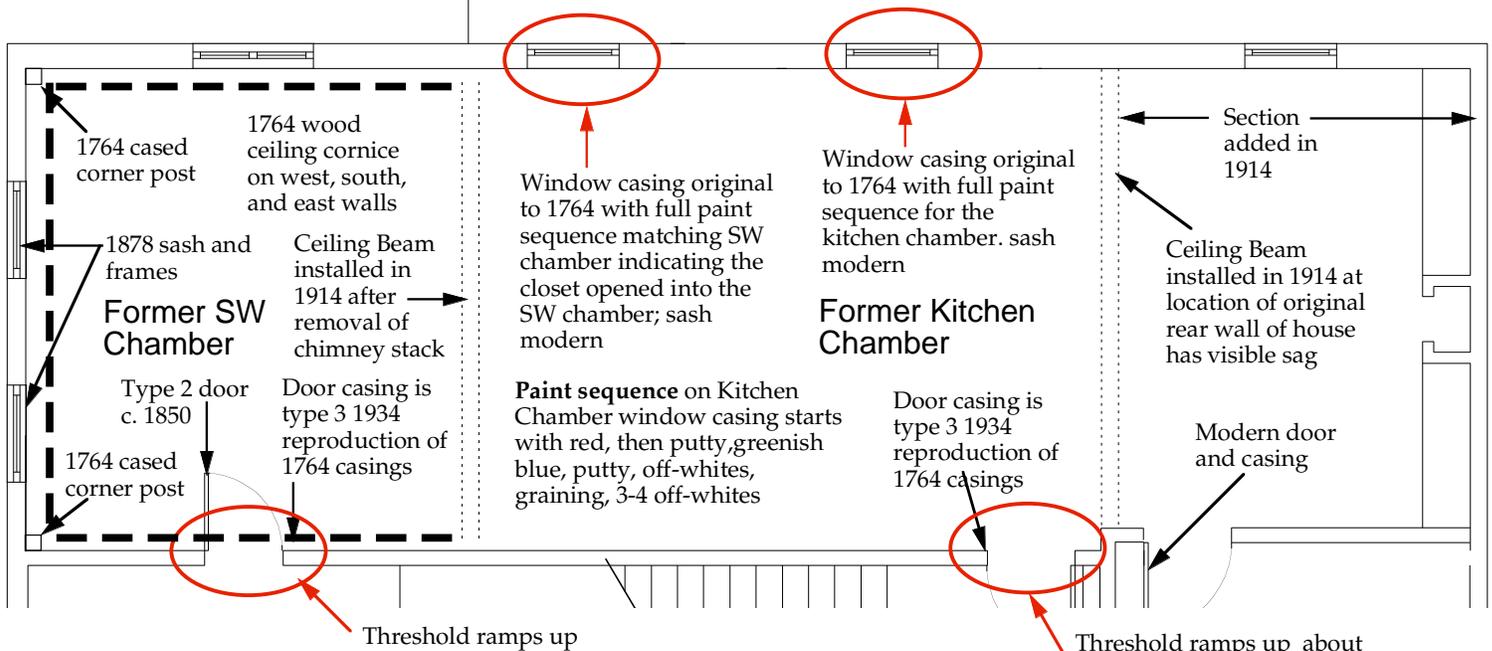
10.2: East wall showing the most cohesive section of the 1976 wall mural. The bookcase also contributes to the character of the room. The section of cornice marked "A" dates to 1764; the sections "B" and "C" are accurate copies from 1914. The section "B" is on the line of the original fireplace wall of the SW chamber.



10.4: Detail at junction of mural to the lower wall and window casing. Wallboard (A) was applied over the lower portion of the wall plaster in 1976 as an expedient repair, but the murals were apparently painted directly on the old plaster. The plain board window casings is typical of most 2nd floor casings from both 1764 and 1878.



10.5 North wall shows 1764 cornice in the soffit, cabinets, lights, and a



Threshold ramps up about 2" from hall to floor of community room. 1914 drawings call for sound deadening at the community room floor; perhaps the height difference is due to that.

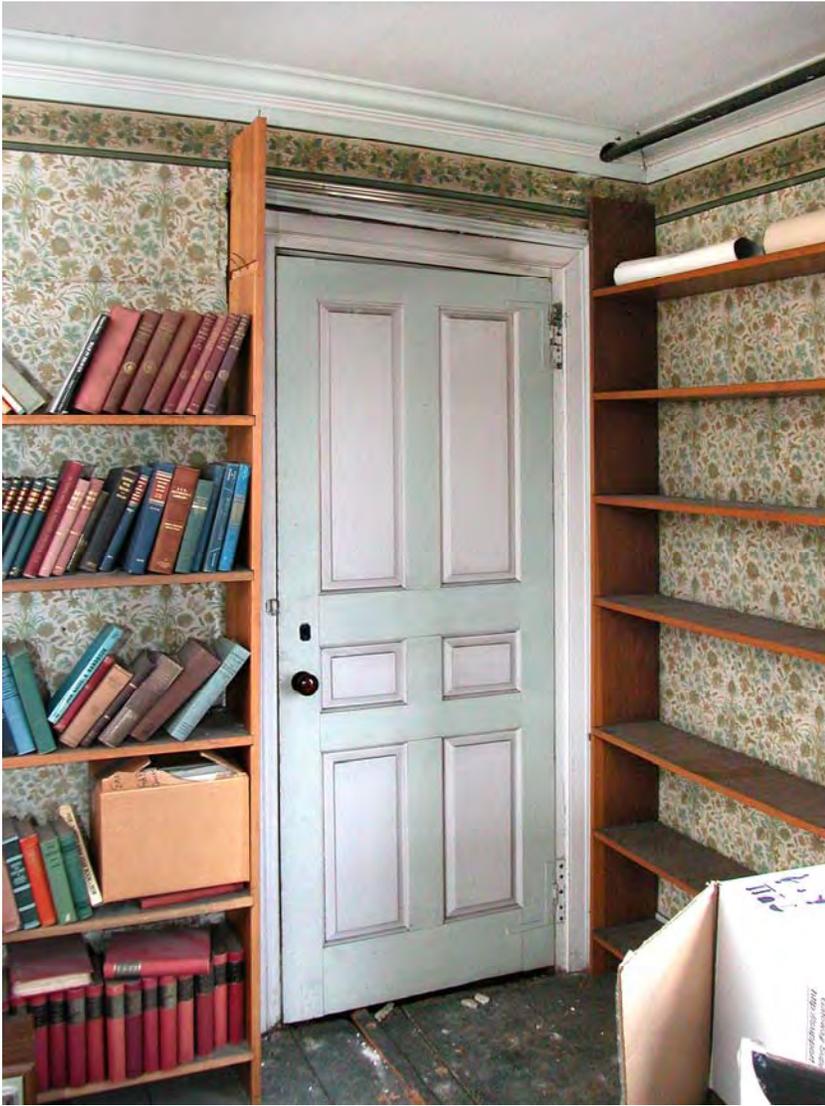
10.3: East wall at junction between original house and the 1914 rear addition. The rear addition as shown on the 1914 drawings did not include the north end of the community room (then the Children's room); apparently the plans were changed during construction to extend the room to its current configuration. As the section of wall marked "B" lacks a cornice and its door to the rear hall does not conform to the 1914 work, it may have been reconfigured later in the 20th century. The beam marked "A" carries the rear wall of the third floor above and currently has a substantial visible sag in its center.



10.6: Detail of the 1914 wood cornice with a picture molding added below it.

ANDERSON ROOM	10
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...ing 1976 murals, 1914 wood cornice that accurately reproduces the south portion of the community room, and the 1914 book lift (A). The acoustical ceiling tile are from the 1976 renovations.



11.1: SE attic chamber showing 1878 wallpaper and two tone paint scheme on woodwork. 1878 paint is applied over the graining that is still exposed in the NE chamber (see 11.2). The woodwork detailing is conservative for 1802, as the raised panel doors and crown moldings at the ceiling are more Georgian than Federal in character. Door retains original 1802 HL hinges.



11.2: Detail of 1878 wallpaper with ceiling border in the NE chamber.



11.3: Detail of c. 1850 faux wood graining on door in NE chamber. Similar graining is present on all the other 3rd floor doors.



11.4: Detail of center hall showing crown molding with two tone paint treatment and a faux wood grain wallpaper.



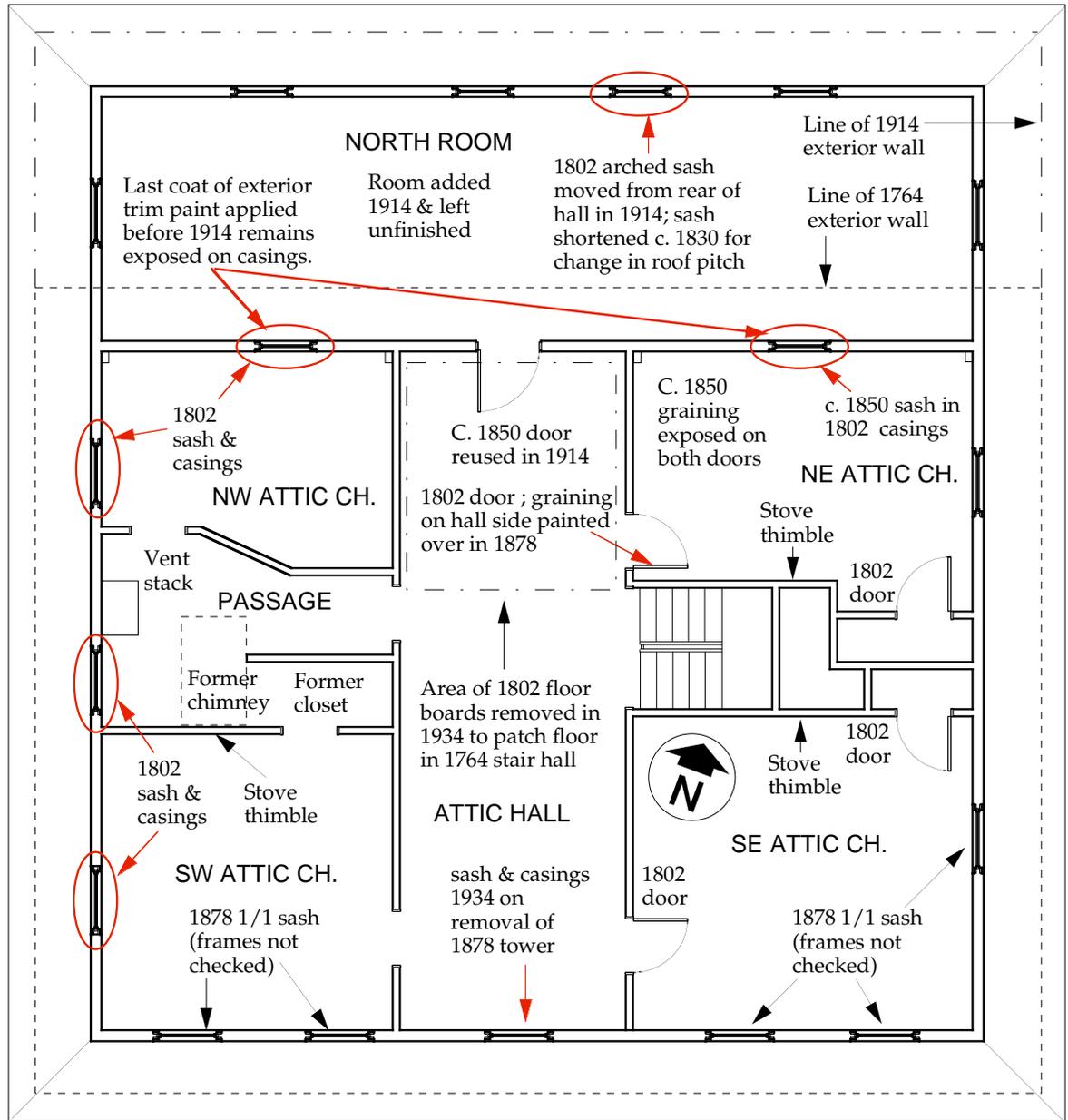
11.5: Detail of 1878 wallpaper with ceiling border in the NE chamber.



the NE attic chamber.



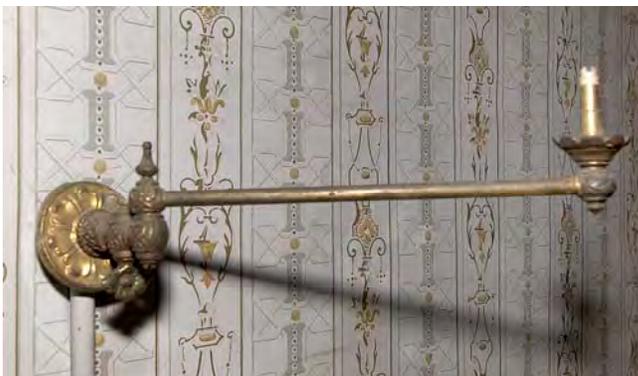
NE attic chamber. Doors below 1878 paint.



the SW attic chamber.

All rooms in the 1802 3rd floor retain their original plaster on accordion lath and original painted wide pine flooring. There may be earlier wallpapers and/or stencil treatments under the 1878 wallpapers.

Paint sequence on NW rm window casing: Off-white with glaze, lt. grey, graining, lt. blue-grey.



11.6: Gas burner in SW chamber that still retains its original burner. A similar gas jet is present in the SE chamber.



11.7: Window muntin 11/16" wide from original 6/6 lite 1802 sash in NW attic chamber. Sash are 1 1/4" thick plus a 1/4" check rail.

THIRD FLOOR – 1802 ROOMS

11

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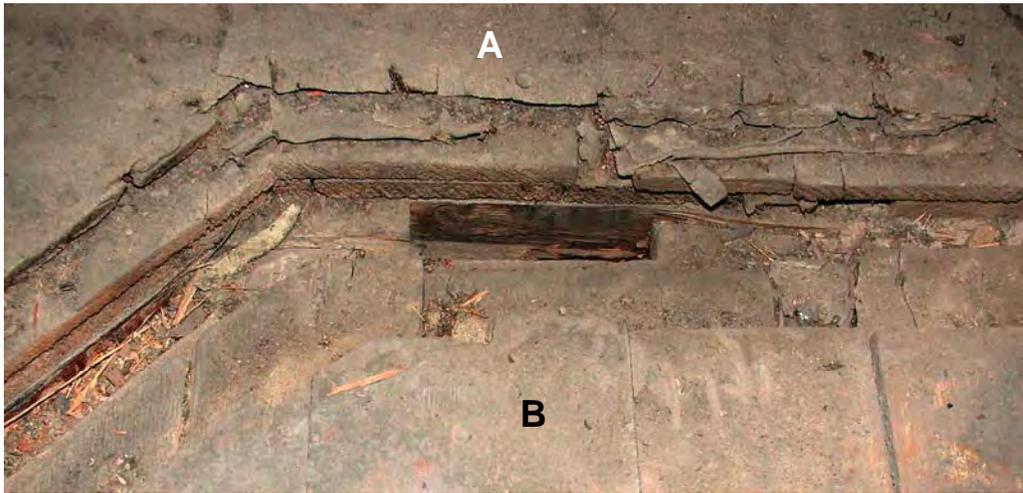
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12.2: 802 stair in the attic where it entered the octagonal observatory. The wall of boarding is installed in the groove that housed the observatory wall, but is not original to this location. The boards are early, but their origin is not clear.

12.1: Detail of 1802 staircase at the third floor landing showing its unusual configuration of newel posts and banister. The white spots on the stair risers may be part of a decorative painting scheme.



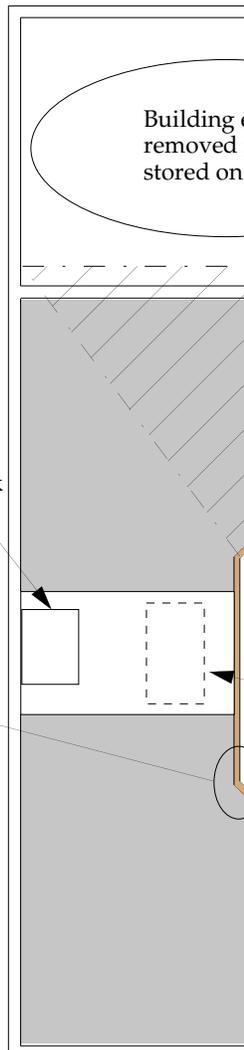
12.5: Detail of recess in attic floor that housed the observatory exterior wall. "A" marks the 1802 canvas and mastic roofing that remains in place. "B" marks the observatory floor.



12.6: Underside of a fragment of canvas from the 1802 roof showing tar impregnated into the canvas fibers



12.7: Fragment of the mastic that forms a 1/2" thick bed between the canvas and the roof sheathing. It appears to be composed of sand, tar, lime, and shell fragments, and is quite hard, but has not been subjected to compositional analysis.



12.8: Plan of current floor boards. Area of original chimney boards in recess at center. Leading out to the near

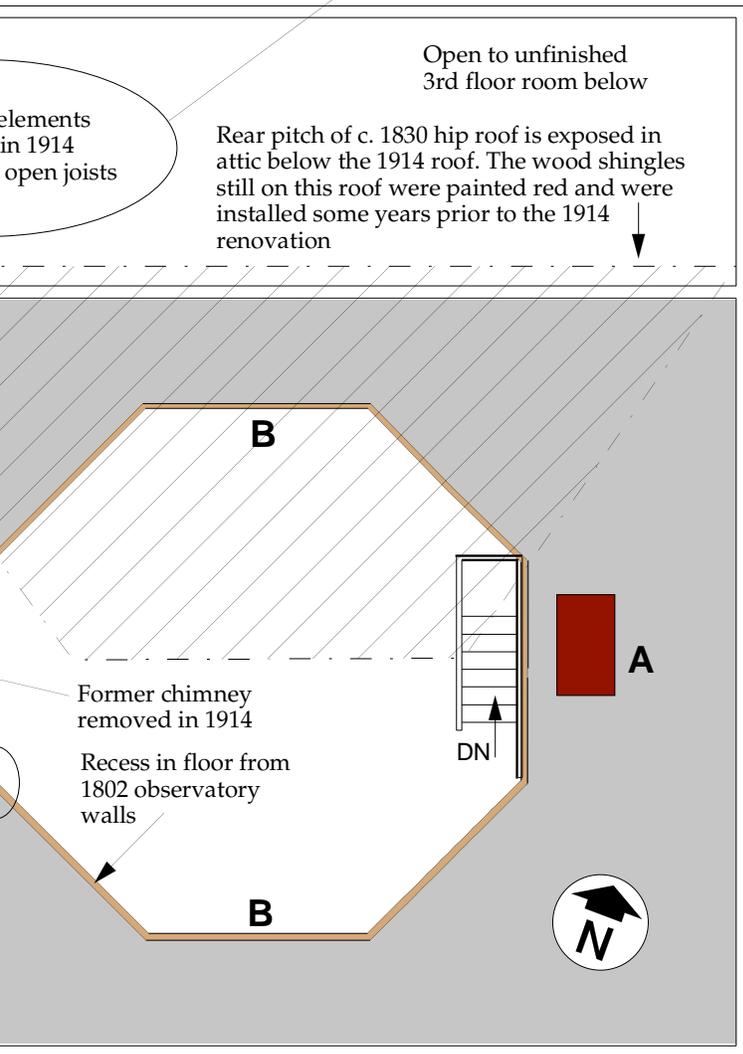


12.3: Stencil decoration on staircase wall that likely dates to 1802.



Rear pitch of c. 1830 roof

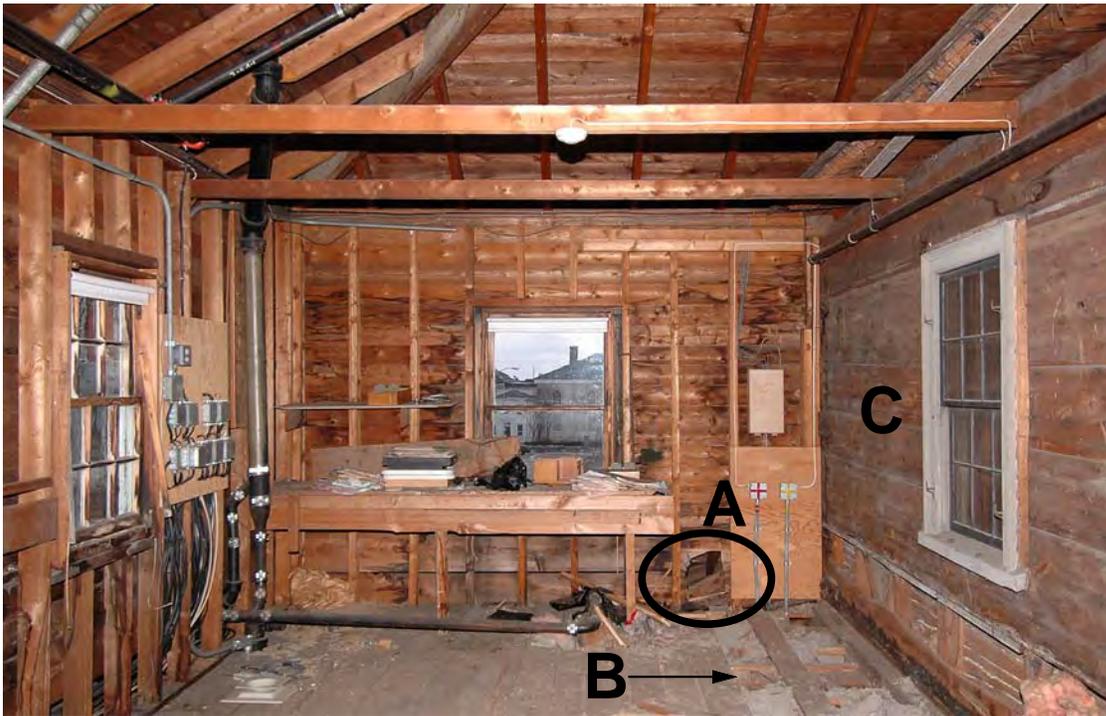
12.4: Building elements removed from building during the 1914 renovations. Most of these are from exterior. "A" is the frieze from the 1802 cornice. "B" are two pilasters whose origin could not be determined from the paint. "C" marks two exterior shutters, one for a window, and the other a door. They are on top of the chimney breast "D" shown in 12.9. Several 1802 doors are stored in the corner below the chimney breast.



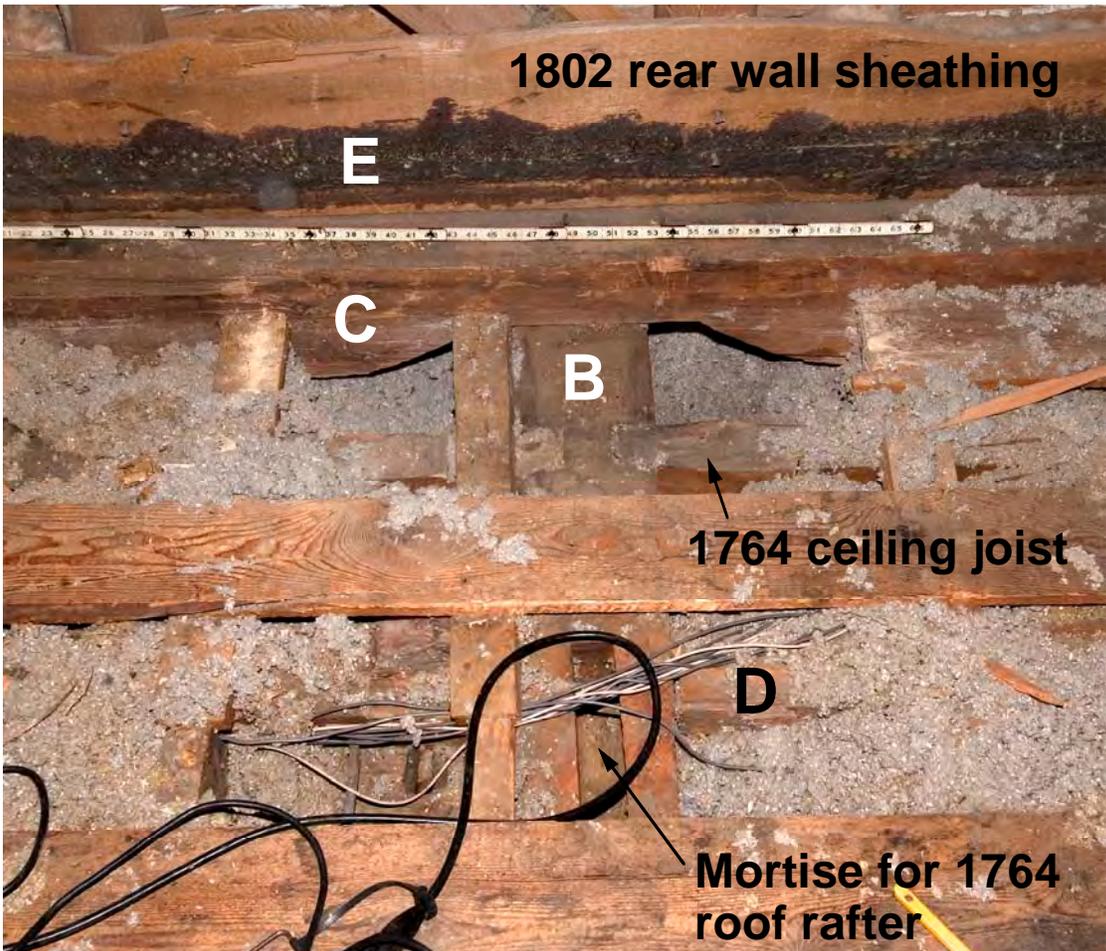
12.9: 1764 chimney breast paneling indicated by "D" in photo 12.4. Paint evidence indicates it was removed from the kitchen chamber in 1914 when the west chimney stack was removed. The paint shadows on the fireplace jamb marked by the red circle indicate a succession of changes to the hearth surround. The red paint is the first finish color in that room. The marks indicated by the arrows show that the paneling was covered over by plaster prior to its removal in 1914.

Attic with outline of 1802 observatory still present as a recess in the original 1802 canvas roof that remains in place is shown as light grey. At "A" still retains its thick lead flashing from the 1802 roof. Filler of front and rear walls (B) may be remnants of sills for doors on a flat canvas roof deck.

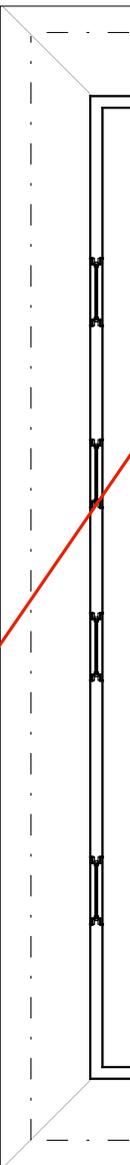
ATTIC	12
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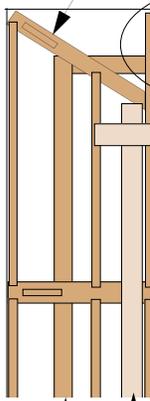
13.1: Unfinished third floor of 1914 rear addition showing area of framing exploration. The circle at A marks the hole cut in the wall sheathing that was used to take the photo at "A" on the plan. The arrow at B points to the ceiling beam "B" in the photo 13.3. "C" marks the original rear wall of the 1802 addition. The clapboards and cornice were removed from the wall in 1914. The window frame on the right wall dates to 1802 and has not been painted since 1914.



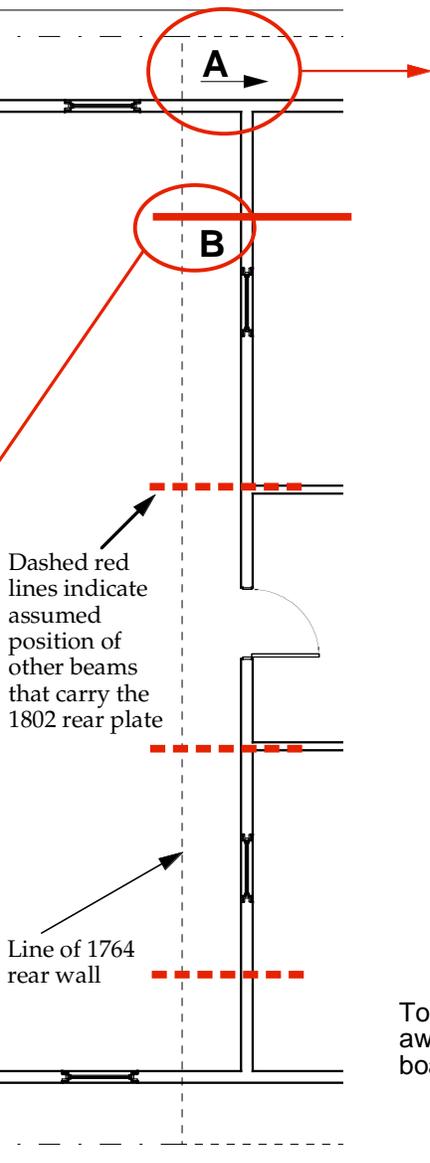
13.3: Framing at 1802 rear wall showing how 1802 rear wall plate (C) is notched over a 1764 ceiling beam (B). The ceiling beam carries the 1802 wall load to the original 1764 roof plate (D). The mortise in beam "B" for an original 1764 roof rafter is 13" long, indicating the rafter had a fairly low pitch and was unlikely to be for a gambrel roof. The dark material at "E" is tar from the original 1802 tarred canvas roof. See the drawings 13.5 and 13.6 at right for a plan and section through the wall plates.



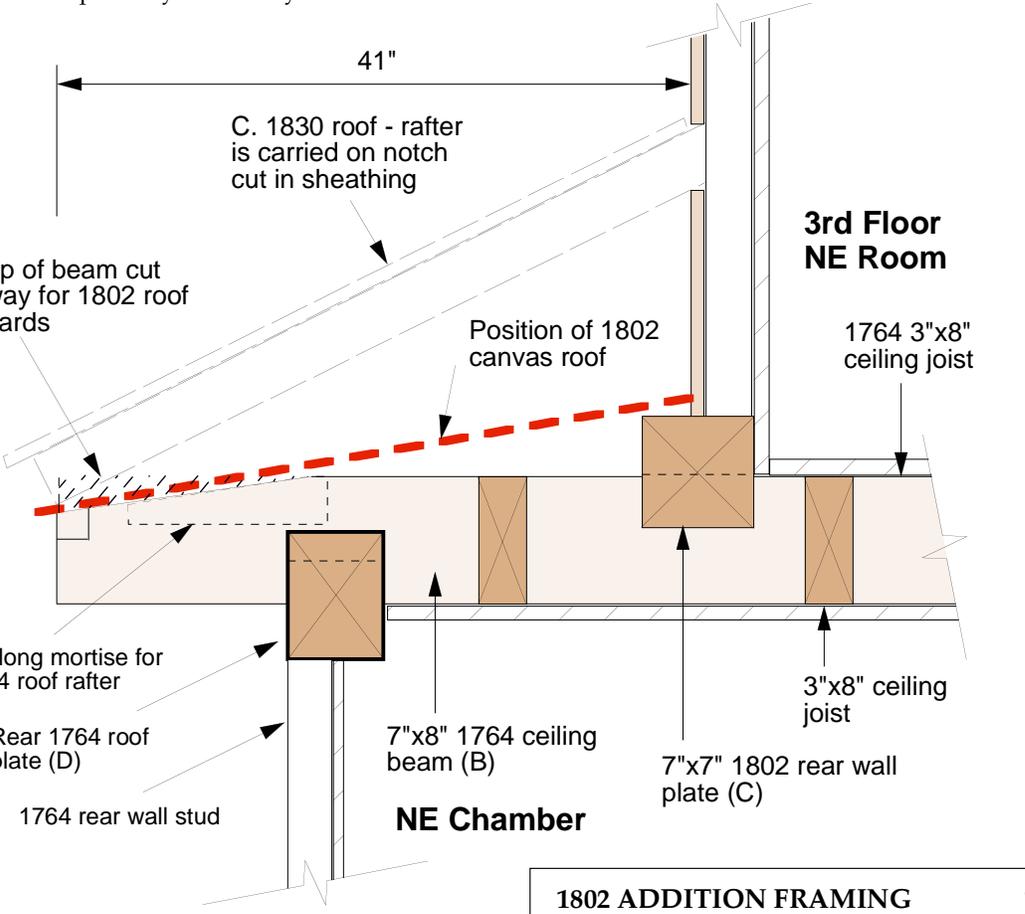
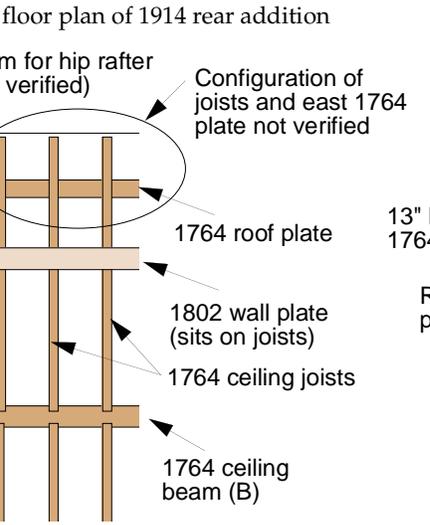
13.4: Third floor Dragon beam (mortise notch)



1764 roof plate (D)
13.5: Plan of 1764 house showing dragon hip rafter rather than gambrel over dragon beam



13.2: View under c. 1830 roof taken at "A" on the floor plan showing surface of low pitched 1802 canvas roof (arrow), with white 1802 clapboards and corner quoin still in place at right. The tan material at the base of the clapboards is the 1802 canvas turned up the wall as flashing. It was probably covered by a base board that has been removed.



13.6: Section through 1764 roof plate and 1802 wall plate showing how 1802 rear wall plate (C) is carried by 1764 ceiling beam (B). The ceiling beam carries the 1802 wall load to the original 1764 roof plate (D).

1802 wall plate (C) notched over beam B) and 1802 framing at NE corner of 1764 polygon beam that suggests original roof was ambrel. End of plate "C" just barely laps with minimal bearing. Scale 3/16"=1'

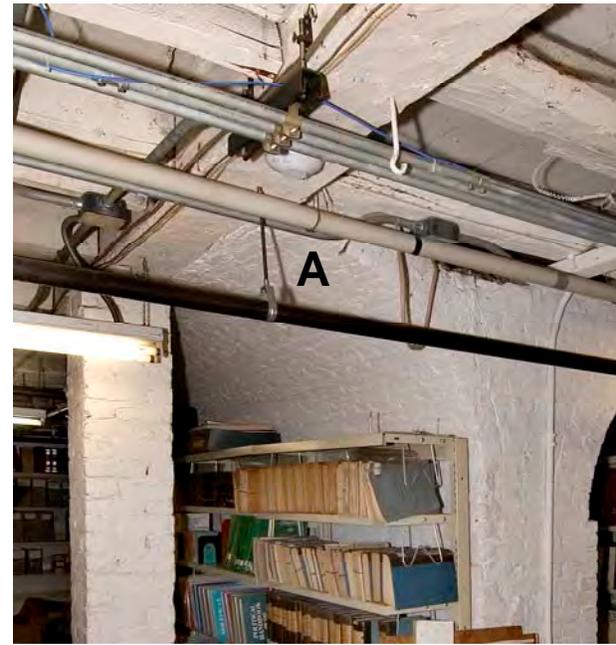
1802 ADDITION FRAMING		13
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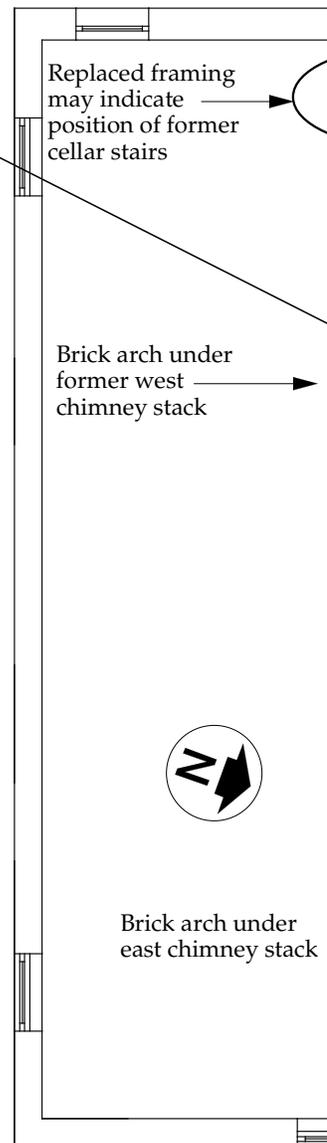
14.1: Severely twisted and split beam (A) under main stair hall west wall. "B" marks wall planks that bear on the beam and have been pushed outwards by the twisting of the beam (see 14.4). This condition was documented several years ago in an engineering report by Ocmulgee Associates of Ipswich, MA.



14.6: Bulge in stair woodwork (arrow) may be due to the movement of the plank wall over the twisting cellar beam in 14.1 pushing on the stair treads.



14.2: Base of westerly chimney still remains in place with arch (A) that originally supported the kitchen hearth.

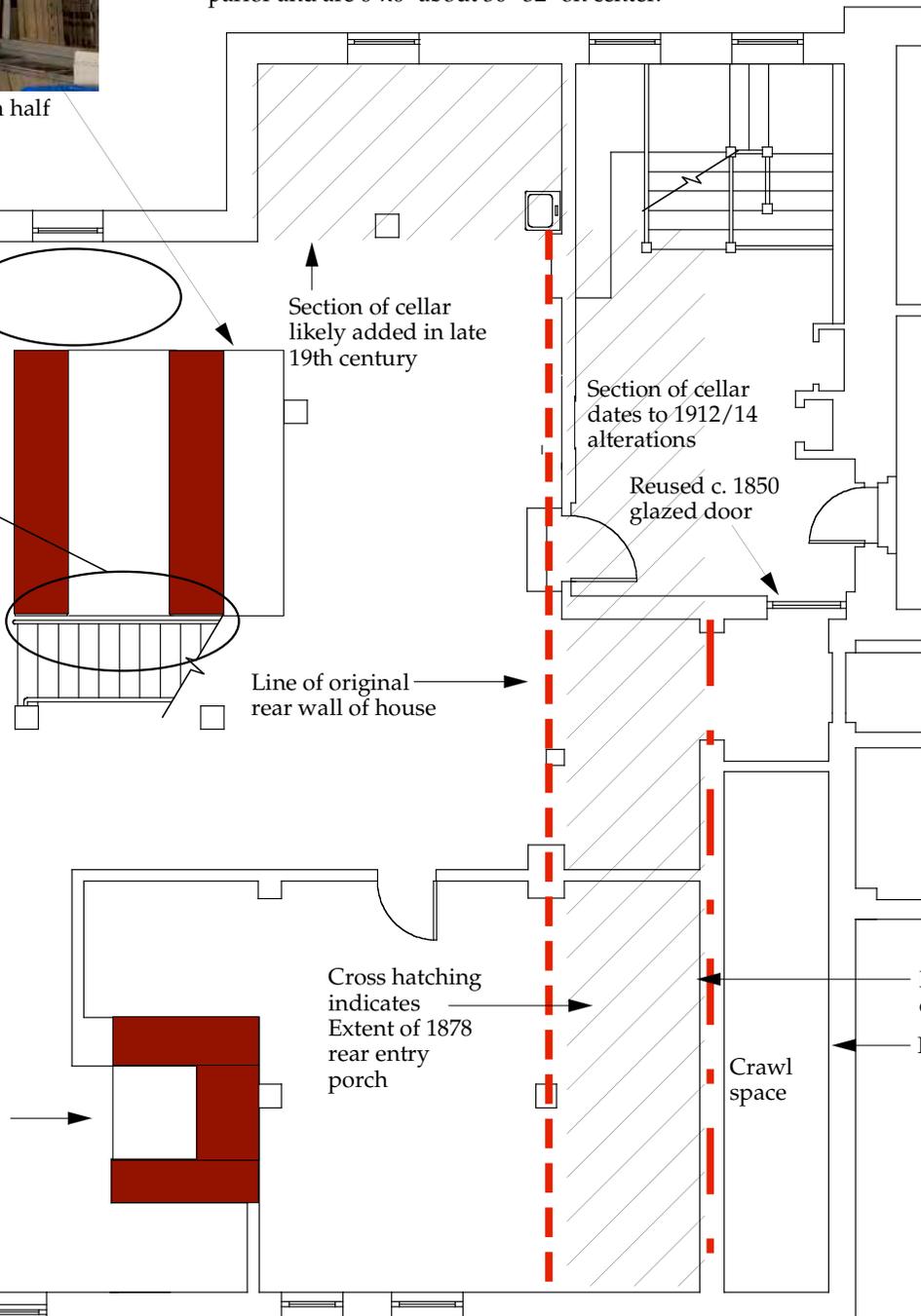




14.3: Typical framing for first floor. Joists shown are under SW parlor and are 6"x6" about 30"-32" on center.



14.4: Detail of splitting and twisted beam in photo 14.1 showing 2" thick wall planks with lath and plaster applied directly to them. Any repair of this condition should use extreme care to avoid damaging the plaster under the wall murals.



14.6: Southeast corner of original fieldstone foundation. Brick on top of stone are larger in size than 1764 chimney base brick and likely were added in the mid-19th century. Sills appear to be original.

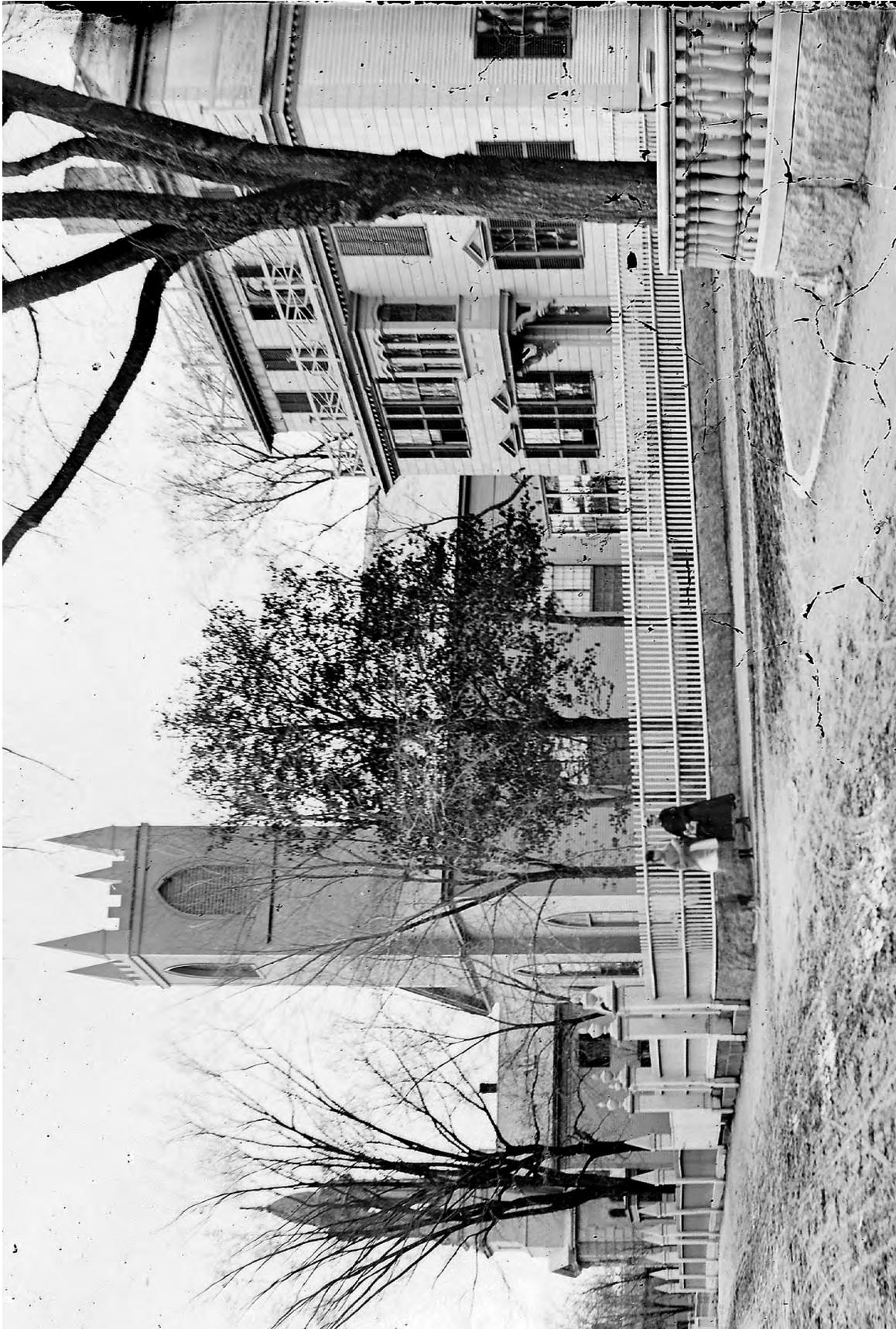
BASEMENT	14
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APPENDIX

Historic Photographs	Appendix – 1
1914 Renovation Plans and Elevations	Appendix – 11
1934 Measured Drawings of Parlor	Appendix – 20
Probate Inventory of Thomas Saunders	Appendix – 22
Probate Inventory of Capt. John Beach	Appendix – 24

The following Appendix items are unpaginated Xerox copies and are not included in PDF version of this report:

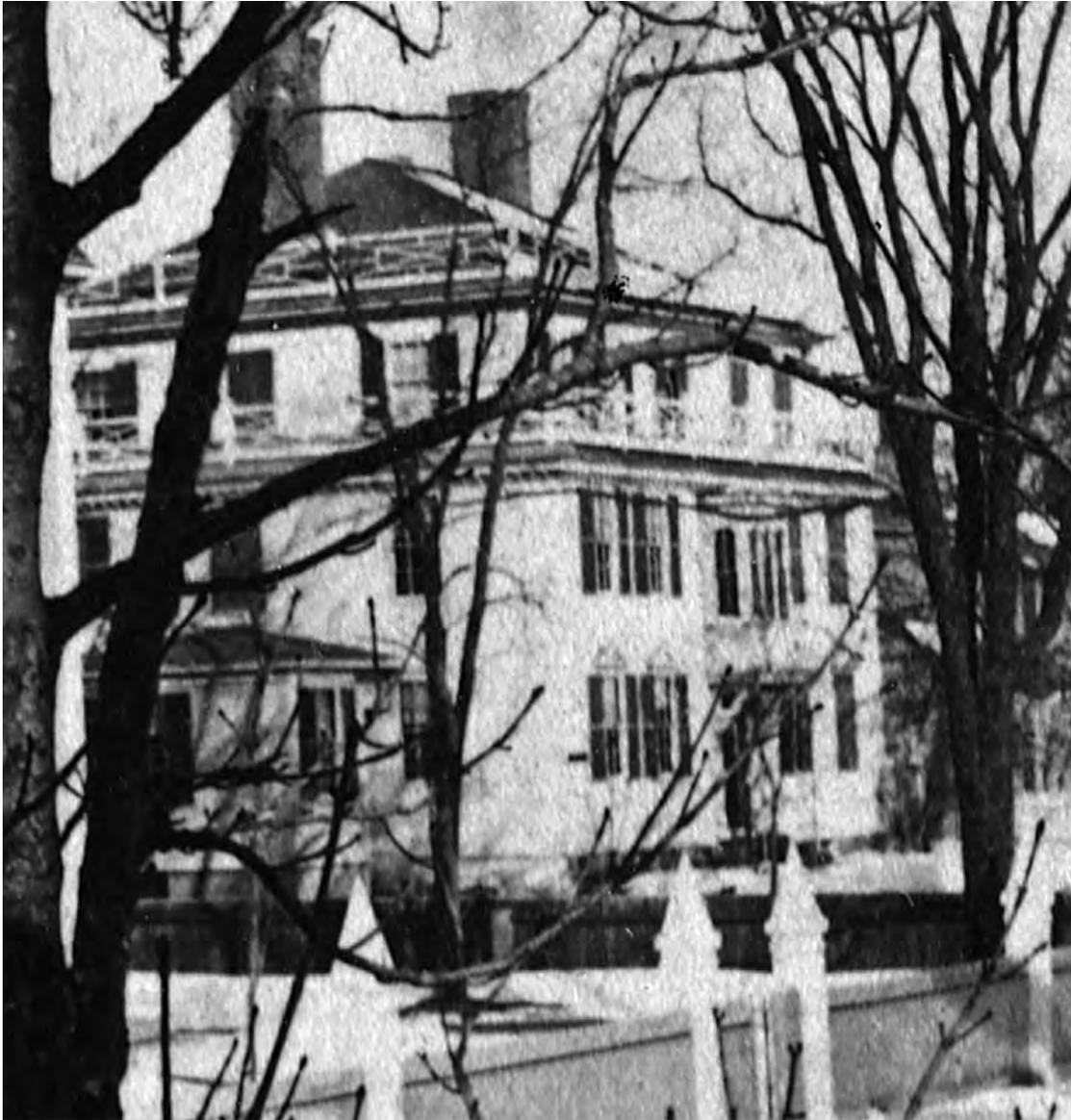
1878 Site Survey	2 Sheets
Street Atlas Plans 1851-1917	7 Sheets
Excerpts form 1884 Library Dedication Booklet	9 Sheets
Newspaper Articles from 1914 (3) and 1934 (1)	5 Sheets
Sawyer Free Library Image Inventory	5 Sheets
Excerpts from City Records Guide Re. Library	2 Sheets
Library Account Entries during 1914 Renovations from City Archives	6 Sheets



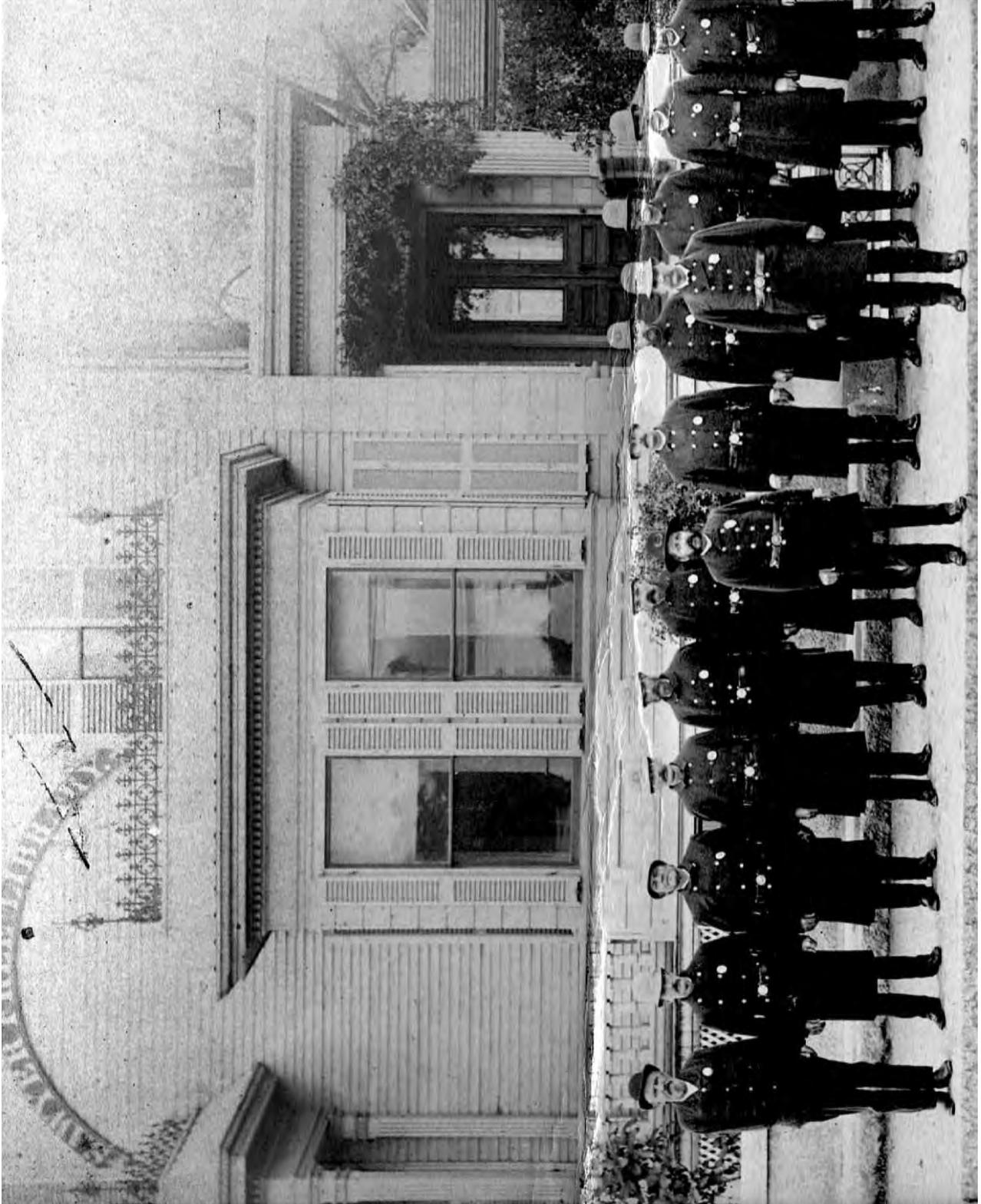
Pre-1878 Stereo View. Courtesy CAHA



Detail of front facade from pre-1878 Stereo View on previous page. *Courtesy CAHA*



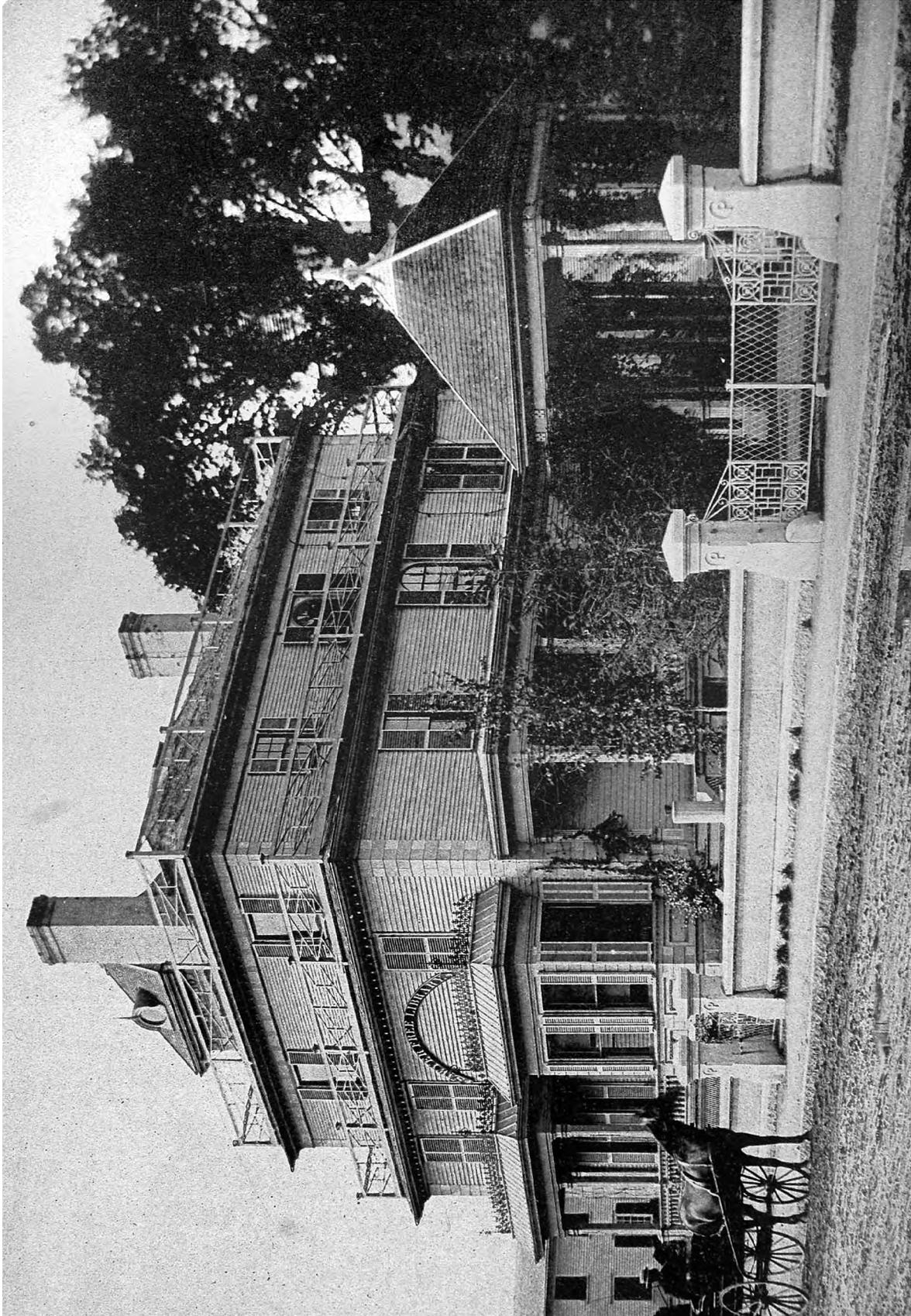
Undated Pre-1878 Stereo View showing west facade. Note one story ell appears to have an entry next to the main house, and is further forward than the current ell. *Courtesy CAHA*



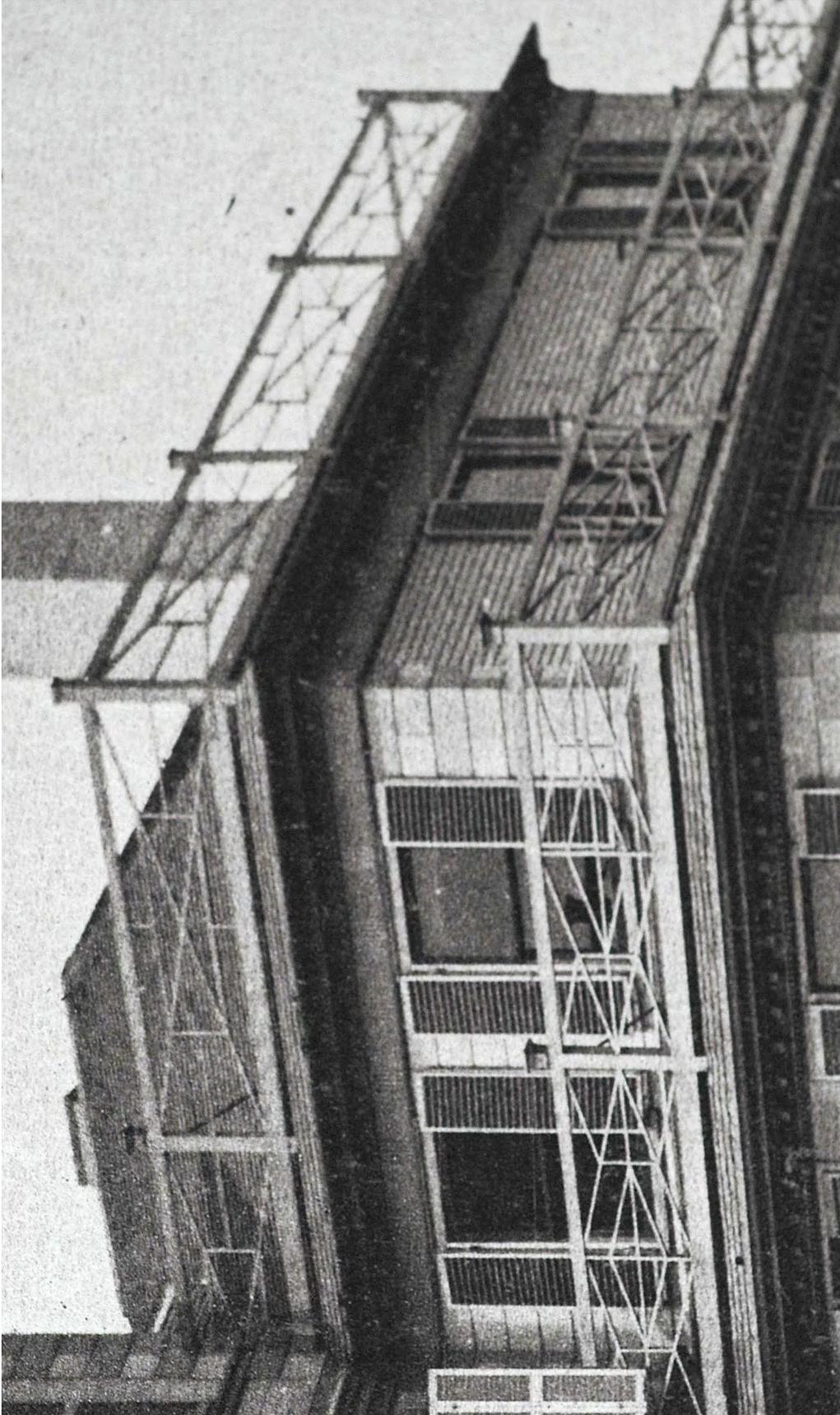
View showing 1878 bay window and rear entry porch taken between 1884 and 1912. Courtesy CAHA



1884 photograph from library Dedication booklet. Courtesy CAHA



1884 photograph from library Dedication booklet. Courtesy CAHA



Detail of balustrades from 1884 photograph from library Dedication booklet. Courtesy CAHA



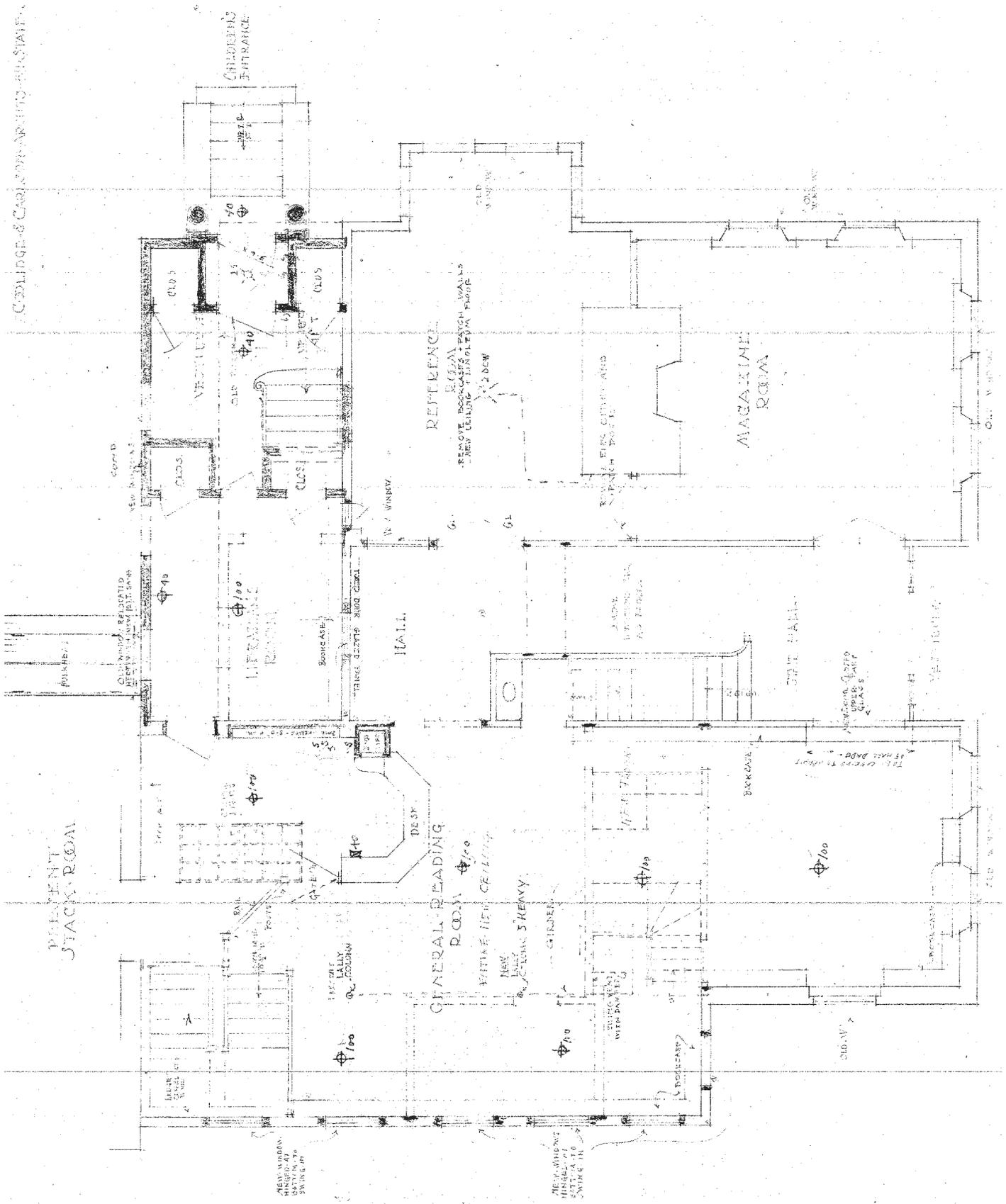
C. 1900 photograph after snowstorm Courtesy CAHA



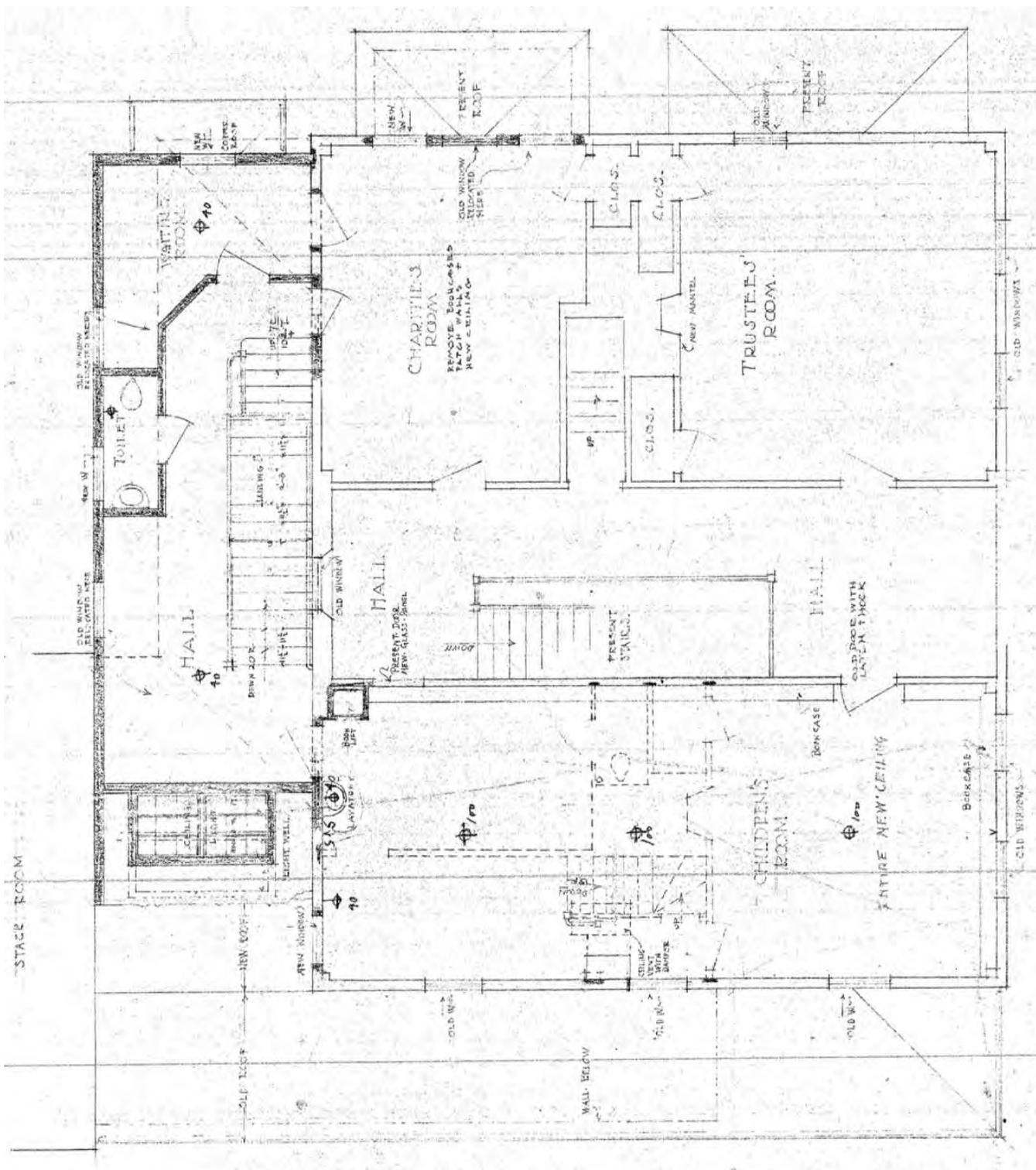
Undated photograph of rear facade sometime after 1915. Sawyer Free library Archives



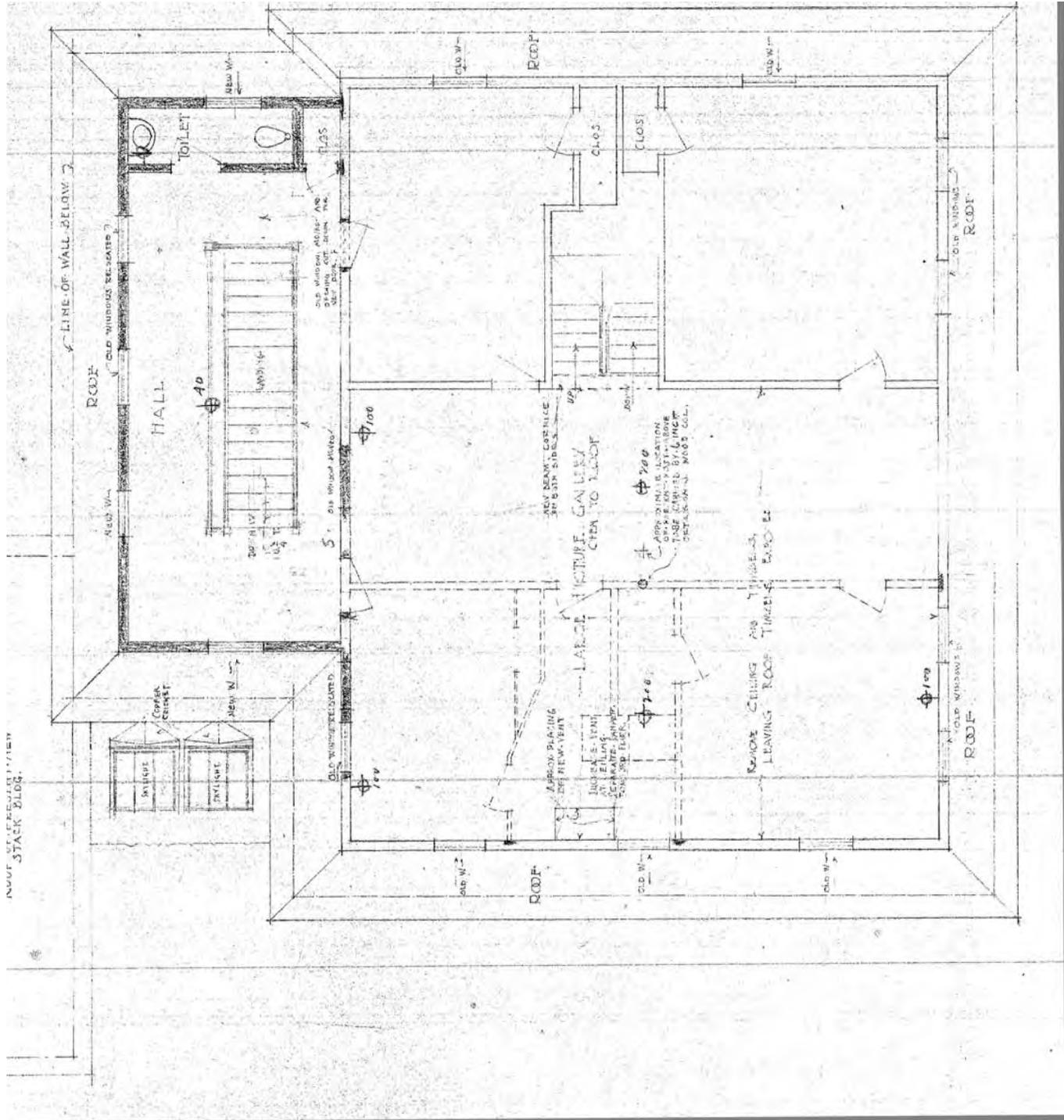
1938 photograph of west side facade. Sawyer Free library Archives



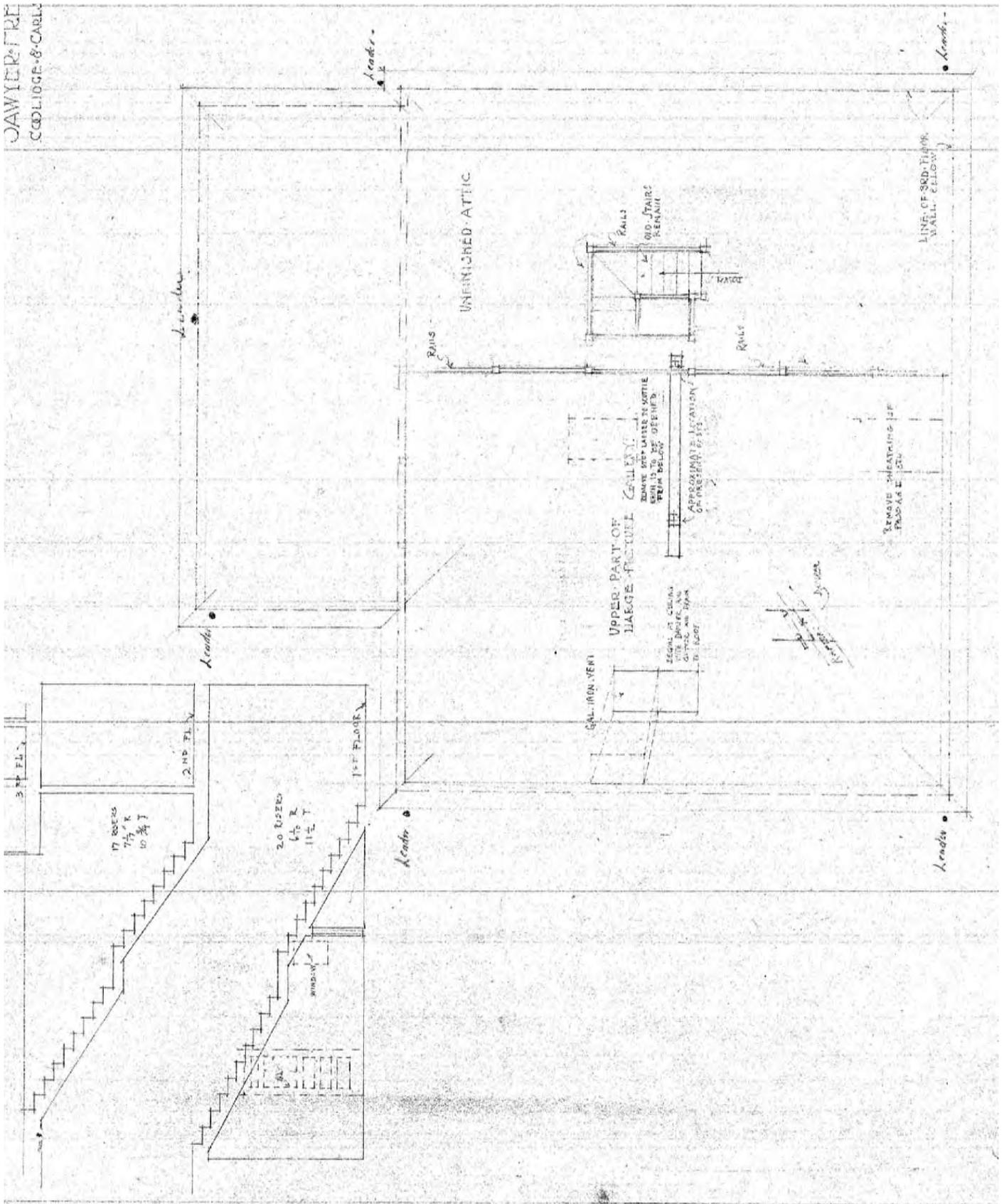
1914 Renovation Plans - 1st Floor: Significant changes were made from these planes during the 1914-15 construction. (All plans are at 1/8"=1') Plans scanned from blueprints in Sawyer Free Library Archives



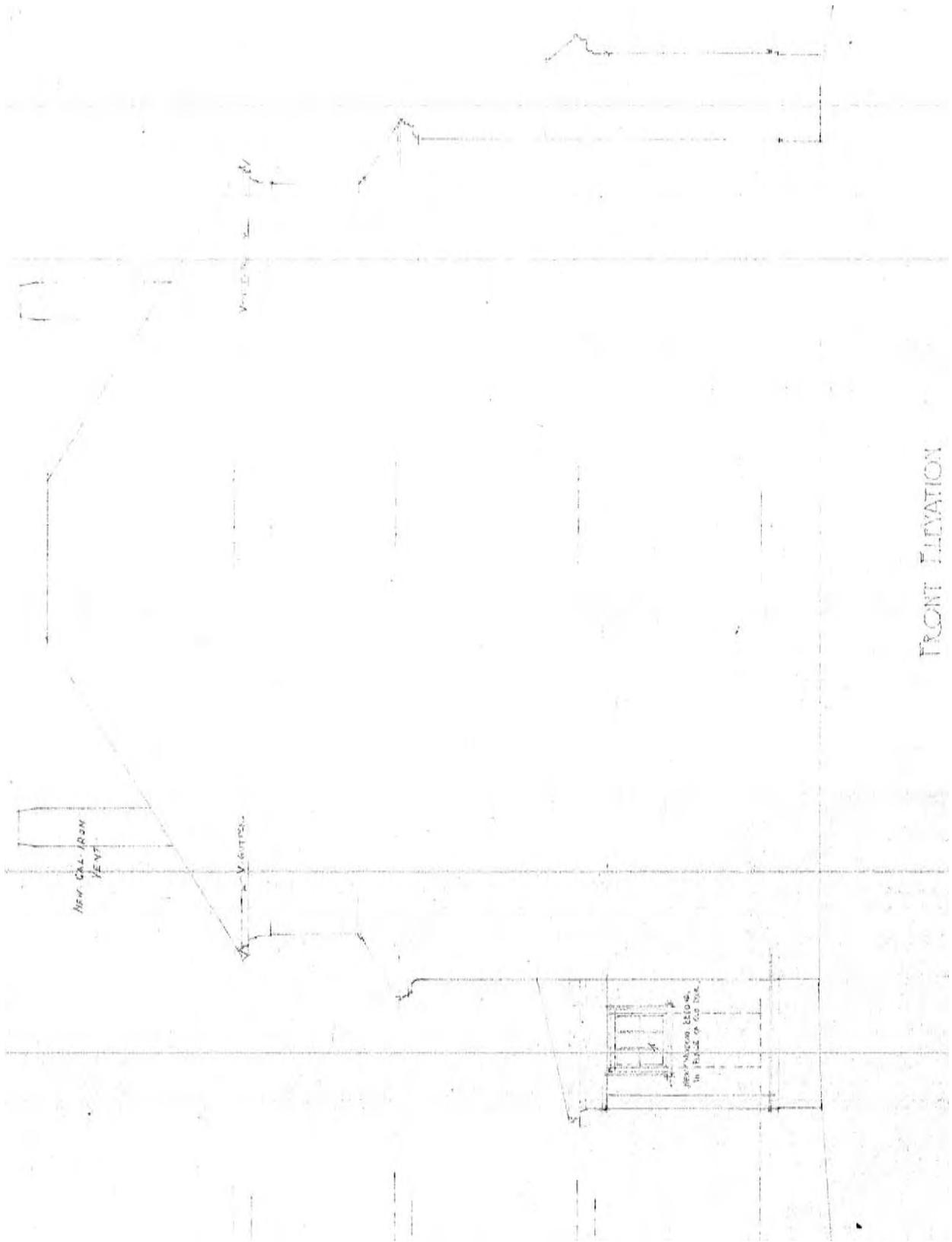
1914 Renovation Plans - 2nd Floor



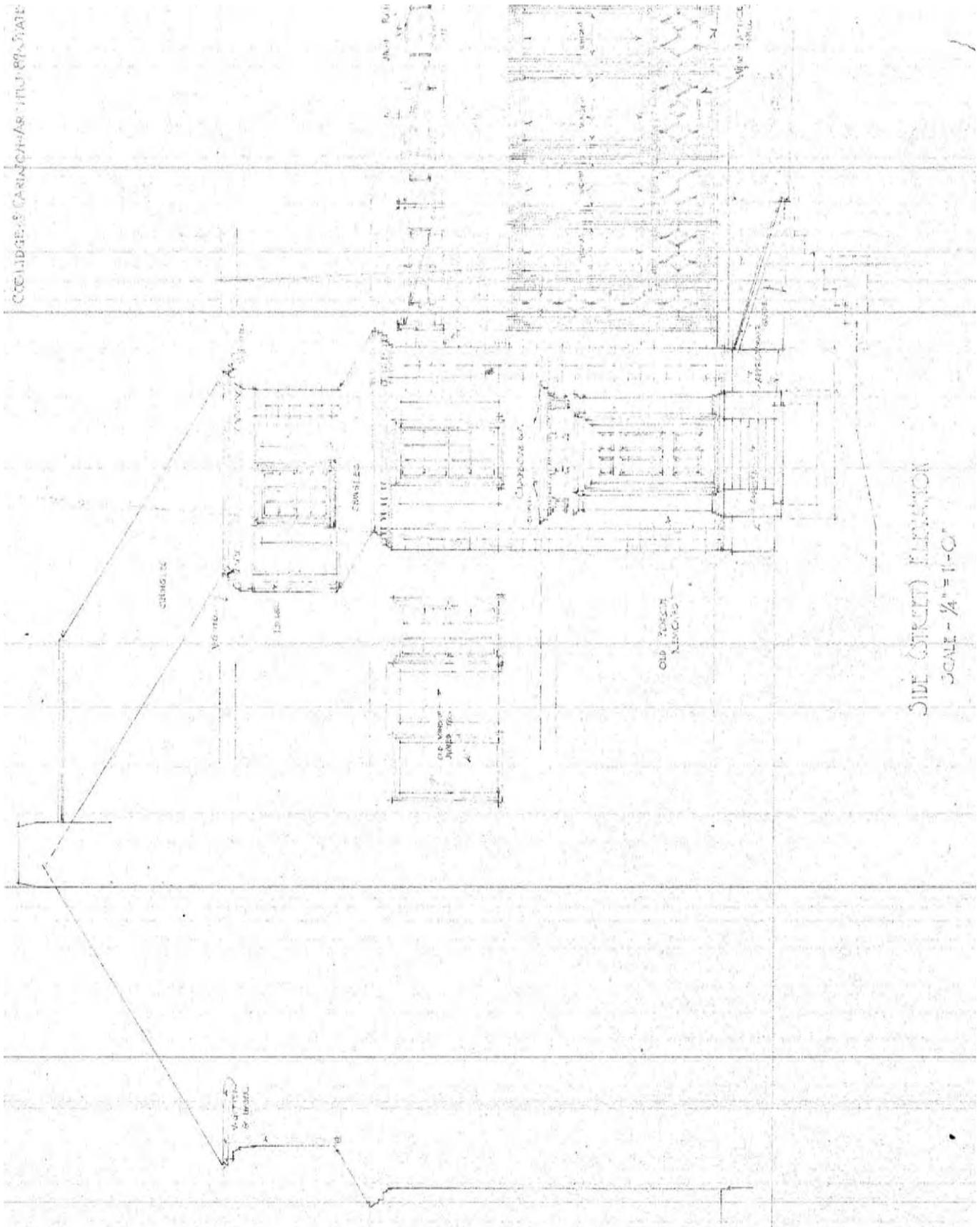
1914 Renovation Plans - 3rd Floor



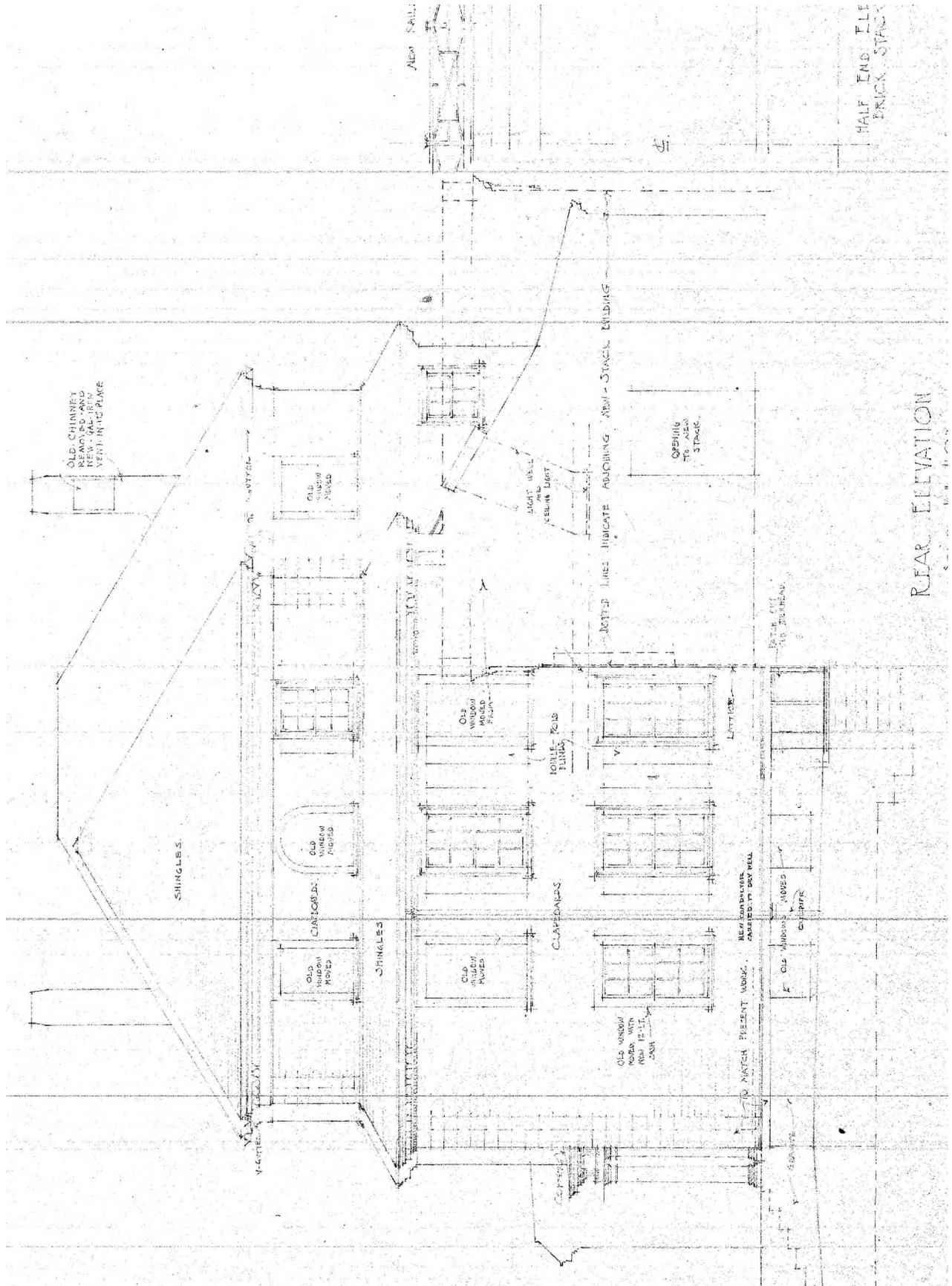
1914 Renovation Plans - Attic



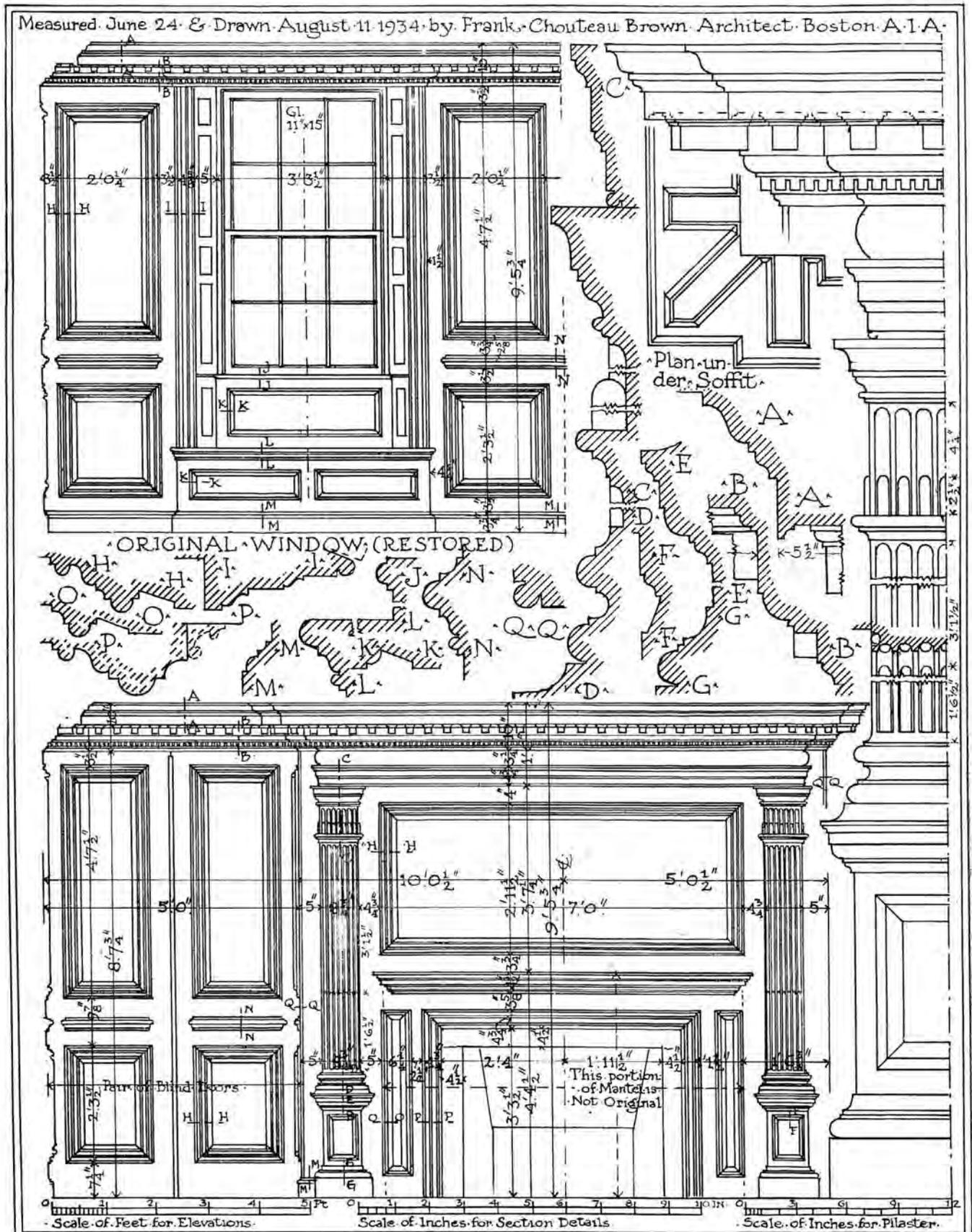
1914 Renovation Plans - Front (south) Elevation (only areas affected by the work are detailed)



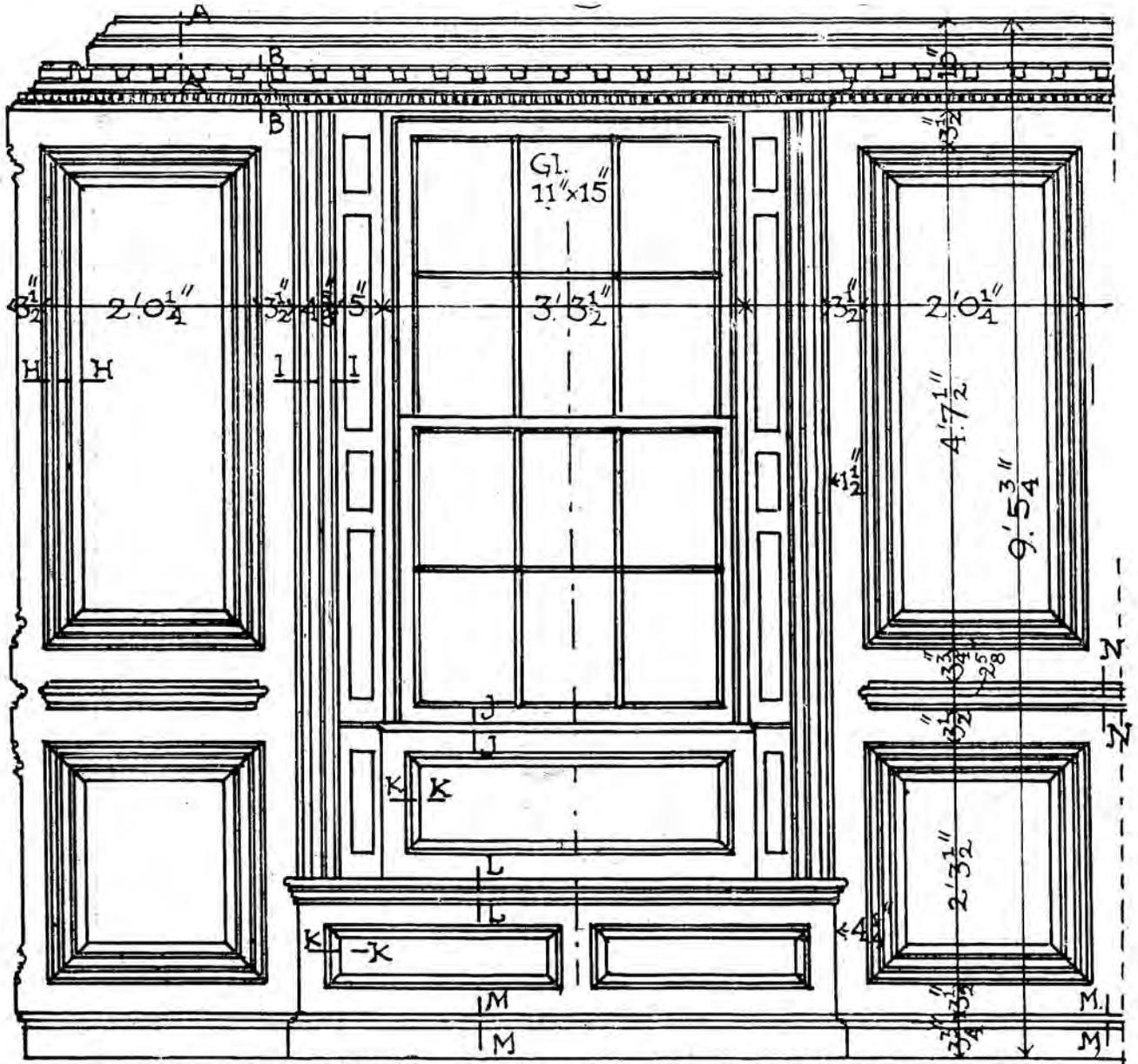
1914 Renovation Plans - East Elevation (only areas affected by the work are detailed)



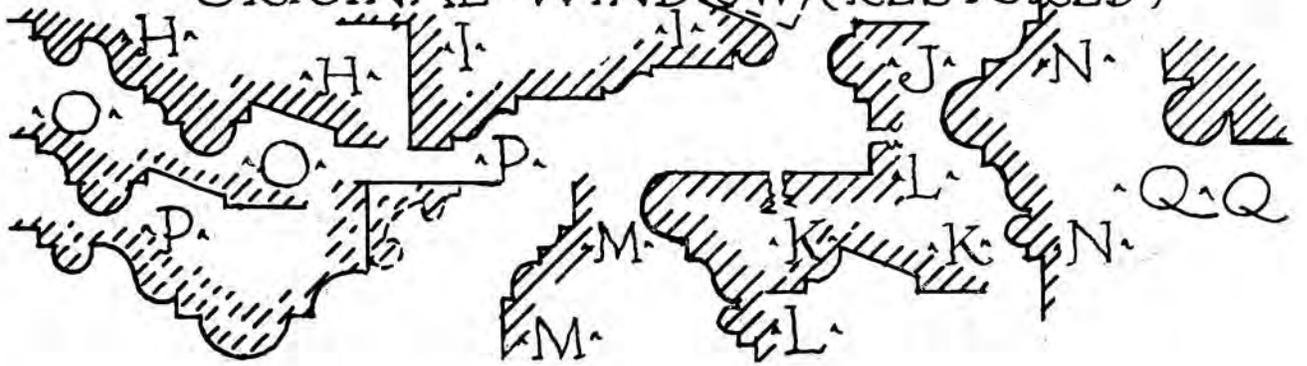
1914 Renovation Plans - Rear (north) Elevation (only areas affected by the work are detailed)



Measured drawing of Davidson Room from the *White Pine Series, Pencil Points*, October 1934 Finch&Rose collection



ORIGINAL WINDOW; (RESTORED)



Enlarged detail from Measured drawing of Davidson Room from the *White Pine Series, Pencil Points*, October 1934 showing the restoration of the window frame to its original length. *Finch&Rose* collection

**PROBATE INVENTORY
THOMAS SAUNDERS
GLOUCESTER, MA
1784**

Transcribed by Peggy Flavin
(values omitted, some illegible entries omitted)

Mansion house and barn and about 4 acres mowing land and garden

18 acres pasturing land

1 pew in the meeting house

The personal estate:

Sloop 50 tons 8 years old

A fore sail and jib belonging to a schooner 88 tons

8 leather bottom chairs

1 arm chair 1 small table one walnut desk

1 ditto round table 1 large metal handirons

Metal shovel and tongs 12 silver handled knives and forks

1 looking glass 1 clock 1 stand doz. china plates

2 doz. delph plates 9 delph dishes

1 large china bowl 1 FP bellows 1 china bowl

Sundry glassware and teacups and coffee cups and saucers and small bowls

Chambers dictionary one large server 2 small

1 japan server 2 small baskets sundry books and pamphlets

65 oz silver and money scale and weights

1 large table 5 feet over 7- 1 stand table

8 chairs 2 old arm chairs 1 walnut table 1 pined

1 walnut desk 1 case bottles 1 old watch

1 watch 1 gun 1 fireplace iron dogs old brushes

22 white handled knives and forks spinning wheels

10 leather ??

16 small new canvas 1 Ensign

1 Crimson harratene bed, curtains, bedstead and iron rods

1 easy chair 1 fireplace small handirons

1 quilt and 1 blanket 1 chest of drawers

6 walnut chamber chairs, 1 chamber table

1 glass 2 blankets 1 bedstead and rods

1 suit furniture check curtains 2 counterpane and window curtains

1 palate? bedstead and quilt clothes stool chest

7 red 4 back chairs 6 black chairs

1 bedstead 1 quilt 1 old chair 1 small table

3 small blankets 1 clothes chest

2 old trunks 1 fireplace iron dogs

1 bedstead 1 suit green curtains and rods
 2 green quilts old 5 blankets 2 quilts
 1 toilet table 28 pairs sheets 4 pairs linen sheets
 10 pair pillowcases towels and napkins
 15 table cloths 1 scale beam 2 trammels
 1 old bed three blankets iron maul old iron
 5 beds with pillows 2 saws three pine tables
 1 warming pan cradle
 1 fireplace kitchen handirons 1 gridiron 1 fireplace shovel and tongs
 pewter dishes and plates 1 iron fender 1 toaster iron
 11 lbs old pewter 2 spits 1 chafing dish
 1 iron 56 weight 2 small trammels 2 pairs flat irons
 2 iron boxes and heaters 2 iron grates 5 brass candlesticks
 1 brass kettles 1 ditto
 1 coffee mill 2 iron pots 1 iron kettle
 1 iron coffee toaster 1 iron dutch oven 2 iron skillets
 2 small brass skillets sundry tin ware and brass
 1 coffee pot small iron pot 1 lantern waterpot
 1 pair small iron handirons wearing apparel
 shirtsnecks caps 1 chaise 1 horse
 1 hogg 2 cows with hay
 anchor II small schooner
 Some old coopers tools and 1 pair gold sleeve buttons
 Set of shoe and knee buckles silver

**PROBATE INVENTORY
CAPT. JOHN BEACH
GLOUCESTER, MA
1819**

Transcribed by Peggy Flavin
(some illegible entries omitted)

2 mahogany dining tables at \$8 \$16 2 ditto card ditto at \$4 \$8
\$24
1 ditto tea table \$3 1 ditto breakfast table \$5 6 ditto hair bottomed chairs at \$?
1 doz. yellow windsors ditto \$9 1 brass fire set \$15 1 smaller ditto \$6
1 japan plate warmer \$4 1 large waiter \$.75 1 chimney mirror \$20 \$24.75
Π doz rummers \$1.88 jelly glasses at \$1.37 \$3.95
6 china bowl part damaged \$1 2 Π pint decanters \$.67
\$1.67
2 quart ditto at \$.09
\$29.92
1 tortoise shell silver encrusted dressing case \$10
8 china plates injured at \$1 8 ditto cups and saucers at \$67
\$1.67
2 pair decanter stands at \$1 1 earthen fruit dish and stand \$.33
\$1.33
2 flower pots at 1 small waiter \$.10 1 pair fire buckets and bag. \$3.50 \$4.10
\$119.52
1 pair snuffers and tray \$.25 1 silk umbrella \$1.25 \$1.50
1 barometer and thermometer \$2 1 ditto ditto \$2
\$4.00
1 floor carpet \$15 1 looking glass ? 1 hanging compass \$1.25
?
1 large case of bottles \$5

Page 2

1 mahogany writing desk \$7 1 pine?
????????????
1 doz. earthen plates \$.33 pewter ditto \$2.87?
4 earthen ditto at \$1 8 black tin dish covers at \$?
3 tin pudding pans \$.75 2 coffee pots ?
2 plated ditto at \$.75 1 pair snuffers and tray \$.12 7 black tin stew pans ?
2 tin teapots at \$.75 3 brass candlesticks at \$.75

1 ditto ditto \$.25 1 coffee mill \$.12 1 brass mortar \$1 1 tin fish boiler \$1 \$2.37

1 skimmer \$.15

??

Sundry pots, kettles, oven, gridiron?

\$193.37?

1 floor carpet \$5 1 mahogany fire screen \$.33 1 8 day clock \$27 \$32.33

1 folding board and clothes horse \$.50 2 gal. earthen pitcher

\$1.50

2 1 gal. ditto at \$1 2 demijohns \$1.50 \$2.50

6 tin patty pans \$.10 3 spit boxes at \$.20 \$.60 1 lead tea chest \$.50

1 book of charts \$5 quantity single sheets \$10 \$15

2 glass entry lamps \$10 quantity of books \$9 \$19

Bellknap, s American Biography 2 volumes ?

1 map of France \$3 5 leather bottomed chairs at \$3.12 \$6.12

Π doz mahogany dressed chairs at \$10.50

1 mahogany cased drawers \$10 1 ditto ditto \$8

6 Π pair linen sheets \$16.25 5 ditto cotton ditto at \$7.50

3 ditto tow ditto at \$5

1 Π ditto pillowcases at \$3.75 1 mahogany bureau \$4

2 sets copper plate bed curtains \$? 1 down bed 53 lb. \$.90

\$47.70 \$52.70

1 feather bed ditto \$20.10 1 mahogany night cabinet \$4 8 blankets \$11

1 common table \$.75 1 gilt frame looking glass \$2.25 1 mahogany ditto at \$2

1 floor carpet \$3.75 2 nurse lamps \$1 1 sword cane \$1

1 old sword \$1 1 pair small pistols \$3

1 wooden canteen \$.75 1 small trunk \$.75 2 side lamps glass \$.50

1 straw bed \$1.25 5 dining table cloths \$11.50 2 breakfast ditto ditto \$2

1 old table cloth \$.75

6 flag bottomed chairs \$4.50 2 Indian bowls? At \$.50

1 pine book chest \$1 1 easy chair \$5 1 bed bedstead curtains quilt \$24

1 pine toilet \$.25 3 window curtains \$3 1 piece carpet \$.25

5 walnut chairs \$2.50 1 bed bedstead and quilt \$17.50 2 armed chairs \$4

1 spyglass \$.50 32 prints voyages at \$19.50

1 maple bedstead \$1.50 1 pine ditto small \$.50

???????????????? tin kitchen \$1.50? window sashes and glass ?

Sea compass ? wooden skimmer bowl \$.25

80 lbs. old lead \$.07 \$5.60 5 flour barrels and kegs ?

1 old chest and contents \$.08 2 quarter casks wine \$.50

15 doz. port wine and bottles at ? 8 doz. white wine

13 doz. empty bottles at \$6.50 1 stair carpet \$4.20 1 large brass kettle ?

1 small ditto ditto \$2 1 tin water pail \$.75 sundry garden tools at \$3 \$5.75
 3 long saws x cut saws \$3 1 axe \$.25 83 lb anchors, grapnel, etc. ?
 1 chest tools \$4.75 Sundry ????? pots and jugs ?
 Quantity paints and chalk \$3 1 Franklin stove \$5
 1 iron garden roller \$3 2 lanterns 3 kegs quantity old iron
 \$7
 1 sleigh \$5 old horse harness \$5
 1 horse hack \$5 horse and saddle \$50
 2 Π tons English hay at \$8 \$20 6 firearms and 1 blunderbuss at \$18
 5 ????????? 2 hogshead tubs
 1 pew in Rev. Jones meeting house \$80 1 ditto in Rev. Hartshorne,s meeting house
 1 Norwegian boat, sails and caboose \$20
 2 prints Washington and Fayette \$4 1 painting Death of Hector \$3
 1????????painting \$2.50 1?????????????glass \$.50
 1 share Gloucester Library \$6 1 watch \$5 2 bed quilts at ?
 \$19.50

1 looking glass 1 barrel ?
 1 jack screw ? 1 horse sled \$1.50 quantity of lumber in rope walk
 72 ozΣ plate
 25 shares Newburyport Turnpike at \$25 \$625
 \$1875 United States 16 million loan \$1875
 188.52 ditto 25 million loan \$188.52
 \$400 ditto old percent \$400
 \$4,409.33 ditto funded 6 percent treasury ? stock \$4,409.33
 \$3,550 Gloucester Bank shares \$3,550

1 chaise \$80 1 cow \$25 1 dining set ware \$18 1 teaset ditto \$3
 2 mahogany card tables \$16 1 English carpet \$15 1 settee \$23
 1 mahogany light stand \$2.50 1 ditto work table \$4
 Π doz. Windsor chairs 3 beds complete ? 2 dining tables Π doz. mahogany stuffed bottom
 chairs \$10.50
 Sundries tin ware \$3 Skimmer, toaster, gridiron \$.75
 3 brass candlesticks \$1.50 1 pine kitchen table \$.75 1 tin kitchen \$1
 1 tin pail \$.80 1 iron pot and kettles \$.75 1 flour sack
 \$.25
 1 mahogany side board \$16 ? 2 rocking chairs
 ???
 Floor carpets \$4.50 Common chairs \$3
 1 mahogany framed looking glass \$4 1 set knives and forks
 1 bread tray \$.50 1 clothes horse large waiter small \$.10
 ???

1 set bed curtains 3 breakfast cloths ?
 3 sad irons \$1 1 pewter dish 1 tin dish cover
 1 warming pan \$1 1 green woolen table cloth \$2 1 pair butter boats
 \$.25
 1 Mahogany tea caddy \$1 2 pictures tin stew pans
 3 wash tubs \$1 6 china plates \$75 1 bowl \$.25
 3 chinese flower pots \$.75 1 common clothes trunk \$1
 1 pair rose blankets \$9 1 doz blue coffee cups and saucers \$.33
 2 clothes brushes \$.50 set of table mats \$.50 2 tin kettles
 \$.66
 Iron basin \$.37 1 pair sugar nippers \$.50 1 cheese tray
 \$.75
 3 ??? dishes \$3 6 pairs sheets \$15
 3 pair pillow cases \$3 2 dining cloths \$6 2 copper plate quilts
 \$?
 1 ditto flounced ditto \$4 1 hearth rug \$2



NESHAMKIN, FRENCH EXPANSION PROJECT (2005)





DALE AVE. (EAST) ELEVATION

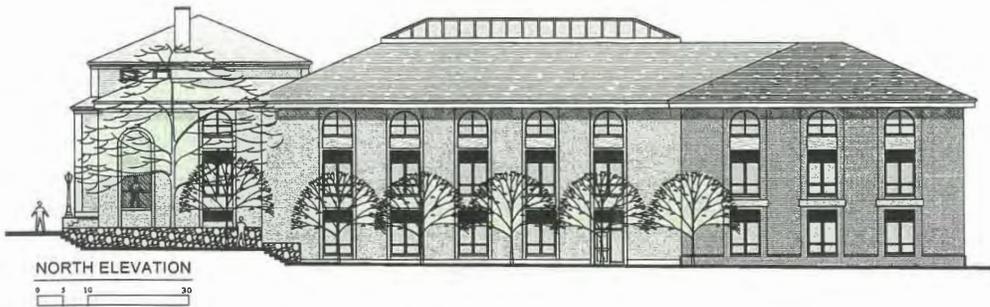


REAR (WEST) ELEVATION

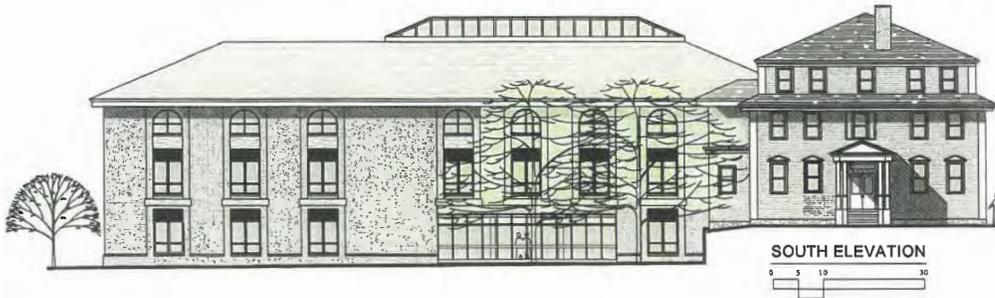
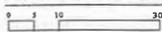


EAST/WEST
ELEVATIONS

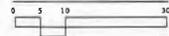
January 25, 2005



NORTH ELEVATION

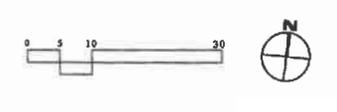
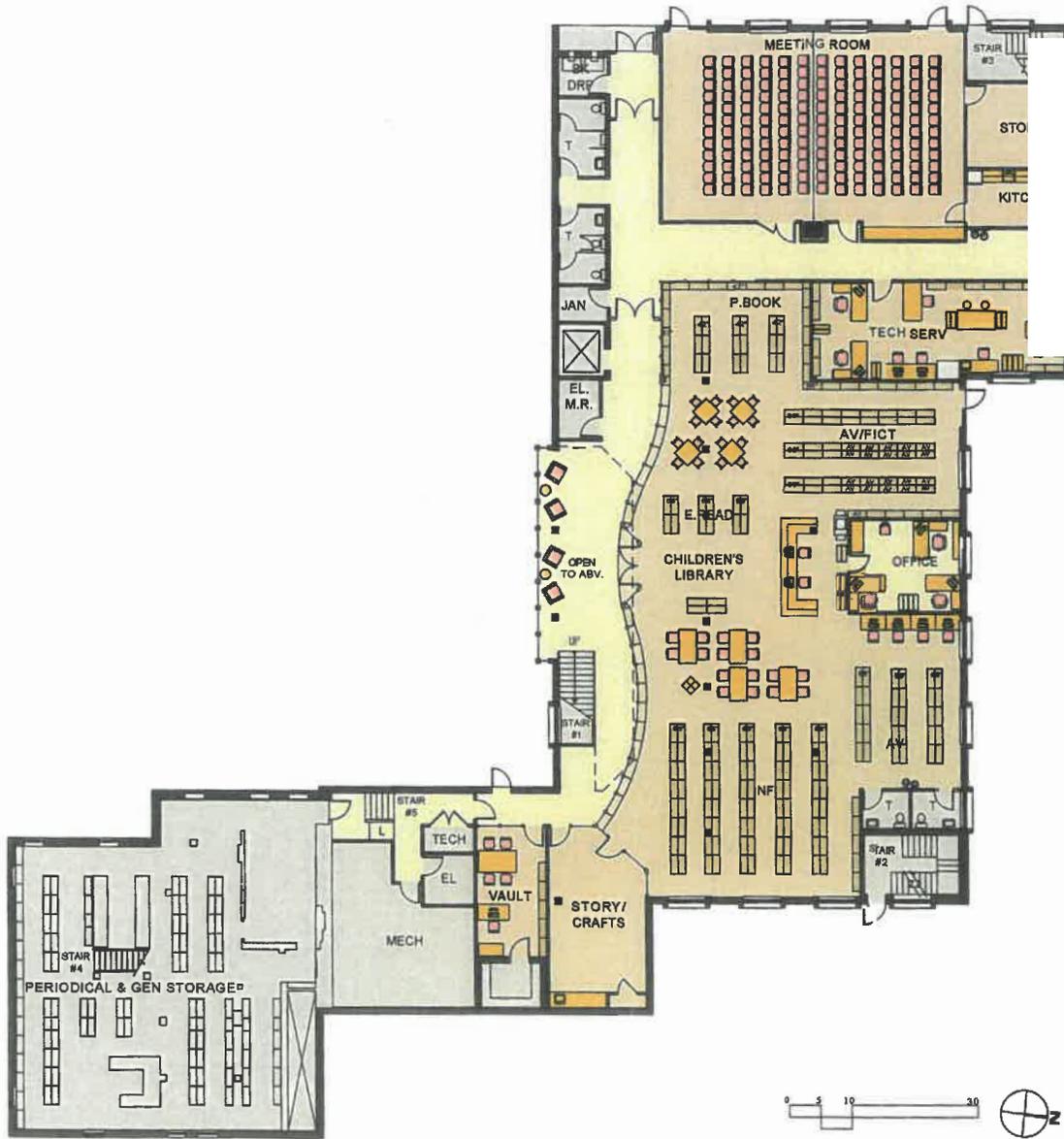


SOUTH ELEVATION

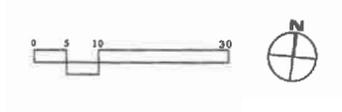
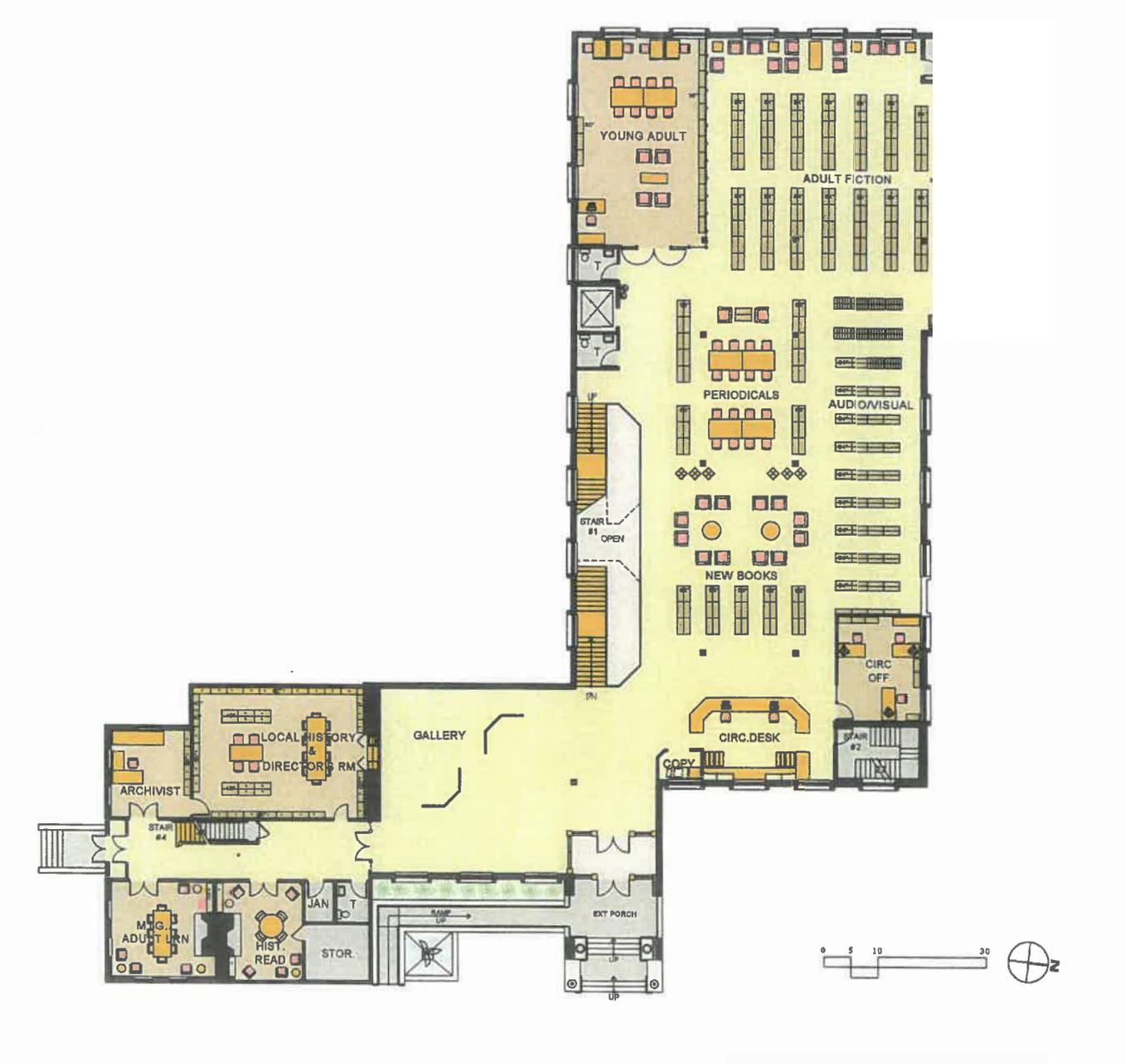


NORTH/SOUTH
ELEVATIONS

January 25, 2005

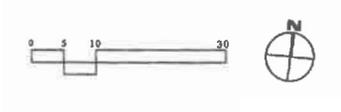
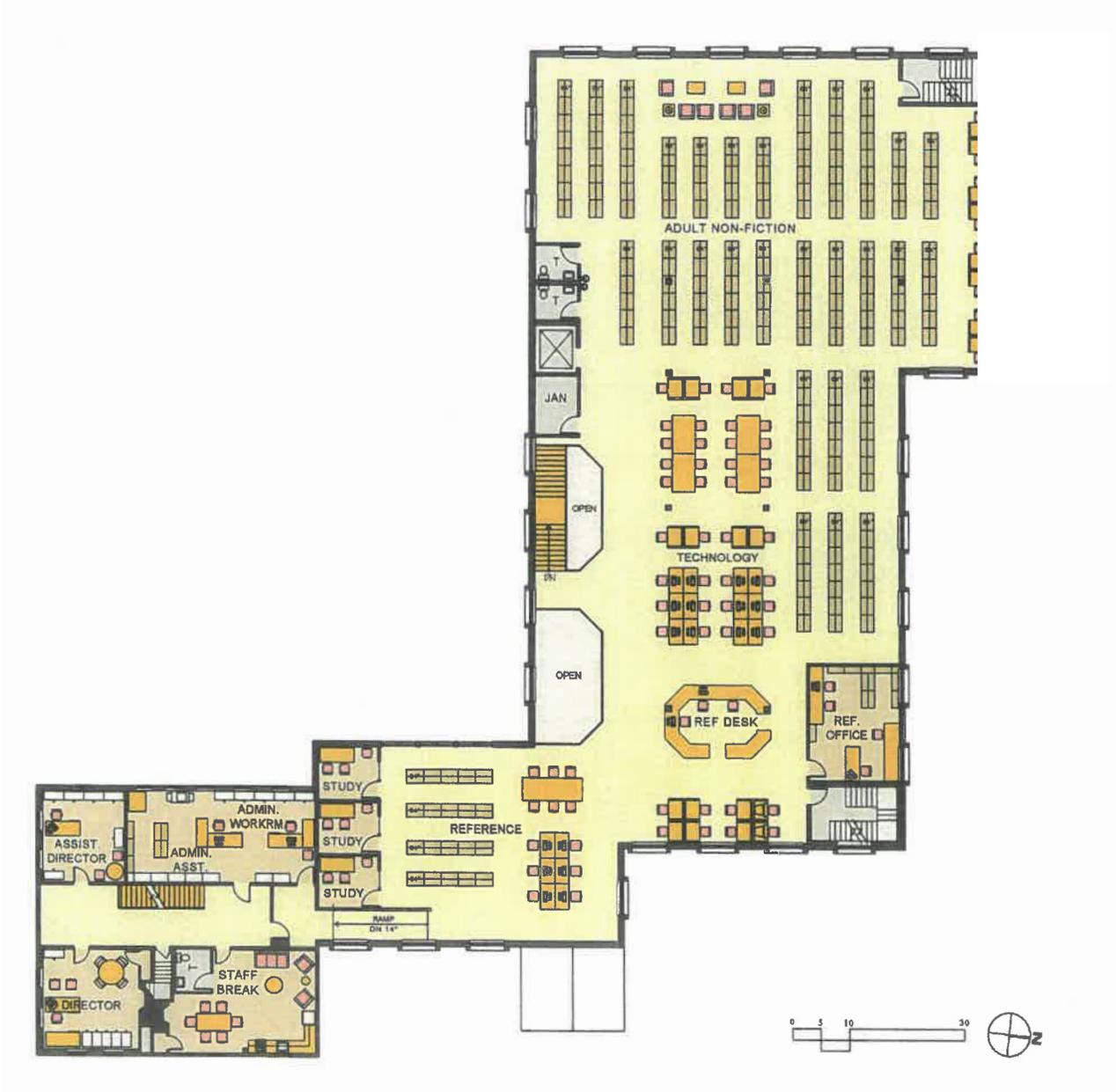


PROPOSED
LOWER FLOOR PLAN
January 25, 2005



PROPOSED MAIN FLOOR PLAN

January 25, 2005



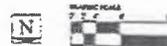
PROPOSED
UPPER FLOOR PLAN
January 25, 2005

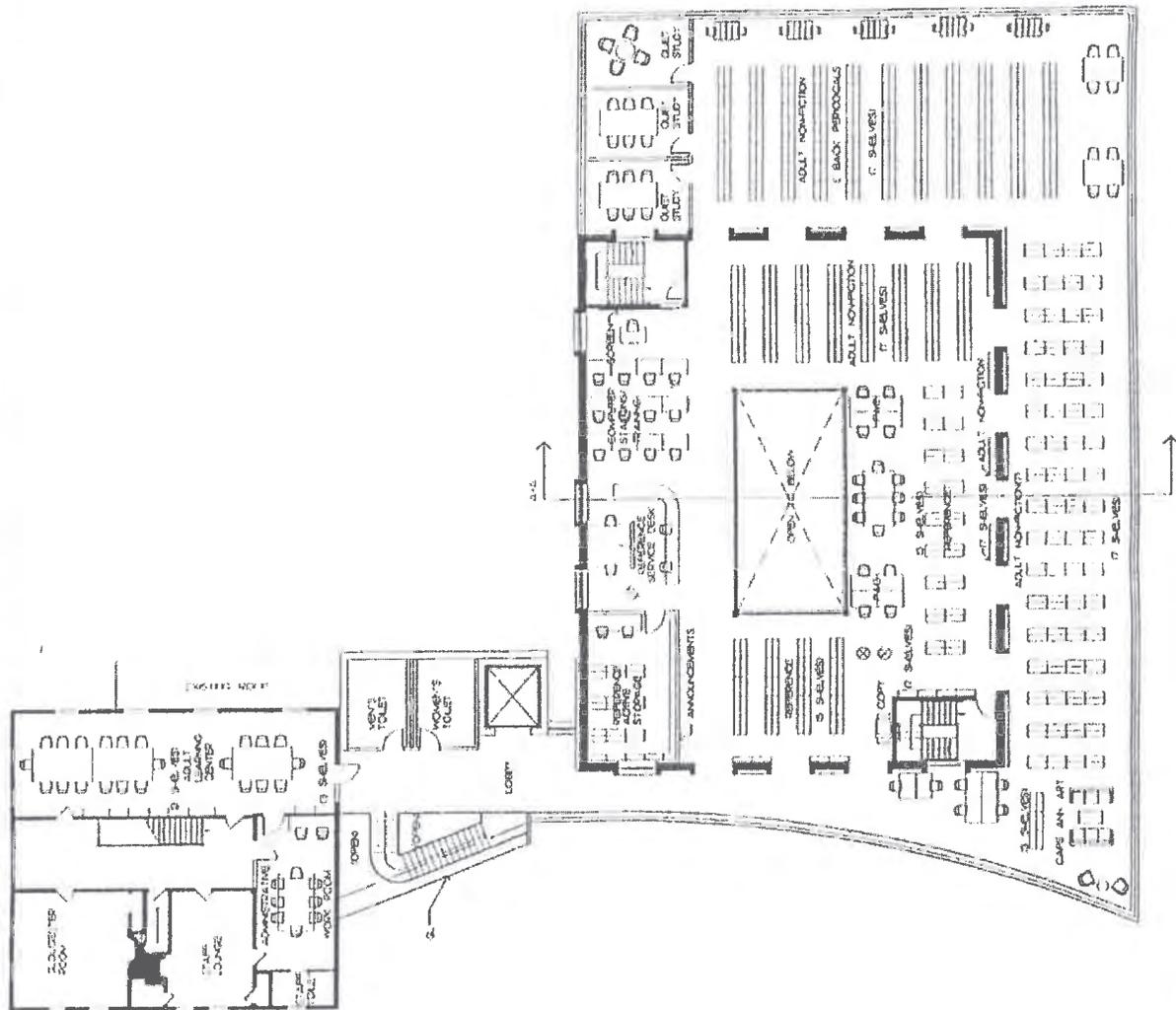


FINEGOLD, ALEXANDER EXPANSION PROJECT (2001)



PROPOSED GROUND FLOOR PLAN





PROPOSED SECOND FLOOR PLAN





BOSTON BUILDING CONSULTANTS STRUCTURAL INSPECTION (2000)

October 2, 2000

Mr. Sherman Morss
Finegold Alexander + Associates
77 North Washington Street
Boston, MA 02114

RE: Preliminary Structural Field Inspection
Sawyer Public Library
Gloucester, MA

BBC No. 00113.00

Dear Pat:

At your request, on August 30, 2000, I made a preliminary investigation of the building complex known as the Gloucester Lyceum and the Sawyer Free Library in Gloucester, Massachusetts, to determine the feasibility of renovating and enlarging this property to accommodate modern library uses.

The investigation included a visit to the site, discussions with the librarian, Carol Gray and several members of the Library committee, and a review of drawings prepared by Donald Monell dated 6/26/74.

This preliminary structural investigation was conducted to assist you and the committee in evaluating and reporting the apparent structural condition and capacity of the existing structures. Depending on the options selected, more detailed investigations will be required.

BACKGROUND

The library complex actually consists of three individual buildings. The former Thomas Sanders house was reported to be built in 1764 and converted to a library in 1884. It is a wood framed building that was designed and used as a house. There were at least two alterations to the building; one involved enclosing a one-story porch area on the west side of the building, and the other involved reframing the roof and possibly the north side of the building. This may have been done when the house was converted to a library.

At some point in the history of the Sanders house, partitions were removed on the second floor to form the Waldron J. Anderson Hall and the partitions were possibly removed to form the present library office space on the first floor.

Mr. Sherman Morss
Sawyer Public Library, Gloucester, MA

October 2, 2000
page 2

In 1913, just to the north of the Sanders house, a small masonry building with concrete and tile arched floors was constructed to house the library stacks. In 1974, a 16,000 square foot steel-framed addition was added to the complex. It abutted both the 1913 addition and the original house.

The existing structures have an area of approximately 25,000 gsf, 16,000 of which is in the 1974 addition. I understand that the library consultant has recommended an additional 15,000 gsf be constructed.

The existing library site is quite cramped with parking for only a few cars on the west side of the building. But I understand the library has recently purchased a house immediately west of the property.

1974 WING

I understand that this building was occupied around 1976 and was constructed from architectural plans prepared by Donald Monell, and structural plans by Robert Rumph. The drawings appear to be reasonably complete. While much of the structure is concealed by finishes, the few areas I could observe indicate that the structure was built according to these plans.

The borings on the drawings indicate that this wing of the library was constructed on reinforced concrete footings that bear on fine sand and silt which was located approximately 4 ft. below the fill, which overlaid the original site. The generous size of the footings indicates the Engineer used a conservative soil bearing pressure in his design. There is no sign of settlement in the building.

The ground floor slab is a 4-inch thick lightly reinforced concrete slab-on-grade. The first and second floors are framed with steel columns, steel girders and steel beams at 6 - 7 ft. on center and a 5-inch thick concrete slab supported by metal deck.

The lateral stability of the building is provided by 8-inch thick unreinforced masonry concrete block walls built between the columns and by the brick stair shafts in the northeast and southwest corners of the building.

Mr. Sherman Morss
Sawyer Public Library, Gloucester, MA

October 2, 2000
page 3

The roof is framed with a combination of steel girders, beams and purlins supporting a 2-inch wood plank. There is a small area of light wood trusses supporting the upper clear story.

The one story lobby area is supported on glue-laminated beams with a 2-inch wood decking. There is no indication on the drawings of the floor design loads, but by back figuring a few elements; it appears that the upper floors of this building were designed for 150-psf live load. This is sufficient to support book stack loading. There is no evidence that they have been overloaded. The 4-inch basement slab is too thin to safely support book stack loading but is adequate for reading room loading.

BUILDING CODE ISSUES

The building was designed just prior to the adoption of the seismic requirements to the State wide Building Code in 1975. It is treated under the New Code as an existing building, as long as the use is not changed or the areas are not increased by more than 10%, the seismic provisions of the new Code are not mandatory. However, the building must be able to withstand gravity loading and the gross stiffness of the building must not be weakened by the removal of significant amounts of masonry walls, unless provisions are made to compensate for their removal in some other area of the building. Any new major addition should be structurally isolated from this structure.

SUMMARY

This portion of the library is in good structural condition and is grandfathered in compliance of the current Building Code for seismic resistance provided certain specific requirements are met. The upper floors were designed to support modern library stack loading.

1913 STACK AREA

This portion of the library appears to have been built with exterior masonry bearing walls and system of steel beams and tile arch floors, which was a common construction technique at the time.

The capacity of the floor is unknown at the present time, but there is no sign that it has been overloaded in the past.

Unfortunately, the basement floor doesn't line up with the 1764 building or the 1975 building. There are no plans available for this building and to verify the strength of the floors will require some intrusive investigation, if you desire to incorporate this building in the final design.

Mr. Sherman Morss
Sawyer Public Library, Gloucester, MA

October 2, 2000
page 4

1764 BUILDING

This area of the library is a former wood framed residence, classically framed with 2-inch vertical wood plank bearing walls on each side of a central corridor and stair. They were originally 4 to 6 rooms on each floor and the framing typically consists of heavy timbers and light joists. The exterior wall framing is concealed by finishes but is clearly a combination of wood posts, girts and wood boarding. The walls are finished with wood lathe and plaster on the interior and several styles of wood clapboard and wood paneling on the exterior. All of which appear to be in reasonable condition.

The framing in the upper floors is concealed by finishes, however, the framing in the basement is largely open and the arrangement is clear to see. In the basement the exterior walls are brick and fieldstone up to the first floor and there is concrete slab-on-grade in the basement of unknown thickness.

The first floor is a heavy timber beams and light wood joists and wood purlins at 18 inches on center let into notches on the side of the beams. The beams themselves are supported by a collection of brick piers, Lally columns, and wooden posts. This collection material is necessary because, in a number of instances, the main beams have been cut to accommodate mechanical lines for previous remodeling. There is a noticeable sag in the ceiling of the Waldron J. Anderson Room where the former partitions have been removed to form the present Lange Room.

The third and fourth floors are not used. They are really attic space with miscellaneous light storage.

Considering the age of the building and its continued use, it is in reasonably good structural condition. In a major remodeling, the first floor framing should be rationalized by installing an organized system of columns and piers and reinforcing the wood with other joists as necessary. If the Waldron Anderson Room and possibly in the librarian's office on the first floor are to remain open space, the floor structure will have to be reframed to permit safe occupancy of the floors above.

However, I believe that after a detailed investigation, it will be a relatively simple matter to reinforce the floors for continued use as classrooms and light office space with a safe design load of 50 psf. Archival vaults, if construction within this building should be constructed of reinforced concrete and be founded in the basement. They could extend through an upper floor if necessary.

Mr. Sherman Morss
Sawyer Public Library, Gloucester, MA

October 2, 2000
page 5

The present live load capacity is uncertain because of the framing anomalies on the first floor and the concealed framing on the upper floors. I believe that the basic framing probably has a capacity of 30 – 40 psf. This is light by current standards.

I trust that this information will be useful in helping you to assess the various options for the expanding and remodeling this library.

If you have any questions regarding this please do not hesitate to call.

Sincerely yours,
BOSTON BUILDING CONSULTANTS



Arthur L. Brown, Jr., P.E.
President

ALB/mm

001002FidInspLtr.doc



PAST REPORTS

The following reports have also been prepared:

Report on Indoor Air Quality: Environmental Health & Engineering (2017)

- “Most areas clean, well-maintained, free of visible water damage or mold growth.”
- “No unusual odors. No wet materials.”
- “Limited visible mold, 1-2sf under window A/Cs in Children’s Library”
- “Mold growth on covers of books stored in basement.”

Structural Assessment: Ipswich River Engineering, Donald Peach (2015)

Envelope Assessment: Noblin & Assoc. (2009)

Envelope Work: Design Technique (2009)

- W. Herbert Goodrick (Steve), contractor ~\$252K
- Siding, windows, roof, chimney, pointing

Structural Assessment: Wayne King (2003)

Building Conditions Assessment: Andrea Gilmore (2003)

- Proposal for mural restoration and paint study.
- Assessment ~\$8000
- Restoration ~\$30K

Condition Assessment: DTI, Peter Erikson, AIA (2003)

Structural Conditions Report: Ocmulgee Associates, Inc. (2003)

Home Inspection Level Report: Lighthouse Home Consultants, Inc., Anthony Gross (2001)

- JEDI for MEP
- BCA for murals

Expansion Feasibility Study: Finegold Alexander (2001)

Structural Assessment: Boston Building Consultants, Arthur Brown (2000)

