



CITY OF NEW BEDFORD
COMMUNITY PRESERVATION ACT FY26
PROJECT APPLICATION

PROJECT INFORMATION			
PROJECT TITLE			WARD
PROJECT LOCATION			
LEGAL PROPERTY OWNER OF RECORD			
CPA PROGRAM CATEGORY <i>(Select relevant categories for your project)</i>	<input type="checkbox"/> OPEN SPACE	<input type="checkbox"/> HISTORIC RESOURCE	
	<input type="checkbox"/> RECREATION	<input type="checkbox"/> HOUSING	
ESTIMATED START DATE		ESTIMATED COMPLETION DATE	
PROJECT APPLICANT			
APPLICANT ORGANIZATION NAME			
APPLICANT IS <i>(Check only one)</i>	<input type="checkbox"/> CITY DEPARTMENT	<input type="checkbox"/> NON-PROFIT	<input type="checkbox"/> PRIVATE GROUP/CITIZEN
CO-APPLICANT ORGANIZATION NAME <i>(If applicable)</i>			
CO-APPLICANT IS <i>(Check only one)</i>	<input type="checkbox"/> CITY DEPARTMENT	<input type="checkbox"/> NON-PROFIT	<input type="checkbox"/> PRIVATE GROUP/CITIZEN
PROJECT CONTACT PERSON			
MAILING ADDRESS <i>(INCLUDE ZIP CODE)</i>			
TELEPHONE NUMBER		EMAIL:	
PROJECT FUNDING			
CPA FUNDING REQUEST <i>(must match CPA request-line 1 of Project Budget on page 8)</i>	\$		
TOTAL PROJECT BUDGET	\$		
SIGNATURES			
I/we attest that all information provided in this entire submission is true and correct to the best of my/our knowledge and that no information has been excluded which might reasonably affect funding. I/we authorize the Community Preservation Committee and/or the City of New Bedford to obtain verification from any source provided. I/we acknowledge and agree that a permanent restriction may be placed on the property as a condition of funding.			
APPLICANT NAME (printed)	SIGNATURE	DATE	
CO-APPLICANT NAME (printed)	SIGNATURE	DATE	

Submission Checklist

The following items must be organized on your submitted flash drive in folders named for each applicable section below (e.g., Application, Financial, etc.). Please check each item on this list if it is included in your submission packet. **Note: not all items will apply to each project.**

APPLICATION – All items in this section are required	
<input checked="" type="checkbox"/> 	Application Information (page 1)
<input checked="" type="checkbox"/> 	Submission Checklist (this page)
<input type="checkbox"/>	Narrative/Project Management/Category Specific Section/Financial (pages 3-7)
<input type="checkbox"/>	Project Schedule – Project Budget – Funding Sources Summary (page 8)
<input type="checkbox"/>	Construction Budget Summary – to be complete for construction projects ONLY (page 9)
<input type="checkbox"/> x	Certificate of Vote of Corporation and Tax Compliance Certification (page 10) must be completed by both applicant and co-applicant if non-municipal applicant. The form must be completed by authorized board member. *Certificate of Vote named person must be different person from signer of the certificate.
FINANCIAL	
<input type="checkbox"/>	One cost estimate from an architect OR two written vendor/contractor quotes (Quotes/cost estimates must be submitted with application – late submissions will not be accepted)
<input type="checkbox"/>	Proof of secured funding (commitment letters or bank statements), if applicable. Please redact account numbers and any sensitive information.
OWNERSHIP/OPERATION (NON-CITY)	
<input type="checkbox"/>	If the applicant is not the owner, attach documentation of site control or written consent of owner to undertake the project. <i>Applications will not be reviewed without this documentation.</i>
<input type="checkbox"/>	Board of Directors listing
<input type="checkbox"/>	Certificate of Good Standing – available at MA Secretary of State website
<input type="checkbox"/>	501(c) certification (if operating as a non-profit) or corporate certificate
<input type="checkbox"/>	Purchase & Sale agreement or copy of current recorded deed, if applicable.
COMMUNITY SUPPORT	
<input type="checkbox"/> x	Letters of support from residents, community groups, city departments, boards or commissions, etc.
PLANS & REPORTS <i>If applicable to your project, please submit in digital format only.</i>	
<input type="checkbox"/>	Renderings, site plans, engineering plans, design/bidding plans, specifications, and any MAAB variance requests.
<input type="checkbox"/>	Applicable reports (21E, Historic Structure Report, appraisals, survey plan, feasibility studies, etc.)
VISUAL <i>If applicable to your project, please submit in digital format only.</i>	
<input type="checkbox"/>	Photos of the project site (not more than four views per site) Digital copies <u>only</u> .
<input type="checkbox"/>	Catalog cuts (i.e. recreation equipment) if applicable.
FOR HISTORIC RESOURCE PROJECTS ONLY	
<input type="checkbox"/>	Documentation stating the project is listed on the State Register of Historic Places or a written determination from the New Bedford Historical Commission that the resource is significant in the history, archeology, architecture, or culture of New Bedford.
<input type="checkbox"/>	Photos documenting the condition of the property/resource. Digital copies <u>only</u> .
<input type="checkbox"/>	Report or condition assessment by a qualified professional describing the current condition of the property/resource, if available.
<input type="checkbox"/>	I/We have read the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties and understand that planning for and execution of this project must meet these standards.

PROJECT NARRATIVE

1 GENERAL NARRATIVE (1000 Character Maximum)

- Describe the proposed scope of work including the project location, property involved, and the proposed use*

The project's location is the one-acre plot at 396 County Street, New Bedford. With a house designed by Richard Upjohn in 1834, the property is a National Historic Landmark and registered at the Massachusetts Historic Preservation Office, National Register of Historic Places. As a museum, the property is host to public exhibitions and programs, tours, special events, school field trips, on-location film shoots, and private use by groups and individuals. The scope of work for this funding request includes the removal and disposal of a non-functioning lift, the building of a new lift to fit the existing shaft, the installation and testing of the new lift, and all the required local and state permitting, variance applications and licensing.

2 COMMUNITY NEED (1000 Character Maximum)

- What community need(s) listed in the current CPA Plan will this project address? How does the project benefit the public and what populations(s) will it serve? If it serves a population currently underserved, please describe.*

The Museum saw over 7,000 visitors last year. We are an historic resource to community partners and Southcoast residents. We are open year-round for general visitation, tours, events, education programs and school field trips. The gardens are free to visit, we offer free museum admission through several state and federal programs, and over 75% of our educational programming is free. We host the private events of other local non-profits, local businesses and families. We annually partner with about 20 organizations to reach new audiences, including the NB Free Public Library, the YMCA, and Big Brothers Big Sisters. We've witnessed a variety of ages at our site, from littles to elders. Our space is used by local families, dog-walkers, the residents of nearby transitional and sober houses, staffs from local businesses, garden aficionados, tourists, and so many others. The grounds have been explored by people looking to socialize, learn, exercise, play, hold business meetings, or relax.

3 GOALS & OBJECTIVES (1000 Character Maximum)

- Describe the project's goals and objectives. The objectives must be specific, measurable, achievable and realistic.*
- How does the project meet the general and category-specific priorities outlined in the current Community Preservation Plan?*

In 1999, the historic interior of the RJD mansion was altered to add a wheelchair lift, therefore increasing access to this historic resource for those with limited mobility. The scope of work includes the removal and disposal of a non-functioning lift, the building of a new lift to fit the existing shaft, the installation and testing of the new lift, and all the required local and state permitting, variance applications and licensing. This capital project is our highest priority for 2026. It meets the CPA Plan goal to "protect, preserve, enhance, restore and/or rehabilitate historic, cultural, architectural or archaeological resources of significance". The project also meets the allowable use as outlined by the CPA to "make capital improvements, or extraordinary repairs to make assets functional for intended use, including improvements to comply with federal, state or local building or access code...". The RJD is a local cultural and historical resource.

4 MEASURING SUCCESS (1000 Character Maximum)

- *How will the success of this project be measured?*

Success will be measured in four ways: 1) by completion of the stated project goals (the installation of a new, working lift), 2) by the leveraging of matching funds for the project through competitive grants, 3) by the increased access for those with mobility limitations and 4) by the progress made on our long-term maintenance schedule. The successful completion of this project will ensure the ongoing public access to this historic site for generations to come. Funding from the Community Preservation Act will demonstrate New Bedford's commitment to preserving our historic resources and celebrating the community's rich history.

5 COMMUNITY SUPPORT (1000 Character Maximum)

- *Explain the level of community support this project has received. If possible, please include letters of support from any groups or individuals who have endorsed this project.*

We benefit from New Bedford's strong support for preservation, as demonstrated by CPA funding, and the many preservation groups in New Bedford. Community support for the RJD can be demonstrated by participation: we recorded over 6600 visits to our site in 2024. That same year, we served 446 local school students with free curriculum-related field trips. We partnered with 18 organizations and delivered 67 programs in the last fiscal year. Our membership has increased by 10% in just 6 months. Our donor list numbers over 400 people, and we exceeded our fundraising goal last year. Our combined social media tops over 6000 followers and it has increased the last seven years. We attract locals who have never been to the site by offering our free Open House days and AHA nights. This project is an investment in a local resource for New Bedford residents. Our attached letters of support come from a local non-profit leader and a member of the RJD Buildings & Grounds committee.

6 CRITICAL NEED (1000 Character Maximum)

- *Is this project of an urgent nature?*
- *Is there a deadline or factors not controlled by the applicant (i.e. opportunity for immediate acquisition, opportunity to leverage available non-CPA grant or other financial opportunity)?*
- *For historic resource applications only, is the property at risk for irreparable loss? If so, please include a condition assessment from a qualified professional if available.*

This project is urgent and subject to deadlines defined by the Commonwealth. Despite almost \$10,000 in recent repairs, our 1999 lift is non-functional and at its end-of-life. It must be replaced for the Museum to continue serving the public and fulfilling its mission to enliven New Bedford's history, engage our communities, and enrich cultural understanding. While we have installed a temporary ramp, it is no substitute for the lift. A lift reduces the time and distance a person must travel to get to the first floor of the house museum. A ramp on the exterior significantly alters the aesthetics of the historic grounds and building façade, where the interior lift is smaller and disguised by a faux-wood-painted door. A secondary benefit of the lift is that staff are able to move heavier items between floors, therefore reducing any risk of injury to the staff, or damage to items being moved. Without the lift, our historic resource is not accessible to a segment of the population.

PROJECT MANAGEMENT

1 APPLICANT INFORMATION (1000 Character Maximum)

- *Describe applicant. Is applicant a public entity, private non-profit, private for-profit, an individual, a partnership, or another type of entity? What is the history and background of the applicant?*
- *Identify and describe the roles of all participants (applicants, architects, contractors, etc.) including the project manager.*
- *Describe any past projects of similar type and scale, or experience that demonstrates the applicant's ability to carry out this project.*

The property was purchased in 1981 by the Waterfront Historic Area League, restored, and then transferred to the Rotch-Jones-Duff House & Garden Museum Inc. in 1985, securing it as a public museum in perpetuity. The RJD is a 501(c)3 private corporation. The Executive Director is project manager for this grant and project. She successfully oversaw implementation and reporting of five CPA grants at the RJD (thank you CPC!) She works closely with the Manager of Facilities: Rick Finneran is a licensed carpenter and former contractor, bringing a wealth of experience to the project. He will directly oversee the contractor. Our Buildings and Grounds committee advises on all major projects and it includes an engineer and three architects. Our three bidders have not all provided bids with the same scope: we have sent an RFP to 101 Mobility to ask that they provide a new bid equal in scope to the others.

2 PROJECT FEASIBILITY (1000 Character Maximum)

- *List and explain further actions or steps required for completion of the project, such as environmental assessments, zoning or other permits and approvals, agreement on terms of any required conservation, affordability or historic preservation agreements, subordination agreements, and any known or potential barriers or impediments to project implementation.*

Funding must be secured in order for us to afford an expense which is about 18% of our entire operating budget for the year. The amount we have requested of the CPA is only half of the cost. We have identified three other potential grants to fund the full project amount. We aim to order and install the lift as soon as we have secured full funding. We have been informed that a lift can take six months to fabricate from the day it is ordered, so assuming we have secured funding by June of 2026, we would order the lift in June and install it in December of 2026. Our contractor will submit any necessary permits for work, and will be fully insured. The Commonwealth Division of Occupational Licensure (DOL) requires that an "out of service" lift be repaired or replaced within a year from when it was reported that way by the state inspector. If, as we suspect, the one-year deadline will pass before we can replace the lift, we will have to apply for an extension.

3 PROJECT MAINTENANCE (1000 Character Maximum)

- *Please explain the long-term maintenance plan for the completed project.*

When we choose our contractor for installation, we will also choose a maintenance contract for the newly installed lift. Our previous contractor was scheduled for quarterly inspections; when repairs were recommended, we hired the same contractor for the work. We are required to have a state inspection every two years. Our full time Facilities Manager, Rick Finneran, oversees maintenance of the property. It will be his responsibility to report promptly any malfunctioning of the lift and secure its repair. As part of our 2019 CAP assessment, we created a maintenance schedule that includes short, mid-, and long-term tasks. This schedule is reviewed by both Finneran and Salerno and it serves as our planning document for all short and long-term maintenance. We intend this new equipment to last another 25 to 30 years on this regular maintenance schedule.

COMPLETE FOR HISTORIC RESOURCE PROJECTS ONLY

CPA Compliance (1000 Character Maximum)

- *Describe how the proposed project complies with the [U.S. Secretary of the Interior's Standards for Rehabilitation](#), as required by the CPA legislation under the definition of rehabilitation.*
- *Describe how the applicant will ensure compliance with these standards as the project is ongoing, i.e., hiring of a consultant.*

The existing lift shaft will be fitted with the new lift so that no additional alterations to the historic building are needed. The project and facilities managers will make sure that areas surrounding the work site are protected from dust and the impacts of vibrations. If heavy equipment must enter the building, the facilities manager will ensure that the pathway to the building is protected from damage. In the past, he has laid down plywood and tarps.

COMPLETE FOR PROJECTS WITH ACCESSIBILITY REQUIREMENTS ONLY

CPA Compliance (500 Character Maximum)

- *Describe how the proposed project complies with the [ADA/MAAB Regulations](#).*

Elevators and lift installations are regulated by the state. Our chosen vendor will file all the necessary permits and requests for inspection.

COMPLETE FOR COMMUNITY HOUSING PROJECTS ONLY

CPA Compliance (500 Character Maximum)

- *Describe how the proposed project complies with CPA affordability requirements (100% of AMI for New Bedford)*
- *Describe the number and types of units (e.g.: 1br, 2br).*
- *Provide a complete Development Budget and an Operating Budget (for rental properties).*

PROJECT FINANCIAL INFORMATION

1 FINANCIAL INFORMATION (2000 Character Maximum)

- *Describe all successful and unsuccessful attempts to secure funding and/or in-kind contributions, donations, or volunteer labor for the project. A bullet point list is acceptable.*
- *Will the project require CPA funding over multiple years? If so, provide estimated annual funding requirements.*
- *What is the basis for the total CPA request?*
- *How will the project be affected if it does not receive CPA funds or receives a reduced amount?*

CPA is the first funder being approached to cover half of the cost of this project. We intend to apply to up to three other grants. Should full funding for the project be achieved outside of the CPA requested funds, we will retract our CPA application and use funding from the other secured sources.

Our funding strategy is below:

- This CPA grant request, \$42,000 submitted November 10, 2025.
- New Bedford Community Block Grant – Amount requested will be decided upon after conversation with the grantor, due in January 2026.
- The Bolger Foundation, Grant due Feb. 1, 2026 – Amount requested will complement the Community Block Grant amount, assuming that the CBG is not the full amount.
- Amelia Peabody Charitable Fund, Grant due April 1, 2026 – This grantor requires that a match be in hand by the time we apply to them. The amount requested will be whatever amount we have not secured from the previous sources. The project should be completed within the grant year; this is not a multi-year request.

The basis for this request is 1) The highest dollar amount from three received bids, plus 10% for inflation in 2026, and 2) the cost of staff time spent overseeing the project and assisting the contractor (Rick Finneran for 70 hours; Dawn Salerno for 25 hours.)

We are relying entirely on grants to fund this project. Should we not receive CPA funding, or receive a reduced amount, we will apply to and hope that one of the other identified grantors awards us the full amount needed for this project because it must happen as soon as possible.

PROJECT SCHEDULE – PROJECT BUDGET – FUNDING SOURCE SUMMARY

PROJECT SCHEDULE

Please provide a project timeline below, noting all project milestones. Please note the City Council must approve all appropriations of CPA funds. Grant funding will not be available for disbursement until after July 1, 2026.

	ACTIVITY	ESTIMATED DATE
PROJECT START DATE:	vendor contracted; deposit made; lift ordered	June 2026
PROJECT MILESTONE:	lift fabricated off site; state extension requested	July - November 2026
50% COMPLETION STAGE:	Progress report given from vendor	September 2026
PROJECT MILESTONE:	Installation of lift	December 2026
PROJECT COMPLETION DATE:	Inspection completed; final grant report submitted	February 2027

PROJECT BUDGET

Please include an **itemized budget** of all project expenses. Note: CPA funds cannot be used for maintenance. If the project received CPA funds in another fiscal year, please include this amount on a separate line, not on line 1.

FUNDING SOURCES	EXPENSES				
	STUDY	SOFT COSTS*	ACQUISITION	CONSTRUCTION**	TOTAL
1 NEW BEDFORD CPA FY26***	\$	\$	\$	\$ 42,000	\$ 42,000
2 Other Grant (see below)	\$	\$	\$	\$ 42,000	\$ 42,000
3	\$	\$	\$	\$	\$
4	\$	\$	\$	\$	\$
5	\$	\$	\$	\$	\$
6	\$	\$	\$	\$	\$
7	\$	\$	\$	\$	\$
TOTAL PROJECT COSTS	\$	\$	\$	\$	\$ 84,000

* Soft costs include design, professional services, permitting fees, closing costs, legal, etc.

** Construction refers to new construction, rehabilitation, preservation, restoration work, and/or accessibility related expenses.

***New Bedford CPA (Line 1) amount should match the amount requested on the application cover page.

ANTICIPATED FUNDING SOURCE SUMMARY

Please explain the current status of each funding source (i.e., submitting application on X date, applied on X date, received award notification on X date, funds on hand, etc.). For sources where funding has been awarded or funds are on hand, please include documentation from the funding source (e.g., commitment letter, bank statement) in application packet.

	FUNDING SOURCE	STATUS OF FUNDING
1	New Bedford CPA Grant FY26	Application pending approval
2	NB Community Block Grant	Application to be submitted in January 2026; pending approval
3	Bolger Foundation Grant	Application to be submitted Feb. 1, 2026; pending approval
4	Amelia Peabody Charitable Fund	Application to be submitted April 1, 2026; pending approval
5		
6		
7		

CONSTRUCTION BUDGET

To be completed for construction projects only

If you have a construction budget, it may be submitted in lieu of this page.

ACTIVITY	CPA FUNDS	OTHER FUNDS	TOTAL
Acquisition Costs			
Land	\$	\$	\$
Existing Structures	\$	\$	\$
Other acquisition costs	\$	\$	\$
Site Work (not in construction contract)			
Demolition/clearance	\$	\$	\$
Other site costs	\$	\$	\$
Construction/Project Improvement Costs			
New Construction	\$	\$	\$
Rehabilitation	\$	\$	\$
Performance bond premium	\$	\$	\$
Construction contingency	\$	\$	\$
Other	38,000	\$ 42,000	\$ 80,000
Architectural and Engineering (See Designer Fee Schedule for guidance):			
https://www.mass.gov/files/design_fee_schedule-dsb_2015_2007.pdf			
Architect fees	\$	\$	\$
Engineering fees	\$	\$	\$
Other A & E fees	\$	\$	\$
Other Owner Costs			
Appraisal fees	\$	\$	\$
Survey	\$	\$	\$
Soil boring/environmental/LBP	\$	\$	\$
Tap fees and impact fees	\$	\$	\$
Permitting fees	\$	\$	\$
Legal fees	\$	\$	\$
Other	\$	\$	\$
Miscellaneous Costs			
Developer fees	\$	\$	\$
Project reserves	\$	\$	\$
Relocation costs	\$	\$	\$
Project Administration & Management Costs			
Marketing/management	\$	\$	\$
Operating/Maintenance	\$ 4,000	\$	\$ 4,000
Taxes	\$	\$	\$
Insurance	\$	\$	\$
Other	\$	\$	\$
TOTAL	\$ 42,000	\$ 42,000	\$ 84,000

CERTIFICATE OF VOTE OF CORPORATION AUTHORIZING EXECUTION OF CORPORATE AGREEMENTS

At a meeting of the Board of Directors of Rotch-Jones-Duff House & Garden Museum (organization) duly called and held on November 6th, 2025 at which a quorum was present and acting throughout, the following vote was duly adopted.

VOTED: That Dawn Salerno (person), the Executive Director (title) of the corporation, be and hereby is authorized to affix the Corporate Seal, sign and deliver in the name and on behalf of the corporation, contract documents with the City of New Bedford, the above mentioned documents to include but not be limited to Bids, Proposals, Deeds, Purchase and Sales Agreements, Agreements, Contracts, Leases, Licenses, Releases and Indemnifications; and also to seal and execute, as above, surety company bonds to secure bids and proposals and the performance of said contract and payment for labor and materials, all in such form and on such terms and conditions as he/she, by the execution thereof, shall deem proper.

A TRUE COPY, ATTEST:

Natalie A. Mello
Name (printed)



Signature

(Affix Corporate Seal)

President, Board of Trustees Title

November 6th, 2025

Date

TAX COMPLIANCE CERTIFICATION

Pursuant to Chapter 62C of the Massachusetts General Laws, Section 49A(b), I, the undersigned, authorized signatory for the below named contractor, do hereby certify under the pains and penalties of perjury that said contractor has complied with all laws of the Commonwealth of Massachusetts relating to taxes, reporting of employees and contractors, and withholding and remitting child support.



Signature

Dawn E. Salerno Print Name

Rotch-Jones-Duff House & Garden Museum
Organization name

04-2859088 Federal Tax ID #

November 6th, 2025 Date



Elevator South Co., Inc. 1900 Fall River Avenue, Seekonk MA 02771

2025-07-23 Q-55067 201-W-385 of Rotch Jones Duff House New Wheelchair Lift

Quote #: Q-55067
Job: New Equipment

Dawn Salerno
Rotch Jones Duff House
396 County Street
New Bedford, MA 02740

Reference: 201-W-385 Rotch Jones Duff House 396 County St. New Bedford, MA 02740

Atlantic Elevator South Co., Inc. is pleased to propose the following services:

The purpose of this quotation is to provide budget and scope of work to supply and install the following equipment. When the lift is out to bid Atlantic Elevator South Co., Inc will provide an official quote based upon the finalized scope of work bid package.

~~This Quotation/Agreement represents our offer to supply and install the equipment and scope of work outlined in the following material and equipment descriptions or the complete scope of work described in section NA of the project plans and specifications. Compliance with plans, specifications and drawings is agreed, with exceptions, if any, as listed in paragraph IX below.~~

All labor and incidental materials necessary for the delivery, set-up, installation, adjusting, inspecting, testing and delivery to the owner of the complete lift system at a location in the building of the current lift. Decommission and removal of existing lift is included.

Model: V-1504 Vertical Platform Lift

Safety Devices: As Required by Code

Capacity: 750 lbs

Platform Courtesy Lighting: Standard

Speed: 20 FPM (Hydraulic Drive)

Phone: Included

Drive Mechanism: Hydraulic

Car Grab Rail: Standard

Total Vertical Travel: 12 feet maximum

Warranty: 3 years parts warranty and 1 year for warranty parts labor

Platform Size: 36" x 54"

Platform Type: Same Side Entry

Number of Stops: Two Stop

Atlantic Elevator South Co

Quote #: Q-55067

Page 1

2025-07-23 Q-55067 201-W-385 of Rotch Jones Duff House New Wheelchair Lift

Battery Backup (Up and Down): Emergency lowering included, full battery back up Optional

Manual Lowering: Standard

Emergency Stop/Alarm: Standard

Lower Landing Entrance: 3'0" x 6'8" Fire Door Assembly (frame, closer, hardware) w/Vision Panel

Upper Landing Entrance: 3'0" x 6'8" Fire Door Assembly (frame, closer, hardware) w/Vision Panel

Price: Seventy One Thousand Six Hundred Twenty Five Dollars (\$71,625.00)

PART I: WORK TO BE COMPLETED BEFORE SCHEDULING OF LIFT INSTALLATION

1. Provide clear and direct access to the location of the lift - to allow for delivery in place.
2. Provide permanent dedicated power to lift. Locate as coordinated by approved shop drawings and/or Savaria Project Manager.
3. Unless noted as "Supplied by Savaria" on drawings, provide a Fused, Lockable, Heavy-Duty Disconnect by others, located as coordinated by Savaria's Project Manager. Provide auxiliary contact switch inside the disconnect for drive systems which utilize battery power. Power to disconnects and wiring to lift hoistway or elevator controller are the responsibility of the General contractor or project contractor.
4. Provide a smooth finished pit. The pit must be dry, square, and level of size as indicated on approved shop drawings. Design and construction to bear all floor reaction loads as shown. Note - For Lifts using Hydraulic Drive systems, pit floor surface shall be non-porous material only.
5. Door sill supports that are plumb and in line from floor to floor.
6. Hoistway of sufficient height to allow for 6'-8" headroom clearance above lift platform surface when at the top landing.
7. Hoistway machine tower wall supports as necessary to bear the "tie-back" loads shown and located on the drawings. This support will be designed and approved by the architect, structural engineer, or owner's representative to proper engineering principles and standards. Savaria bears NO RESPONSIBILITY for the design, construction or placement of rail wall blocking or supports.
8. Provide a clear area within the pit or "footprint" of the lift including additional space as required for the assembly of the equipment. The clear area must extend vertically for the entire height of the lift and clear headroom area above the lift.
9. Complete all walls and any finish patching and painting in areas surrounding the lift equipment which would not be accessible after lift assembly.
10. Provide lifting beam or bracket - where required.

PART II: GENERAL REQUIREMENTS

1. All wall patching, finishing or refinishing made necessary by the installation of any device or fixture in any wall, floor or ceiling surface.
2. Provide hoistway lighting with guard - to satisfy all applicable building codes. 5 FTC or 54 LUX minimum required throughout hoistway.
3. Installations without optional "in-fill" panels will require a small wall section to be built to fill open space between upper landing gates or doors and the building wall - after lift is in place.
4. Per code, sprinkler systems are not authorized in Lift/Elevator hoistways or pits. If contract drawings or the local authority requires sprinkler installation, DO NOT approve the lift shop drawings until this issue is resolved.
5. Where power door openers are used, provide concealed wiring to remote located lift landing control stations. Coordinate location of remote call stations with Savaria.
6. Placement of lift and doors to be situated in relation to other adjacent building elements to allow for full compliance with ADA and other national and state codes regulations. Savaria bears no responsibility for building structures not associated with the lift or hoistway which may impede on clear floor space required for accessing the lift.
7. Provide for any and all items identified as "by others" on lift shop drawings.

8. Lift installation, and ALL associated construction items and accessories must be complete before lift inspection with state officials may be scheduled.
9. Provide attendant call system to obtain assistance for key operated lifts where required.
10. Some local and state jurisdictions may require two way communication to be installed on the lift platform. Any wiring for dedicated phone lines or intercoms to be provided by others.

Atlantic Elevator South Co., Inc. personnel will perform this work during our normal business hours and will require free and uninterrupted use of the subject elevator to accomplish the work quoted. Work includes all costs for listed services except sales tax.

Terms: 25% down/25% at delivery/Balance due net 30

Respectfully submitted,



John Rutkiewicz
Sales Representative

If the quotation is acceptable to you, please sign and return one copy.

Authorized by: _____ Title: _____

Print Name: _____ Date: _____

This proposal is subject to the following attached terms and conditions, all of which are hereby agreed to

Atlantic Elevator South Co., Inc. ~ Terms and Conditions

The price stated herein shall be honored for a period of thirty days from date stated herein.

It is expressly understood and agreed all prior agreements written or verbal regarding the subject matter herein are void and the acceptance of this Agreement shall constitute the contract for the material and work specified in this Agreement. Any changes to this document must be agreed to by both parties.

Time and Material work can take longer or shorter than estimated time presented. If the estimate is less than 8 hours, we agree not to exceed estimate by 50%, up to 8 hours without owners consent. Owners consent shall be obtained for work exceeding 8 hour estimate.

Quoted Service shall completed for fixed price unless there are issues beyond the scope of work. Should this occur, work will stop for authorization of new work.

Unless otherwise agreed it is understood the work shall be performed during regular working hours of regular working days of the elevator trade. If overtime work is mutually agreed upon and performed, the additional price, Atlantic Elevator South Co., Inc.'s usual rates for such work, shall be added to the contract price herein named.

Purchaser agrees to pay, as an addition to the price herein quoted, the amount of any tax based upon the transfer, use, ownership or

Atlantic Elevator South Co

Quote #: Q-55067

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2025-07-23 Q-55067 201-W-385 of Rotch Jones Duff House New Wheelchair Lift

possession of the equipment, imposed by any law enacted after the date of this proposal or imposed upon Purchaser by any existing law.

Purchaser agrees to pay the terms of the Agreement amount including any accepted options and/or alternates upon acceptance of this proposal.

Atlantic Elevator South Co., Inc. reserves the right to discontinue our work at any time until we have assurance, satisfactory to us, that payments will be made as agreed.

Final payment shall become due and payable upon completion of the work described in this Agreement. Failure to pay any sum due by Atlantic Elevator South Co., Inc. within thirty (30) days of invoice will be a material breach. A delinquent payment charge calculated at the rate of 1% per month, or if such rate is usurious then at the maximum rate under applicable law, shall be applied to delinquent payments. In the event of default of the payment provisions herein, Purchaser agrees to pay, in addition to any defaulted amount, all attorney fees, collection cost or court cost in connection therewith.

The machinery, implements and apparatus furnished hereunder remain Atlantic Elevator South Co., Inc.'s personal property and Atlantic Elevator South Co., Inc. retains title thereto until final payment is made, with right to retake possession of the same at the cost of the Purchaser if default is made in any of the payments, irrespective of the manner of attachment to the realty, the acceptance of notes, or the sale, mortgage or lease of the premises.

The states requiring notice prior to filing a lien, this notice requirement is hereby complied with.

The completion of work or delivery of material specified in this Agreement is subject to delays caused directly or indirectly by embargoes, strikes, lockout, common carriers, accidents or by any other similar or dissimilar cause beyond Atlantic Elevator South Co., Inc.'s control, for which Atlantic Elevator South Co., Inc. to be held harmless.

Should conditions develop beyond Atlantic Elevator South Co., Inc.'s control, making the building or premises in which Atlantic Elevator South Co., Inc.'s personnel are working dangerous, Atlantic Elevator South Co., Inc reserves the right to discontinue work until such dangerous conditions are corrected.

Should damage occur to Atlantic Elevator South Co., Inc. material or work on the premises, where work is to be or is being performed, by fire, theft, or otherwise, the Purchaser is to compensate Atlantic Elevator South Co., Inc. therefore, purchaser shall at all times and at Purchasers own cost, maintain comprehensive bodily injury and property damage insurance (naming Atlantic Elevator South Co., Inc. as an additional insured), including bodily injury and property damage caused by the ownership, use or operation of the equipment described herein.

It is expressly understood, in consideration of Atlantic Elevator South Co., Inc.'s performance of the service enumerated at the price stated, that the Purchaser assumes all liability for injury, including death, to any person or persons and for damage to property or loss of use thereof, on account of relating to or resulting from the performance of the work to be done hereunder, and agrees to defend, indemnify and hold harmless Atlantic Elevator South Co., Inc., its officers, directors and employees from all damages, claims, suits, expenses and payments on account of or resulting from any such injury, death or damage to property, except that resulting from the sole negligence of Atlantic Elevator South Co., Inc.

Neither Atlantic Elevator South Co., Inc. nor its affiliates, subsidiaries or divisions shall be responsible or liable for any damages, claims, suits, expenses and payments on account of or resulting from any injury, death or damage to property arising or resulting from the misuse, abuse or neglect of the equipment herein named or any other device covered by this contract



SALES CONTRACT

Quote Number: Q250811003

Quote Date: Aug 11, 2025

Terms: Quote Valid for 30 Days

Attention: Rick Finneran

Boston Mobility Solutions, LLC

DBA 101 Mobility
289 Elm St. Ste. 115
Marlborough, MA 01752
Phone: (508) 449-9126
Fax: (508) 581-3136

Rick Finneran
396 COUNTY STREET
NEW BEDFORD, MA 02740

Payment Terms: 20 % shop drawings 40% release to production 30 progress payment on start of install 10% final payment on elevator testing. All sales are final. The equipment is custom ordered to Purchases requirements. In the event of any default by Purchaser, the unpaid balance of the purchase price, less the cost of completing the work, as estimated by us, shall immediately become due.

Based on tax exempt add tax if certificate is not available of 6.25%.

Quote based on mutually acceptable terms and conditions. We will provide our standard 101 Certificate of Insurance if increased coverage is needed cost will apply as a change order. If performance and payment bond is needed a 3 % charge will apply.

NOTE : 2 spots for parking needed on site

2 site visits included - any additional visits will be \$275 per hour -

DESCRIPTION	QTY	PRICE	TOTAL
Savaria - V-1504 - Vertical Platform Lift -Swift 20 ft/min hydraulic lift to carry a wheelchair and passenger up to 4 stops over 23' of travel (code permitting) -750 lb capacity for residential or commercial access -Array of optional paint colors; gates available with aluminum, acrylic or glass inserts, and with automatic opener -Highly customizable: Can be built to suit virtually any home or commercial project -Quiet and reliable hydraulic drive: Smooth start, stop and overall ride that works dependably -Machine roomless: Enclosed drive system means no machine room is required, making the installation process easier -Other standard features: 36" x 54" standard platform, continuous pressure button operation, modular rail construction for easy construction, handrail -Standard finish: Beige powder-coat paint -Safety features: Emergency stop button on car, non-skid platform, manual lowering device, 42 1/8" (1070 mm) side panels, keyed car buttons and keyed call stations, safety brake, door locks -Warranty: 36 months parts	1	\$32,039.29	\$32,039.29

DESCRIPTION	QTY	PRICE	TOTAL
Vertical Lift VPL 36 x 54 Platform - NON Skid (Not building may need to alter tower wall cut out to get full size cab. 750 lb Capacity 2 doors __in line - Automatic operations. Note Fire rated shaft and venting will need to be determined based on code and or penetration of a garage. If required GC to have architect provide Venting letter for permitting. GC work by others: Fused lockable HD disconnect - Auxiliary contact for battery lowering, 3" pit, Rail stack support with LVL's on tower wall. GC responsible to obtain architect stamp on manufactures drawing. Overhead pick point for hoisting/staging to work off. Adequate dry storage near install area. Fused Lockable disconnect - dedicated phone line with 24 hour service . Parking for delivery and install. GC to finish around lift at opening that is made through the floor for this unit as this is not standard. Based on drawing Standard Beige Upgrade for color is \$2800 add more for non standard colors (see chart) Any car running for GC hoistway work - will require - hourly rate of \$275.			
101 Mobility LLC - 101 Mobility - Part Misc local parts - wiring etc	1	\$400.00	\$400.00
Annual Elevator and Lift Inspection Test Initial testing with new install - two years after client is responsible if commercial per code	1	\$0.00	\$0.00
Vertical Platform Lift Installation Installed by Our Knowledgeable & Courteous Mobility Specialists Licensed installation with MA mechanics and team - Based on standard Non Union labor rates if Prevailing wage is required cost impact will apply	1	\$10,000.00	\$10,000.00
Maintenance Warranty 101 Mobility to provide for 1 Full year of warranty on labor and manufactures standard labor on parts.	1	\$0.00	\$0.00
Architectural Drawings an architect to stamp the manufactures drawings. We will obtain for the client in order to get there DPS permits from State of MA. No Venting letter will be required also per code. See 524 CMR 2018 section 35 2.28	1	\$0.00	\$0.00
Demolition & Disposal Demo and Removal of existing lift.	1	\$700.00	\$700.00
Administration Fee	1	\$175.00	\$175.00

DESCRIPTION	QTY	PRICE	TOTAL
Administrative Processing			
Inspection Fee with state officials and full weight test	1	\$995.00	\$995.00
Shipping / Freight	1	\$1,295.00	\$1,295.00
Permit Fee DPS permit Fee	1	\$900.00	\$900.00
Adjustment Note Tariffs may impact cost of material at time of shipping - estimate will need to be update accordingly.	1	\$0.00	\$0.00
Decommission Decommission and removal of lift with Permits. Note doors may need GC work to fit new code doors in.	1	\$4,200.00	\$4,200.00
SALES TAX	1		\$2,027.46
QUOTE TOTAL		\$52,731.75	

By signing this quote and/or by making any payments toward the quote amount, I agree to the terms and conditions herein. Terms are 50% deposit at time of order and balance due upon completion of delivery and installation. Cancellations prior to installation are subject to a restocking fee of 15% of the total before tax. No cancellations after initiation of installation. Any Custom applications are not cancelable and require a 50% non-refundable deposit at time of final measurements, and the remaining 50% is to be paid prior to our placing the order with the manufacturer. This Agreement is to be governed by the laws of the State of Massachusetts. The seller is entitled to recover all expenses (including, but not limited to, reasonable attorneys' fees, legal expenses, and reasonable costs of collection). A 4% convenience fee will be applied to all credit card charges that exceed \$3,000, no fees will be charged when payment is through ACH or check.

This quote is only valid for 30 days unless otherwise specified.

A late fee will be charged of 4% on unpaid balance after 30 days of install and or service

The time for performance/completion of the work shall be extended for an Excused Delay which prevents either party from fulfilling its obligations under this Agreement due to an Excused Delay, unless the parties mutually agree otherwise. As used herein an Excused Delay means a delay preventing the [time for performance/completion of the work] caused by an Act of God, declared state of emergency or public health emergency, pandemic, including but not limited to COVID-19, government mandated quarantine or travel ban, war, acts of terrorism, and/or order of government or civil or military authorities. The [time for performance/completion of the work] shall be extended to the earlier of 5 business days after the end of the Excused Delay.

In the event that the [time for performance/completion of the work] cannot occur during the 5 day extension, unless the parties agree to further extend the closing, the Agreement shall terminate. As any Excused Delay would not be due to either the fault of either party, neither shall be responsible to the other for damages caused by or related to an Excused Delay.

ALL SPECIAL ORDERS AND ALL NON-STOCK ORDERS ARE NON-CANCELABLE AND NON-REFUNDABLE. Exceptions may occur ONLY upon prior written consent from the manufacturer that the return will be accepted and 101 Mobility LLC will be reimbursed in full. Buyer MUST agree to reimburse 101 Mobility LLC for any cancellation fees charged by the manufacturer, and any restocking, freight, or return authorization charges.

Preparation work by others will be defined in detail before project components are ordered. Anything not listed in this quote is the responsibility of the "contractor".

Payment terms may vary by product or service, please see quote notes for specific payment terms.
All prices are subject to potential import tariffs, taxes, and duties which may be applied based on the United States federal regulations , final price may vary based on applicable tariffs and customs duties prior to shipment of order. These additional costs, if applicable, are the responsibility of the customer.

Notwithstanding, you, the buyer, may have the right to cancel this transaction at any time prior to midnight of the third business day after the date of this transaction, which is the day you make a payment toward your purchase.

Signature:

Date:

Quotation/Agreement

Vertical Wheelchair Lift – Shaftway Type

I. Summary:

This Quotation/Agreement represents our offer to supply the following specified equipment and materials, with exceptions, if any, as listed in Addenda "A" of this Quotation/Agreement.

II. Materials To Be Provided:

One (1) Savaria Vertical Wheelchair Lift for barrier free access only, according to the following equipment specifications.

Specification:

Model	V-1504	Depth of Pit	3" Pit Required
Capacity	750 lbs	Ramp	N/A
Speed	20 FPM (Hydraulic Drive)	Safety Devices	As Required by Code
Drive Mechanism	2:1 Chain-Hydraulic	Emergency Lighting	Standard
Platform Size	36" X 52"	Car Grab Rail	Standard
Platform Type	Same-Side	Auto Dialer	Standard
Number of Stops	Two Stop		
Battery Backup (Up & Down)	Standard	Warranty	3 Years Parts 90 Days Labor
Manual Lowering	Standard		
Emergency Stop/Alarm	Standard	Preventative Maintenance Plan	Preventative Maintenance Quotation available upon request
Lower Landing Entrance	Custom-Rated Power Door Assembly		
Upper Landing Entrance	Custom-Rated Power Door Assembly		

Please see Addendum A for optional items if included in this quotation/agreement.

III. Labor To Be Provided:

All labor and incidental materials necessary for the delivery, set-up, installation, adjusting and testing is by Prime Elevator unless otherwise indicated in section V. Terms of this document. Union labor for installation-not included.

IV. Quotation Amount: \$63,747

Sales tax exempt. (Must provide tax exempt certificate, physician's letter also required for residential application)

V. Terms:

For a description of the schedule of values/payments, please see Addendum A.

Materials which are not accepted upon an attempt to deliver will be stored and scheduled for re-delivery at the owner's expense. Invoices are payable upon presentation. Title to all equipment shall remain with Prime Elevator llc until all invoices are paid in full.

Quote#02533
Date:9/5/25
Expiration Date:10/5/25

Project Name: The Rotch-Jones-Duff House & Garden Museum
Address: 396 County Street New Bedford, MA 02740



Customer agrees to bear all costs of collection of overdue invoiced amounts, including any agent / attorney's fees.

Upon acceptance of this quotation/agreement, and unless otherwise specified in contract documents, a cancellation fee will apply if this agreement is canceled by the customer prior to the fabrication of the equipment. The amount of the cancellation fee will be (10) percent of the proposal price (less installation, taxes and freight charges) or actual costs, whichever is greater. Cancellation after the equipment has been fabricated will be subject to a cancellation fee equal to the full contract value less installation labor.

All site coordination for work of other trades and site verifications for ordering of manufacturing is by others unless otherwise stated in Addenda "A" of this Quotation/Agreement. Approvals for variances are the responsibility of the purchaser or the purchaser's customer.

VI. Delivery:

Delivery after drawing approval and site verification will be as per our standard manufacturing lead times at the time of full approval for manufacturing unless otherwise stipulated in Addenda "A" of this Quotation/Agreement. If delivery cannot be accepted within 30 days of receipt from the manufacturer by Prime Elevator. Then storage will accrue at a rate of \$3250/month.

VII. Comments/Conditions:

Please see addendum-A which includes work required by others included in this agreement. All modifications, electrical support and construction required to facilitate the installation of the lift is the responsibility of customers authorized representative / by others. Approval for variances are the responsibility of the building owner or the owner's authorized representative. There are certain characteristics, such as streaks, light scratches and paint imperfections, which may appear in any product. These imperfections are naturally inherent and should not be considered as defects.

VIII. Project Exceptions:

For project exceptions specific to this quotation/agreement, please see Addendum A. Exterior installations may be subject to increased maintenance, service and repairs frequencies due to exposure to changing seasonal weather conditions and extreme or intrusive elements.

Thank you for your interest in Prime Elevator products and services. Please contact me directly if you have any questions or concerns.

Submitted by Prime Elevator

Amanda McPhail

Amanda McPhail
Sales Engineer

9/5/25

Date

Quote#02533
Date:9/5/25
Expiration Date:10/5/25

Project Name: The Rotch-Jones-Duff House & Garden Museum
Address: 396 County Street New Bedford, MA 02740



348

Purchaser:

Legal Name of Purchaser or Company/Corporation:

Full Address:

Acceptance:

This quotation/agreement, inclusive of all addenda pages, is formally accepted by:

- Owner of Project
- Office/Manager/Agent duly and legally authorized to act as signing authority

Authorized Signature

Please Print Name and Title

Date

Signature constitutes agreement to purchase as per terms and conditions of this agreement.

Page 3 of 5

Prime Elevator LLC

www.prime-elevator.com

34 Pearl Street Milford MA 01757

Phone:(508) 203-8929

Addendum A

Schedule of Values

30% deposit with signed quote, 30% upon provision of approval drawings and before manufacturing can occur, 30% When equipment is received from Savaria by Prime Elevator, and prior to delivery to site. 10% at installation. No third-party payment contingencies are accepted. No Pay if Paid/Pay when Paid terms accepted

PROVISION BY OTHERS (Savaria Lift V-1504)

The following is a summary of the work that will be required by other work forces; in order to properly furnish and install this unit in a manner that meets or exceeds applicable codes and is common industry standard for lifts/elevators of this type and design.

Our Sales Engineers, Lift Project Managers and Installation Management team will work with the construction project staff and management towards the successful completion of your project. Please feel free to contact our staff should you have any questions or require clarification.

PART I: WORK TO BE COMPLETED BEFORE SCHEDULING OF LIFT INSTALLATION

1. Provide clear and direct access to the location of the lift - to allow for delivery in place.
2. Provide permanent dedicated power to lift. Locate as coordinated by approved shop drawings and/or Prime Elevator's Project Manager.
3. Unless noted as "Supplied by Prime Elevator" on drawings, provide a Fused, Lockable, Heavy-Duty Disconnect by others, located as coordinated by Prime Elevator's Project Manager. Provide auxiliary contact switch inside the disconnect for drive systems which utilize battery power. Power to disconnect and wiring to lift hoistway or elevator controller are the responsibility of the General contractor or project contractor.
4. Provide a smooth finished pit. The pit must be dry, square, and level of size as indicated on approved shop drawings. Design and construction to bear all floor reaction loads as shown. Note - For Lifts using Hydraulic Drive systems, pit floor surface shall be non-porous material only.
5. Door sill supports that are plumb and in line from floor to floor.
6. Hoistway of sufficient height to allow for 6'-8" headroom clearance above lift platform surface when at the top landing.
7. Hoistway machine tower wall supports as necessary to bear the "tie-back" loads shown and located on the drawings. This support will be designed and approved by the architect, structural engineer, or owner's representative to proper engineering principles and standards. Prime Elevator bears NO RESPONSIBILITY for the design, construction or placement of rail wall blocking or supports.
8. Provide a clear area within the pit or "footprint" of the lift including additional space as required for the assembly of the equipment. The clear area must extend vertically the entire height of the lift and clear headroom area above the lift.
9. Complete all walls and any finish patching and painting in areas surrounding the lift equipment which would not be accessible after lift assembly.
10. Provide lifting beam or bracket - where required.

PART II: GENERAL REQUIREMENTS

1. All wall patching, finishing or refinishing made necessary by the installation of any device or fixture in any wall, floor or ceiling surface.
2. Provide hoistway lighting with guard - to satisfy all applicable building codes. 5 FTC or 54 LUX minimum required throughout hoistway.
3. Installations without optional "in-fill" panels will require a small wall section to be built to fill open space between upper landing gates or doors and the building wall - after lift is in place.
4. Per code, sprinkler systems are not authorized in Lift/Elevator hoistways or pits. If contract drawings or the local authority requires sprinkler installation, DO NOT approve the lift shop drawings until this issue is resolved.
5. Where power door openers are used, provide concealed wiring to remote located lift landing control stations. Coordinate location of remote call stations with Prime Elevator.
6. Placement of lift and doors to be situated in relation to other adjacent building elements to allow for full compliance with ADA and other national and state codes regulations. Prime Elevator bears no responsibility for building structures not associated with the lift or hoistway which may impede on clear floor space required for accessing the lift.
7. Provide for any and all items identified as "by others" on lift shop drawings.
8. Lift installation, and ALL associated construction items and accessories must be complete before lift inspection with state officials may be scheduled.
9. Provide attendant call system to obtain assistance for key operated lifts where required.
10. Some local and state jurisdictions may require two way communication to be installed on the lift platform. Any wiring for dedicated phone lines or intercoms to be provided "by others".

PART III: ADDITIONAL ITEMS APPLICABLE TO LIFTS INSTALLED IN EXTERIOR AREAS

1. Lighting of lift area during all times of potential use.
2. Provide design and construction of pit or slab to include all drainage as needed to assure a dry pit/slab under all conditions. The design must allow lift footprint to be smooth and level.
3. Support slab and area at entrances to be designed in compliance to applicable local building codes (extend below frost line to ensure slab will remain level and stable through all seasons).
4. Exterior rated, fused, lockable, heavy-duty electrical disconnect. Location to be coordinated with Prime Elevator's Project Manager, and shall be within sight of lift.
5. Attendant call system as required.
6. Provide wiring for any additional emergency signaling devices as required (telephone, intercom, additional alarm) to ensure that passengers inside the platform may signal for assistance at all times if needed. Consult Prime Elevator's sales staff for options and availability.
7. Provide additional electrical lines separate from main lift power source for ventilation equipment and lift mast heating.

***This quote includes Decommission, removal, and disposal of the 201-W-385 existing lift. This Quoted is contingent upon AAB variance for 28.12.2 :b reduced platform size 36x52"**

THE ROTCH-JONES-DUFF HOUSE & GARDEN MUSEUM

2025 - 2026 BOARD OF TRUSTEES

As of 9/18/25

Officers & Trustees

President

Natalie A. Mello

Vice President

Rebecca G. Barnes

Treasurer

Stewart Young (Stew)

Assistant Treasurer

Nathanael R. Brayton (Nat)

Clerk

Anne B. Heller

Trustees

Amelia A. Alburn

Andrew V. Armstrong

Barbara (Barb) Brown-Ex
Officio

William Bullard

Samuel (Sam) H. Duncan

Diana Henry

Mirian V. Moultrie

Leonardo (Leo) Reis

Derek J. Santos

Harvey J. Wolkoff



Commonwealth of Massachusetts
Department of Revenue
Geoffrey E. Snyder, Commissioner
mass.gov/dor

Letter ID: L0644838496
Notice Date: September 8, 2025
Case ID: 0-003-064-181



CERTIFICATE OF GOOD STANDING AND/OR TAX COMPLIANCE



ROTCHE JONES DUFF HOUSE & GARDEN M
396 COUNTY ST
NEW BEDFORD MA 02740-4934

000076

Why did I receive this notice?

The Commissioner of Revenue certifies that, as of the date of this certificate, ROTCH JONES DUFF HOUSE & GARDEN MUSEUM INC dba:ROTCHE-JONES-DUFF HOUSE & GARDEN MUSEUM is in compliance with its tax obligations under Chapter 62C of the Massachusetts General Laws.

This certificate doesn't certify that the taxpayer is compliant in taxes such as unemployment insurance administered by agencies other than the Department of Revenue, or taxes under any other provisions of law.

This is not a waiver of lien issued under Chapter 62C, section 52 of the Massachusetts General Laws.

What if I have questions?

If you have questions, call us at (617) 887-6400, Monday through Friday, 9:00 a.m. to 4:00 p.m.

Visit us online!

Visit mass.gov/dor to learn more about Massachusetts tax laws and DOR policies and procedures, including your Taxpayer Bill of Rights, and MassTaxConnect for easy access to your account:

- Review or update your account
- Contact us using e-message
- Sign up for e-billing to save paper
- Make payments or set up autopay

Edward W. Coyle, Jr., Chief
Collections Bureau



Commonwealth of Massachusetts
Department of Revenue
Geoffrey E. Snyder, Commissioner
mass.gov/dor

Letter ID: L0644838496
Notice Date: September 8, 2025
Case ID: 0-003-064-181



CERTIFICATE OF GOOD STANDING AND/OR TAX COMPLIANCE



ROTCHE JONES DUFF HOUSE & GARDEN M
396 COUNTY ST
NEW BEDFORD MA 02740-4934

Internal Revenue Service
District Director
G.P.O. BOX 1680
BROOKLYN, NY 11202

Department of the Treasury

Date: JAN 6 1986

ROTCHE JONES DUFF HOUSE AND GARDEN
MUSEUM INC
396 COUNTY STREET
NEW BEDFORD, MA 02740

Employer Identification Number:
04-2859088
Contact Person:
MICHAEL SCIAME
Contact Telephone Number:
(718) 780-6134

--
Our Letter Dated:
January 5, 1986
Caveat Applies:
NO

Dear Applicant:

This modifies our letter of the above date in which we stated that you would be treated as an organization which is not a private foundation until the expiration of your advance ruling period.

Based on the information you submitted, we have determined that you are not a private foundation within the meaning of section 509(a) of the Internal Revenue Code because you are an organization of the type described in section 509(a)(1) and 170(b)(1)(A)(vi). Your exempt status under Code section 501(c)(3) is still in effect.

Grantors and contributors may rely on this determination until the Internal Revenue Service publishes notice to the contrary. However, if you lose your section 509(a)(1) status, a grantor or contributor may not rely on this determination if he or she was in part responsible for, or was aware of, the act or failure to act that resulted in your loss of such status, or acquired knowledge that the Internal Revenue Service had given notice that you should be removed from classification as a section 509(a)(1) organization.

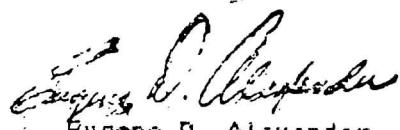
If the heading of this letter indicates that a caveat applies, the caveat below or on the enclosure is an integral part of this letter.

Because this letter could help resolve any questions about your private foundation status, please keep it in your permanent records.

ROTCH JONES DUFF HOUSE AND GARDEN

If you have any questions, please contact the person whose name and telephone number are shown above.

Sincerely yours,



Eugene D. Alexander
District Director

Internal Revenue Service

District
Director

Department of the Treasury

P.O. Box 1680, GPO Brooklyn, N.Y. 11202

Date: JAN 17 1986

Rotch - Jones - Duff House and
Garden Museum, Inc.
396 County Street
New Bedford, MA 02740

Employer Identification Number:
04-2859088

Accounting Period Ending:
August 31st

Foundation Status Classification:
509(a)(1)

Advance Ruling Period Ends:
August 31, 1987

Person to Contact:
J. McGovern

Contact Telephone Number:
(617) 223-6434

COPY

Dear Taxpayer:

Based on information supplied, and assuming your operations will be as stated in your application for recognition of exemption, we have determined you are exempt from Federal income tax under section 501(c)(3) of the Internal Revenue Code.

Because you are a newly created organization, we are not now making a final determination of your foundation status under section 509(a) of the Code. However, we have determined that you can reasonably be expected to be a publicly supported organization described in section(s) 509(a)(1) and 170(b)(1)(A)(vi).

Accordingly, you will be treated as a publicly supported organization, and not as a private foundation, during an advance ruling period. This advance ruling period begins on the date of your inception and ends on the date shown above.

Within 90 days after the end of your advance ruling period, you must submit to us information needed to determine whether you have met the requirements of the applicable support test during the advance ruling period. If you establish that you have been a publicly supported organization, you will be classified as a section 509(a)(1) or 509(a)(2) organization as long as you continue to meet the requirements of the applicable support test. If you do not meet the public support requirements during the advance ruling period, you will be classified as a private foundation for further periods. Also, if you are classified as a private foundation, you will be treated as a private foundation from the date of your inception for purposes of sections 507(d) and 4940.

Grantors and donors may rely on the determination that you are not a private foundation until 90 days after the end of your advance ruling period. If you submit the required information within 90 days, grantors and donors may continue to rely on the advance determination until the Service makes a final determination of your foundation status. However, if notice that you will no longer be treated as a section 170(b)(1)(A)(vi) organization is published in the Internal Revenue Bulletin, grantors and donors may not rely on this determination after the date of such publication. Also, a grantor or donor may not rely on this determination if he or she was in part responsible for, or was aware of, the act or failure to act that resulted in your loss of section 170(b)(1)(A)(vi) status, or acquired knowledge that the Internal Revenue Service has given notice that you would be removed from classification as a section 170(b)(1)(A)(vi) organization.

If your sources of support, or your purposes, character, or method of operation change, please let us know so we can consider the effect of the change on your exempt status and foundation status. Also, you should inform us of all changes in your name or address.

Beginning January 1, 1984, unless specifically excepted, you must pay taxes under the Federal Insurance Contributions Act (social security taxes) for each employee who is paid \$100 or more in a calendar year. You are not liable for the tax imposed under the Federal Unemployment Tax Act (FUTA).

Organizations that are not private foundations are not subject to the excise taxes under Chapter 42 of the Code. However, you are not automatically exempt from other Federal excise taxes. If you have any questions about excise, employment, or other Federal taxes, please let us know.

Donors may deduct contributions to you as provided in section 170 of the Code. Bequests, legacies, devises, transfers, or gifts to you or for your use are deductible for Federal estate and gift tax purposes if they meet the applicable provisions of sections 2055, 2106, and 2522 of the Code.

You are required to file Form 990, Return of Organization Exempt from Income Tax, only if your gross receipts each year are normally more than \$10,000*, or \$25,000 for years ended on or after December 31, 1982. If a return is required, it must be filed by the 15th day of the fifth month after the end of your annual accounting period. The law imposes a penalty of \$10 a day, up to a maximum of \$5,000, when a return is filed late, unless there is reasonable cause for the delay.

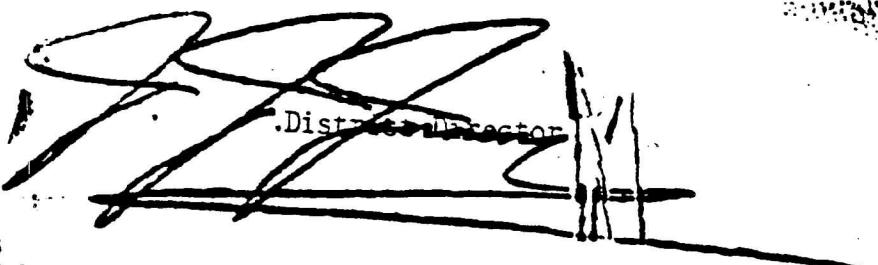
You are not required to file Federal income tax returns unless you are subject to the tax on unrelated business income under section 511 of the Code. If you are subject to this tax, you must file an income tax return on Form 990-1. In this letter, we are not determining whether any of your present or proposed activities are unrelated trade or business as defined in section 513 of the Code.

You need an employer identification number even if you have no employees. If an employer identification number was not entered on your application, a number will be assigned to you and you will be advised of it. Please use that number on all returns you file and in all correspondence with the Internal Revenue Service.

Because this letter could help resolve any questions about your exempt status and foundation status, you should keep it in your permanent records.

If you have any questions, please contact the person whose name and telephone number are shown in the heading of this letter.

Sincerely yours,



cc: Richard B. Tobojka,
Henry C. Rodrigues, CPA's
c/o Rodrigues, Guckin, & Tobojka
27 South Sixth Street
New Bedford, MA 02740

You are advised that receipts from unrelated functions may be subject to tax on unrelated business income pursuant to Sections 511 - 515 of the Internal Revenue Code.

* For tax years ending on and after December 31, 1982, organizations whose gross receipts are not normally more than \$25,000 are excused from filing Form 990. For guidance in determining if your gross receipts are "normally" not more than the \$25,000 limit, see the instructions for the Form 990.

*etf. of Municipal Lien
4-12-85
1919 248*

3623

QUITCLAIM DEED

WATERFRONT HISTORIC AREA LEAGUE OF NEW BEDFORD, INC., a corporation duly established under the laws of the Commonwealth of Massachusetts and having its principal office at 13 Centre Street, New Bedford, Bristol County, Massachusetts, for consideration paid, and in full consideration of (\$106,885.32) One hundred six thousand eight hundred eighty-five and 32/100 Dollars, grants to the ROTCH-JONES-DUFF HOUSE and GARDEN MUSEUM, INC., a Massachusetts corporation having its principal office at 396 County Street, New Bedford, Massachusetts, with Quitclaim covenants, the land in said New Bedford, together with buildings thereon, bounded and described as follows:

Beginning at the Northwest corner of said Lot, at the intersection of County Street and Madison Street; thence

Southerly in the East line of County Street about two hundred and four feet six inches (204' 6") to the North line of Cherry Street; thence

Easterly in said North line of Cherry Street about two hundred and seven feet (207') to the West line of Seventh Street; thence

Northerly in said West line of Seventh Street about two hundred and three feet six inches (203' 6") to the South line of said Madison Street; and thence

Westerly in said South line of said Madison Street about two hundred twenty-six feet (226') to the place of beginning.

Containing about one hundred and sixty-two and seven-tenths rods.

Being the same premises conveyed to the Grantor by deed of Beatrice P. Duff, dated November 30, 1981 and recorded in said Registry at Book 1833, Page 85.

The above described premises are conveyed subject to the following:

1. Lease between the Grantor and the Garden Club of Buzzards Bay, Inc., dated July 16, 1982, with the Notice of Lease recorded in said Registry at Book 1848, Page 68.

2. Preservation restrictions imposed by the Commonwealth of Massachusetts, through the Massachusetts Historical Commission, dated January 27, 1984 and recorded in said Registry at Book 1883, Page 787.

3. Real estate taxes, if any, for the fiscal year July 1, 1984 to June 30, 1985 which the Grantee herein by acceptance of this deed hereby assumes and agrees to pay.

The above described premises are conveyed subject to the following restrictions and covenants imposed for the benefit of all land owned by the Grantor in said New Bedford, all of which restrictions and covenants shall run with and bind the land to be conveyed and shall be binding upon the Grantee, its successors and assigns and shall inure to the benefit of the Grantor and its successors and assigns:

396 County Street
New Bedford, Massachusetts

361917-30543

1917PG0544

1. The Grantee covenants and agrees that the buildings and structures on the premises herein conveyed shall not be demolished and the exterior thereof shall not be altered from their appearance at the date of this conveyance except with the written consent of the Grantor. The provisions of this paragraph, without being limited to the following items, shall apply to the installation of storm windows and doors, shutters, aerials, television antennae, signs, lighting fixtures, landscaping, additions, and the color and design of paint to be applied thereto.

2. In the event that the Grantee, by vote of a majority of the whole membership, determines that it is impractical to maintain and operate the property as a house and garden museum, and said majority of the whole membership votes to dissolve the corporation, then the Grantee shall thereupon forthwith convey said property to the Grantor, Waterfront Historic Area League of New Bedford, Inc., or its successors and assigns, to be held or disposed of, in accordance with the general corporate purposes of such corporation.

3. The restrictions and covenants set forth in Paragraph one (1) and paragraph two (2) shall not be construed to apply to bona fide mortgagees of the premises, or any part thereof, or to sales or other proceedings for the foreclosure thereof.

IN WITNESS WHEREOP, the said WATERFRONT HISTORIC AREA LEAGUE OF NEW BEDFORD, INC. has caused its corporate seal to be hereto affixed and these presents to be signed, acknowledged and delivered in its name and behalf by Thomas N. Bucar, its President, hereunto duly authorized this 20th day of May 1985.

COMMONWEALTH OF MASSACHUSETTS
DEEDS & EXCISE

MAILED 243.96

WATERFRONT HISTORIC AREA LEAGUE
OF NEW BEDFORD, INC.

By: Thomas N. Bucar
President

COMMONWEALTH OF MASSACHUSETTS

Bristol, ss.

MAY 24, 1985

Then personally appeared the above-named Thomas N. Bucar, President, and acknowledged the foregoing instrument to be the free act and deed of the WATERFRONT HISTORIC AREA LEAGUE OF NEW BEDFORD, INC., before me,

Kenneth F. Comello
NOTARY PUBLIC

My Commission Expires: MAY 29, 1985

Waterfront Historic Area League of New Bedford, Inc.

Certificate of Vote of Directors

I, Berthold Putman, do hereby certify that I am the duly elected and qualified Clerk of Waterfront Historic Area League of New Bedford, Inc. and as such I have custody of the records of the Board of Directors of said corporation and that at a regular meeting of the Board of Directors of the corporation duly called and held at 396 County Street, New Bedford, Massachusetts, on December 18, 1984, a quorum of the Directors being present and voting at all times, the following resolution was unanimously adopted:

VOTED: that the corporation sell to the ROTCH-JONES-DUFF HOUSE and GARDEN MUSEUM, INC., a Massachusetts corporation having its principal office at 396 County Street, New Bedford, Massachusetts, for the consideration of the amount of principal and interest due on a demand note (approximately \$130,000) given by the corporation to BayBank Merchants, N.A., now BayBank Southeast, N.A., a parcel of real estate located at 396 County Street, New Bedford, Massachusetts, together with buildings and structures erected thereon and as more particularly described in the deed; subject to various restrictions and covenants outlined at the meeting and to be set forth in the deed conveying the property, and that the President or any Vice President be, and any one of them is, hereby authorized and directed in the name and on behalf of the corporation to sign, seal with the corporate seal, acknowledge and deliver any deed and other instrument of every nature which may be necessary to convey title to the Grantee.

I further certify:

1. that the corporation is duly organized and existing under the laws of the Commonwealth of Massachusetts.
2. that the foregoing vote has neither been amended nor rescinded and still is in full force and effect.
3. that said Vote is not in conflict with any provision of the Charter or By-Laws of this corporation.
4. that Thomas N. Bucar is the duly elected and qualified President.

Dated at New Bedford, Massachusetts, the 26th day of March, 1985.

Attest: *Berthold Putman*
Berthold Putman, Clerk



Received & Recorded March 26, 1985 at 10 hrs 52 min A.M.

Attest: *John Jones* Register

SK1917700545

YWCA IS ON A MISSION

eliminating racism
empowering women
ywca

October 31, 2025

City of New Bedford
Community Preservation Committee
133 Williams Street
New Bedford, MA 02740

Re: RJD FY2026 CPA Request

Dear Community Preservation Committee,

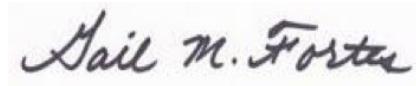
This letter is written in support of the CPA grant application of the Rotch-Jones-Duff House and Garden Museum (RJD). As a non-profit colleague and program partner to the RJD, I recognize the museum as an asset to New Bedford. In addition, the YWCA and RJD have a supportive collegial relationship.

RJD's latest project is the replacement of the 25 year-old wheelchair lift which has been the only way for people with mobility limitations to reach the first floor of the Museum. The Museum's commitment to public access is clear to me from their plan to install a temporary ramp at their own significant expense until the new lift can be installed. The cost of a new lift is prohibitive, and grant dollars are the only viable option for this costly project.

The RJD Museum contributes to the vitality of the community by engaging them in creative and cultural activities. Many YWCA participants have enjoyed the RJD over the years. While focusing on the essential preservation and maintenance of the historic property, the RJD's leadership is also committed to a community outreach effort, ensuring that they remain a relevant, contributing part of this community. This project is very simply about physical access to a community resource.

The RJD has leveraged hundreds of thousands of dollars from individual donors to meet operating and capital expenses each year. Grants like those from the Community Preservation Act are vital to the continued preservation of and access to this historic property. I hope you will fund the RJD's project this year.

Sincerely,



Gail Fortes
Executive Director

October 31, 2025

City of New Bedford
Community Preservation Committee
133 Williams Street
New Bedford, MA 02740

Re: RJD FY2026 CPA Request

Dear Community Preservation Committee,

This letter is written in support of the CPA grant application of the Rotch-Jones-Duff House and Garden Museum (RJD). As a member of the RJD Buildings and Grounds Committee (B & G), I am a stakeholder in the maintenance and preservation of the RJD's historic building. I also recognize it as an important part of New Bedford's overall historical character.

The RJD is following a well-designed plan of continued maintenance on their 1834 site, following recommendations made in their 2019 Collections Assessment Program report, a 2012 Olmsted Report, and their long-term maintenance plan. The B & G Committee also advises the staff on significant matters related to the historic property. Committee members have expertise in architecture, design, construction, and gardening.

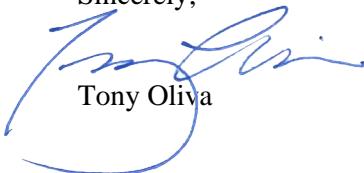
RJD's latest project is the replacement of the 25 year-old wheelchair lift which has already been flagged by the State of Massachusetts inspector as out-of-service. The staff and B & G committee projected the need to replace this lift in the next few years. However, following multiple failures and expending thousands of dollars in unanticipated repairs this past year, we have chosen the financially responsible plan to keep the current lift's status as "out of service", install a temporary wheelchair ramp, and expedite the project of installing a new machine. Our committee will support the staff as they seek grant funding to cover the significant cost of this replacement, we will review competitive bids for the project from qualified contractors, and bring our collective knowledge base to the implementation process.

The RJD Museum is a New Bedford asset, contributing to the vitality of the community by engaging them in creative and cultural activities. While focusing on the essential preservation and maintenance of the historic property, the RJD's leadership is also committed to a community outreach effort, ensuring that we remain a relevant, contributing part of this community. This project is very simply about physical access to a community resource. Because the Museum is committed to community access, we are in the process of installing a temporary wheelchair ramp at our own expense.

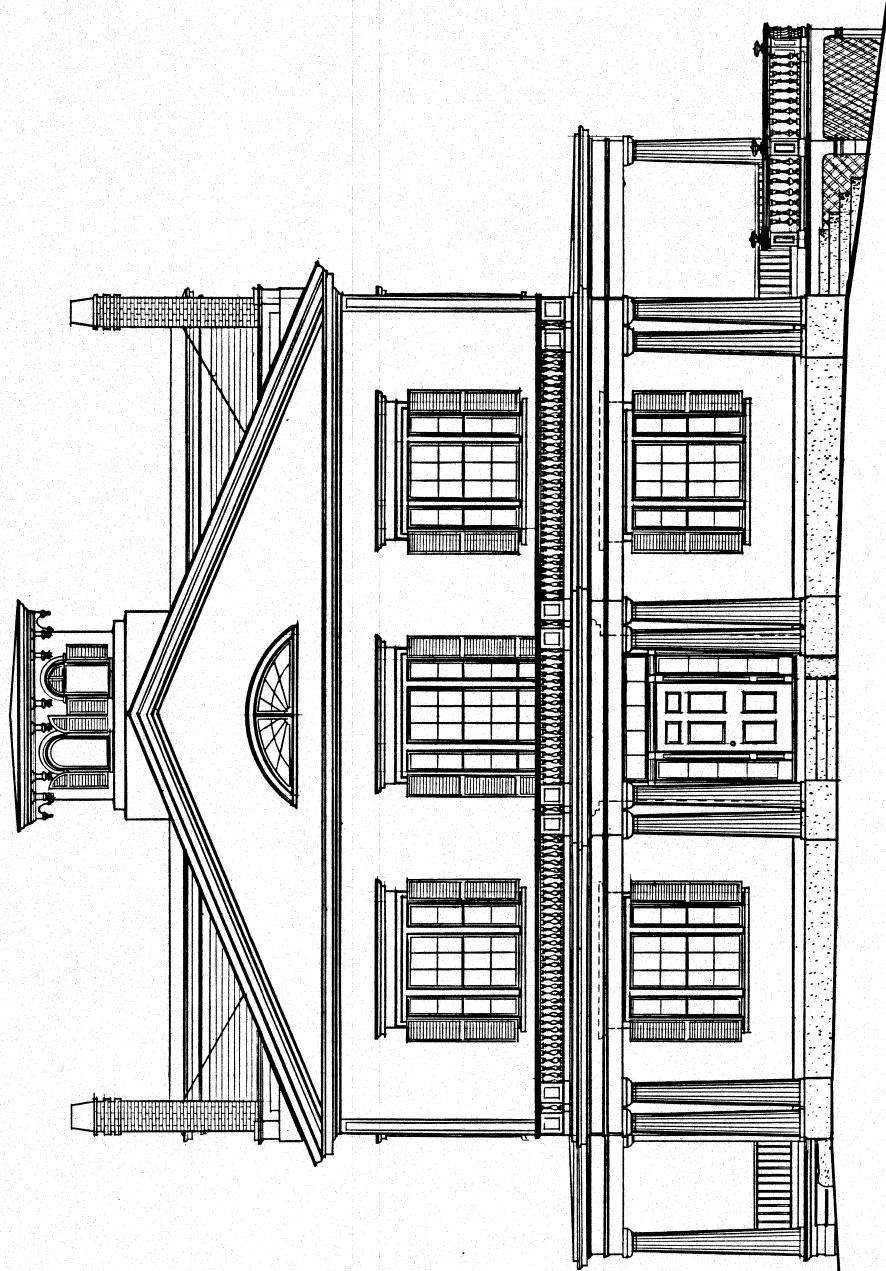
In addition to my role as a volunteer, I'm also a donor to the Museum. The RJD has leveraged hundreds of thousands of dollars from donors like me to meet overall funding needs each year. Grants like those from the Community Preservation Act are vital to the continued preservation of and access to this historic property. I hope you will fund the RJD's project this year.

Sincerely,

Tony Oliva

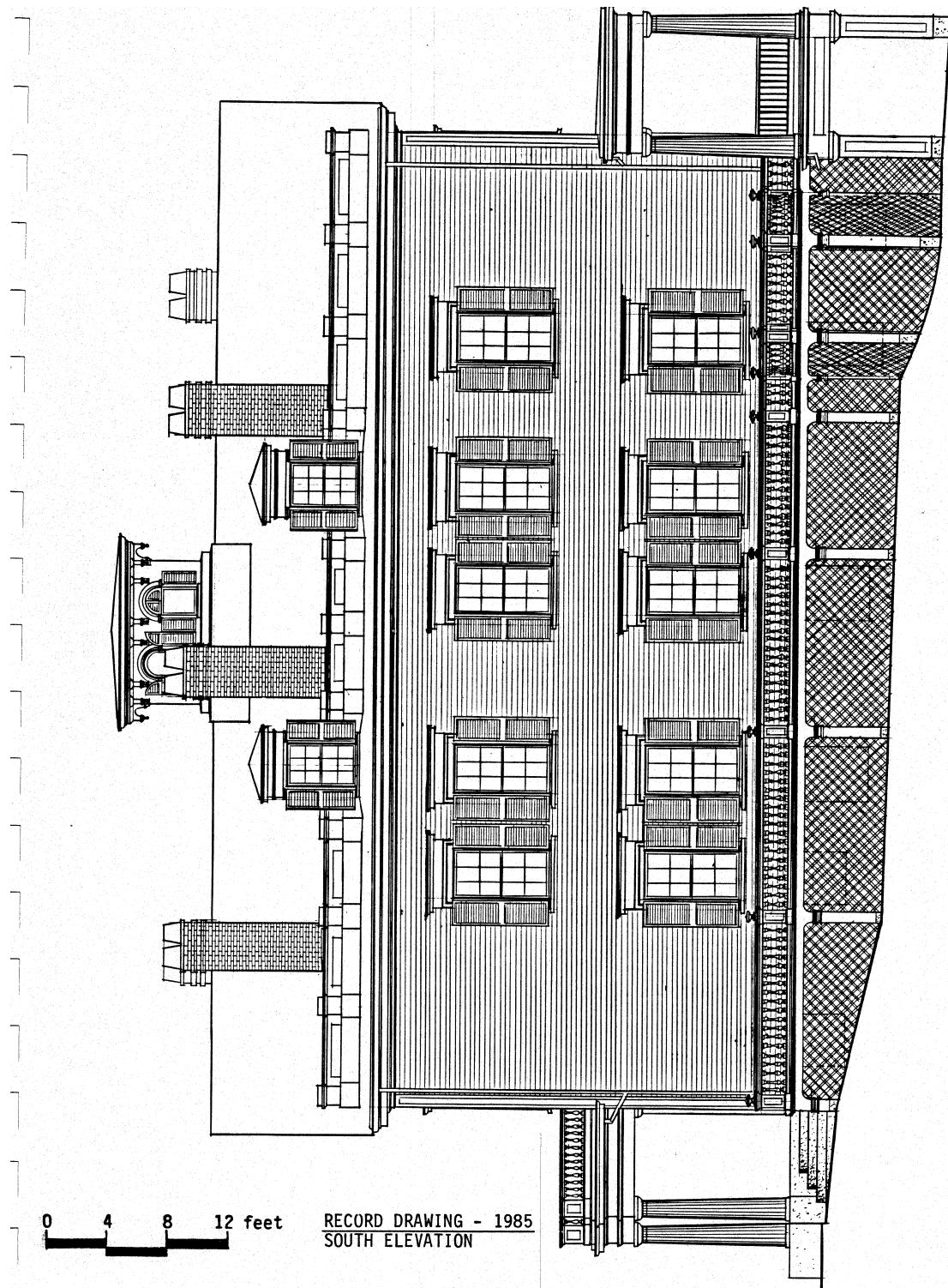


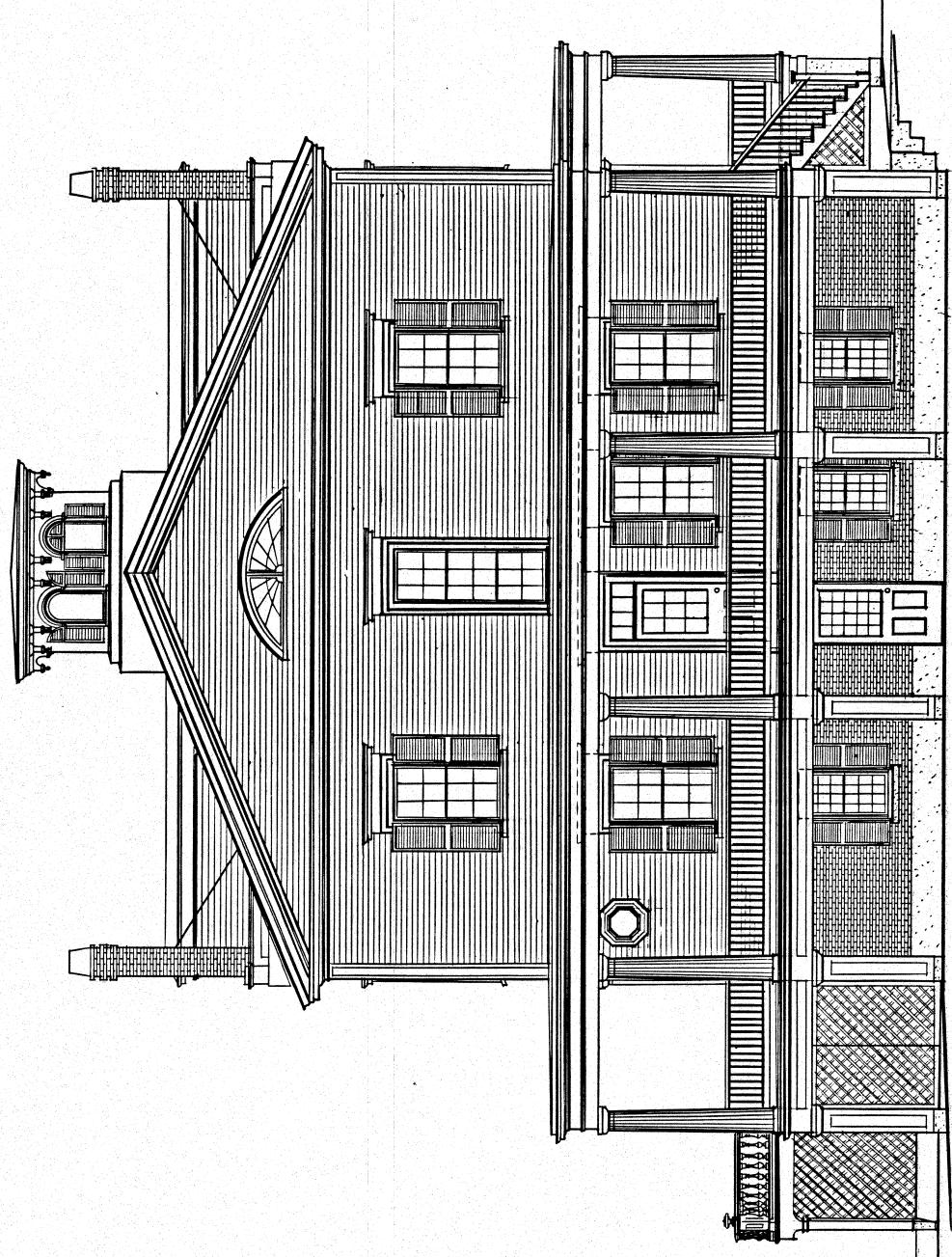
Member, RJD Buildings & Grounds Committee
84 Green Street
Fairhaven MA 02719



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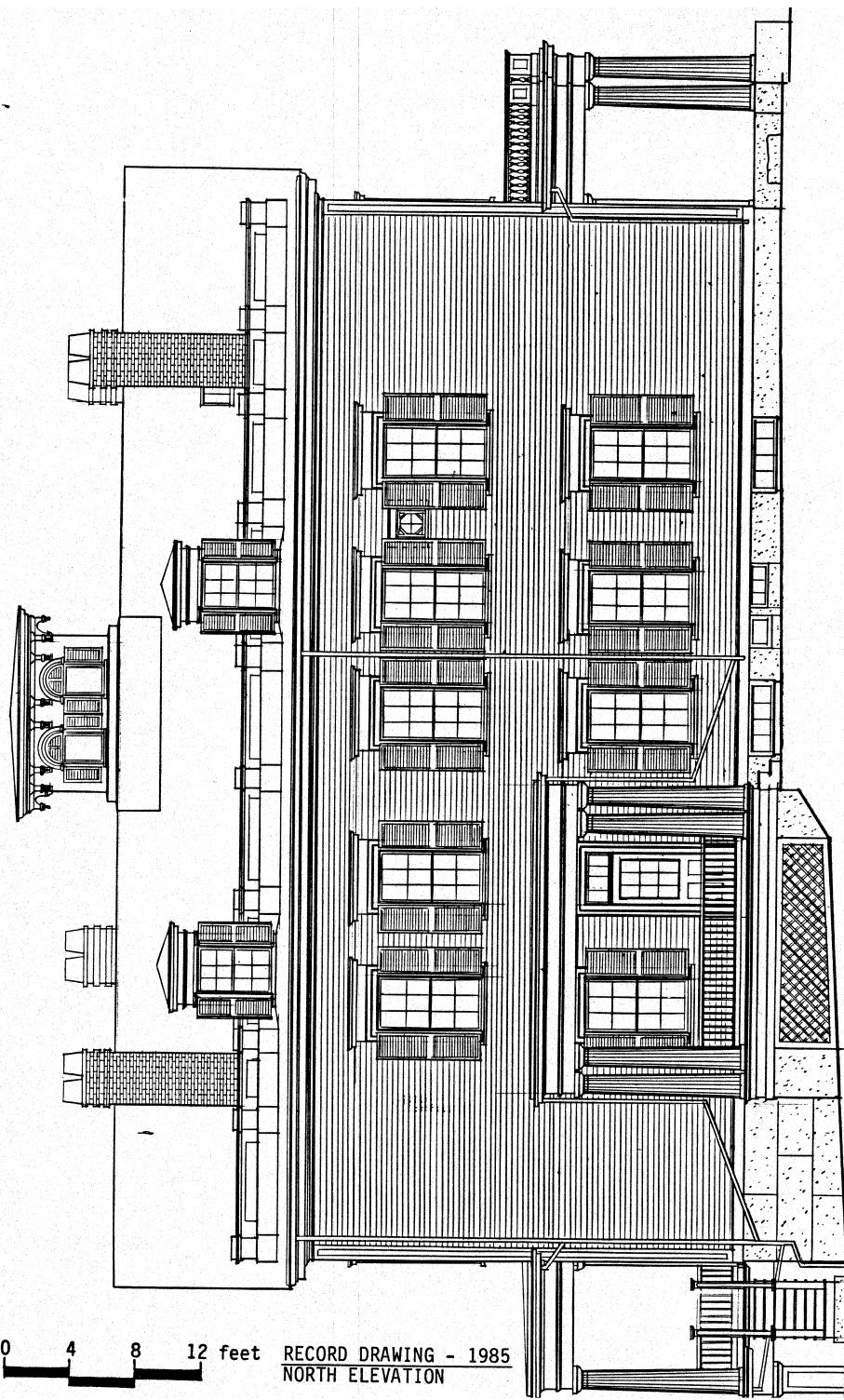
RECORD DRAWING - 1985
WEST ELEVATION





0 4 8 12 feet

RECORD DRAWING - 1985
EAST ELEVATION





THE
HISTORIC STRUCTURE REPORT
OF
THE ROTCH-JONES-DUFF HOUSE & GARDEN MUSEUM
396 COUNTY STREET, NEW BEDFORD, MA 02740

STRUCTURAL CONSULTANT: *Structural Engineers, Inc.* / INTERIOR CONSULTANT: *Anne G. Sizemore* / ARCHITECTS: *Gamil A. Nelson, A.I.A., Christopher T. Wue, A.I.A.* / ENGINEERING CONSULTANTS: *W.H. Lynch & Associates, Inc.* / HISTORICAL CONSULTANT: *Paint SPECIALIST: Sam B. Chev* / LANDSCAPE CONSULTANT: *Victor A. John*



THE ROTCH-JONES-DUFF HOUSE & GARDEN MUSEUM

PRESIDENT

Anne B. Hengle

Vice-PRESIDENT

Beatrice F. Baker

BOARD CHAIR

Mary Ann McConnell

CLERK

Nancy F. Crowley

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James S. Holgren
James P. Hox
Evelyn M. Nusswe
Habeme Schmid
Suzanne Underwood

EXECUTIVE Director

Susan L. Clipe

Acknowledgements

The Rotch-Jones-Duff House and Garden Museum, Inc., located within the County Street Historic District, wishes to acknowledge the Massachusetts Historical Commission, Secretary of State; Michael Joseph Connolly, Chairman; and the Massachusetts Preservation Fund for the matching grant awarded toward the research project entitled: The Historic Structure Report of the Rotch-Jones-Duff House and Garden Museum, Inc.

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Cover photo: the Rotch-Jones-Duff House, circa 1905, courtesy of the Whaling Museum, New Bedford, Massachusetts. Photographer: Fred Palmer.



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SECTION 1.0 - INTRODUCTION

The Historic Structure Report of the Rotch-Jones-Duff House and Garden Museum is a document of existing physical conditions with evidence of the building's historic context, original structure and subsequent alterations. With such evidence, a plan for restoration and preservation can now be formulated and implemented based on recommendations by the professional team.

The professional team represents many disciplines:

Project Coordinator - Susan L. Cline, Executive Director, Rotch-Jones-Duff House and Garden Museum.
Preservation Consultant - Antone G. Souza Jr., Vice President, Swain School of Design.
Architects - Carol A. Nelson, AIA, and Christopher T. Wise, AIA; Design and Conservation.
Engineer - Alan F. Fales, Fales Letendre & Ziobro.
Historian - Karen L. Jessup, Trustee and Chairperson of the Planning and Architectural Review Committee, Providence Preservation Society.
Paint Specialist - Sara B. Chase, Director of Consulting Services, Society for the Preservation of New England Antiquities (SPNEA).
Landscape Consultant - Victoria A. Jahn, Plant Manager, Brooklyn Botanic Garden.

The architects measured and drew floor plans, elevations and architectural details. Archival plans were studied and, from old and new drawings, conclusions were drawn about the space usage and structural history of the House. The historian researched the House architecture and landscape, social history, family history and regional history. From the research, conclusions were drawn about the stylistic alterations of the property. The engineer surveyed the existing mechanical and electrical systems and evaluated their efficiency. With that information, recommendations were drafted for museum usage of the property. The paint specialist researched the paint and wallpaper layers in important interior spaces of the House. Conclusions about the colors and textures from 1834 to 1981 were drawn. The landscape consultant inventoried the existing landscape and researched garden technology relating to the property. Restoration recommendations were made considering the full spectrum of the historic landscape. The project coordinator and preservation consultant established the research goals, directed the research project, assimilated the information and produced the final document. Experts in historic preservation, architectural design and restoration, horticulture, garden technology, engineering, education, social and architectural history and the decorative arts were involved in this project. A rare blend of individuals functioned as a team with a common appreciation for 396 County Street.

The Historic Structure Report is a document which brings together state government and private sources in financial and philosophical commitment. As stated in the Museum Bylaws, the purpose of the Museum is "to hold, restore, preserve and maintain the House and Gardens known as 396 County

Street, New Bedford, Massachusetts; to recapture and preserve the special quality of life which flourished in New Bedford while three families lived in the House; to interest the public in local history through interpretation and dissemination of information using educational and cultural programs; to make the property accessible to the public; to operate a Museum open to the public; to acquire appropriate furnishings, artifacts and historical material and provide for their proper care and to sponsor historical research to support the Museum." By awarding the matching funds for the research project, the Massachusetts Historical Commission reinforces the importance of the Rotch-Jones-Duff House and Garden Museum and its statement of purpose. This blessing has enabled the completion of a document which has exposed "foundations" on which new material can be built or original furnishing augmented. By really seeing where we have been in the past, we can now systematically walk into the future.

Once the whaling capital of the world, New Bedford, Massachusetts possesses a rich architectural history which reflects design genius, industrial affluence, domestic lifestyle and community coherence. The Rotch-Jones-Duff House and Garden Museum is the only whaling-era estate incorporated as a House and Garden Museum. In addition, this Greek Revival period House is important nationally as one of the finest temple form structures - the only exclusively American architectural style - and attributed to Richard Upjohn, the founding father of the American Institute of Architects. The historic American landscape is intact and was influenced by the world famous plant importer "Chinese" Wilson and by the amateur horticulturist James Arnold. It is only appropriate that this architectural landmark was inhabited by New England leaders of social and economic influence: William Rotch Jr., Edward Coffin Jones and Mark M. Duff. Their affection for 396 County Street is reflected in their meticulous preservation of architectural details and sensitive remodeling for changing space usage.

Accumulating information about the Rotch-Jones-Duff House and Garden Museum is a continuous process of investigation and synthesis. Structural evidence clarifies perceptions and communicates knowledge of a building's creators and its inhabitants. The value of architecture, as defined by John Ruskin, depends on two distinct characters: the impression it receives from human power and the image it bears of the natural creation - images of Beauty. As the Museum adapts to economic reality, while preserving cultural objectives, new information will enhance the educational process, thus justifying the existence of the Rotch-Jones-Duff House and Garden Museum as a "living" museum.

Susan L. Cline
Project Coordinator

SECTION 2.0 - GENERAL HISTORY OF 396 COUNTY STREET

2.1 Introduction

The history of the Rotch-Jones-Duff House and Garden Museum, Inc. at 396 County Street spans over one hundred and fifty years and includes several significant chapters in the architectural and landscape annals of New Bedford.

The property is symbolic of the city's great prosperity derived from maritime activities, particularly whaling, and chronicles a fascinating evolution in the economic, social and political traditions of the community. Owned by only three families since it was built in 1834 by William Rotch, Jr., the estate contributes to our understanding of the development of New Bedford because of the prominent citizens who were its occupants. Each of these families - the Rotches, the Joneses and the Duffs - left a part of themselves in the House and we see evidence today of their stewardship.

The Rotch House embodies a style of design that recalls a changing way of thinking for Americans in matters of taste and culture aspirations. New Bedford is rich in buildings which are a legacy of this new aesthetic in architectural design - the Greek Revival.

The Rotch-Jones-Duff estate is especially remarkable because it has survived with its original essence intact. The form of the 1834 House is little modified; only decorative features have been altered to accommodate the needs and tastes of its individual owners. The mansion still occupies the original House lot with no adjustments to the property lines and the landscape, although not what it must have been in the 1830's, surrounds the residence as it did during its early history. The fact that this entire city block has not been subdivided or suffered encroachment from contemporary development is exceptional in itself.

2.2 Scope of Research

The following sections on the development of the property attempt to provide a scholarly foundation upon which further study and decisions about restoration and museum interpretation can be based. There currently exists a body of fragmented, partially undocumented information about the mansion and the families who owned it. Research for the historic structure's report initially focused on this available body of knowledge and was subsequently broadened to follow new areas of inquiry suggested by what was already known. One must bear in mind, however, that accumulating information about a historic property is an ongoing process; one that should not stop with the completion of the grant requirements.

Because of the telescoped time frame for the project, several potentially productive avenues of investigation are yet to be pursued. Therefore, a list is provided of research studies which need to be undertaken to contribute to a more complete understanding of the Rotch-Jones-Duff estate.

2.2 continued

It is perhaps important to indicate at the beginning what this investigation did not attempt to accomplish. A general history of New Bedford is available from several sources. Hence, a reinterpretation of the founding and development of the community, except as events relate specifically to 396 County Street, seemed beyond the scope of the project. Likewise, extensive study of the Rotch family mercantile empire and the influence of Quakerism in New Bedford are subjects too broad to include in a historic structure's report. The bibliography supplies references for more comprehensive reading on these topics.

One particularly laments the fact that an academic survey of New Bedford's civic and architectural growth has not been pursued. The city is fortunate that so many of its distinctive buildings survive. As representatives of a variety of construction methods and architectural tastes, they deserve scholarly investigation. Maritime adventures have been the focus of many historians' research and this natural curiosity about New Bedford's whalers and their daring exploits has perhaps diverted attention away from architectural traditions. Particularly ripe for research is an interpretation of New Bedford's Greek Revival buildings. They comprise a noteworthy heritage and nationally prominent architects executed important commissions here.

The report on the history of the estate is organized in a chronological fashion. Its conclusions are based on written documentation from a variety of sources, rather than on a survey of the physical components of the site. The report traces the development of the land from before it was acquired by William Rotch, Jr., and describes a series of known changes to the house and landscape. It includes discussion of what the owners of the property contributed to the history of New Bedford and incorporates information about the social and cultural aspirations of the Rotches, the Joneses and the Duffs.

Particular emphasis is placed on Greek Revival architecture and how this nineteenth century design aesthetic relates to the Rotch-Jones-Duff House. The creative inspirations of men who, in addition to the owners, may have had a marked impact on the character of the property are also explored. Foremost among these are architect Richard Upjohn and New Bedford merchant, and amateur horticulturalist James Arnold.

2.3 New Bedford's Early History

New Bedford is situated on the west shore of a small estuary called the Acushnet River, which makes an indentation into the Massachusetts mainland near the western-most reaches of Buzzard's Bay. Located fifty-five miles south of Boston, about the same distance northwest of Nantucket Island and thirty miles east of Providence (all important colonial ports), the community naturally based substantial portions of its early economy on maritime trade.

An author of a magazine article written in 1845 on the merits of this seacoast settlement observed that "there is scarcely a town in our country, of equal importance, about which so little has been said, by the book-makers, as New Bedford."¹ In the shadow of more prominent Boston and Nantucket for much of its early years, New Bedford apparently suffered from a "second-fiddle" mentality and its residents lived quite happily without attracting the attention and "favorable notice of the

geographer and annalist.² Characterized as a respectable "sort of fishing station", the village lacked a history of early dominance by notorious pilgrims in conflict among themselves and against the elements and couldn't claim extensive participation in America's great struggles for liberty.³ Its out-of-the-way location, not on the main thoroughfares of New England commerce, certainly contributed (and may still) to relative anonymity in the eighteenth and nineteenth centuries.

New Bedford was originally part of the town of Dartmouth, which at one time included the villages of Westport, Dartmouth, Bedford and Fairhaven and existed as a half-shire town of the county of Bristol. A good number of the earliest whites who ventured to this area around the Acushnet were outcasts from Plymouth Colony, Baptists and Quakers who desired lives free from the overwhelming influences of the dominating Puritan life-style. Like Roger Williams, who arrived in Providence in the 1630's, New Bedford's original inhabitants felt unjustly persecuted by the strict rules of the Puritans. In 1652 thirty-six men, many with histories familiar to us, purchased land from the Wampanoag Indian Sachem Massasoit and his son Wamsutta to establish a settlement.⁴ The land encompassed what is now New Bedford but was then known as Dartmouth, incorporated as a municipality in 1664.

Unlike most of New England's first white communities, which were organized around a meeting house and central greenpace, the founders of Dartmouth built independently of each other and informally resisted the notions of a coherent community. Geography certainly played a major role in this pattern of settlement. With the region divided by numerous tributaries of the Acushnet, new inhabitants found the land already naturally apportioned by topography.⁵ They accommodated these natural barriers by building their homesteads accordingly. More than one historian has noted that Quaker traditions of independence and freedom of conscience may have also affected settlement. These qualities were the foundations of New Bedford's later successes and were remembered by the descendants of early pioneers who had struggled with Indian massacres, the uncertainties of wresting subsistence from the land and the terrors of earning a living from the sea.

In 1675 the relative serenity of southeastern New England was shattered by an Indian uprising popularly known as King Philip's War, after the English name for Massasoit's son, Pometacom. The widely dispersed homesteads of Dartmouth were defenseless and entirely at the mercy of the Indians, who were determined to rid their sacred lands of white interlopers. Three local garrisons were soon overcrowded with colonists who had fled there from their farmsteads for protection. By the time the Indian wars ran their course, massive destruction faced the white men while the few warriors and their families who survived were sold into slavery in the West Indies. To prevent further tragedy because of poorly defended house lots, the Plymouth General Court passed legislation requiring all new settlements to be more concentrated so that inhabitants could be mutually protective - the fundamental theory of safety in numbers.⁶

After the uprising of 1675, colonists entered a long period of rebuilding their lives, their homes and farms and their simple agrarian and trading economy. Sometime prior to 1711, Joseph Russell bought from Manasseh Kempton, a large tract of land in the section of Bedford Village that is

2.3 continued

now roughly bounded by County, Spring and Elm Streets and the Acushnet River. Although it is sometimes popularly believed that the Russells established their dynasty on a plot deeded to them directly by the English king, this is not technically accurate.⁷ Kempton, one of the original purchasers of property in Dartmouth, once owned substantial real estate on the western shore of the Acushnet and it was he who sold to the Russells.

Joseph Russell III, a descendant of the Russell who dealt with Manasseh Kempton, is considered the founding father of New Bedford. He is given credit for being the genius behind the establishment of a local economy based on whale fishery; one that relied on maritime efforts from which diverse products derived of whale material were manufactured.⁸ Russell himself introduced the concept of spermaceti candles and sold vast holdings with the intent of developing a whaling port of wharves, ships' chandlers, seamen, boat builders and blacksmiths. This enterprising perspective transformed the community from an agrarian economy to one based on the sea, launching the town into what would become its golden age of prosperity. Russell left a permanent legacy in that Bedford village (and later New Bedford) was named for his family's English forebears; Russell was the surname of the duke of Bedford.

Joseph Russell III has a direct relationship to the property on County Street where William Rotch, Jr. later built his estate. He was the first of several generations of Russells who located their homesteads in an area of the community where, by 1750, he had laid out a series of village lanes intersecting at right angles. County Street was part of this Philadelphia-type pattern of development. Russell also organized and sold off tracts for an aggregation of house lots, one of which William Rotch later purchased from Russell's son Gilbert. The configuration of streets we see today between County Street and the river is essentially unchanged from Joseph Russell's original concept.⁹

As the village of Bedford prospered during these nascent attempts at whaling, craftsmen skilled in the support services necessary for "going down to the sea in ships" migrated here and launched the various ancillary industries that kept the fleet in prime condition. They set high standards for workmanship, which became a tradition from the early era of shipbuilding through the fiber industries and tool manufacturing of the late 1800's and early 1900's.

2.4 The Arrival of the Rotches

Joseph Russell's pioneering economic vision for Bedford in the first half of the eighteenth century laid the foundation for the arrival of Joseph Rotch from Nantucket.¹⁰ Rotch's contributions to the community were, in many respects, as significant as Russell's. His pre-eminent knowledge of whaling, solid financial foundation and incisive business acumen provided the spark needed to ignite Russell's infant industry.

Joseph Rotch, the grandfather of William, Jr., started his Nantucket fishery and shipbuilding empire about 1725, almost penniless,¹¹ and left the island in 1765 as a successful merchant. During the early 1700's, profitable whaling had been confined generally to Nantucket, although similar attempts had been initiated in Dartmouth and elsewhere.¹² Joseph's entrepreneurial attitude led him to think of expanding his

business in new territory. In 1765, he had his two younger sons, Francis and Joseph, Jr., come to the mainland. Rotch's first son William remained in Nantucket to supervise family operations there. Rotch found the Dartmouth area appealing because the Acushnet River afforded a safe harbor within direct access to the other major New England seaports. He and his sons purchased from Joseph Russell what was then known as "Ten Acre Lot", which today comprises much of New Bedford's Waterfront Historic District.¹³ The elder Rotch built his house near the intersection of William and Water Streets, popularly called Rotch's Hill in the eighteenth century.¹⁴

Because of Joseph Rotch's leadership, the village of Bedford flourished as it never had before.¹⁵ In 1767, he became the first whaling merchant to build vessels locally.¹⁶ His Dartmouth, like others to follow, was large enough to allow on-board rendering of whale oil, a significant advancement which made the industry vastly more profitable by permitting longer voyages and reducing the chances that raw oil might turn rancid before reaching home port. Rotch's keen business sense also led him to expand his operations to include candle making, and to exert greater influence over New England maritime trade by controlling the amount of refined whale oil that was shipped to other ports for manufacturing into finished products.

The American Revolution, however, brought this flurry of sea-going activity to a virtual standstill. British ports, so important to the Rotches, were closed by embargo to foreign merchants. The villages of Fairhaven and Bedford, on opposite sides of the same harbor, were deeply divided over the issue of separation from the mother country. In Bedford, descendants of the original Quaker pioneers examined their consciences and found themselves unable to actively participate in defiance of the British. Such was not the case in Fairhaven, where privateers considered English ships fair game for capture. On September 5, 1778, the King's troops landed at Clark's Cove and, finding little resistance, set about to methodically destroy the town by burning houses, wharves and trading ships. Joseph Rotch suffered heavily, losing his home and much of his corporate capital assets.

In his History of New Bedford, Daniel Ricketson describes this "complete prostration of local trade caused by the Revolutionary War, . . . the ruinous effects of the embargo, and . . . the later European (Napoleonic) wars."¹⁷ Although much of the village of Bedford was rebuilt after British occupation and the economy had begun to grow, it was not until the close of the War of 1812 that maritime activities were really revived in earnest again.¹⁸

Here we pick up the story of William Rotch, Sr., the family scion who had remained in Nantucket when his father and brothers left to expand their whaling in Bedford.¹⁹ Soon after the onset of the Revolution, he relocated his enterprises to England with the intent of initiating whale fishery there. Whether he was acting as a British sympathizer or was motivated purely by the lure of virgin business territory is unclear. Because of the dire straits of whaling in America, William apparently saw little viable alternative but to proceed to England.²⁰ Received with less than open arms upon his arrival in Britain, William Sr. and son Benjamin soon sailed for France to establish their infant business at

Dunkirk. In 1793, the war between France and England finally obliged them to depart the Continent and return home.

In 1795, after about twelve months again in business as a whaler on Nantucket, William and his growing family moved to New Bedford. He was then sixty-one. The family occupied a house at the corner of Union and North Second Streets. Always a staunch Quaker, William was described by one historian from personal memory:

His venerable and patriarchal appearance during the latter part of his life is well remembered . . . Tall and dignified in person, his face, expressive of benevolence, with his long silvery locks, and the drab-colored suit of the style of the Society of Friends, combined with his noble and philanthropic character, rendered him an object of profound respect to his fellow-citizens.²⁰

William Senior's integrity, perspicacity in financial matters and devotion to public service followed the family pattern established by his father Joseph and provided the foundation upon which his son, William Junior, later built his reputation as a merchant and exemplary citizen.

2.5 William Rotch, Jr.

Because of his association with 396 County Street as builder of this fine Greek Revival residence, William Rotch, Jr. (1759-1850) deserved special attention. During the ninety-one years of his life, he had a profound influence - on New Bedford as one of its leading townsmen and entrepreneurs, on his religion as a guiding light in New England Quaker education and on horticultural practices in the region as a charter member of the New Bedford Horticultural Society. The house he constructed on County Street and the landscape he created, amazingly intact considering their history of over 150 years, are physical symbols of this man's diverse contributions to his community.

William Rotch, Jr. was born on Nantucket in 1759 and trained as a merchant in the counting houses of his father. On July 17, 1782, in Leicester, Massachusetts, he married Elizabeth Rodman, the daughter of Thomas and Mary Borden. Together they had seven offspring, the last three of whom died as children. Sons William Rodman (1788-1860), Joseph (1790-1839) and Thomas (1791-1840) all became whalers and joined their father in his various businesses. Elizabeth and William's only surviving daughter Sarah (1786-1860) married James Arnold, another Quaker and prominent member of the New Bedford mercantile community.²¹

Sometime in 1787, the year the village of Bedford became the independently incorporated township of New Bedford, William moved his wife and infant Sarah from Nantucket to the mainland. He was then twenty-eight. Already a moderately successful merchant, William Jr. continued the family tradition of earning a living from the sea. The location of his first residence in New Bedford is a mystery,²² but it is known that sometime in late 1790, he built a new house on the site of his deceased grandfather's former homestead at the southwest corner of Water and William Streets, now the present location of the Whaling Museum Theatre.²³ The original structure has since been moved to Johnny Cake

Hill, where it stands now as the Mariner's Home. This large, unadorned three story frame house was typical of the architecture of its time but not at all the distinctive landmark that William's subsequent residence on County Street has become.

William Rotch Junior's letterbooks from 1788 to 1792 give us evidence of the extent of his mercantile activities.²⁴ Between 1787 and 1896, the family was variously (and usually simultaneously) engaged in ventures of the following companies:

William Rotch, Jr. and Sons
William P. Rotch and Company
Rotch Wharf Company
Rotch Candle House
New Bedford Cordage

plus diverse interests in local banks and textile mills.²⁵

At the time that William Jr. was establishing himself in New Bedford, Rotch's father and brother were in Dunkirk, France, with their Nantucket associate, Samuel Rodman. It was quite natural that the younger Rotch traded with his father's foreign partnership; until the spring of 1788, he had been formally affiliated with it as their American representative.²⁶ William corresponded with the Rotch's British agent, Thomas Dickson, and with the Brother de Baugue, an international banking firm in France from whom, on one occasion, he ordered "twenty dozen blue and white china cups with saucers . . ." and other small items from China, with the apparent intent of turning around and selling at least some, if not all, these goods when they reached America.²⁷

William Jr. purchased and inherited a great deal of property in New Bedford and, when he died, he left an estate of nearly \$1,000,000. In an 1851 account of wealth in Massachusetts he (although recently deceased), Edward M. Robinson and John Avery Parker were identified as Bristol County's only millionaires.²⁸ At the time of his death in 1850, he had already given away substantial sums and property to his children, of whom Sarah Rotch Arnold and William Rodman Rotch were the most well situated.²⁹

Given Rotch's abundant financial resources for those days, it was not coincidental that William Jr. expanded his professional horizons to include banking. In 1825, he was one of the founders of the New Bedford Institution for Savings, which he served as its first and only president until his death in 1850.

This association, and those of his many seafaring ventures, brought him into contact with others who were among New Bedford's flourishing capitalists. One of the most interesting of these is Paul Cuffe, a black man whom Rotch initially employed to transport lumber, food supplies and other merchandise from the mainland to Nantucket and Martha's Vineyard. There were also times when he and Cuffe joined forces as equal partners in business enterprises and Rotch saw their professional association blossom into warm personal affection.³⁰ In many ways, Rotch was Cuffe's mentor, concerned for his friend's well-being and deriving enjoyment from their mutual companionship.

Despite their friendships, America's deeply ingrained separation of the races was evident on at least one occasion when Rotch, his father and some visiting Quaker dignitaries from England attended a midday meal in Paul Cuffe's home after prayer services in Westport. William Rotch Sr. recounted that:

After the dinner was laid upon the table in a neat and bountiful manner Paul and his wife had no chairs set for themselves, and were modestly preparing to retire or remain until their guests had dined. William, Jr. would hear nothing of the kind. He arose, and in a firm but kind manner, addressing his host and hostess said that he could not consent to such an arrangement, and that he should not take his seat at the table unless Paul and his wife presided. Moreover, with all his gentleness and humanity, no man was more unflinching where a matter of conscience was concerned than Friend Rotch and Paul was all too well acquainted with this trait in his friend's character to demur. The company was soon seated and an agreeable as well as bountiful dinner partaken of . . .³¹

In addition to his civic responsibilities as a wealthy merchant, William Jr. was a deeply committed Quaker who gave considerable time and money to his faith. He particularly focused his resources - personal and financial - on two successful attempts to create proper institutions of learning for the children of New England Quakers. From 1788 to 1818, Friend Rotch served as clerk of the New England Yearly Meeting of Quakers.³² In this capacity, he was in regular communication with the most prominent members of this religion, exposed to progressive thinking on such matters as the growing sentiment against slavery, the proper role of the Quaker business community in local political affairs and, as always, the strongly held tenant in favor of peaceful, non-aggressive behavior.

Rotch's efforts regarding education for Quaker youngsters are important to understanding the depth of his religious conviction. From 1784 to 1788, there existed in Portsmouth, Rhode Island, a boarding school for children of the faith from southeastern New England. By 1786, the institution suffered serious monetary reverses from unknown causes and William joined Friend Moses Brown of Providence in an attempt to steer the school back onto more secure financial ground.³³ The friendship of these two prominent Quakers dated back to the days when Brown, as a young businessman, went on frequent trips to Nantucket to learn how to perfect the manufacture of spermaceti candles. As purchasing agent for his father Obadiah's Providence company, Moses met and stayed with the Rotch and Coffin families on Nantucket.³⁴ He bargained with the suppliers of whale oil on the island, then the pre-eminent whaling port in the world, which brought him in contact with William Jr.

Although in 1788 the Portsmouth school failed, Rotch persisted in his effort on behalf of Quaker education. In 1810 and 1811, he was instrumental in establishing in New Bedford a Friends School for the study of unidentified "higher subjects."³⁵ The institution was located

near the corner of Elm and County Streets on land which he donated. Rotch was the largest original subscriber to the academy and served as its first treasurer.³⁶

With the prosperity of the New Bedford school, which served children from the local community, Moses Brown and William Rotch, Jr. tried again in 1818 and 1819 to revive the concept of a boarding academy which might enroll children from all over New England. This time they chose to locate their renewed effort in Providence - more central than inaccessible Portsmouth. William was on a select committee of three, which finally was successful in founding the only Friend's boarding school in New England. It was named after Moses Brown of Providence and flourishes today on its original site, although boarding students are no longer accepted and it does not retain its Quaker majority, either in faculty or students. Even when it was founded in 1819, Moses Brown School enrolled children from other faiths, at the insistence of Friends Brown and Rotch, who fully subscribed to the Quaker tenant of freedom of personal conscience.

Rotch's religiously-inspired stateliness of bearing is described by an author and acquaintance from New Bedford:

William Rotch, Jr., as he always wrote his name, was a man of marked ability and dignity of manner. He always reminded me of the pictures of William Penn, to which his primitive dress in a good degree contributed. He was a large man, his height nearly six feet and broad and stout in person. His countenance was less benign perhaps in expression than his father's and his complexion florid. But he was a man of sterling integrity and worth, kind and hospitable, and though not perhaps generous from impulse was often so from principle, and there were few useful works that did not receive his aid. During the palmy days of the Society of Friends, i.e. anterior to the great schism, he was a prominent and useful member - in fact, a large portion of the expenses of the society here and elsewhere were borne by himself and his brother-in-law, Samuel Rodman, Sr. When the division of the Society took place this worthy and estimable man with most if not all of his family were "disowned" by the then so-called orthodox portion, who held the balance of power and thus became possessors of the property of the Society. It was indeed a sad sight to see this fine old Quaker gentleman in his handsome brown clothes, with the old fashioned knee breeches and long gaiters, walking by the meeting he had so long attended as a highly honored member, to meet a few of the disowned like himself at the Lyceum building.³⁷

The schism mentioned in the above passage refers to a major rift in the New Bedford Society of Friends that occurred in the 1820's. The early growth and prosperity of the town was as much a product of Quaker

2.5 continued

industry as of any other influence. Three Quaker families - the Rodmans, the Russells and the Rotches - shared a collective reputation as leading shipowners and pillars of the business community. As committed members of the Society, they participated in a highly moral and elite association that was pre-determined by its very nature to challenge any deviation in thinking from accepted norms. Writing about what it meant to be a Quaker, Everett Allen describes the "Society (as) a closed . . . self-righteous, self-supporting conventicle that recognized no higher temporal or spiritual authority than the immanence of God . . . It imposed rigid standards of speech, dress and demeanor, and allowed no deviation whatever. It demanded absolute loyalty . . ."³⁹

Given the nature of the organization and considering what must have been the forthright personalities of its most conspicuous members, problems were inevitable. The Rotch family, even as staunch Quakers, were believed by some to be more liberal thinkers than many,⁴⁰ and were finally officially expelled by the Yearly Meeting. Although William Rotch, Jr., and his children formally left the Society to become Unitarians, as did a few other families who were drawn by the brilliance of its minister Oryville Dewey, it was believed that "William continued in his Quaker faith".⁴¹

William Rotch Junior's considerable impact on New Bedford can be, in part, attributed to his longevity. There were plenty of other wealthy and benevolent men during the golden era of whaling who built fine residences (many more pretentious than Rotch's on County Street) and who gave their energies and money to local causes. William Jr., however, lived to ninety-one and was active in affairs of the town for sixty-three years, from his arrival in 1787 right up to his final illness, immediately prior to his death in 1850. Neither his grandfather Joseph nor his father William Sr. had this kind of staying power, even though they too lived well into old age.⁴²

2.6 A Historical Background of the Rotch Estate on County Street

Elizabeth Rodman Rotch, William Junior's first wife, died on January 30, 1828; she was sixty-nine. At the time of her decease, her four surviving children were married and living independently. Their father found himself residing alone and without companionship. On April 25, 1829, William married his housekeeper, Lydia Scott, who had previously served in a similar position for the Micah Ruggles family in Fall River.⁴³ Described as having a "tender feeling in mind", Lydia was the daughter of Job Scott, a Quaker minister of North Providence, Rhode Island, although by the time of her marriage she may have already become a Unitarian.⁴⁴ William and Lydia married in North Providence but had announced their intention to do so at a Unitarian service in New Bedford, much "to the great surprise" of the congregation.⁴⁵ She was forty-six and he was sixty-nine.⁴⁶ An article on May 1, 1829, in the New Bedford Mercury proclaimed their union.

Lydia is popularly believed to have been the motivating force behind her husband's move from Johnny Cake Hill near the harbor to their new house on County Street. This fact is not definitively substantiated. The supposition likely derives from a passage in a biography of the Rotches, which reads "It is said young Lydia wished to join the throng (On County Street, then emerging as the fashionable place to live). It is also said

that William was reluctant to move," but finally relented yet, insisting on something less pretentious than other new houses in the neighborhood.⁴⁷ Without more impartial documentation of the theory of Lydia's influence over the location and construction of the new residence, one must tread carefully when describing her role in this episode of William's life. A careful reading of the complete diary of Samuel Rodman, Jr., found in the archives of the Whaling Museum Library, may provide this welcome documentation.

The site selected for the Rotches' new house, originally part of the extensive Russell holdings, was owned by William Sr., who acquired a large amount of land in the vicinity through a foreclosure sale in 1818.⁴⁸ Dispensing some of this acreage, William Sr. retained a large tract bounded by Sixth, Madison, Cherry and County Streets, which he subsequently passed to his children under provisions of his will in force at his death in 1828. His heirs agreed to a division of the real estate, with deeds finally executed in 1831. Land east of Seventh Street went to his daughter, Mary Rotch, and a section west of Seventh passed to William Jr.⁴⁹ Children Elizabeth Rodman Rotch and Benjamin Rotch were also beneficiaries under his will. The deed for this transaction, dated July 5, 1831, contains the following description of William Junior's bequest:

Beginning in the east line of the County Road, at the corner of a Street as now laid out called Bush Street, for a northeast corner bound, thence running southerly in the line of said County Road, as now laid out and accepted by the town, about two hundred and four feet six inches to the north line of an intended street to be called Cherry Street; thence easterly in the said north line two hundred and seven feet to the continuation of Seventh Street; thence northerly in the line of said continuation two hundred and three feet six inches, to Bush Street aforesaid; and thence westerly in the line of said street two hundred and twenty-six feet to the bound first mentioned; said lot containing one hundred and sixty-two 7-10 rods, more or less.⁵⁰

When the Rotches inherited this lot from the estate of William Sr., it was considered to be out in the country, far removed from the bustle of harbor activity. Their nephew, Samuel Rodman, Jr. (son of Elizabeth Rotch and Samuel Rodman), had in 1828 constructed his fine stone residence at the corners of County and Spring Streets, near the present site of the 1881 High Victorian Gothic Grace Church. Others were either in process of building or thinking seriously of acquiring land in the neighborhood for their own new houses and in 1833, just before William and Lydia began construction at 396 County Street (then #110 under the old numbering system), William Rotch Rodman (another son of Elizabeth and Samuel) occupied his new mansion at 388 County Street. He spent \$75,000 for its erection, not counting the cost of its furnishings.

By this time, political officials in New Bedford took their public services responsibilities seriously and the look of the community was improving. In 1831, street lanterns were installed in most parts of the town and, in 1832, selectmen paid special attention to improving the

surfaces of local lanes and highways. Also by then, flagged sidewalks had been introduced to the harbor area and many residential neighborhoods, including County Street.⁵¹ Aesthetic considerations and practicality both seemed to be important to these efforts at public improvements.

County Street is now recognized as a district on the National Register of Historic Places, its significance deriving from its relationship to the enterprising merchants and whalers who were so influential in the development of Massachusetts in the first half of the nineteenth century. The houses in the district, predominantly Greek Revival, Gothic Revival and Italianate in style, represented the prevailing architectural trends of their eras. Belonging to many Quakers, especially those of Greek Revival design, these residences reflect the religious traditions of the merchant-patrons who "exerted a sobering influence," even though they were built and lived in by the wealthy.⁵² This is certainly the case with William Rotch Junior's County Street house of 1834.

The period from 1830-1840 in New Bedford - and indeed in the nation - was one of severe economic turmoil. During this era of Jacksonian democracy, there were constant struggles between capitalists and non-capitalists over the issues of a national bank and federal credit. With the advent of the Industrial Revolution, understandable new challenges to politics and financial institutions arose.⁵³ Simply stated, business people as a class generally wanted no part of a national bank as envisioned by Congress because it interfered with the availability of easy credit. Further, the crisis prevented state-chartered banks from lending as freely as they might wish. This had an unfortunate impact, especially in the industrializing Northeast.

New Bedford was not immune to this monetary controversy. In 1833 and early 1834, there was "great distress and financial embarrassment in the community," culminating in a public meeting on the issue of federal banking policies, chaired by James Arnold.⁵⁴ Complaining of the lack of local loan money, the ad hoc citizens' assembly passed a resolution to be forwarded to the United States House of Representatives urging the formulation of a national bank that could "restore credit, security, and prosperity to the whole country."⁵⁵ It is not clear whether William Rotch Junior's financial empire was threatened by this crisis or whether he participated in the public meeting but, given the fact he was Arnold's father-in-law as well as the town's leading merchant and a bank president, one might surmise that he at least offered advice to the committee.

In addition to the problems with local banks, the early years of the 1830's brought other distress to New Bedford. In 1832, Asiatic cholera gripped the East Coast in a devastating epidemic and a special vigilance committee was formed in the town to control its spread to the local citizenry. This group endeavored to prevent the "dreaded scourge . . . (from gaining) a foothold in New Bedford."⁵⁶ They were relatively successful.

It was also during this era that the growing unpleasantness over conditions for blacks prompted anti-slavery societies to form, notably in the northern states. On June 25, 1834, William Rotch Jr. was elected

2.6 continued

president of New Bedford's citizens against slave labor.⁵⁷ He took this responsibility very seriously, perhaps recalling his earlier training as a Quaker and his friendship with the black merchant, Paul Cuffe.

With the threat of cholera, problems of financial credit and increasing anti-slavery sentiment, the times in which William Rotch Jr. was building his County Street house were troubled. He must have had numerous concerns to divert his thoughts away from the construction of a new residence. By then, he was no longer a young man with unlimited energy.

2.7 The Influence of the Greek Revivalists

The architectural milieu of New Bedford and the nation at the time the Rotches left Johnny Cake Hill to build on fashionable County Street dictated the stylistic options they had to choose from for their new estate. To place in context the selection of a Greek Revival design and how the choice reflected contemporary building practices, an understanding of this uniquely American trend in architecture is helpful.

Talbot Hamlin, the pre-eminent author and architectural critic of classical revivalism in America, notes that "The period called Greek Revival, extending roughly from 1820 to 1860, might more fittingly be called "Middle America", because at this time the young nation had gained its feet and was striding forward with conscious vigor and confidence."⁵⁸ Others have called this aesthetic the first truly American architecture style.

As our infant Republic explored and crystallized new political institutions we, as a nation, consciously separated ourselves and our culture from Europe. We searched for new symbols, new productivity and new models upon which to base our aspirations as a country. Our authors, artists and fledgling architects burst forth with a collective creative energy that demanded an unprecedented way of looking at things. Coupled with this was the rise of the democratic ideal, almost a deification of the common man espoused by Andrew Jackson and his political cohorts. During this period, interest in things scientific, especially archeological, captured the spirit of Americans. We were drawn to studies of classical civilizations.

As a new Republic based on democratic principles, Americans were particularly enamored of modern Greece's struggle for independence and that ancient country's glorification of man's attempt to govern himself by grass roots consensus. We saw the classical temples of old Greece as perfect models for a fresh approach to our own architecture.

Hamlin further points out that the term "revival" is a misnomer; we revived ancient Greece's decorative vocabulary (as revealed by late eighteenth century archeological explorations) but adapted this vocabulary in a uniquely American fashion. "Never before or since has there been less influence from Europe."⁵⁹

During this period, a spirit of pride, tranquility, cultural progress and economic prosperity pervaded all strata of American society. There was still a positive balance between expanding industrialization, to fuel the nation, and flourishing agriculture, to feed its increasing population. We felt confident about our great political experiment in self-government

2.7 continued

and searched for lasting symbols of this sentiment. What better architectural models could be found than the monumental marble temples with their appealing geometric lines erected by ancient Greece and Rome? The ravages of centuries had proven their permanence. We had rediscovered the perfect style for expressing the ideals of American democracy!

Thomas Jefferson took up the cause of Roman architecture and other gentlemen-architects pursued Greek forms. Robert Mills was the first American designer who understood this new Greek vocabulary and was instrumental in translating it to our own building practices, especially in Washington, D.C. at the Treasury Building. He also worked on at least one commission in New Bedford - the Custom House.

The use of architectural pattern books, printed both here and abroad, brought classical forms to the masses and allowed patrons, architects and carpenters to translate two-dimensional drawings into three-dimensional expressions of stone and wood. Asher Benjamin, Minard Lafever and Edward Shaw all published a series of widely distributed pattern books containing depictions of classical building elements and mathematically specific directions for creating them in actual construction. These pattern books had a profound influence over the spread of Greek Revivalism and most certainly guided the designer of the Rotch-Jones-Duff House.

One must also add to this artistic environment the emergence of a youthful architectural profession. As public and private wealth increased in America, demands for new and larger structures placed a great deal of pressure on the old system of building construction - one in which gifted gentlemen designers, uneducated in engineering matters and amateurs by inclination, selected various elements from foreign pattern books for their carpenters to translate into reality. Larger buildings required innovative but professionally trained architects and engineers skilled in the building sciences. Architectural firms organized, mostly in the bigger cities, to meet this challenge. Many of their members began as carpenters and were well-versed in construction technology.

2.8 Greek Revival Architecture in New Bedford

The principles of classical architecture, so enthusiastically practised in the major cities of early nineteenth century America, permeated the countryside as well. In conservative New England, old building traditions died slowly and, in many cases, property owners simply "modernized" their residences by adding Greek temple-like entrances and perhaps corner pilasters to their otherwise Colonial and Federal houses. Although newly erected in 1828, New Bedford's Samuel Rodman Jr. house at 92 Spring Street exemplifies this combination of Greek elements with traditional Federal massing, with its classically inspired lintels and porch.

Those small town patrons who were the most cultivated, most cosmopolitan and most prosperous turned to designers who could create entirely new residences and public buildings using the latest in Greek Revival fashion. These patrons knew archeological correctness, Greek orders and ornamental detail when they saw them, thanks to the architectural pattern books many purchased for their personal libraries.

Because of New Bedford's early nineteenth century wealth, which was based primarily on whaling, it was logical that its merchants hired architects who could capture this national fascination for things Greek when they embarked on new construction projects in their community. New Bedford is specially rich in its inventory of public and private buildings inspired by ancient civilization.

The town's first fully developed expression of Greek Revival domestic architecture was Joseph Rotch's elegant 1821 mansion built on William Street, between County and Eighth Streets.⁶⁰ It was a large and substantial brick house, set appropriately well back from the street and reached by a representative semi-circular drive. Its six heavy wooden

Doric columns were perhaps more Roman than Greek but the pedimented, low-pitched roof and square configuration were typically Greek-inspired. Now demolished, the house was built by an unknown designer for William Rotch Junior's son Joseph, who died in 1839.

Designer Russell Warren of Rhode Island must be given credit for many of New Bedford's most visible landmarks in this style. Trained as a carpenter, Warren by 1828 was advertising himself in Bristol, Rhode Island, city directory listings as an architect.⁶¹ The hallmark of Warren's style of designing included traditional wide, through-running hallways with four main flanking rooms (essentially a four square plan as found in the Rotch-Jones-Duff House) and exterior embellishment of smooth surfaces against which decorative forms were juxtaposed.⁶² He specialized in surface decoration and elaboration, perhaps because of his training as a carpenter. By the early 1830's, Russell Warren was widely known in southeastern New England and was called to many commissions in New Bedford, as well as Fall River and Taunton.

Warren's New Bedford contacts were impressive. Both Joseph Grinnell and John Avery Parker hired him to design their mansions. Grinnell also employed him to execute construction of a church, bank, town hall and railroad station. It is known that, for many of these projects, including that of the Merchants and Mechanics Bank, Warren relied on the services of local builder, Dudley Davenport.⁶³ (It is very likely that Davenport also worked on William Rotch Junior's 1834 estate.)

A survey of Warren's New Bedford commissions indicates the extent of his influence on the community's landmark early nineteenth century architecture. His first large house in the Greek Revival style was for the Grinnells at 379 County Street, built in 1830-1831. Its four Doric columns grace a five bay facade of rough-hewn Quincy granite. (A third floor, not designed by Warren, was unsympathetically added around 1893.) The Grinnell residence is planned on a four-room, central hall configuration. In 1833, Warren was responsible for the imposing granite William Rotch Rodman house at 388 County Street, built at a cost of \$75,000. Six massive fluted Corinthian columns on the stately portico reveal a rather traditional five bay facade with minimal surface decoration. A denticated entablature is surmounted by a long, low monitor, pierced by three horizontally oriented windows. In the early Greek Revival period there was a general trend to suppress the appearance of roofs, rendering them insignificant as elements of the architecture. This is the case at the Rodman house, as well as at 396 County Street. In plan, Russell Warren created for the Rodmans a four-room, central hall, Federal-era spatial arrangement.

Warren's grandest domestic commission in New Bedford, and the one Greek Revival building in the city that received a certain degree of national attention, was for John Avery Parker. Parker's County Street residence was constructed in 1833 at a cost of \$100,000 and demolished in 1904.⁶⁴ The garden facade of the stone structure, stately and elegant in a restrained manner, was planned on a temple format with six monumental Ionic columns supporting a tall entablature and characteristically triangulated roofline. Within the pediment, a half-round lunette window broke the planarity of the smooth surface. Not content with the space produced within the temple-form central block, architect and patron greatly increased the size of the house by creating flanking dependencies, also of stone, which looked like smaller temples complete unto themselves.

The mansion was surrounded by elaborately planted gardens arranged on a series of terraces and sited in a typical Greek Revival fashion in sharp isolation from its neighboring buildings. Site selection for grand mansions of this genre was an important consideration and we also see this at the house William Rotch Jr. built. To capitalize on the symmetrical coherence of their temples, ancient Greeks (and later American revivalists) placed their buildings so they stood apart from their background environments. They wanted them to be seen as "objects of large and simple beauty, poised, rhythmic and absolute."⁶⁵

The interior of the Parker house was enthusiastically described in a 1901 issue of The Architectural Review as "finished throughout in the most superior way - material and workmanship."⁶⁶ Huge polished mahogany doors with silver mountings, mazes of rooms with wonderful vistas of terraces and endless greenhouses, arbors and espaliers, and a great hall running through the mansion impressed the author of the article to the extent that she neglected to mention any other of New Bedford's distinctive Greek Revival buildings.

Other nineteenth century authors of commentaries on New Bedford were more generous and praised the city's architecture. Writing in 1845 for National Magazine, J. B. Congdon recognized New Bedford as a world leader in the global undertaking of whaling with a port so active that it was difficult to estimate the magnitude of the business operations of the city.⁶⁷ Town prosperity was reflected in its new buildings, residences and public structures that were, in the main, fashioned in a classical revival style and constructed mostly of stone. As a building material, stone was calculated to express monumentality and permanence. Congdon went on to say:

Few strangers who visit New Bedford fail to be struck with the exceeding neatness and beauty of the dwellings in the more elevated portions of the town . . . They are nearly all surrounded by extensive and well-cultivated gardens, and . . . the streets on which they are built are bordered with a beautiful growth and a great variety of ornamental trees. County Street, which runs the whole extent of the thickly settled part of town, about two miles, . . . is allowed to be almost without rival in this country for its various and attractive beauties.⁶⁸

2.8 continued

The city's Greek Revival mansions, most of which were designed by Russell Warren, were not the only structures that drew critical acclaim. A succession of public buildings erected between 1830 and 1855 contributed equally to the community's reputation. Warren's New Bedford Town Hall (built 1838-1839), which cost \$60,000, was called by many in 1845 the "handsomest building in New England devoted to civic purposes."⁶⁹ Now the public library, the Town Hall was constructed of Fall River granite, one hundred feet long and sixty-one feet wide with three stories and a steep stone steps leading to an entrance portico enhanced by massive Doric columns of granite. It suffered a serious fire in 1904 but has been substantially rebuilt.

In 1833, Warren also supervised the design of the Merchants and Mechanics Bank at William and Water Streets. John Avery Parker was the guiding light in organizing the institution and William Rodman its president from 1825 to 1953. Both of these gentlemen were already patrons of Russell Warren, whom they employed to create their mansions. This fine structure of brick, with its entrance facade of granite hewn from a Fall River quarry, occupies a prominent site at the intersection of two major commercial streets near the harbor. Seven fluted Ionic columns, match-boarded pediment and simple roofline give an impression of working class solidity without a trace of ostentation.

Nationally prominent architect Robert Mills designed the handsome and chaste Custom House in 1836 at the corner of William and North Second Streets. Mills, educated in the classics both in America and abroad, brought a cosmopolitan eye and thoroughly professional skill to his work for the federal government. His buildings are noted for their simplicity, straight-forward honesty in the use of materials and sophisticated understanding of building technology, especially fireproof construction. The Custom House, the oldest in continuous operation as a governmental building in the United States, is almost austere in its dignity. Four substantial Doric columns, smoothly finished without fluting, adorn its simple granite facade.

2.9 The Construction of William Rotch Junior's County Street Estate

Given our understanding of the aesthetics of the Greek Revival movement in architecture and how this stylistic ideal influenced the physical environment of New Bedford, one can readily accept how William and Lydia Rotch came to agree on a design for their new residence. All the wealthy merchants who were building after about 1825 wanted the very latest in architectural taste. Even as practising (and lapsed) Quakers, they rarely hesitated to proclaim their prosperity by having Russell Warren fashion imposing stone residences with equally impressive landscapes.

The Rotches didn't deviate greatly from this accepted practice, but they did settle for something a little more refined and less pretentious, choosing to build in wood rather than stone and, apparently, bypassing Russell Warren as architect.⁷⁰

One wonders why the Rotches didn't hire Warren. Was it that he was too busy with other residential commissions in the city in 1833 and 1834, or was Warren committed to working in stone, an expensive and more ostentatious material than wood? Was he too fond of embellishment and high

style designing to suit Mr. Rotch's taste? We will probably never know why, as a regionally successful architect, he was not involved with this House.

The Rotch manuscript collection assembled at the Whaling Museum Library contains William Rotch Junior's cashbooks from 1788 to 1835 and gives us the only yet-discovered clues as to the design and construction of the County Street estate.⁷¹ Russell Warren is not mentioned in these documents. An entry dated May 28, 1833, for \$250 to Samuel Leonard for "materials for new house" leads one to believe that Leonard, as a contractor-builder,⁷² was hired by the Rotches to oversee the development of their property.⁷³ This brings us, by inference, to a probable involvement of architect Richard Upjohn, who was then living in New Bedford.

Samuel Leonard regularly erected commercial buildings for merchants William Rotch, Jr., James Arnold and Abraham Russell, including their jointly owned salt works at Clark's Cove.⁷⁴ Purchasing materials for his projects drew him into contact with the lumber business, which he determined was a potentially profitable option for expansion of his own activities. Together, he and Rotch built Leonard's wharf for a speculative venture in lumber, which prospered and eventually broadened to include a planing mill on the site.

It is through Samuel Leonard, positively known to have been involved with the Rotch residence, that one can speculate with some certainty about Richard Upjohn's association with Rotch. Trained as a cabinetmaker and delineator in his native England, Upjohn arrived in New Bedford about 1830 to join his brother in looking for opportunities for advancement. Leonard employed Upjohn as a draughtsman, paying him wages of one dollar a day, to help him with his various businesses. To supplement this meager income, Upjohn opened an evening school to teach drawing and campaigned assiduously to improve the lot of over-worked carpenters. His name appears as one of the charter members of the Mechanic's Association of New Bedford, formed in 1833.

Even though Richard Upjohn was not formally calling himself an architect at this time (Russell Warren was) he nevertheless began to advertise his services in the New Bedford Daily Mercury and, on May 5, 1833, announced he was available for "architectural plans and elevations, neatly executed at short notice, by Richard Upjohn. Orders left at the Mechanic's Hall, New Bedford."⁷⁵ In a similar advertisement one week later, he listed as his references James B. Congdon, chairman of the board of selectmen; William H. Taylor, deputy collector of the port of New Bedford; and Samuel Leonard, his employer.⁷⁶

After Richard Upjohn had become one of America's most famous architects, a reputation he secured with his work on New York's Trinity Church, he shared his reminiscences of New Bedford with his grandson and biographer. Without identifying any specific projects with which he was involved in New Bedford, Upjohn indicated he was busy and prosperous in that city and purchased a house lot there in January 1834.⁷⁷ In this 1939 biography, the architect's grandson expressed his feeling that Upjohn's earliest independent design work certainly occurred in New Bedford. By then, however, no projects of his had been definitively identified. We do know that Upjohn explored idioms of the classical revivals and, in 1833, created for Isaac Farrar in Bangor, Maine, a residence with marked

similarities to the Rotch-Jones-Duff House. Farrar, as a pioneer lumberman in Maine, probably knew his New Bedford counterpart, Samuel Leonard, and had met the young Upjohn through that professional association.

The original interiors of the Farrar house (now altered) in some ways paralleled the Rotch's 1834 New Bedford residence. In plan, the Bangor house is arranged around a central hall, the focal point of which is a great staircase. A large room to the right is divided down the middle (as in a traditional four square plan) and a circular salon to the left of the entrance echoes a fashion introduced by Charles Bulfinch in some of his fine Boston houses of the early Republican period. (We find no evidence, however, that a circular room ever existed on the first floor of the Rotch House.) Solid Santo Domingo mahogany is used extensively in the woodwork, which is "bold, even austere, and purely in the Greek Revival mode,"⁷⁸ giving the impression of great richness. The Farrar house doorjambs are crowned with simple lintels and cornices. This and other embellishments are relatively plain, so as not to detract from the fine surface textures of the wood. Interior folding shutters adorn each of the windows. Purely decorative detail and applied ornamentation were eschewed by Upjohn at this stage of his career, a hallmark of style we can also associate with the Rotch House.

Old photographs of the exterior of the Farrar house show that the roof, as was the Greek Revival tradition, is concealed behind a simple paneled parapet, similar to what we find at the Rotch House. Fluted Doric columns grace the entrance facade and support a plain entablature. These features also closely resemble the 1834 Rotch residence.

One might well ask why we should care whether Richard Upjohn designed the County Street home of William and Lydia Rotch. Isn't it enough to understand that the House itself is an intact and well-preserved wood frame, classically inspired building that has survived with few major alterations? The answer to this is surely that, as one of the United States' most influential architects, a bridge between Thomas Jefferson and H. H. Richardson, and founder of the American Institution of Architects, we can point with pride to any lasting symbol of New Bedford's architectural heritage that bears Upjohn's stylistic hallmarks. If we attribute the design of the Rotch-Jones-Duff House to him - and there is good evidence upon which to base this assertion - then this is the only such commission in the city with documented references to Upjohn. As final evidence of his involvement with the House, entries in William Rotch's 1833 and 1834 cashbooks identify two payments from Rotch to Upjohn, totaling \$40, for unspecified services.⁷⁹ One might argue that this could have been for something other than house plans, but we cannot be sure of this.

From other entries in the cashbooks of this period, we know that sometime in 1833 the Rotches began planning their new house and making purchases for it. On May 15, 1833, Rotch bought twenty-five mulberry trees at a cost of \$7.62 and, in September and October, he acquired from William Dean and Company a total of 17 boxes of glass "for my house."⁸⁰ Unfortunately, except for these notations and the one about the \$250 to Samuel Leonard, we have not yet discovered what other costs incurred by the Rotches are associated with the property. A careful line-by-line reading of several hand-written (and sometimes illegible) volumes may provide further information. Because William Rotch Jr. left no inventory of his personal estate when he died in 1850, we do not know with certainty how

he furnished 396 County Street,⁸¹ or how the family enjoyed and entertained in their residence. Definitive knowledge of even the original floor plan is not available from documentary sources, although an 1851 drawing may represent as close an idea as we have. (See Appendix A)

There are two charming descriptions of visits to the Rotch's County Street House which have survived. Rotch was seventy-five when he and Lydia occupied the residence in late summer of 1834. Nephew Samuel Rodman and his wife went to call upon the couple on September 30, 1834, shortly after they had moved in. Rodman recounts the occasion in his diary:

Accompanied me there H. (Mrs. Rodman) after dinner to see my uncle William's new house, which is very spacious and combines many conveniences and luxuries in its arrangements, but on a scale better adapted to the age of his wife than to his own age for whose gratification mainly it may be presumed to have been built. The bedroom in the attic shows the turn of my uncle to investigate what is curious in nature.⁸²

The other visit is retold in The Story of William Wallace Crapo and reveals the humanity of the elderly Mr. Rotch:

It was on a winter day that William was sent by his father to deliver a document to the great man of the town, William Rotch, Jr., who lived at the southeast corner of County and Bush Streets. The boy was timid about entering so grand a mansion. His timidity evaporated when he was shown into the back study and received with a cordiality which at once put him at his ease. Mr. Rotch, then about eighty years old, entered into conversation with him as if he were a grown up, and presented him with a jack knife. William troubled about the proper way of ending the interview, was immensely relieved by Mr. Rotch's suggestion that, as he was about to go to town, William accompany him in his sleigh. The ride in the beautiful sleigh, behind a spirited horse and beside his distinguished host, long remained in his memory as one of his most wonderful experiences.⁸³

Lydia and William Rotch Jr. lived together at 396 County Street for sixteen years, no doubt entertaining hospitably and enjoying the spaciousness of the house and the bounty of the landscape. Mr. Rotch died at his residence on April 17, 1850, aged ninety years, four months and nineteen days.⁸⁴ His widow must have been provided for but, in the absence of a formal will, the real estate passed to his children. In September 1850, his collective heirs quit-claimed to Mrs. Sarah Rotch Arnold interests in their father's land, including the parcel on County Street. Within four months, on December 30, 1850, Sarah sold the house and well-endowed grounds to Edward Coffin Jones for \$17,000.⁸⁵

Lydia Scott Rotch apparently left New Bedford shortly thereafter, but a study of city directories and tax records is necessary to determine the exact time she moved.⁸⁶ She died, aged eighty, on July 18, 1863, in Waltham, Massachusetts.

2.10 The Landscape of the Rotch Estate

The deed from Joseph Russell to William Rotch Sr. for the plat of land on County Street that eventually came to William Jr. identifies the extent of the property as we know it today. The estate is bounded on the west by County Street (then called road), on the south by Cherry Street (in 1834 not fully extended), on the east by Seventh Street and on the north by Madison Street (then called Bush Street). The property included 162.7 square rods, which translates into slightly more than one acre.

At the time the House was built in 1834, the grounds would have served both practical and ornamental purposes. We should consider the estate a working farmstead that provided for at least some of the needs of those living there. Records of the New Bedford Horticultural Society catalogue fruits, vegetables and flowers grown on the land and describe the efforts of Mr. Rotch's Irish gardener, William Howard, to produce quality specimens.

Although the outlines of some of the flower beds may reflect what the Rotches had in the more formal aspects of their gardens, what remains of the landscape today lacks many elements that would have been found during the Rotches' tenure. Traces of the orchards and vegetable gardens are gone, the location of the graperies and laundry yard are no longer apparent and remnants of stables, barns and other outbuildings are missing.

Edulcised by the extensive horticultural efforts of Rotch's son-in-law, James Arnold, there has not been much written that one can rely on to authenticate the 1834 design of the gardens at 396 County Street. Physical examination of the site and common sense may be the best ways of determining how Rotch planned the landscape.

Lacking written documentation about garden design at the estate, one turns next to other grand mansions of the same period in New Bedford where we do have specific information that may be used to infer what existed at the Rotches. We have learned that siting was important to architects of the Greek Revival; both the John Avery Parker and Joseph Rotch residences were placed on a series of raised terraces to isolate the buildings from visual confusion of their environments.⁸⁷ This also appears to have been a conscious decision at William and Lydia's House because of the manner in which the land slopes away from the residence on the south and east elevations and because of the placement of the House back from the street.

To understand where specific outbuildings and specialized gardens were located, we must begin by relying on common sense for answers. The stable area would likely have been in proximity to the vegetable garden so manure could easily be hauled for fertilizer, the apiary would have been near the orchard so that blossoms could readily be pollinated and the ornamental gardens would have been close to the parlors of the house so that one might enjoy their beauty from inside as well as from the drive.

In an article about old New England landscapes, Arthur Shurtliff speculated that "gardens were regarded by the household as part of the establishment necessary to their daily life," and that quiet walks and secluded arbors were of significant importance to any landscape, urban or rural, no matter how meager.⁸⁸ Privacy was important too and many urban estates were surrounded by plain board fences, five to six feet high, that secured property lines and kept prying eyes and street noises from intruding upon the serenity within.⁸⁹ The vertical board fence, painted green, now surrounding the lot may, therefore, have been a component of the 1834 construction period.

People in New Bedford have long speculated that James Arnold played a role in designing the gardens of the Rotch-Jones-Duff estate. Unfortunately, there is no evidence that either confirms or refutes this and we are forced to assume that, given the circumstances of his familial and business relationship with the Rotches, Arnold, as an amateur horticulturalist, may have at least influenced the garden layout.

James Arnold is an interesting figure, a man about whom not much has been written.⁹⁰ A prominent Quaker, leading merchant of New Bedford, and student of classical literature, Arnold was descended from one of the original proprietors of Providence, Rhode Island, the only son of Thomas and Mary Brown Arnold of that city. James was extensively involved in commercial dealings with William Rotch, Jr. and, on October 27, 1807, married William's daughter, Sarah Rodman.⁹¹ He died in 1868, leaving a large estate and a major bequest to Harvard College, which was used to establish the Arnold Arboretum in West Roxbury.

Samuel Ricketson, a New Bedford historian, describes Arnold as follows:

(He) was a man of more reading and acquaintance with general society but he was given to long harangues, though often instructive when one could afford the time to listen to him.⁹²

James Arnold's passion was horticulture and he read widely on the subject. He possessed a fine library, which he continually added to as his curiosity about plants took new directions. His gardens on County Street were open to the public at regular intervals and were greatly admired by writers of the period. Their fame went beyond New Bedford and many in New England journeyed considerable distances to see his twelve acre estate. The Wamawtta Club now occupies the site. In her two volume exploration of historical landscapes, *Gardens of Colony and State*, written in 1931, Alice B. Lockwood chose Arnold's gardens as representative of southeastern Massachusetts because of its owner's desire "not only to raise flowers and fruits and trees, but to create beauty."⁹³

The Arnold mansion was built in 1821 on land which was a part of an expansive farmstead. Arnold retained much of the larger indigenous plant material, which included magnificent oaks, elms and lindens. He enclosed his property with a wall of cut stone eleven feet high, which sheltered ornamental beds of fancy boxwood, two graperies, a greenhouse, arbors, a grotto encrusted with a mosaic of sea shells and extensive orchards. Arnold even recreated the famous maze at Hampton Court for his New Bedford estate. He and his wife, Sarah Rotch Arnold, traveled to Europe

to collect specimen plants at a time when few of their contemporaries could have afforded this indulgence.⁹⁴ If anyone might have provided advice to William Rotch Jr. about how to develop and landscape an estate, it was James and Sarah Arnold.

An examination of the records of the New Bedford Horticultural Society reveals the involvement of Arnold and Rotch in the business of the organization. The Society was formed on December 20, 1846, by incorporators Arnold, Henry Crapo and Joseph Clarke to support the horticultural efforts of its members by maintaining a lending library, issuing publications, holding exhibitions of plant material and facilitating an exchange of seeds and plants among members.⁹⁵ William Rotch Jr. was a founding member and Arnold was elected its first president, a position he held for much of the eighteen year history of the Society. Its membership list read like a Who's Who of leading men of the region. The group originally met in the Selectmen's Room at City Hall but soon outgrew their space and turned to William Rotch Jr. for help in relocating. He offered quarters in a property which he owned on Market Street, south of City hall, for \$60 per year in rent.

The Society held its first public exposition of horticultural products in July, 1847. James Arnold, who at one time employed six gardeners, exhibited an extensive array of fruits and vegetables, as did Henry Crapo. Rotch is listed as having submitted several unnamed varieties of roses for this initial show. Official minutes of the Society regularly catalogue what each member brought to subsequent exhibitions. We find that James Arnold, whose name came first because of his position as president, always contributed more than any other. Arnold was represented by his head gardener Wellwood Young, a Scotsmen, and Rotch by his Irish-trained gardener, William Howard. Only one other member was identified as having this kind of professional expertise on his payroll and that was Daniel Brown.⁹⁷

During the course of his involvement with this Horticultural Society from the time it was founded in late 1846 until his death in 1850, Rotch was known to have submitted the following for public exhibition at their regular shows held in Mechanic's Hall. Presumably, he and his gardener would have selected what they thought they were most successful at growing. Specific varieties are not routinely classified.

Dahlias (eighteen), perpetual roses, other cut flowers, tulips
Washington plums
Dearborn seedling pears, Seckel and Bartlett pears
White summer beets and large handsome cabbages
Hard shell pumpkins from seeds raised at Nantucket
Isabella grapes.

In 1849, Rotch and Howard chose to concentrate on pear culture and, for the annual exposition, they contributed "pears - Heathcot, Louis Bonne de Jersey, Seckel, very large and the best dish of this variety exhibited, St. Germaine, and two unnamed varieties."⁹⁸

New Bedford gardeners took a special pride in growing fine specimens of pears, which they called "their standard fruit." At the Horticultural

Society annual exposition of 1850, one hundred different kinds of pears were on display from members' orchards. The minutes of the organization recounting that 1850 show state that:

The Committee in closing this report beg leave to say the present exhibition affords ample encouragement not only to the Amateur but to the practical Horticulturalist, and further demonstrates that if we cannot rival New Jersey in the culture of the Peach, and New York and the West in the culture of the Apple, we can at least excel (sic) them in growing the Pear, a fruit exceedingly rich, and possessing almost unlimited variety of flavor, and which is in eating throughout the entire year.⁹⁹

As Rotch neared the end of his life, he was naturally less active in the Society, a fact that may have been obliquely referred to in minutes of September 20, 1849. The organization was "deprived of the aid of many former contributors and most zealous cultivators, who are now absent from us, seeking a more golden harvest in other climes."¹⁰⁰ Whether this meant only those men who had moved from the region or was expressing more symbolically the fact that several of its founding members were nearing death is unknown.

Reference has been made to the Rotch's gardener, William Howard. His obituary, appearing on March 9, 1899, in the Morning Mercury characterized him as a well-known New Bedford florist who was born and educated in Ireland. He worked as a gardener in his native country until he was twenty, then immigrated to Philadelphia, where he was employed by a prominent physician. Howard relocated to New Bedford in 1835 to seek work in whaling but, instead, joined the staff of Andrew Robinson, where he served as a coachman and gardener. According to his death notice, Howard went to work for William Rotch Jr. sometime in 1847, which would have been thirteen years after his employer and family moved to County Street.

2.11 The Jones Tenure at 396 County Street

After the death of William Rotch Jr. in April of 1850, his County Street property passed to his children, who quit-claimed it to Sarah Rotch Arnold, wife of James and daughter of William. Mrs. Arnold apparently sought a buyer immediately and, on December 1850, Edward Coffin Jones purchased the estate for \$17,000. This is well below the \$23,000 valuation placed on the lot and buildings for school tax purposes in 1837.¹⁰¹ The Jones family had previously resided at the northwest corner of Walnut and Fifth (now Pleasant) Streets.¹⁰²

Edward Coffin Jones was born in Nantucket on October 23, 1805, the only child of Sally Coffin and Reuben Jones. His mother "was turned out of meeting," perhaps because she married outside her faith, but was later re-instated as a Quaker.¹⁰³ While still an infant, Edward moved to New Bedford with his family. His father, away much of the time as captain of a merchant ship, suffered an early traumatic illness and died at the age of forty-one, when his son was thirteen. Left a meager estate by her

husband, Sally opened her own school to earn a living and later married Quaker Abraham Allen. She died in 1828.¹⁰⁴

Young Edward was educated in New Bedford at the Friend's Academy, where he demonstrated above-average native intelligence and disciplined approach to study. He loved skating, riding and swimming and was fascinated by the lure of the sea.¹⁰⁵ Putting aside the opportunity for a college education, at nineteen he turned down a \$300-a-month position with the New York counting house of Fish & Grinnell and instead went to work as a clerk in the local firm of Elisha Dunbar. By 1827, he and Dunbar were partners in the ship chandlery and whaling business, fitting out two to five maritime expeditions a year.¹⁰⁶ Jones soon was considered one of the most successful agents in the city, primarily because he paid "great attention to details, selected good men, kept his ships in perfect condition and well supplied, and treated his employees respectfully."¹⁰⁷ By 1850, when he purchased the County Street residence, Jones' personal wealth was listed as being \$150,000, making him not at all the most well-endowed member of the community. He was described in this assessment by the author of Rich Men of Massachusetts as "having luck, luck, luck and nothing else; makes some professions as a literary man - a RARA AVIS in New Bedford - and he proves no exception. He is better at settling a cargo, than in quoting Shakespeare. People that trade with him do not expect to make much."¹⁰⁸

Jones was more positively described in his obituary, appearing on March 17, 1880, in the Evening Standard, as:

a man of sterling worth, of quiet and unobtrusive disposition and never ambitious to shine in public life, the only public position he ever held having been that of a member of the board of assessors of the town of New Bedford. He had been a director of the Marine (now First National) Bank and the New Bedford Gas Light Company nearly from the time of their organization, and was an honored and useful member. He was a man of culture and fine literary tastes, especially loving English literature and delighted to commit to memory passages from the works of Scott and other eminent authors and recite them to intimate friends.

In 1835, Edward Coffin Jones married Louisa Gibbs (1817-1839), a sickly woman who died four years later after bearing two children who did not survive infancy.¹⁰⁹ On February 7, 1844, at age thirty-nine, Jones remarried - this time to Emma Chambers (1823-1852), with whom he had four children: Sarah (1846-1852), who died as a child; Emma Chambers (1848-1920); Amelia Hickling (1849-1935); and Sarah C. (1852-1891), who married J. Malcolm Forbes in 1873. Emma had been born on the island of St. Michael in the Azores of American parents, but brought by her mother to New Bedford when she was four. She too was educated at the Friend's Academy.

In May 1851, the family moved to their new County Street House, then listed at #110 under the old numbering system.¹¹⁰ Jones and his heirs called this their in-town residence for the next eighty-five years and suffered the usual number of family tragedies one would expect from this

period in history. In the winter of 1852, several members of the household came down with scarlet fever; seven year old Sarah died on February 9 and two weeks later, the children's mother passed away from the same disease, leaving her husband in charge of three youngsters, including a newborn.¹¹¹

The children of Edward and Emma were raised by a succession of housekeepers (in particular a nurse named Lucy), as their father did not marry again until sometime in 1872. His third wife was Mary Luce (1840-1917) of New Bedford, daughter of whaling master Matthew and Hepsa Coffin Luce.¹¹² There were no children from this union.

The Jones children grew up on County Street and had fond memories of their life in this grand residence. The youngest of the daughters, Sarah C., married Malcolm Forbes of Milton, Massachusetts, and frequently brought her family to her father's and stepmother's for special occasions. Her charming letters to family and friends have been collected in a small volume, privately published in 1960, giving us some of her insights about her childhood home.¹¹³ In February of 1864, Sarah observed that the new wallpaper "in Papa's room looks ever so much better than it did on the roll."¹¹⁴ She was especially pleased with the violets in the garden, some of which she brought in and arranged for the parlor (April 21, 1871) and talks about "spying" on the neighborhood from the cupola where she had gone to try to catch a glimpse of ships returning to harbor (May 8, 1871).

Sarah's grandson, Stephen H. Forbes, reminisced about experiences in the early decades of the twentieth century in the County Street estate where he spent many of his Thanksgivings.¹¹⁵ He remembers sliding down the banisters of the front staircase, playing croquet in the field next to the house on the opposite side from the gardens, having fun with the music box and eating particularly wonderful corn meal patties made by Matilda the cook. Stephen was most taken with the elevator, which he and his brother and sister loved to fool around with.

It (the elevator) was fixed so that when 1 and a half average person was in it it was just about balanced. But if one child was in it, the downward weight (would cause) the elevator to coast a long way . . . just by momentum with one yank (on the rope). If there were a lot of heavy old women in it, we used to try to be the operators. Then you really had to heave on it to get a bunch of them up one flight.¹¹⁶

Stephen Forbes' descriptions of traditional Thanksgiving dinners at the house are vivid. He recalls huge table decorations of fruit - a centerpiece that was nearly six feet long festooned with "all kinds of persimmons and pomegranates and pears and apples and oranges and tangerines and everything under the sun."¹¹⁷ Great crowds of family and friends were regular attendees at the Jones' Thanksgiving celebrations.

Stephen also remembered the look of the garden in 1919 when he used to walk among the small boxwood plants. He and his brother Waldo often climbed to the top of the green fence that surrounded the estate, spending hours watching life go by on County Street. He also fondly

recalled what he termed "the basket room" at the end of the hall, which one entered by turning right and going through the vestibules. (The room is now a bathroom.) It was called the basket room because it contained a collection of fifteen to twenty baskets used to bring in vegetables and flowers from the garden.¹¹⁸

Edward Coffin Jones died in his residence on March 16, 1880. He too made no inventory of his possessions, so we are again without a list of furnishings that were in the house. After his death, his widow Mary continued to live in the mansion with her step-daughter, Amelia Hickling Jones. The third Mrs. Jones died at her summer home in Dublin, New Hampshire, on September 2, 1917, at the age of seventy-five.¹¹⁹ Amelia herself never married and divided her time between the family's summer place and her deceased father's New Bedford estate until her own death on May 4, 1935, in the eighty-sixth year of her life.

Amelia Hickling, or Aunt Jones as she was referred to by many, spent all but her first two years at 396 County Street. Her stewardship of the property was the longest of any of the owners. She was well-loved by the members of her community, giving freely of her wealth and time to local charities. Active in the Unitarian Church, Aunt Jones was described as "democratic, approachable and kindly."¹²⁰ As the benefactor of a convalescent and orthopedic home for crippled children, Sol-e-Mar, which opened in 1924 in Dartmouth, Massachusetts, Amelia left a permanent legacy. She was noted for her collections of handsome furniture and fine paintings, her greenhouse - filled with favorite flowers, and especially her love of amateur dramatics. Amelia regularly organized charades at her home and acted in local productions well past the age of seventy.¹²¹ Upon her death in 1935, she left an estate of more than \$600,000.¹²²

An article accompanied by photographs appearing on April 9, 1922 in the New Bedford Sunday Standard Times gives us an idea of how Aunt Jones decorated the house while she was its steward.¹²³ It bears verbatim reproduction here:

Miss Jones' house has a hall running through its great depth; with the back door open the visitor looks beyond the curved stair of white and mahogany to a glimpse of rooftops and trees that seem to carry the eye of the water's edge. Rose-red walls, stair carpet and the warm color of mahogany doors with silver knobs and hinges are the predominating impression of the hall.

The four dignified rooms which open from this hall are each dominated by a marble fireplace with broad mirror above reaching to the ceiling. In the parlor and music room these mantels are of beautifully veined black marble, in the library and dining room brown marble softly mottled with suggestions of yellow and rose color. The walls of the parlor and music room, which are connected by a wide doorway are of a natural colored grass cloth framed by white woodwork. Handsome paintings show to advantage against this neutral background. In these rooms and the library the

2.11 continued

southern sun pours through the tall windows and a door opening upon the long unroofed piazza that overlooks the lovely formal garden.

Tones of a subdued red are emphasized in the parlor by upholstery, rugs and pottery. In the music room a silver blue gray is brought out in the same way and finds echoing tones in a pastoral painting by a Dutch artist and Edward Simmons' painting, "The Carpenter's Son."

The library is a comfortable secluded smaller room in which an immense lattice-doored bookcase houses a treasury of books. The dining room is a long room with three windows in a group affording an outlook into the green of County Street and two others overlooking the lawn. The handsome mantel and mirror with a peacock embroidered screen standing before the fireplace and a built in cupboard enameled in white showing an unusual tracery on its glass doors adorn one wall. The narrow end opposite the County Street windows contains a massive walnut sideboard of beautiful design richly carved. An exquisite shade of shimmery light green is the tone of the solid color carpet blending with the quiet, green tapestry design of the walls above their panelled white wainscoting.

A miscellaneous memorandum book, begun by Amelia Jones in 1912 and now in the Whaling Museum Library, contains an inventory of her extensive collection of oriental rugs, identified by their location within the House, as well as lists of wages she paid to some of her household staff in 1919.^[24] Photographs that now exist and those likely to be unearthed in family archives will give a better idea of household furnishings and how they were arranged.

2.12 Jones Changes to the House and Landscape of 396 County Street

Of the three families who owned this property, the Joneses occupied it the longest, making a series of alterations to the estate (as would normally be expected) to accommodate changing tastes and family needs. There have not yet been discovered any drawings of how the exterior of the house looked in 1850, so we must turn to what little written documentation we have for clues about changes made by the Joneses.

Materials in the Jones Manuscript Collection at the Whaling Museum Library indicate that, in the early years of the family's tenure, Edward Coffin Jones put "men at work on the house and barn."^[25] An entry in his account book dated 4th month, 4th day, 1861 shows dimensional drawings for fireplace openings in the library and dining room. It is likely that Jones removed existing first floor Greek Revival mantles at this time, replacing them with new grates and black marble surrounds that were designed in the then popular Italianate style. This may have necessitated certain alterations to the openings of the fireplaces but one must rely on an examination of physical evidence to determine this.

2.12 continued

The first floor fireplaces and mantles that now exist are not at all reminiscent of Greek Revival motifs and forms, even though black marble was used for this purpose in grand houses built during the era of the New Republic.

It is also possible that Jones had installed about this time the Italianate cupola that crowns the roof. Although cupolas, monitors and lanterns were found on classically inspired residences, the one at 396 County Street is definitely in the Italianate mode, with its round-headed, vertically-oriented windows and bracketed cornice. Again, an examination of the physical fabric of the roof might indicate whether the Rotches had a monitor that was later re-worked by the Joneses or whether Edward Jones had an entirely new cupola constructed. The latter is more likely.

When Jones either substantially altered or added the roof cupola, it is probable that he constructed the coachman's house at the northeast corner of the property. Its match-boarded exterior approximates that of the front elevation of the house and the brackets of its roof cornice, although not identical, recall those of the cupola of the residence. An 1881 Atlas of New Bedford shows the footprint of the coachman's house with what may be a greenhouse extending in a southerly direction into the gardens. The Atlas also identifies a small piece of property owned by the Jones family across from the coachman's house, at the corner of Seventh and Bush (now Madison) Streets. The building depicted on this lot may have been used as stables and for storage.

We are fortunate that the Jones Collection at the Whaling Museum Library contains a set of house plans of the property dated 1856.²⁷ Included in the set is a single sheet titled "The Old Original Plan for the First Story, as purchased in 1851", which gives room dimensions and the location of doors, windows, closets and stairs. One must be cautious not to assume that this plan depicts the House exactly as it was when built in 1834. It is more possible that the drawing represents the residence as the Joneses found it after the Rotches vacated and includes whatever changes William Rotch Jr. might have made to his House after he moved in. The Joneses apparently had the floor plan measured and drawn prior to their own redecorating campaign. The second sheet of the set, labeled "proposed plan of the first floor" and "proposed plan of the second floor" indicates how the Joneses hoped to accommodate the interior of the House to their personal needs. (See Appendix A)

2.13 The Jones Landscape

The landscape design at the estate, which survives today, is probably more closely aligned with the Jones' period of stewardship than with the Rotch's. The pergola at the intersection of the main axis of the ornamental gardens seems a Victorian convention as opposed to something an unpretentious Quaker might erect in the 1830's. Whether the Joneses had a full time, regularly employed gardener in the early period of their ownership is unknown. Edward Coffin Jones was not listed as a member of the New Bedford Horticultural Society before its demise in 1864 and we can't guess whether he took the trouble to maintain William Rotch Junior's productive orchards and vegetable gardens.

2.13 continued

Prior to their occupation of the estate in 1851, we find the Joneses ordering "double red and white camellias" and "three climbers", perhaps from seedman and florist E. J. Logan of 9 John Street in New York, whose name is listed below the plant material.¹²⁸ Jones also noted in his account book the names of landscape gardener Howard Daniels of 237 Broadway (New Bedford?) and florist Geo F. Han (?) and Co., Boylston and Park, Boston. He may have been considering hiring them for assistance with his gardens. With the extensive nurseries then operating in the New Bedford area - William Piercet's, H. H. Crapo's, Wamemegua and Wachusett Nurseries - one would expect the Joneses to be purchasing from local merchants but we have no documentary evidence of this.

Later on, when Amelia Hickling Jones was in charge of running the estate, she inventoried her famous collection of roses, which included, in 1915, these varieties:

Vicomtesse Folkstone - hybrid tea
La Tosca - white tinged
Victor Hugo - deep red
William Allen Richardson - salmon colored
Harry Kirk (Tea) - yellow
Double Pink Killarney
Mrs. Aaron Ward buds of deep yellow
Genss am Teplitz - deep red¹²⁹

The only published old photograph yet discovered of the landscape shows the curvilinear boxwood beds centered with tall canna lilies, the heavily foliated pergola and large evergreens along the southern perimeter of the grounds.¹³⁰ (See Appendix C) This image appeared in 1931 and seems to have been taken from one of the upper chambers of the House. The side porch on the south elevation, with its heavily balustered perimeter, is pictured, making it apparent that it was an addition to the residence made by the Joneses, and not the Duffs, who were subsequent owners. This alteration to the original exterior also appears more clearly in a photograph of 1905, now in the Whaling Museum Collection, that affirms the existence of the side porch by that date.¹³¹ (See Cover Photograph) Taken by Fred Parker, the image demonstrates the presence of a door, adorned with oddly proportioned leaded tracery in a trabeated panel, that exited onto the porch on the garden side of the House. Parker's photo also shows a roofed addition at the rear of the porch, circular in plan, that was supported by a succession of Ionic columns. Both the exterior door and roof of this bulbous curiosity at the southeast corner of the House have been removed. The circular form of the porch floor remains.

2.14 The Occupancy of the Duffs

With the death of the estate's longest occupying resident, Amelia Hickling Jones, on May 4, 1935, the property passed to her heirs: Ellen Forbes, Amelia Emerson, Henry S. Forbes, Gerret Forbes and their spouses.¹³² On November 23, 1935, Oliver Prescott Jr., as executor for the estate, entered into a recorded instrument of sale for 396 County Street with Mark Duff.¹³³ The Duffs were then residing at 695 County Street, where they had been for thirteen years.¹³⁴ The purchase price for the transaction was not specifically identified, although the newspaper article that reported the impending sale indicates the assessed

valuation for the property was then \$34,850. Called one of New Bedford's "most prominent citizens", Mark Duff was, at the time of purchase, the President of the local Merchants National Bank.¹³⁵

Mark M. Duff was born on February 19, 1891, the son of John and Mary Duff of New Bedford.¹³⁶ His family's business interest was in coal - the company called David Duff and Son, named after his grandfather. John and Mary Duff had six children: Mark, Walter, John, David, Eloise and Nora.

After undergraduate education at Georgetown University, young Mark joined his father and grandfather in the coal trade, a firm founded originally to handle whale oil and provisions for merchant ships and later expanded to coal and oil transportation.¹³⁷ Following the death of Mark's father, he and his brother John continued to operate the family concern, which they eventually sold in 1958, when Mr. Duff was sixty-seven.

Mark Duff's professional career is impressive. In 1935 he assumed the presidencies of the New Bedford Hotel Corporation and the Merchants Bank. The lure of politics caused him to consider, but subsequently reject, running for mayor in his home city and, in 1935, for the governorship of Massachusetts as a Republican. He declined both opportunities, believing that campaign responsibilities would infringe on his business obligations, a first priority for him.¹³⁸

Professional connections and community standing rendered Duff a popular choice for directorships of local corporations. He served on the executive council of the Massachusetts Bankers Association, and on the board of the Morse Twist Drill and Machine Company, the Soule Mill, Hathaway Manufacturing and Kilburn Mill, among others. In 1948, shareholders of the Union Street Railway Company elected him the organization's president. Mr. Duff was also associated with numerous fraternal and social organizations, as well as Catholic charities.

Mark Duff's imposing demeanor and strong physical presence caused him to be described as "a man of contrasts, genial at times, demanding always. He was a man who made up his own mind and seldom brooked interference."¹³⁹ Duff was a familiar figure in New Bedford as, early in the morning, he strode from his house to attend Mass at Our Lady's Chapel, from whence he proceeded to a favorite restaurant for coffee and the latest in local gossip. "Little went on that escaped his notice."¹⁴⁰

When Mark Duff married Beatrice Marceau of Chicago on September 1, 1915, he was already prospering and well established in New Bedford. His wife, born on March 25, 1889 in Chicago, had as a young girl occasionally spent time in her future husband's hometown, traveling to the city to visit her oldest sister, Nelda.¹⁴¹ Nelda was married to Canadian physician, Dr. Ubalde Paquin, who had moved to New Bedford to begin a professional practice. Beatrice remembered her initial feeling of affection for the community and recalled "hoping that her future would be linked to it in some way."¹⁴²

The future Mrs. Duff was educated in Chicago and, after graduation from high school, commenced piano and voice training. It was on one of her visits to sisters in New Bedford that Beatrice met Mark Duff at a dance. Apparently, they discovered immediate compatibility and, after a two year

long-distance courtship, married and moved into a duplex at the northeast corner of County and Mill Streets.¹⁴³

The Duffs had two children, daughters Beatrice and Betty. Beatrice married Alex Pierce, a union which produced five children. She married again, this time to Edmund Hirshlag. Betty married Wesley McKee and had two children.

Mark Duff was forty-four and his wife forty-six when they moved into 396 County Street in 1935. Although the garden was certainly an enticement to purchasing the house from Amelia Jones' estate, it must have been the appeal of the grand, well-maintained Greek Revival mansion and the opportunity to acquire an entire city block that convinced the Duffs to move. Mrs. Duff once reminisced about her fondness for their former residence at 695 County Street, observing that it was very manageable and easily maintained; she was concerned that the larger Hotch House would tax the resources of older owners because of the enormous responsibilities of looking after a substantial piece of property.¹⁴⁴

During the Duff's tenure of forty-six years, the House was enhanced by the family's extensive collection of antiques and Mrs. Duff's aesthetic sensibilities.¹⁴⁵ Her redecorating efforts created a living room whose predominating color scheme was henna. Here she used an embossed velvet wallpaper, which had also covered the walls of her former house. The front drawing room contained an oil portrait of Mrs. Duff and housed her Steinway baby grand piano, on top of which she arranged her collection of hand-decorated, jewelled eggs. These she modeled after the ones created for Alexandria of Russia by world-renowned Faberge of Paris.¹⁴⁶ For the dining room, Mrs. Duff chose an Oriental theme. Papered with colorful scenes of Chinese gardens, this large room featured a Waterford crystal chandelier and a folding black lacquered Oriental screen, which contrasted with pieces of heavy oak Jacobean-style furniture.¹⁴⁷

The Duff's House was decorated with a profusion of photographs, sketches and paintings - constant reminders of family, friends and special occasions.

Permanent physical changes to the County Street mansion implemented by the Duff's are outlined in a set of drawings, not all dated but probably completed in 1935 and 1936, prepared by the New Bedford architectural firm of William Tallman.¹⁴⁸ From this set of Tallman drawings, we learn that the Duffs intended extensive renovations for their new residence, while maintaining the original four square central hall plan (See Appendix A). The work done in the house in the late 1930's is characterized by great attention to detail in design and considerable skill in execution, which makes alterations from this period hard to identify by visual inspection alone. As photographs from descendants of the Joneses and from the Duff family are made available, dating changes to the property and determining their impact on individual rooms will require constant re-evaluation. It is altogether likely that museum interpretation for specific rooms will need to be postponed until more photographic documentation is forthcoming.

In addition to interior renovations, the Duffs planned, and had constructed, a significant addition to the back elevation of the house. Two undated drawings by architect Marshall B. Martin show a double flying

2.14 continued

staircase, leading from the back porch to the terrace below. (These were removed in the early 1980's.) The stairways, based on elliptical forms reminiscent of those found in late Federal and Greek Revival interiors, intruded well into the terrace and must have seemed pretentious and out of character with the rest of the simply-adorned Greek Revival residence.

2.15 The Duff's Garden

Shortly after moving to the property, Beatrice and Mark Duff hired Boston landscape architect Mrs. John Coolidge to prepare a plan for refurbishing the gardens. Her March 1937 drawing shows a formal design of "green gardens", ornamental beds, reflecting pools and walkways. Mrs. Coolidge's scheme took note of the flying stairways (either already constructed or still in the planning stages) and a small pool on the terrace, which appear on the Marshall Martin designs.

The Duffs met their landscape architect through mutual friends and residents of New Bedford, Dr. and Mrs. Edwin Seavor.¹⁴⁹ A former editor of House Beautiful, who was educated at the Lowthorpe School and the Rhode Island School of Design, Mrs. Coolidge indicates her guiding principle for landscaping of 396 County Street was based on "training to preserve, not to change."¹⁵⁰ She recalls that the greenhouse, in 1937, was merely a lean-to attached to the wall of the coachhouse and that Mrs. Duff was unsure whether the family wanted the responsibilities of maintaining it. (This was later resolved because the Duffs not only renovated the Jones greenhouse, but added substantially to it.) At the time Mrs. Coolidge began her work, the existing greenhouse was in terrible shape but still housed massive old azaleas, which had been a particular favorite of Amelia Jones.¹⁵¹ The latticed gazebo was also in deteriorated condition and was thoroughly restored by the Duffs.

They authorized Mrs. Coolidge to spend considerable funds on the grounds, saving what material that was possible and supplementing with new. Over seven thousand tulip bulbs were planted.¹⁵² Mrs. Coolidge recollects finding "an overgrown mess" of plants and trees on the property.¹⁵³ Careful pruning and rehabilitation, using the line of existing beds, was the focus of her work. She was sensitive to the contributions to the garden by Ernest H. "Chinese" Wilson, a nationally prominent horticulturist, reportedly hired by the Joneses to find exotic plants for the gardens.¹⁵⁴ Other than a dwarf horse chestnut, which Chinese Wilson brought home from a trip in the Orient, it is unknown what specific contributions he added to the landscape.

Mr. Duff closely supervised Mrs. Coolidge's progress and he daily exerted this strong presence.¹⁵⁵ Mrs. Duff was apparently keenly interested in changes to the gardens, frequently lunching on the terrace with Mrs. Coolidge, but deferred to her husband in making decisions about garden design.

2.16 Contemporary History

Mark Duff died on May 21, 1967.¹⁵⁶ His wife continued to reside on the estate and, finding its upkeep too burdensome, she executed a straw deed to Maurice Downey on May 3, 1979.¹⁵⁷ He resold the property to Beatrice Duff on the same day for consideration of \$1.00.¹⁵⁸ One must know more facts about this exchange to understand its meaning.

2.16 continued

On November 30, 1981, New Bedford's Waterfront Historic Area League purchased from Beatrice Duff land and buildings at 396 County Street for \$150,000 and taxes for that year.¹⁵⁹ To prevent the mansion from being developed for commercial purposes, WHALE created a board of overseers on August 1, 1984 to determine what was in the property's best interest for future use.¹⁶⁰ They hired an executive director, Susan Clipe, on September 1, 1984 and incorporated as a museum on January 5, 1985.¹⁶¹ On March 26, 1985, the Rotch-Jones-Duff House and Garden Museum incorporated officially purchased the estate from WHALE for \$107,000.¹⁶² Currently directed by a board of twenty-one members, the history of the property is being researched prior to restoration as a museum. The greenhouses are leased to the Garden Club of Buzzards Bay.

2.17 Future Research Projects

Richard Upjohn: The New York Public Library apparently has a manuscript collection of correspondence and business records relating to Richard Upjohn's career. This archival material should be reviewed to determine whether it contains documentation about Upjohn's work in New Bedford.

Isaac Farrar House - Bangor, Maine: As a documented Upjohn project, there may be important similarities between it and the Rotch-Jones-Duff House, which can be used to further identify Upjohn's work in Greek Revival domestic commissions. An investigation of the floor plan and exterior design of the Farrar house may help authenticate the architect's contribution to the Rotch estate. Contact the Maine State Preservation Commission.

James Arnold: Initial research for this project failed to reveal the existence of archival material on James Arnold. The Harvard Library system, which will require on-site visits, may yield helpful material about the personal and professional associations between William Rotch Jr. and Arnold. See notes in Bibliography about Archives Consulted.

Lydia Scott Rotch: Her influence on the location and design of 396 County Street needs further exploration. A careful reading of the diary of Samuel Rodman may be fruitful, as might an inquiry to the Waltham Historical Society. Even though she and her family were Rhode Island residents, the Library of the Rhode Island Historical Society apparently contains no information on Lydia.

William Rotch Jr.: Rotch's involvement with the New England Yearly Meeting of Friends may be further explored by researching the records of the Yearly Meeting, many of which are available at the Library of the Rhode Island Historical Society. The extent of his Quaker activities and information about "the great schism" may be better understood.

New Bedford Quakers: A doctoral dissertation about New England Quakers is currently being prepared. This sect's role in the development of New Bedford, and the activities of Rotch, Arnold and Jones, could use additional study. Contact Sue Wheeler at: 617 738-7516.

Landscape at 396 County Street: The Library of the Massachusetts Horticultural Society, closed until late 1985 for renovation, may have material in its archival collections that will help us understand how the landscape developed. Prints, periodicals, drawings and historical photographs are part of their collections.

Chinese Wilson: This horticulturalist's contribution of American landscape, and to the Rotch estate, should be more thoroughly investigated.

Amelia Jones' Servants: One of Amelia Jones' household retainers came north on the Underground Railroad as an escaping slave. A 1936 interview with her has recently been located in Washington, D.C., which might provide a specific anecdotal history of one of those who once worked at the estate. Contact Paul Cyr, New Bedford Free Public Library.

Mark Duff: A search through uncatalogued New Bedford newspapers from the 1930's, 1940's and 1950's (especially Sunday "Lifestyle" sections) may yield information about how the Duffs lived in their house on County Street.

Bertrice Duff: Using oral history technique, there should be an update of Cathryn Brower's interview with Mrs. Duff to record her remembrances of the property in more detail. She should be asked, in particular, about the condition of the house and grounds when she and her husband moved there in 1935, and how changes were made.

Section 2.0 FOOTNOTES

1. J. B. Congdon, "A Picture of New Bedford, Massachusetts", National Magazine, No. IV, Vol. 1, September 1845, P. 328.
2. Ibid.
3. Ibid.
4. This group included John Alden, Miles Standish and William Bradford.
5. Personal conversation with Richard Kugler, Whaling Museum Library, New Bedford, Massachusetts, May 10, 1985.
6. Barbara Clayton and Kathleen Whitley, Guide to New Bedford (Chester, Connecticut: The Globe Pequot Press, 1979), p. 16.
7. "The Russells of County Street", Personalities of the Past. Typescript information sheet found in the Docents' Notebook, The Rotch-Jones-Duff House, New Bedford, Massachusetts.
8. Ibid.
9. Refer to maps of 1815 and 1834 identified on the checklist of printed maps of New Bedford, New Bedford Free Public Library, New Bedford, Massachusetts.

10. A genealogy of the Rotch family, compiled by Francis Calley Gray Jr. in May 1980, identifies Joseph Rotch (1704-1784) as the founder of the New Bedford branch of the family. He and his wife Love Macy (1713-1767) had three children: William (1734-1828), Joseph (1743-1773) and Francis (1750-1822). William, in turn, married Elizabeth Barney (1735-1824) and together they sired eight children, of which William Jr. (1759-1850) was the third child and second son. William Rotch Jr. built 396 County Street as his second known residence in New Bedford. F. C. Gray Jr., "The Rotch Family, 1650-1970", The Rotch-Jones-Duff House, New Bedford, Massachusetts, no pagination.
11. Gray, "The Rotch Family".
12. Daniel Ricketson, The History of New Bedford, Bristol County, Massachusetts (New Bedford: Published by the author, 1858), p. 106.
13. Gray, "The Rotch Family".
14. For a detailed description of the Rotch family's contributions to whaling and New Bedford, see John Morgan Bullard's The Rotches (Milford, New Hampshire: The Cabinet Press, 1947).
15. Gray, "The Rotch Family".
16. Ricketson, The History of New Bedford, p. 106.
17. Ibid., p. 107.
18. William Sr. is the father of the Rotch who built 396 County Street.
19. Ricketson, The History of New Bedford, p. 110.
20. Ibid., p. 111.
21. Gray, "The Rotch Family".
22. Bullard, The Rotches, p. 77.
23. Ibid.
24. Ibid., p. 72.
25. Introduction to the Inventory, The Rotch Manuscript Collection, Old Dartmouth Historical Society, Whaling Museum Library.
26. Bullard, The Rotches, p. 72.
27. Ibid.
28. A. Forbes and J. W. Greene, Rich Men of Massachusetts (Boston: Petridge and Company, 1852), pp. 186-191.
29. Ibid.
30. Sheldon H. Harris, Paul Cuffe: Black American and the African Return (New York: Simon and Schuster, 1972), p. 24.
31. Ibid.

32. See Suggested Future Research Projects included at the end of this report. The Yearly Meeting is the region's governing body for Quakers. Many of its records are maintained in the Library of the Rhode Island Historical Society, Providence, Rhode Island.

33. Mack Thompson, Moses Brown - Reluctant Reformer (Chapel Hill, North Carolina: University of North Carolina Press, 1962), p. 163.

34. *Ibid.*, pp. 17, 18.

35. Paynor Wickersham Kelsey, Centennial History of Moses Brown School, 1819-1919 (Providence: Moses Brown School, 1919), p. 61.

36. Bullard, The Rotches. See also the James Bunker Congdon Manuscript Collection, envelope 37, The New Bedford Free Public Library, New Bedford, Massachusetts.

37. Personal interview with Frank Fuller, Historian, Moses Brown School, Providence, Rhode Island, April 25, 1985.

38. Daniel Ricketson, New Bedford of the Past (Cambridge, Massachusetts: The Riverside Press, 1903), pp. 151-153.

39. Everett S. Allen, Children of the Light (Boston: Little, Brown and Company, 1973), p. 76.

40. Bullard, The Rotches, p. 77.

41. *Ibid.*

45. Entry in Rotch's nephew Samuel Rodman Junior's diary, dated April 5, 1829, in Zephaniah Pease's The Diary of Samuel Rodman (New Bedford, Massachusetts: Reynolds Printing, 1927), p. 59.

46. Lydia Scott Rotch died in Waltham, Massachusetts in 1863 and was buried there. Efforts to find out more about her through the Library of the Rhode Island Historical Society and the Providence Public Library have been unsuccessful. It may be that a historical society in Waltham might be able to provide some leads to further information on this elusive figure.

47. Bullard, The Rotches, p. 89.

48. Correspondence from H. B. Worth to Amelia H. Jones, February 23, 1914, Archives of the Rotch-Jones-Duff House and Garden Museum, New Bedford, Massachusetts.

49. *Ibid.* A description of Miss Mary Rotch may be found in William M. Emery's "The Rotch-Jones-Duff Estate", pp. 2, 3.

50. Emery, "The Rotch-Jones-Duff Estate", p. 1, and Deedbook 1, p. 339, Plat 41, Lot 15, New Bedford, Massachusetts Registry of Deeds. The New Bedford School District valuation book of 1837, #5 and #6, give a complete listing of William Rotch Junior's real estate holdings and taxable assets as of that date. They are extensive and include forty-three entries valued at \$289,300. In 1837, Rotch's former Johnny Cake Hill house (which he still owned) was valued at \$30,000 and his new residence, barn and one-acre lot valued at \$23,000.

51. Leonard Bolles Ellis, History of New Bedford and Its Vicinity, 1602-1892 (Syracuse, New York: D. Mason and Company, 1892), p. 266.
52. "County Street Historical District National Register Nomination", Massachusetts Historical Commission, Boston, Massachusetts, no pagination.
53. For a fresh perspective on the meaning of Jacksonian democracy and the banking crisis, see Bray Hammond's chapter "Jackson's Fight With the Money Power" in Abraham S. Eisenstadt's American History Books: Recent Interpretations (New York: Thomas Y. Crowell Co., 1965), pp. 291-301.
54. Ellis, History of New Bedford and Its Vicinity, pp. 266-268.
55. *Ibid.*, p. 268.
56. *Ibid.*, p. 267.
57. *Ibid.*, p. 276.
58. Talbot Hamlin, Greek Revival Architecture in America (New York: Dover Publications, 1944), Foreword, p. i.
59. *Ibid.*, p. xvii.
60. New Bedford and Old Dartmouth: A Portrait of a Region's Past. A Bicentennial Exhibition (New Bedford: Old Dartmouth Historical Society at the Whaling Museum, 1976), p. 145.
61. Robert L. Alexander, "The Architecture of Russell Warren", Master's Thesis, New York University, 1952, p. 9.
62. *Ibid.*, pp. 29-62.
63. *Ibid.*, p. 91.
64. *Ibid.*, p. 100.
65. William H. Pierson, Jr., American Buildings and their Architects, Vol. I (Garden City, New York: Doubleday and Company, 1970), p. 437.
66. Joy Wheeler Dow, "A House of the Transitional Period", The Architectural Review 8 (June 1901), p. 76.
67. J. R. Congdon, "A Picture of New Bedford, Massachusetts", p. 330.
68. *Ibid.*, p. 333.
69. *Ibid.*, p. 337.
70. Russell Warren has been credited with the design of the Rotch's residence by Peggi Medeiros in an undated report on 388 County Street, prepared for the Office of Neighborhood and Historic Preservation, City of New Bedford (page 5). This attribution is not borne out by a 1952 Master's thesis on Russell Warren or by other research on Warren's career.

71. Rotch Manuscript Collection, Whaling Museum Library, Sub-group 3, Series B, Sub-series 5, Volume 2.
72. Ibid.
73. Ellis, History of New Bedford and Its Vicinity, p. 122.
74. Everard M. Upjohn, Richard Upjohn: Architect and Churchman (New York: Columbia University Press, 1939), p. 30.
75. Ibid., p. 31.
76. Ibid.
77. Ibid., p. 32.
78. Ibid., p. 33.
79. Rotch Manuscript Collection, Whaling Museum Library, Sub-group 3, Series B, Sub-series 5, Volume 4.
80. Ibid., Volume 2.
81. Deedbook 27, Page 16, Bristol County Registry of Deeds, New Bedford, Massachusetts.
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83. Henry Howland Crapo II, The Story of William Wallace Crapo (Boston: Thomas Todd Company, 1942), p. 18.
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96. Ibid., p. 25.

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104. Ibid.

105. Ibid.

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111. Emery, "The Rotch-Jones-Duff Estate", p. 8.

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113. Henry S. Forbes and Hildegarde Forbes, ed., Letters of Sarah Jones Forbes (Boston: Privately printed, 1960).

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115. M. F. Elias, "An Interview with Stephen H. Forbes about Rotch-Jones-Duff House", p. 4.

116. Ibid., p. 3. Stephen and siblings also played with the dumbwaiter, using it to haul their special treasures.

117. Ibid., p. 4.

118. Ibid., p. 5.

119. Emery, "The Rotch-Jones-Duff Estate", p. 8.

120. Ibid., p. 9.

121. Ibid.

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123. Ibid., pp. 32,33.

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128. Ibid., Sub-group 1, Series A, Sub-series 5, Volume 1, no pagination.

129. Ibid., Sub-group 1, Series D, Sub-series 3, Volume 3.

130. Lockwood, Gardens of Colony and State, p. 109.

131. The photograph is used for the cover of the Spring-Summer 1985 Record, a publication of the Rotch-Jones-Duff House and Garden Museum.

132. New Bedford Deedbook 774, p. 552.

133. Ibid., p. 554.

134. New Bedford Standard Times, November 1, 1935, p. 1.

135. Ibid.

136. Cathryn F. Brower, "Interviews with Mrs. Mark M. Duff", February 1981, p. 17. Available at the Rotch-Jones-Duff House and Garden Museum.

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138. Ibid.

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141. Brower, "Interviews with Mrs. Mark M. Duff", p. 17.

142. Ibid.

143. *Ibid.*, p. 18.

144. *Ibid.*, p. 19.

145. *Ibid.*, p. 21.

146. *Ibid.*, p. 22.

147. *Ibid.* This reminiscence contains more extensive descriptions of how rooms were decorated by the Duffs.

148. These architectural drawings and plans are more thoroughly described in the physical and structural history of the property.

149. Telephone conversation with Mrs. John Coolidge, Bedford, Massachusetts, April 24, 1985.

150. *Ibid.*

151. *Ibid.*

152. Brower, "Interviews with Mrs. Mark M. Duff", p. 24.

153. Telephone conversation with Mrs. John Coolidge.

154. *Ibid.*

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156. Brower, "Interviews with Mrs. Mark M. Duff", p. 18.

157. New Bedford Deedbook 1783, p. 258.

158. *Ibid.*

159. *Ibid.*, Deedbook 1833, p. 85.

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SECTION 3.0 - STRUCTURAL HISTORY OF 396 COUNTY STREET

3.1 Introduction

Since its construction in 1834-1835, the House has been altered periodically to adapt to the changing needs of the three different families who lived there. The three main periods of occupancy of the House are the William Rotch, Jr. Family Occupancy 1834-1850, the Edward Coffin Jones Family Occupancy 1851-1935, and the Mark M. Duff Family Occupancy 1935-1981. In investigating the structural history of the House, an effort has been made to date alterations to one of these periods and to a specific date within these periods whenever possible.

In general, all of the occupants of the House had a strong interest in the preservation of the basic room arrangement and details. The basic appearance of the House is very characteristic of its original construction date: large well-proportioned rooms with large windows and panelled folding shutters; varnished mahogany doors have walnut veneered panels and are trimmed with casings, cornerblocks and baseboards with the elliptical echinus profiles that are the hallmark of the Greek Revival style. Window muntins have a beaded knife-blade profile for the most part and the ceiling cornices and medallions reflect the taste in plaster ornamentation of the mid-nineteenth century. All of these features give the House a strong identity as a Greek Revival period structure.

3.2 Research Methodology

The dates of alterations to the House have been determined by examination of archival materials, written documents and journals, drawings and photographs that have been discovered to date (see appendices A, B & C). As research continues on this House, more archival materials will be discovered and these materials may alter some of the conclusions reached in this report. To date, while there are no extant drawings of the House as constructed, there are a number of plans reflecting the House plan at a later date: there is a first floor plan labelled "Original as Purchased 1851 - the Old Original Plan of the First Story", which probably reflects the building as originally purchased by the Jones Family; there is a drawing labelled "Plan of First Story, 1 May 1856" and a "Second Story" plan on the same sheet apparently showing alterations made by the Jones Family early in their occupancy; there is another version of this plan also dated 1856 showing "proposed" changes which were not built; finally, there is a set of measured drawings of existing conditions drawn when the house was purchased by Mr. and Mrs. Duff, as well as a number of detailed architectural drawings prepared by the firm of Mr. William Tallman of New Bedford, dated 1935-1936. These drawings show various renovations planned by the Duff Family. Many of these alterations were constructed and remain today.

Using these drawings and all extant photographs, as well as the results of historical research, microscopic paint research and detailed non-destructive inspection, the alterations to the structure have been cataloged by occupancy period and date whenever possible.

3.3 William Rotch Jr. Occupancy

The appearance and layout of the House as originally constructed must be surmised from the surviving first floor plan drawn in 1851 and the "Second Story" plan drawn in 1856, as well as the physical and archival evidence available. However, the architectural layout and details in the House are extremely typical of the Greek Revival Period and are themselves a valuable clue to the original plan. As constructed, the House was a large rectangular wood-framed with brick lathe structure, approximately 66 feet long and 49 feet wide, exclusive of porches, with the long axis oriented east-west and the gable end facing County Street to the west. The House was built as a two story structure with attic, or garret, with full headroom over much of the floor area and a full-height basement exiting at grade in the rear, due to the sloping grade of the site. The original first floor plan showed a center entry, central stair hall plan with rooms arranged to the south and north of the long central hall and chimneys located along the north and south exterior walls.

Beginning at the front door, there was a small "Vestibule" (8'4" wide by 10'1 $\frac{1}{2}$ " deep) with a pair of closets to the south and door opening directly into the "Office" to the north. Directly ahead was a wide (4'0") door with sidelights opening into the Stair Hall (10'0" by 26'8"), which has a graceful curving stair indicated on the north side of the hall. The stair hall opened directly onto another hall to the east referred to as the "Back Vestibule", a long narrow room (6'1" by 25'6") with a door shown leading outside to the east. Though no porch or stair was indicated on the plan, one must have existed to serve this door as it is roughly 10'6" above grade at this point.

To the south of the stair hall was a large double parlor, each parlor with its own mantle, labelled "Front Parlor" (17'4 $\frac{1}{2}$ " by 17'10") and "Back Parlor" (17'4 $\frac{1}{2}$ " by 18'10"). These two rooms were connected by an 8 foot wide pair of double sliding pocket doors and opened directly to the stair hall by one door in the front parlor and by two doors in the back parlor. The front parlor, the office to the north of the vestibule, the two bedrooms directly above these rooms and the small bedroom located over the center vestibule had unusually wide windows (7'10" is indicated on the 1851 plan for the total window opening); two narrow windows flanked a wider center window. These windows had the narrow beaded knife blade muntin of other Greek Revival windows found elsewhere in the house. To the east, opening off the back vestibule and connected by a single door to the back parlor, was a room referred to on the plan as a "Lodging Room" (17'4 $\frac{1}{2}$ " by 15'5") with a mantle and a small unlabelled Ante Room (13'6" by 9'2") extending beyond to the east. The "Lodging Room" was probably Mr. Rotch's bedroom, as he was 75 years old when he moved into the House and may have been unable to negotiate the stairs to the second floor bedrooms on a regular basis. The ante room itself had an unlabelled inner room to the south (4'0" wide) with a "Water Closet" on the east end "draws" on the west. It is not inconceivable that this small room could have served as a bathroom for the elderly Mr. Rotch from the time the House was constructed. In affirmation, the gravity-fed water closet was invented in 1590 in England and improved with workable valves in 1778, when Joseph Bramah's patent was issued¹. It is possible that a cistern for this water closet was located in the attic or the closet of the southeast bedroom on the second floor. Though there is no remaining physical evidence to support this theory, a large "tank" was indicated on the Attic Plan of 1935 over the vicinity of this bathroom.

3.3 continued

On the north side of the stair hall was the aforementioned office (17'3 $\frac{3}{4}$ " by 16'0") with a door from the vestibule but no door directly to the inner stair hall indicated on the plan. This room had a mantle and a shallow closet indicated on the north wall. Beyond the office, to the east, was a small "Tea Room" (17'3 $\frac{3}{4}$ " by 8'9") opening onto the stair hall but not connected either to the office or to the "Pantry" directly beyond to the east. This room probably served as a small reception room or waiting room rather than an eating room since it had no direct connection to the pantry or the kitchen. In interpreting the use of this room, it is important to remember that the designation "Tea Room" was invented by the person who recorded the existing conditions for the Jones Family and not by anyone associated with the Rotch use of the room. There was a small closet in the northwest corner of this room, according to the 1851 plan. The pantry (17'3 $\frac{3}{4}$ " by 10'10") had "shelves and doors" on the east side and "shelves and draws" on the south and west, extending the whole width of the room. This pantry opened into the "Kitchen" to the east and connected under the curving stair with the main stair hall. The kitchen (21'4" by 24'8", not including the back stairs) had a back stair apparently serving both the basement and the second floor indicated along the west wall, with a large brick chimney surrounding a "range" on the north wall, a long "sink and dresser" indicated on the west wall and two shallow closets on the south wall. There was a door from the kitchen leading directly to the back vestibule and another door on the west wall leading to the back vestibule by way of the back stair hall.

As there is no earlier extant second floor plan than that of 1856, the layout and arrangement of the second floor rooms during the Rotch occupancy is surmised from that plan. That plan is quite typical of an 1834-era Greek Revival house, as are most of the details, door and window casings, corner blocks, cornices and black marble mantles, which survive to this day. As on the first floor, the rooms on the second floor were arranged to the north and south of the central hall. At the west end of this hall, referred to on the 1856 plan as the "Front Upper Entry", was a small (9'10" by 9'5") room labelled "#5", which sits directly over the vestibule below. This room had a wall with a centered door leading out in to the hall and a door on the north leading to the north west bedroom. At the east end of the hall was a door leading to the "Back Upper Entry" or back hall, extending to the east and also open to the back stair hall to the north. An attic or "Garret Stair", as it was labelled, was on the north side of this back hall and an irregularly shaped "Bath Room" (approx. 9'9" by 6'0") was located to the east side. This "bathroom" possibly represented a Jones alteration, rather than an original Rotch feature, as it was the one feature of the 1856 plan of the second floor which was out of character with the rectilinear organization of a Greek Revival floor plan.

There were three bedrooms on the south side of the central hall and four bedrooms to the north side, all but one accessible directly from the central hall. At the southwest, there was a large "Bedroom" (17'3" by 16'10") labelled "#1" with a mantle and a deep (3'9") closet on the east. There was a small (8'6" by 7'8") communicating room - "#2" - to the east on the south side of the closet.

3.3 continued

The next room to the east, "Bedroom #3" was a large room (17'3" by 17'3") with a mantle in the southwest corner and a deep (3'9") closet to the west, back to back with the closet in bedroom #1. Beyond this room to the east was a large "Nursery Room" (17'3" by 20'6") with two deep (3'7") closets flanking the east window. The nursery room had a door on the north wall leading into the back hall.

On the north side of the central hall, "Bedroom #6" was located to the west with a mantle on the north wall and two doors on the south wall; one opening into the aforementioned room #5 and one opening into the hall. Between this room and "#7", directly beyond to the east, were two deep (3'10") closets, placed side by side, the one to the north serving bedroom #6 and the one to the south serving "Bedroom #7". Bedroom #7 had no mantle but had a door opening onto the hall on the south and another door opening onto the back stair hall to the east. Beyond the back stair hall to the east, and opening onto that hall, was "Bedroom #8", a small room (15'0" by 10'2") without a mantle but with two shallow closets indicated on the south wall. Beyond this room to the east was "Bedroom #9", another small room (15'11" by 10'4"), also without a mantle. This room had two shallow closets on the north wall and a door to the back hall on the south. The chimney from the kitchen was boxed in between these two bedrooms on the north wall, so stoves might possibly have been used to heat these rooms.

3.4 Edward Coffin Jones Occupancy

The alterations to the house during the Jones Family Occupancy can be determined from the extant 1851 and 1856 drawings, as well as the set of measured drawings made by Mr. Tallman's firm ca.1935, in addition to the information generated by historical research and physical investigation. The Jones Family occupancy lasted eighty-four years and represents the most lengthy occupancy of the House to date. However, it does not appear that the Jones Family made many major structural changes in the House during that time.

The major alteration of the early Jones Family occupancy was the conversion of Mr. Rotch's "Office" and the small "Tea Room" or reception room into a generously proportioned dining room. The 1856 drawing of the first floor shows a "Dining Room" (17'3 $\frac{3}{4}$ " by 25'6 $\frac{1}{2}$ ") to the north of the vestibule and front hall. This was accomplished by removing the west partition and the closet in the tea room. In addition, a door was opened directly into the pantry and the pantry cupboards cut back to allow for this door opening. The new door and casings were made to match the other doors in the house and, except for the soffit above the cabinets which continues across the doorway, there is no obvious physical vestige of the former pantry cabinet layout. Beyond the pantry, the 1856 plan shows a smaller "range" and smaller closet on the north wall of the kitchen and a new fireplace introduced into the space between. Also, while not indicated on the plan, it is likely that Captain Jones replaced the original Greek Revival style mantles in the dining room, front parlor, back parlor and "Lodging Room", now called "Library", with the present marble mantles of Italianate style at the same time as the other renovations were performed. Stylistically, the newell post at the bottom of the front stair is also of Italianate, rather than Greek Revival, design and may also represent a ca.1856 alteration.

On the second floor, the 1856 plan probably represented the layout of the House as purchased with the possible addition or alteration of the bathroom at the east end of the central hall, as previously mentioned. Elsewhere, Captain Jones is generally credited with the addition of the four dormers in the attic, although these may have been earlier or even original to the House, and the cupola of double bracketed Italianate design with paired arched windows, characteristic of the Victorian Italianate Period and consistent in date with a major renovation occurring in 1856. These alterations in sum represent an Italianate-style "remodelling" by the Jones Family. As an aside, there was a "Proposed" plan, also dated 1856, showing alterations which were contemplated but not constructed by the Jones Family, such as the expansion of Mr. Rotch's "Lodging Room" into the ante room to the east to create a larger library with a pair of closets, one with "wash bowl" at the east end. This proposed alteration does not indicate a "water closet" as well as a wash bowl in the reoriented closet and suggests that the younger and more active Jones Family members might have been content to use a privy. This "proposed" plan also showed a partition with sidelights at the east end of the back hall on the first floor with a door entering directly into the kitchen from the "Back Vestibule" thus created. More importantly, the "proposed" plan indicated a new location for the back stairs along the south wall of the kitchen, directly under the existing garret stairs, presumably to create an additional bedroom out of the back stair hall on the second floor, needed by Captain Jones for his several children and their requisite caretakers. The former back stair space was shown partitioned off from the back hall and was possibly labelled "chamber". The space on the first floor was then to be converted into closet space for the kitchen and adjacent pantry.

One of the most intriguing discoveries of a careful examination of the 1856 plan that was built was the enumeration of the material required for the decorative scheme that was apparently part of this initial Jones remodelling. According to the plan, nearly every room in the House was to have carpeting except the kitchen and the water closet but including the vestibule, back entry, pantry, ante room to the water closet and the second floor bathroom. Bedrooms #7, #8 and #9 on the north side of the second floor were to have "Old Carpet" but all others were apparently to have carpeting newly purchased and installed. In addition, wallpaper and paper border measurements were noted for the front and back parlors, the library, Bedrooms #1, #3, #4, #5 and #6 on the second floor but not for the front stair hall, though Captain Jones could have already replaced that paper by 1856 or could have been satisfied with the condition and appearance of that surface surviving from the Rotch occupancy.

In addition to the drawings of 1856, several extant photographs of the Jones era indicated exterior alterations to the House. Two photographs ca.1870 show the House viewed from the garden with front (west) and rear (east) porches clearly visible. Both of these porches were probably original to the House, whereas the south side porch was not shown on this photograph. By the photograph of 1905, however, the side porch was visible, as was the door leading directly out of the southwest corner of the rear parlor onto this porch. This door replaced an original window in this location and was still visible on the Tallman measured drawings of ca.1935. The 1905 photograph also shows a covered colonned section at the east end of the south porch, a feature which lasted until sometime during the Duff occupancy.

Alterations to the House during the latter part of the Jones occupancy can be inferred from the measured drawings done by Mr. Tallman's office. Mr. Tallman had a well-deserved reputation in New Bedford for painstaking attention to detail and his measured drawings were believed to be extremely accurate. These drawings indicated a basement plan for the first time, though the plan even at this late date corresponded closely with the first floor room layout on plans drawn much earlier and was probably little changed since original construction, as the brick bearing wall structure precludes easy alteration. The basement plan was organized as a central hall with rooms to the north and south and a central entry door at grade on the east. To the north of this door was an unlabelled room, probably a summer kitchen with a fireplace and a large brick beehive oven on the north wall, as well as two cupboards, one of which was labelled "DW" for dumbwaiter on the first floor measured drawing of the same set. There was a sink with drainboard drawn but not labelled on the east wall. Other drawings in the Tallman set make reference to retaining a "pump" inside a new built-in seat at this wall where the sink was, possibly indicating that this sink had a hand pump drawing water from the well close by in the courtyard, now covered. Across the hall from the summer kitchen was a small room where the elevator and elevator machinery were located, as well as a toilet room beyond to the south. This indicated that the elevator was originally installed by the Jones Family as it was in the house when the Duff Family bought it, a detail supported by Jones Family recollections. Also significant was the combination of a hot air furnace and a hot water or steam boiler heating system, apparently installed during the Jones occupancy as the equipment was labelled "existing furnace" and "existing boiler" on other Tallman drawings. The Jones era hot air system was probably coal fired and was shown located in the central basement hall. This system distributed hot air only to the first floor rooms through ducts, though some gravity registers between the first and second floors might have allowed for minimal heat distribution to the second floor. The layout of the Jones hot air heating system was shown more clearly on Mr. Tallman's ca.1935 measured drawing of the first floor, which detailed individual registers as to size and design. One register was located at the hearth of the rear parlor mantle, indicating that this fireplace was no longer in use at this time. This first floor plan also indicated a sink with drainboard in the pantry at the north wall, as well as switches and fixture locations for electric lights in all first floor rooms. In the library, a window seat was indicated under each of the two windows flanking the mantle and a cupboard was indicated under the east window of the library ante room, a room now labelled "Service". In addition, a new window was indicated on the east wall of the toilet room. On the second floor, the 1935 Tallman measured drawings indicated more extensive alterations of the later Jones occupancy. Room #2 between Bedrooms #1 and #3 had been converted into a bathroom, extending partway into the closets between these rooms. Room #5 had also become a bathroom and the irregular shaped "Bathroom" of the 1856 plan at the east end of the hall was shown with fixtures. There was a "lay sink" indicated in the south closet of the "Nursery Room", the southeast bedroom, and several radiators are indicated on the plan, one in each bathroom and one in "Bedroom #8", oddly the only bedroom with radiated heat indicated. Though other radiators, which were to be removed by the Duffs, could have been omitted from this plan, Mr. Tallman's attention to detail made this unlikely. In addition, a partition had been added to the curved back wall of the front stairs, creating a triangular closet.

3.4 continued

While the exact date of many of the later Jones period alterations is unknown, much Jones Family memorabilia, including photographs and journals, is believed to be extant and may help to date these alterations. In addition, Duff period records, including photographs, may indicate the stylistic date of alterations that have since been removed.

3.5 Mark M. Duff Occupancy

The final period of occupancy poses a dilemma for interpretation: while the Duff renovations of 1935-1936 are the most well-documented alterations in the history of the House, these alterations themselves obscure the evidence of prior alterations to the House as they are so extensive. Mr. and Mrs. Duff bought the House in 1935 from the estate of Amelia Jones and immediately had their architect, Mr. Tallman, prepare plans for renovations. By November 1935, Mr. Tallman had produced a set of "preliminary" layout drawings showing the layout of the new heating system but also noting architectural changes on the same plans. For the first time, an attic plan appears, as well as plans of basement, first and second floors. From the extent of the Tallman drawings, thirty-one complete drawings cataloged to date with several other fragments known, it is clear that Mr. and Mrs. Duff had a thorough renovation in mind for their new house and the interior decorating, though not noted on the plans, was equally extensive.

Because of Mr. Duff's involvement in the heating oil business and his general interest in mechanical equipment, the heating improvements were extensive and led to numerous architectural changes to permit the nearly completely concealed installation of heating ductwork in the House. The ductwork layout was so extensive that floors, walls and ceilings had to have been opened to allow its installation, though the subsequent patching was so skillfully done that it was difficult to detect the ductwork locations without careful investigation or reference to the layout plans. The Duffs also installed new oak parquet flooring throughout the first and second floors of the House, which concealed the extensive surgery that the heating system installation entailed and now conceals surviving traces of earlier alterations.

The Duff renovations followed shortly after the heating layout drawings were prepared and may have even been done on a "fast-track" basis, with design of architectural renovations proceeding while heating ductwork was already being installed. Judging from the dates on the extant drawings, renovations to the plum-colored tiled second floor "Bath #1" and the so-called second floor "Living Room" were planned first, with a new shower added to the bathroom and panelled closets and bookshelves and a remodelled marble mantle added to the "Living Room". Next, the north closet between "Bedroom #4" and "Bedroom #5", formerly known as bedrooms #6 and #7, was converted into a bathroom, with green and white Carrara Glass tiling and 1930's bath accessories. This new bathroom required a new window and three separate full-size detail drawings illustrated the custom made square casement with octagonal glazing that was built for this room. The east bathroom drawing, though undated, followed the north bathroom in number sequence and details the alterations to this room, designated as a bathroom since the 1856 Jones era plan. The Duff renovations indicated that this room was remodelled to a rectangular

shape and the odd L-shaped closet in the northeast was removed. This northeast bedroom was enlarged by removal of the partition and a long narrow closet was created on the west side of this room. Finally, the bath on the west end of the main stair hall was removed and the partition and door removed to create a hall alcove, with panelled pilasters at each side concealing the heating pipes heading to the attic. The door from this bath into the northwest bedroom was closed at this time to allow for the placement of a heat register in the southwest corner of the room.

Besides the extensive heating plans already noted, the first floor alterations were much less extensive than those on the second floor. The pantry cabinet work was altered and possibly partially dismantled and rebuilt to allow the installation of a sink on the north wall and installation of a hot air riser in the southwest corner and, possibly, supply or waste pipes along the west wall from the north bathroom above. New mouldings were installed in the library, creating panels on the walls, possibly to disguise the 1'2" wide by 2'10 1/2" deep chase for hot air ductwork built in to the northwest corner of the room. While a new bookcase was indicated on the north wall of the library, which would have helped conceal this chase, it was not constructed. Other ductwork was located in the vestibule closet and the ceiling of the vestibule itself was probably entirely new, as there was a full-size detail drawing of the profile for turning the plaster medallion in this room. The ceiling itself was probably removed to permit ductwork to be installed in the floor above to serve the northeast bedroom. In addition, a large return air duct extended down from the southeast bedroom through the toilet room of the first floor.

While it was not noted on the plan or in any of the details, it is generally believed that the dining room wainscot, with its delicate panels and denticulated chair-rail, was added during these renovations or shortly thereafter. The wainscot is similar in style to the 1930's "Colonial" motif of many of the Tallman details and reflects the Williamsburg-inspired interest in archeologically correct Early American details prevalent in those days. Off the back wall, the Duffs added a new stair to lead directly to the basement "Playroom", also stylistically in the Early American motif with a large mantle and new brickwork covering the earlier 1830's summer kitchen and hearth. This stair, located on the south kitchen wall, took the place of the two kitchen closets, present since the 1851 plan, and replaced them with two new cupboard, trimmed with Greek Revival style casings and cornerblocks, which may have come from the earlier cupboards. The north wall of the 1935 plan showed the "dummy window now on exterior", which was not noted on Mr. Tallman's earlier measured drawing, but the present rear door and porch to the north are not shown on the drawings for the renovations. Though these features have been known to be added by the Duffs, they may have been added after the renovations of 1935-1936, possibly at the same time that the kitchen fireplace was removed and a cupboard added in its stead. In addition, sometime during the Duff occupancy, the door leading directly from the back parlor onto the south porch was removed and a window, with 20th century window muntins, returned in its place. Aside from these changes, documented on the Tallman drawings, Mr. and Mrs. Duff had a double circular stair built connecting the rear porch to the terrace one story below. This staircase, designed by architect Marshall B. Martin, is shown on two undated elevation drawings, which exist in the House collection. The stair was demolished in 1982 because it was unsafe.

3.6 Existing Physical Description of the Exterior of 396 County Street

The structures on the property of the Rotch-Jones-Duff House and Garden Museum occupy the entire block at 396 County Street in New Bedford, Massachusetts and consist of the main House, a coachman's house with an attached garage and greenhouse, as well as several open garden structures, most notably a large pergola, which serve as supports for climbing vines. The entire estate is surrounded by a solid fence of wide boarding supported by a series of evenly spaced, wood cased concrete posts.

The House, built in 1834, is a Greek Revival structure of two and one-half stories adapted from the classic Greek amphiprostyilar temple, but has only a one story colonnaded portico at each end, rather than full two story porticos. The design of the House is attributed to Richard Upjohn and represents a sophisticated adaptation of the original Greek temple form. The gabled ~~west~~ elevation of horizontal flush boarding faces County Street with the colonnaded portico extending the full width of the front. The dressed granite foundation of the House extends to form the foundation of the front portico and supports the 2 foot square brownstone slabs, which are laid in running bond as the floor of the portico. The flutes of the ten Doric columns have sharp arrises. The columns have entasis and irregular columnation: one pair at each end of the portico and two groups of three supporting the projecting section at the entrance. The six-paneled front entry door has a rectangular five-light transom and sidelights four lights high. Surrounding the door, there is a wide antepagment moulding surmounted by a projecting lintel, a detail repeated at all the exterior door and window trim on the House. Flanking the entry door on each side is a large triple window of unusual design; a central wide six-over-six double hung sash window with a narrow two-over-two double hung sash window on each side with operable exterior shutters on the side windows only. The triple window is a feature on the second floor also; one located above each of the triple windows and a third, with 6-over-6-over-6 with a triple hung sash, above the central entry door.

The Doric porch columns support a porch roof with a simple entablature topped by a ballustrade with paired paneled pedestals above each of the paired columns. The House has narrow corner boards at the sides of the front facade, an unusually simple treatment considering the elaboration of detail elsewhere. The pediment is enriched with an elliptical lunette window in the tympanum at the attic story. Surmounting the roof ridge and visible from the front is a later cupola of double bracketed Italianate design with alternating flat and round head windows with shutters at all the windows.

The two story ~~south~~ elevation has clapboard siding and sits atop a foundation of dressed granite blocks, obscured behind the latticework under the narrow side porch, which extends the length of the south side. The side porch has turned ballusters running between evenly spaced square posts with heavy turned caps. Toward the east end, the porch extends out into a semi-circular projection and returns to connect to the east portico. As the grade slopes along the south side, the foundation is exposed and the House becomes a full story higher at the east. The south side has five irregularly spaced bays of six-over-six double hung windows with operable shutters; two sets of paired windows on both first and second floor with a single window on both first and second floor to the east. The window bays frame blank wall where the three chimney stacks are, stacks that extend as tall narrow chimneys through the roof. Also

at the roof, two narrow hipped roof dormers with six-over-six double hung sash windows and operable shutters project through the paneled parapet, which extends the entire length of the south side.

The north elevation is similar to the south with five irregularly spaced bays of six-over-six double hung sash windows with operable shutters on both first and second floors. There is a single window at the west with a pair of windows in the middle on each floor. Between the single window and the pair on the second floor, there is a small octagonal window set into a square frame. At the east, there is a pair of windows on the second floor with a door below the window on the west and a false window below the window on the east. There are two chimneys only - one at the east and one at the west - and two dormers projecting through a paneled parapet at the roof in between the chimneys. At the east end there is an attached covered side porch with fluted Doric columns detailed with correct entasis supporting a simple entablature. The porch extends over the false window and the door with a transom at the first floor.

The east elevation is three stories in height, with a full height basement under the first and second floors. The basement wall is brick on a low dressed granite foundation and the walls above are clapboarded. The three bay rhythm of the west elevation is disrupted here; the central bay on the basement and first floors has an asymmetrically placed door with a transom and a double hung sash window with operable shutters located below the six-over-six-over-six triple hung sash window without shutters on the second floor. The flanking bays are symmetrical: the first and second floors have six-over-six double hung sash windows with operable shutters lined up vertically with the twelve-over-twelve double hung sash windows with shutters at the basement below. There is a small octagonal window on the first floor at the south end.

The portico at the first floor across the east side has four regularly spaced columns with one additional column, irregularly spaced, supporting a small section of porch roof, which extends to the south. The portico and columns are detailed like the west elevation, with correct Doric entasis and sharp flutes and support a simple Doric entablature. Between the columns is a simple railing with square palings instead of ballusters extending between a top and bottom rail. The porch floor is wood with a painted canvas surface. Each of the porch columns is supported by a paneled square column with a Doric capital at the basement level. There is a stair to the ground from the north side of the portico.

The east side has simple corner boards above the portico roof, instead of pilasters like the west side, with a pediment enriched with an elliptical lunette window in the tympanum at the attic story as well.

On the northeast corner of the lot is the coachman's house, a two story bracketed Italianate structure clad in flush tongue and groove siding. The attached garage is a twentieth century Colonial Revival style structure of stucco with wood trim. The adjacent green house has a brick foundation with the original greenhouse frame of steel with decorative ridge finials. The greenhouse was reglazed with ribbed plastic glazing recently. In the garden are several structures, which support vines and provide filtered shade for visitors, including several metal arbors, a small arbor of wood lattice and a large domed pergola of wood lattice with four symmetrical arched openings and four seats, one on each wall.

3.7 Conclusion

The alterations to the House from 1834 until the present have been done with extreme skill and a desire to have new work blend inconspicuously with old. Mouldings were faithfully copied and new elements, such as door casings and ceiling cornices and medallions, were created using correct echinus profiles and other typical Greek Revival details. Such careful work makes the task of dating later alterations difficult, as much emphasis must be placed on archival sources, drawings, photographs and journals to provide information that physical evidence can provide in less meticulous renovations. While additional information can be generated from microscopic paint research and other careful cataloging of datable changes in building materials technology, such research must be keyed to features of a known date and cannot provide information about features that have been obliterated by later work.

In general, the alterations to the House consist of minor subtle changes, rather than wholesale room rearrangements, and many of the architectural changes are confined to service spaces, closets, etc. Some of the alterations are reversible and restoration of a room to the appearance of a prior era may be possible and desirable. However, some work, like the Duff-era parquet flooring, is so extensive as to be irreversible, and museum interpretation may have to accommodate or conceal later alterations in a room restored to an earlier period.

3.8 Recommendations

Continuing research will be necessary to expand upon the observations and conclusions of this report. The current effort to unearth and copy extant drawings, photographs and written material should continue with the caveat that "working" copies of these materials should be readily available to the decision makers in addition to an "archival" set for display or safekeeping. The best quality in reproductions are worth the investment: large format photographs, direct copies from original drawings and photographs etc. will yield the most information about the historical appearance of the interior, especially from aged drawings with handwritten notes.

There are many philosophical questions to be answered about the House and its various occupants before restoration work can begin. Each era in the history of the House is important and the changes during an era reflect changes in the taste and status of the occupants of that era, as well as improvements in the technology and building materials that were available at the time. Every change that was made to the House during any of the three family occupancies represents something that is authentic to the House, even if it is not original to the House and great thought should be given to removing any authentic material unless thorough documentation is available to guide the restoration of original conditions. Finally, the urge to rush into restoration work must be resisted. The life and history of the House was written over a period of 150 years; it will take time to decipher what to do in the future.

Section 3.0 - FOOTNOTES

1. M. Girouard, Life in the English Country House (New York: Penguin, 1980), p. 265.

Section 3.0 - SELECTED BIBLIOGRAPHY

Girouard, M., Life in the English Country House, New York: Penguin, 1980.

SECTION 4.0 - MECHANICAL AND ELECTRICAL SYSTEMS SURVEY

4.1 Introduction

A survey of the Mechanical and Electrical Systems serving the Rotch-Jones-Duff House was performed to establish the type and condition of the Systems and to determine the capability of the Systems to provide the services required of a Historical Museum.

The firm of Fales, Letendre & Zicbro, Inc. has provided Consulting Engineering Services for various museums throughout the Country. Through this experience, the Engineering Staff has gained a first-hand knowledge of the mechanics involved in maintaining a museum environment to prevent damage to environmentally sensitive museum collection items, as well as maintaining space comfort for building occupants.

The following Report provides a description of the Mechanical and Electrical Systems, theorizes on the history of the Systems that served the building from its original construction to the present and provides recommendations for the future development of the building to serve the various functions of an active museum with administrative facilities.

4.2 Plumbing System Description

Domestic water is provided by a four inch (4") water service supplied by a City water main in Seventh Street. A water meter is mounted in a meter vault located at the entrance to the property. Branch runouts with curb stops are arranged to provide irrigation to the various gardens enroute to the House. The water service enters the Basement of the House at 2 1/2" pipe size.

Upon entering the basement, domestic cold water is distributed to the various plumbing fixtures throughout the building via a copper pipe distribution system.

Domestic hot water is provided by a water-to-water, side-arm heat exchanger, mounted on a space-heating hot water boiler. An in-line circulator transfers the hot water from the heat exchanger to a storage tank (approximately 120 gallon capacity) for distribution to the various plumbing fixtures in the building.

The building contains three Toilet Rooms and four Bathrooms. Plumbing fixtures are a variety of styles; all of good quality material and construction and are in reasonably good working condition.

Sanitary discharge is piped from the building to the municipal sewage system. Flow is by gravity. Piping is of cast iron construction. Because of the topography of the property, it is assumed the discharge from the building flows by gravity to a sanitary main in Seventh Street.

4.3 Heating and Ventilation System Description

Space heating is provided by two independent Heating Systems. The First Floor Kitchen, First and Second Floor Baths and the entire Third Floor is heated by an oil-fired hot water boiler. Hot water is supplied to cast iron radiators in the various spaces via a two-pipe distribution system with an in-line circulator, located next to the boiler. The piping system is steel construction with threaded joints and is uninsulated.

With the exception of the basement, the remainder of the building is heated with two oil-fired warm-air furnaces. The furnaces are arranged in tandem and are connected by a common ducted air-distribution system to supply warm air to each room. Return air to the furnaces is ducted from a central location in the main Stair Hall on the first floor and from an adjacent room on the south side of the first floor. Ductwork is fabricated of galvanized sheet metal. The air-distribution system is uninsulated.

The only source of heat in the basement is heat radiated from the bare piping and duct-distribution systems running through the basement. No mechanical ventilation is provided in the basement.

Fuel oil is stored in a 900 gallon storage tank located in the Heater Room in the basement.

Temperature control is provided by two thermostats. One, located in the first floor kitchen, operates the hot water boiler and controls space temperature in the kitchen. Temperature in bathrooms and on the third floor is manually controlled by hand valves at the radiators. Temperature is controlled in all remaining spaces on the first and second floors by a second thermostat, located in the hallway outside the first floor kitchen. This thermostat operates the two warm-air furnaces.

4.4 Air Conditioning System Description

The first and second floors are cooled by two central-station Air-Conditioning Units located in a Mechanical Room adjacent to the heater room in the basement. The units are arranged in tandem and are ducted to the warm air distribution system to deliver conditioned air to the various rooms on the first and second floors.

The Air-Conditioning units are the reciprocating type, utilizing Freon R22 as a cooling medium. The units are water cooled. Although a well was not found on the site, the pumping apparatus and piping system indicates heat from the Air-Conditioning Units is rejected into a well-water system.

Air conditioning is controlled by two cooling thermostats, mounted side by side and located in the hallway outside the first floor kitchen.

4.5 Electrical System Description

The building is served by a 200 AMP, 120/230 volt, single-phase electric service. An electric meter is located at the service entrance in the basement. The main breaker is a 200 AMP, fused disconnect switch. The Electric System was recently upgraded by the installation of a new distribution panel with circuit breakers.

4.5 continued

A distribution panel, with ground fault circuit breakers serving outdoor lights and receptacles, appears to be a recent installation.

Branch circuits are run in metal conduit and BX cable.

Lighting is provided by incandescent fixtures and chandeliers. Duplex receptacles are limited in number.

A smoke alarm and intrusion alarm system was installed recently.

4.6 History of the Systems

Based on the age of the House, it is apparent the present Mechanical and Electrical Systems are not original equipment. An effort was made during the survey to find identifying information that would date the equipment; however, no positive identification was found.

The original construction of the House, built in 1834, and the physical features of the structure indicate the original Heating System may have consisted of a coal-fired steam boiler with cast iron radiators in the various rooms. The System would have been supplemented with fireplaces, scattered throughout the building.

The House changed ownership in 1851. At that time, the Mechanical and Electrical Systems may have been changed or up-graded; however, there is nothing in the present systems that establishes this as a fact.

Sometime during the nineteenth century, a Hot Air Heating System was installed to serve the first floor through a System of ducts from a central furnace. This System was in place when the House changed ownership in 1935. Parts of the earlier Radiation System were also still in use at that time.

Based on the type of construction and the style of equipment, it appears the present Mechanical and Electrical Systems were installed at the time of purchase of the building by the Duff family in 1935. The complexity of the Mechanical System indicates the owner was mechanically minded and had a working knowledge of the most advanced equipment available in that period. The quality of the equipment indicates the intention was to install first-class systems.

4.7 System Recommendations

The Mechanical and Electrical Systems appear to be in fair condition. Because of the age of the equipment, it is not possible to estimate the remaining useful life of the Systems; however, good maintenance may extend the service of the Systems for a number of years. Since the major components of the Heating and Cooling Systems are duplex, back-up is available in case of equipment failure.

The Heating System was serviced on December 10, 1984. The Air-Conditioning System should be serviced and put into operation for the upcoming cooling season. Each year the Systems should be serviced, including a thorough check of all operating parts, just prior to their seasonal operation.

4.7 continued

The Plumbing System appears to be in good operating condition. Plumbing fixtures are good quality and are of durable construction. Plumbing fixtures should be operated on a regular basis to prevent deterioration. Normal inspection and maintenance will extend the life of the equipment for many years.

The Electrical System meets the standards of a present-day System. The condition of the wiring within the structure could not be inspected; however, the exposed wiring does not show signs of deterioration that may pose a safety hazard. The size of the service limits its load capability. Care must be taken not to overload the System with items such as electric space heaters, dehumidifiers or window air conditioners.

The areas of the building that will be open to the public must meet Building Code requirements for safety. Emergency lighting and exit signs will be required.

4.8 Future Development Recommendations

Plans to develop the basement into administrative offices will require alterations to the Heating System. The basement is presently unheated. Ventilation is provided by openable windows.

The existing warm-air furnaces do not have sufficient heating capacity to heat the basement and they are not capable of providing zoned temperature control. The existing hot water boiler does not have the capacity to heat the basement.

A new oil-fired, cast iron sectional hot water boiler is recommended to replace the existing unit. The new boiler should be piped to the existing distribution system and to new finned tube radiation elements in the various rooms in the basement. Zone valves, operated by space thermostats, should be installed to provide the desired temperature control zoning.

The estimated installation cost for the new Heating System is \$6,500.00.

The existing Domestic Hot Water System is considerably larger than that required for the proposed use of the building and it is inefficient to operate. The System should be replaced with a new gas-fired domestic hot water heater with a 60 gallon storage tank. Because of its quality and complexity, the existing Domestic Hot Water System may be of value as a museum exhibit.

The estimated installed cost for the new Domestic Hot Water System is \$1,600.00.

New fluorescent lighting will be required in new administrative spaces. The existing electric service has adequate capacity to energize the new lights.

Emergency lighting and exit signs should be battery-pack units.

4.9 Heating System Operation Recommendations

Because of the deteriorating effect and potential for damage to building finishes and museum articles caused by extreme changes in space temperature and humidity, the Heating System should never allow space temperature to drop below 50°F. Rapid changes in temperature should not be allowed so as to prevent thermal shock to temperature- and moisture-sensitive items. Windows should be shaded to prevent strong solar energy from entering isolated areas of the building, causing a large temperature imbalance. Do not attempt to supplement the building Heating System with solar heat to reduce operating costs.

The design of the Warm-Air Heating System serving the first and second floors will not allow zoning for temperature control; however, reworking existing manual dampers on supply air registers or replacement of the dampers will provide a degree of zoning for temperature control.

Since the building is uninsulated and the building envelope does not contain a vapor barrier, space humidification cannot be provided. The effect of extremely dry ambient conditions, resulting from warm-air heat, must be considered prior to housing any museum items that may be sensitive to a lack of moisture.

4.10 Conclusion

Mechanical and Electrical Systems serving the Rotch-Jones-Duff House and Garden Museum are well engineered, good quality Systems. The Systems reflect the historic nature of the building. Because of this, the Systems contribute to the historic value of the House.

Regular inspection and service and good maintenance will extend the life of the Systems for a number of years.

A new hot water Heating System is recommended to replace the existing hot water boiler and to heat the planned basement Administrative Areas.

Because of the potential for irreversible damage to museum items and building finishes caused by thermal shock, energy conservation by reduced space temperatures and passive solar heat is not recommended. Museum items, sensitive to dry ambient conditions, should not be stored in the building.

SECTION 5.0 - PAINT HISTORY OF THE MAJOR ROOMS AND FRONT HALL OF THE ROTCH-JONES-DUFF HOUSE, WITH NOTES ON WALLPAPER

5.1 Introduction

The study of the paints used in the major first floor spaces of the Rotch-Jones-Duff House served two purposes: by comparing the numbers and colors of the paint layers of the wood trim, walls and ceiling, we could tell, with some assurance, which elements were more recent and which were earlier. Thus, we can add the confirming evidence of paint stratigraphy to the conclusions drawn in architectural drawings, photographs and architectural investigation. Binocular microscopes of up to 60x were used with 75 watt photo-reflector bulbs (to give a reasonable approximation of daylight) to look at the paint *in situ*, in the House; a 400x microscope was used in the laboratory. Each painted element was sampled in several places across its surface and the samples were cross-checked.

In general, the earliest colors on the original elements of the House are typical of the Greek Revival, subdued in hue and, for the most part, flat in gloss. The early soft greens and greys were followed by a rich creamy ivory throughout the first floor. The ivory, in turn, was covered by some interesting layers of dusky rose and terra cotta of varying degrees of light and dark, probably in a late Victorian redecoration. After that come five to seven layers of whites and off-whites, including the present very light tannish off-white.

Ceilings, in general, were painted with calcimine paints through the nineteenth century. Since the calcimines were scrubbed off before new paint was applied, no original paints could be found on the ceilings. The floors in the areas investigated have all been replaced, so no floor paints were studied. On the walls and wood trim, paint layers and colors will be discussed room by room.

A final section of this report will address the questions raised by the wallpapers that presently exist behind the large mirror in the front double parlor. The aim is to distinguish, as clearly as possible, the original Rotch elements from the 1850-1935 Jones elements and from the 1935 Duff portions of the trim.

5.2 Front Hall and Vestibule

In this area the original color was a light grey-green, applied in two coats over a thin off-white primer. That it was most likely an oil-rich paint, rather than a flat paint, is indicated by the fact that all the paint layers above the finish coat of green flake off rather easily. One does not, however, see evidence that the paint had a glaze. (A glaze would be outmoded by the mid-1830's and, in fact, if the paint had the amount of gloss indicated by the easy removal of later layers, it would not be quite in the Greek Revival range of flatness. The flatness, by the way, was achieved by increasing the ratio of turpentine to oil in the paint base.)

5.2 continued

Above the green was a rich yellowy cream color, followed by two or three ivories (which may have been accompanied by wallpaper). Next comes a light terra cotta orange on the woodwork, followed by a very light grey (a primer?) and two-to-four ivories and off-whites just under the present slightly tannish white. As a guess, the light terra cotta orange was applied sometime in the later Victorian period but before the Colonial Revival brought back white and off-white woodwork.

The approximately 15 layers of paint described above were found on the following elements of wood trim in this area:

baseboard
door casings
baseboards in the closets and
inside of closet door trim.

In the upstairs hall, the colors seem to vary slightly but that may be due to a bit of sloppiness on the part of the painter, to slightly different exposure to light, or to some other cause. Except as noted later, the color scheme seems consistent with the first floor hall's color scheme.

There are a few interesting points to mention about the paint layers on other elements in the Front Hall and Vestibule. For instance, the sash in the sidelights of the front door have, as their first paint layer, a thick creamy ivory. Evidence elsewhere suggests that it is possible that all of the sash were originally painted ivory. Above the thick ivory, however, is the basic green. The construction of these sash does seem to indicate that they are original-thin bladed muntins and pegged mortise and tenon joints at the corners. The paints under the present paper on the walls number seven layers in all and start with a light yellow just under the terra cotta orange. The front door itself is wood-grained (*faux bois*). The interior of the closets, while original, did not get painted as often as the rest of the hall material and only have six to eight layers. The terra cotta orange era is missing there.

5.3 Double Parlor

Paint research here turned up subtle greys and whites and was concentrated on the front parlor. Spot checks indicated that the colors were consistent on the rear parlor as well. In all, some thirteen layers of paint exist on the original elements.

The application of paint to wood trim here appears to be in the same fashion as in the Hall; that is, a thin first coat of the final color was applied over a primer, followed by a good thick oil-rich finish coat. The color was a light pearl grey, followed by four ivories and whites, then by a light yellow (probably at about the terra cotta orange period in the Hall), then by more whites and ivories, a tan, and the present very light tannish off-white. In all, the parlors got about two or three fewer coats of paint than the front Hall. The baseboard, door casings, window trim and shutters (or blinds) all have these paint layers and colors.

5.3 continued

The sash show the ivory first, then one layer of the pearl grey, and so on. The plaster wall has only two greens, suggesting either a long history of wallpapering or new plastering done recently. The floor is of Duff vintage. The ceiling, no doubt, had calcimines and, at present, shows five to seven paints, the earliest being a very slightly yellow-tan off-white. The center medallion also has five layers, starting off with an off-white, then a warm tan, then three or four off-whites. (That tan, by the way, appears on the cornice in the hall.)

Of most interest in considering the historic appearance of the double parlor is the wallpaper currently in place behind a large mirror over the fireplace in the front parlor. A separate discussion on this paper will follow the paint study.

Behind (to the east) of the double parlor is a Lodging Room with its Ante Room and (presently) small toilet room. It is interesting that the doors to the hall and ante room have painted graining, very well done but, nevertheless, not real wood or veneer.

Like the parlors, this area has about thirteen layers of paint on its original material. Like the front hall, the first finish color is a light grey-green. It is applied over a light grey primer, however. (It is amusing to speculate about a painter being very thrifty by thinning down the leftover finish paint for the parlors and using it as primer in the lodging room area. There is no way of verifying this.)

The more recent mouldings to suggest panels have only two to three paint layers.

The center medallion has about five layers, starting with a very light tan. In the ante room, the cornice has only about five paint layers and looks later in profile. On the other hand, the rounded closet to the right of the lodging room door as you enter the ante room is clearly original as paint layer evidence shows.

The plaster walls in the ante room have the same paints as the hall wall, except for the terra cotta orange, which is missing.

5.4 Dining Room

Except for the windows and hall doors, the wood trim in the Dining Room has only four to seven layers of paint at most. The windows (except sash, which again starts with thick ivory) have about twelve to thirteen layers and have the same primer first coat and second finish coat system. The color is a slightly bluish grey green.

The ceiling has two layers, a calcimine and the present white. Its medallion has an orange shellac sealer and two to three ivories. On the cornice, there is a shellac sealer with four layers: light tan, light grey and two very light tans. The picture rail appears to have been stripped (?) and has two to three off-whites. The wainscot has a thin white primer and three to six off-whites, with the first looking slightly greenish. This echoes the paints on the closet. Paint was not checked on the piece of beaded matched board visible behind the safe, but the cut in the wood suggests that an earlier smaller safe sat in this opening.

5.4 continued

The wood doors appear to have been refinished at some point. The floor is of the Duff era.

5.5 Upstairs Hall

Here the wood trim framing the Hall Alcove area has only two paint layers, which match the recent paints on the rest of the trim. The paints on the plaster walls here were not checked.

5.6 Stairs

Both the style of the newel post and the fact that the first grey-green paint layers are missing from the stringer trim give support to the possibility that the present stairs date from the late 1840's or 1850's, rather than from 1834. In every other paint layer, they conform to the stratigraphy of the rest of the hall trim.

A note on the medallions in the vestibule and hall: the vestibule medallion has the light terra cotta orange as its first paint color, indicating that it is later, but the medallion at the foot of the stairs has three lower paint layers, the first of which looks like an ivory with a glaze.

5.7 Paint History Field Notes: April 30, 1985

Front Hall Vestibule (west)

Floor: 1935 parquet.

Baseboard (vertical): wood
thin v. light grey primer
2 thick v. light grey-greens (flakes of burnt
umber raw sierra)
rich yellowy cream
2-3 ivories
light terra cotta (orange)
v. light grey
2-4 ivories and off-whites
present v. light tan

13-16 layers

Door casing (N door): wood
thin primer
thin lt. grey-green
thick lt. grey-green

all above flakes off easily

cream
etc. as above

5.7 continued

Wall: white finish plaster
v. light yellow
v. light terra cotta orange
2 ivories
lt. dusky rose
red brick red
present brick red

7 layers

Vestibule Doorway - side lights (sash)

N.B. - blade muntins
pegged corners: thick wood creamy ivory
2-3 light greens (green pigment flecked)
light terra cotta orange
rest as above

Front Door - grained - newer hinges

Closets - baseboard: wood
lt. grey-green thin
lt. grey-green thick
3-4 ivories
lt. tan
present lt. tan

6-8 layers

Wall: plaster
white
ivory
lt. tan
present lt. tan

Front Parlor (southwest)

Door Casing: wood
thin lt. grey primer
lt. pearl grey thin
lt. pearl grey thicker
ivory
white
white
ivory
lt. yellow
white
ivory
lt. tan
present lt. tan

12-13 layers

5.7 continued

Baseboard: same as door casing

Front (W) Window Trim: same as door - 13 layers

Wall: 2 greens only

Sample - cornice - fireplace wall

Wallpaper - photo of old, revealed border behind picture rail (Duff)

Center Medallion - 5 layers on plaster: sealer
warm tan
3-4 off-whites

Dressing Room

Door to "Lodging Room" - 13 paint layers, same as front parlor trim

Rounded Cupboard Door to Right - same as above

thin lt. grey primer
thicker lt. grey-green
thick ivory
2-3 off-whites
2 lt. terra cotta oranges
2 off-whites
ivory
lt. tan
present tan

Dining Room

Closet - 6 layers, all off-white
a little wood trim exists behind a safe

Windows, doors
(except pantry): wood
2-3 lt. bluish grey-green - primer, 1st & finish
7-9 ivories & lt. tans

Sash - may have been all ivory

I suspect wood refinishing on all dining room sides of doors - ct. pantry door - maybe all doors?

Lodging Room

Cornice - original

Door & Windows - original

Doors to hall & dressing room - Painted graining

Fireplace - 1851

Medallion - 1851

5.7 continued

Ante Room - same original layers as front hall - no lt. orange terra cotta

Cornice - looks ca. 1890's - Col. Rev. Georgian

Upstairs Hall

Cornice and wood trim - vary slightly from downstairs - paints on all are original and match downstairs hall

Front (W) Small Hall Alcove Room (bathroom 1890-1930?)

All Woodwork of Entry "Arch" - 2 layers

Cornice - 2 layers

5.8 Notes on Wallpaper

In the front parlor, behind the large mirror over the fireplace, is a 7' by 10' (approximately) panel covered with wallpaper. That this paper is the same as the paper which was in the back parlor is clear from evidence in photographs taken by Nicholas Whitman in 1983, when the mirror over that fireplace was taken down. Although the photographs are in black and white, they show a clearly discernible outline of the neo-Gothic strapwork pattern of the wallpaper. In addition, one of those photographs shows strips of two other wallpapers at the left of the main paper and over it; a paper with a brocade pattern of ca. 1880 and a flocked paper (date unknown). A roll of the flocked paper still remains in the attic.

The wallpaper in the front parlor is printed in shades of light blue-grey and gilt on the white ground, the ground paper being embossed with a pattern of very fine (small) diamond shapes. The gilt outlines and dots seem to be of a bronze powder paint. The light blue-grey is water-soluble. Part of the pattern is known as neo-Gothic strapwork; the strapwork surrounds and is woven through very simplified leaf shapes.

For the most part, this paper is in very good condition, requiring only to be cleaned. It seems well-adhered, so that dust might simply be blown off with a gentle blast of compressed air. The colors do not seem to be faded or yellowed, nor is there any obvious foxing on the paper. Once cleaned, the paper would appear somewhat lighter and brighter, with the white ground, in particular, looking less dingy.

Richard Nylander, from the Society for the Preservation of New England Antiquities, observed that this paper might well have been a French import; the evidence is the embossing and the design. Papers like this were made in France before 1850, as early as the mid-1830's, but they were not commonly imported and used here much before 1850. Moreover, the simple taste of the Quaker Rotches and the unlikeliness of House improvements being done in the late 1840's, when William Rotch Jr. was very old, would also support a hypothesis that this paper was not installed until after the Jones family moved in. The 1851 drawing of the first floor indicates measurements for carpeting and other work to be done in the parlors. The ceiling medallions certainly are more likely to date from the 1850's than from the 1830's.

Therefore, we believe that this paper was most likely to have been put on the walls in 1851-1855. The wood trim color that went with this paper probably included both the earlier light pearl grey and the subsequent ivory. The ceiling probably had very light yellow distemper or calcimine paint.

Reproducing this paper would not be costly, as it would need only two screens for the colors. The main problem would be finding, or having made, a ground paper with the correct embossing. Having reproduction paper on the walls would not prevent use of the parlors for functions because one could have a sufficient quantity of paper made to permit repair, or even repapering, if necessary.

In summary, the wood color analysis by family period is as follows:

Hotch Period (1834 - 1850)

Front Hall, all wood except sash of front sidelights:	light grey-green
Double Parlor:	light pearl grey
Lodging Room:	light grey-green
Dining Room:	light soft blue-green
Upstairs Hall:	light grey-green

Jones Period I (1851 - 1860 or 1870?)

Front Hall:	deep yellowy cream
Double Parlor:	light pearl grey
Lodging Room:	ivory

Jones Period II (1860 or 1870 - 1880)

All wood trim seems to have been ivory throughout the house.

Jones Period III (1880 - 1890?)

All woodwork seems to have been a light terra cotta (orange-brown) color; plaster walls show a slightly deeper version of the same color in the Front Hall and Dressing Room.

The one exception is the Double Parlor where the wood-work was a light yellow.

Late Jones/Early Duff

Ivories and off-whites characterize this period, with very light tans coming in about 1935-1940.

SECTION 6.0 - LANDSCAPE SURVEY OF 396 COUNTY STREET

6.1 Introduction

The Rotch-Jones-Duff House and Garden Museum occupies an over-sized city-block in the County Street Historic District of New Bedford, Massachusetts. It is bounded on four sides by a tall, wideboard fence, which is interrupted for short spans by a Coachman's House wall and an iron fence, which marks the front of the House.

Within that board fence is a uniquely charming garden with its basic plan and plants, dating from at least 1870, still largely intact. This is unusual for a garden that has seen 100-plus years of continuous cultivation, especially when one considers that three distinct families owned the House during its history. Residential gardens rarely survive beyond even one avid gardener's lifetime.

Faced with such a unique gift of history and circumstance, the garden is eminently worth restoring and reconstructing and this evaluation is both timely and necessary because the garden:

1. Reflects changing garden aesthetics and use through the period 1834-1935.
2. Is in good condition with many original features and basic design intact.
3. Is located in a historic area of New Bedford, Massachusetts.
4. Would greatly enhance the historical and educational value and aesthetic appeal of the Museum.
5. Could be endangered by a high potential for disruptive change in view of current maintenance policies and practices.

It is hoped that the landscape will help the Museum realize the garden's potential value - as an appropriate setting for the House and as an important living document of the families who lived there and their historic milieu.

6.2 Methodology

In the following evaluation of the Museum property, the garden was considered in three contexts:

- A. The whole complex of philosophical, economic, political, social, scientific, literary and aesthetic factors that shaped American culture from 1834-1935.
- B. Evidence of former and present garden activity as revealed by the site itself.
- C. Specific documentation which reveals the evolution of the site from 1834, when the House was built, to the present.

In placing the garden in its complete cultural context, research utilizing the extensive library collections of the Brooklyn Botanic Garden (Brooklyn, New York) and the Worcester Horticultural Society (Worcester, Massachusetts) included the following:

1. Gardening magazines and journals of the 19th and 20th centuries.
2. Books written by both amateur gardeners and professional landscape architects of this period.
3. Histories of 19th century horticulture and botany.
4. Biographies of the great plant explorers of the 19th century, including E. H. Wilson.
5. Original plans for major public landscape works, such as New York's Central Park.
6. Major scientific works of the 19th century, including those by Charles Darwin.

The site itself revealed much about its history during careful visual examination. Variations in lawn color, for instance, indicated the design of a former formal perennial garden - later confirmed in a 1937 landscape architect's plan. Evidence of noted plant explorer E. H. Wilson's involvement in the garden was revealed by the presence of plant material known to have been planted by him.

Although desirable, garden archeology was not possible due to time and budget constraints. Careful limited digging is recommended for the future to check likely locations for site elements such as rotted stumps from a fruit orchard, post holes from a fence, and old foundations. These would help determine garden features prior to 1870 which are no longer visible in the landscape. Infrared aerial mapping - sometimes helpful in revealing vegetation patterns not apparent from the ground - was not appropriate for the Museum. It would be more suitable for a large estate or farm in a greater state of neglect.

Specific documentation, consisting mainly of old photographs, was supplied by the Museum. Budget and time constraints limited the search for other available documentation of the site since that is the most time-consuming part of this kind of evaluation. Since a concurrent historical survey failed to reveal much family memorabilia or photographs in local libraries or historical societies, it was felt that most of this material is still in the Rotch-Jones-Duff House descendants' hands. Research in this area - which is recommended - would include sifting through family collections of memorabilia (ie. photographs, books, newspapers, magazines, poems, diaries, letters, maps, old seed catalogs, nursery order forms) for garden-related information. This would be an excellent area to involve garden club members or museum volunteers. They could contact living descendants with a survey form to help fill in details related to the history of the site. Childhood memories are especially valuable, since children usually have an intimate knowledge of their garden even if, as adults, they have little or no interest in gardening or gardens whatsoever.

6.2 continued

Finally, research in local botanical libraries would be invaluable. Accession records of the Arnold Arboretum Library and Massachusetts Horticultural Society Library would be especially helpful. The records would become especially vital if no books surface from remaining descendants. Gardening books invariably reflect the interest of their owners. Often they are annotated or underlined and may contain notes, letters, empty seed packets or pressed flowers. Often gardeners bequeath their books to a botanical library - especially if descendants have no interest in gardening. It is unfortunate that, during the time of this project, the library of the Massachusetts Horticultural Society was unavailable for research. Future research is recommended.

6.3 Interpreting the Landscape - The Garden as History

Gardening is the only art which grows and changes constantly. It is an ephemeral art, as anyone who has visited an old, neglected garden can attest. An immaculate, clipped lawn becomes a rank meadow; neat foundation plants tower over the house; the perennial garden - once the pride of a local garden club - is now ruled by its most vigorous resident, the daylilly. Even if one person gardened there, the plan was likely changed several times during his or her lifetime. Very likely, some plans remained on the drawing board forever.

For these reasons, attempts to fix a period garden to some point in a structure's history are usually doomed to failure. A more realistic goal would be to give the visitor a sense of the stream of time in a garden - of its history.

The period garden should not repeat current design idioms but rather reflect the canons of past garden builders. It is far more poignant and immediate to have a sense of the first builder and his vision and to explore his link to intermediate residents and their garden activities. A well-planned period garden can tell us how the residents interacted with their surroundings and how the vegetation reflected their attitude and the attitudes of their age toward aesthetics, recreation or family life.

A merely pretty garden - carefully preserved as if it were under some giant Victorian bell jar - tells little about itself or the people who used it. Can a visitor imagine women in bustles and hoop skirts trying to cope with iron garden seats? What about a children's tea party under the gazebo; or that vanished dodo - the Victorian potter - marching about with legions of annuals for the yearly "bedding out" ritual; or that new American - the middle class suburbanite - gardening for pleasure and not out of necessity, as most Americans had done before him; or the cook filling her kitchen with the smells and paraphernalia of "putting foods by" attended by a mountain of jelly jars, strainers and food mills? One of the most important aspects of the Rotch-Jones-Duff garden is that it represents a golden age in American horticulture and in garden technology. This, a merely pretty garden could never communicate.

During the 100 years of gardening at the House, from 1834-1934, nearly ALL of the plants and garden practices that we take for granted were introduced to an eager gardening public. It was also inevitable that the Industrial Revolution should find its way into the garden. Some of the innovations included:

1. Canning, invented by Nicholas Appert of France in 1809, resulted in a tremendous interest in fruit growing, since now the fruit could all be preserved - not as wine, but as jams, jellies and whole fruit in syrup.
2. In the late 1800's, pumping stations began providing cities with water under pressure. The garden sprinkler and hose were quickly invented and, by 1880, widely advertised in hardware catalogs and circulars. With the invention of the lawnmower, in 1830, the stage was set for the American romance with lawns.
3. Lawnmowers were widely available by 1870. Previously, lawns were mowed infrequently by hand with scythes. The resulting uneven stubble was not especially attractive and needed to grow quite long before it could be cut again. When the lawnmower was invented, the new, velvety surface sparked a craze for lawn games. Croquet, that quintessential Victorian pastime, was born.
4. Wrought iron was expensive and time-consuming to produce. When cast iron was invented, it was quickly recognized as a material ideally suited for garden use. Among the garden furnishings made of cast iron were: fountains, garden sculpture, seats and tables, lawn edging, pergolas and gazebos, sprinklers, and greenhouses, which were among the first pre-fabricated structures widely marketed.
5. Seed catalogs were printed in color. The first one was probably printed in 1864 by James Vick. Then, as now, gardeners whetted their appetites for new plants with mouth-watering pictures of perfect dahlias in unearthly pinks and oranges or tomatoes that rivaled melons in size. With the inauguration of the postage stamp (1847) and delivery service (1863), the gardener's fate was sealed. No longer would gardeners have to depend on traveling salesmen and their display of hand-colored plates. Mail order was born. In 1872, James Vick claimed his catalog was mailed out to 225,000 people.
6. New plant introductions and advancements were made in the science of botany. The Victorians were incredibly acquisitive people. Armed with the new wealth of an industrial age and new ways of transportation, they roamed the globe collecting everything from fossils to algae. Having outgrown the immense private collections, museums for adequate storage and record-keeping were required. Plants were no exception. Horticultural societies and botanic gardens were formed to educate the gentleman gardener about the new exotics in response to the explosion in plant material being brought back by explorers. In only one expedition, as many kinds of new plants were imported as were already being grown at home. After all, how was one to germinate, cultivate and use these new plants in the landscape? At the same time, scientists struggled to explain the diversity that was being carted home. Among these scientists was Charles Darwin.
7. The landscape was changing. With the introduction of thousands of new plants and with the birth of the suburbs, it was inevitable that American landscape design should change forever. At first, some garden makers became so obsessed with new plants that they abandoned

design altogether and grouped the kinds they were most keen about in collections. Pinetums and arboretums were popular on large estates. Small residences fell prey to the overstuffed look. If one adjective must be chosen, it would be lush. Among typical features in the landscape were lots of flowers, garden bric-a-brac, avenues lined with street trees, elaborate beds of annuals in fanciful designs, lawns, foundation plants, specimen trees dotted about and preferably weeping or fastigate, mixing of tropical and hardy plants in the same area, plants in the house, use of floral symbolism and mixing of several period gardens on one property. Later, as gardeners learned how to use their plants, plant-inspired landscapes were born. To say it was an age of garden selecticism would be putting it mildly, indeed.

6.4 Considerations in the Evaluation of the Rotch-Jones-Duff Garden

Considerations in the evaluation of the Rotch-Jones-Duff garden are:

1. Location, size and aspect: Sited on 162^{7/10} rods in the heart of the County Street Historic District of New Bedford, Massachusetts, the grounds are large enough to uniquely document and display plants and landscape features spanning 100 years of residential gardening continuing through the residence of three "horticulturally-aware" families. The wide-board perimeter fence screens intrusive modern elements of the town, such as modern cars.
2. Association: Research indicated that all three families - Rotch, Jones and Duff - participated in local horticultural concerns through the years 1834-1935 - a golden age in American horticulture. At least two individuals were active members of the Massachusetts Horticultural Society.

Scant but tantalizing references to William Rotch Junior's activities include mention of pears and a white beet which he displayed at the Massachusetts Horticultural Society. This reflects the intense interest in fruit culture and most particularly pear culture which preoccupied New England gardeners in the early 1800's. In 1829, for instance, the Brooklyn nursery of Andre Parmentier (Brooklyn, New York) featured 682 varieties of fruit trees.

Sarah Rotch, daughter of William Rotch, was daughter-in-law to James Arnold - an immediate neighbor whose generous bequest was responsible for the founding of the Arnold Arboretum. Association with the Arnold Arboretum next surfaces during the Duff residency. During this study, Mrs. John W. Coolidge, landscape architect for the property in 1937, recalled during an interview with Karen L. Jessup that "the gardener 'Chinese' Wilson" planted some dwarf chestnuts on the property. "The gardener" was the noted plant explorer, Ernest H. Wilson of the Arnold Arboretum. Wilson collected actively for the Arnold Arboretum from 1907 to 1930.

A preliminary survey of plants in the garden revealed many woody landscape plants which were either introduced to America by Wilson, or were personal favorites listed in his posthumously published book, If I Were To Make A Garden (1931, Stratford Co., Boston).

Worthy of note were the above-mentioned dwarf chestnut, *Aesculus parviflora*, located along the eastern boundary fence; three flowering cherries as yet unidentified; *Sorbaria arborea*, a little-known shrub which Wilson touted often; and a line of shrubs along the southern boundary fence which included *Sorbaria arborea*, *Philadelphus*, *Forsythia*, *Clethra*, *Weigela* and *Spiraea*.

3. **Age:** Examination revealed no evidence of how the garden looked during the Rotch years (1834-1851). Among the oldest plants on the grounds were:

1 copper beech (*Fagus sylvatica 'Cuprea'*)
4 winged euonymous (*Euonymous alatus*)
2 Norway spruce (*Picea abies*)

Since none appeared older than 100 years, none could have been planted during the Rotch years. However, only test borings can confirm this. Since boring opens the plant to possible disease and/or insect infestation, this procedure is not advisable unless strong reasons for determining age surfaces during further research into the history of the garden. Few plants live beyond 100 years, despite the common misconception that a tree must be very old if it is very large.

As mentioned, early photographs (circa 1870) show primary garden paths, pergola, boxwood parterre, a lean-to greenhouse, Coachman's House, and pathway pergolas in roughly their current positions (See Appendix C). The basic design of the garden has been little altered since then.

4. **Type:** Typical garden features of the 19th century represented in the Museum garden included: Parterre, gazebo, arbors and pergolas, typical 19th century plants, use of street trees outside board fence, use of gravel paths, use of embankments for soil grade changes.

6.5 Evaluation of and Recommendations for the Half-Moon Bed in Front of House

The Rotch-Jones-Duff House and Garden Museum Garden Committee members report that the area had been planted with large conifers which obscured the house. This is entirely consistent with late 19th century residential landscape design. Often, the front property line was thickly planted with mixed, needled and broad-leaved evergreens. A popular garden book of 1870, *The Art of Beautifying Suburban Home Grounds of Small Extent* by Frank J. Scott, admonishes the reader to make sure that the mature height of these trees should not exceed twenty feet, however. The trees in front of the House were cut to reveal the obscured front elevation. That area was subsequently planted with a mixture of English ivy and daylilies.

When the area was viewed in May, the ivy was in poor condition and had not filled in the bed as a ground cover. The daylilies were growing rampantly. House foundation plants were uninteresting.

Recommendations:

Since this is the area visitors see first and is in the primary view for photographs of the House, it should receive priority in any renovation plans. Current planting of ivy and daylilies should be removed, soil improved and replanted with a more historically accurate planting of broad-leaved evergreens and sub-shrubs, not to exceed seven feet at maturity. Plants should be chosen for four-season interest and color-coordinated with House colors of gold, white and green. Planting thickly and mulching should reduce maintenance and insure viability of plants selected. Although the area is small, it is essential that it be designed to age gracefully.

Under no circumstances should the current planting be kept. It is not historically accurate; contains weedy plants that do not compliment one another; and will continue to present maintenance problems such as frequent weeding, thinning and deadheading flowers. Most importantly, it is not attractive in any season.

A copper beech tree flanking the north side of the House needs visual balance. A planting of 2-3 white, flowering cherry trees would be appropriate and would frame the garden view from County Street. Early photographs indicate trees did occupy the site in 1870. The trees no longer exist.

6.6 Evaluation of and Recommendations for the Wildflower Walk Area

Thus far, there is no evidence that there was ever a wildflower walk anywhere on the property. However, such walks were certainly popular during the 1800's. Usually they circumscribed the property and were well-screened from view. Such natural features were very popular with members of the American pre-Raphaelite movement in the late 1800's. These artists rhapsodized about "truth in nature" and argued about how to best achieve this ideal. Should benches be allowed on natural paths, or should only logs be used as seats? If logs were to be used, would it not be better if they were felled by the wind instead of placed by man? Although these points may seem trivial, those who were concerned with "truth in nature" argued passionately about them.

The Garden Club of Buzzards Bay, which is headquartered in the Coachman's House and greenhouse, is currently establishing a wildflower walk along the southern boundary fence. Examination revealed a wealth of mature native plant material already in place. There are several *Clethra* bushes along the fence and a robust grove of *Kalmia latifolia*. *Rhododendrons* in the area were not in bloom during May, but may be native species. Non-native material also present included *Leucothoe*, *Lonicera*, *Forsythia*, *Philadelphus* and *Syringa*.

Recommendations:

Although the presence of non-native plants presents a problem, the proposed wildflower walk area is ideally suited for the establishment of shade-tolerant, native plants. Education possibilities include:

1. Discussion and identification of native woodland plants through signage, tours or printed material.

2. Discussion of the American pre-Raphaelite movement and its relationship to garden aesthetics and the Victorian view of nature through signage, tours or printed material.

Any site work should include moving or preserving the above-mentioned, non-native shrubs which may be associated with noted plant explorer E. H. Wilson. Site design should also be closely coordinated with long-range design plans for the entire Museum property. This will become especially important if an independent consultant is engaged to assist with the wildflower walk project.

6.7 Evaluation of and Recommendations for the Boxwood Parterre

The arabesque pattern of this parterre is typical of the mid to late 1800's and reflects Victorian reaction to the stiff, geometric parterre shapes of earlier designs. A photograph (circa 1870) clearly shows young, boxwood liners framing roses planted in the center of each section (See Appendix C). The edges of the design were still crisp and sharply defined. Gravel was used in the pathways.

Examination revealed a deteriorated planting. The boxwood had grown too large and woody for maintenance of a 12" hedge, as was probably originally intended. Paths had become too narrow to make walking comfortable or inviting. An attempt was made to prune the boxwood severely in hopes that it would regenerate and be suitable for clipping at the shorter (12") height. Unfortunately, the very large, woody branches of each plant make such a short hedge difficult to achieve. The wood would be visible in most cases and would interfere with close shearing. In addition, uniformity was lacking because the planting is comprised of more than one variety of boxwood. It was especially obvious during cold weather which bronzed the foliage of one variety but not the other. Roses were in need of proper pruning.

Parterres should be on level ground and paths should not be deeper than the surrounding bed areas if they are to be visually effective. Examination revealed that soil levels in each bed were not identical. In addition, the parterre area sloped slightly from east to west - a minor, but obvious, flaw. More serious is the upturned northeast corner of the parterre area - much like a dog-eared piece of paper. This was probably caused by persistent erosion of an adjacent grassy terrace. There is also a pedestrian circulation problem in this corner. Paths were below grade level.

Recommendations:

Remove all old boxwood plants. (Those in good condition may be used elsewhere on the property.) Reserve in containers all roses to be replanted in the parterre and discard others. Rergrade and improve soil. Lay out beds according to original plan with one exception: provide a small amount of additional space along the south side of the parterre (between House and parterre) for a path. This will ease the severe circulation problem confronting visitors who enter the garden from County Street and must thread their way through the winding boxwood parterre.

6.7 continued

Material for replanting should consist of one variety of boxwood. While *Buxus sempervirens* does well at 396 County Street and will fill in as an attractive hedge quickly, a dwarf variety might be considered. The advantage is slow, uniform growth and less shearing. Disadvantages are reduced vigor, slow fill-in for a "finished" look, greater cost and difficulty in obtaining in quantity.

Shrubs and perpetual roses should be used in the parterres. Although hybrid tea roses were used and loved by the Victorians, they were probably not originally in the parterre. Records indicate a cutting bed for roses in the vicinity of the greenhouse entrance. Hybrid teas are generally used for cutting, but make poor plants when used as decorative filler for masses of flowers. William Rotch Jr. was known for his hybrid perpetual roses. With additional research, it might be possible to introduce varieties either cultivated by him, or in general cultivation during the Rotch years.

Suggestions were made for altering the filler material in the parterres. Although annual flowers were widely used in Victorian "bedding out" schemes, there is no evidence that the parterre contained them. A photograph from 1930 shows canna lilies thickly planted in the center parterre section (See Appendix C). However, this plant material was not in an earlier photo. For this reason, it is not a recommended plant.

Reconstruction of the boxwood parterre can proceed gradually, with most work done by hand and as funds become available. For convenience, the area can be divided into equal quarters, with each quarter treated in turn. A better approach, however, would be to reconstruct the entire area at once. Advantages of this method are:

1. Much of the work can be accomplished with the use of heavy machinery. This will cut labor and time. The parterre can thus be installed quickly to reduce the time that it will be an eyesore in the garden.
2. Usually it is easier to obtain funding for this type of close-ended project rather than the piece-by-piece approach mentioned first. Any proposal should make yearly maintenance costs part of the total funding package. Maintenance for parterres is demanding and costly. While funds for planting are more easily available, funds for the less glamorous but vital maintenance can be difficult to obtain.

6.8 Evaluation of and Recommendations for the Greenhouse and Adjacent Areas

Photographs (circa 1870) show a greenhouse in roughly the same location as the current greenhouse structure reconstructed by the Garden Club of Buzzards Bay (See Appendix C). The old greenhouse consisted of a lean-to section which ran the length of the Coachman's House with which it shared a common wall. It included a center projection section also.

Since little remains of the original greenhouse structure except fragments of cast-iron gingerbread trim and the original foundation, it was difficult to determine what was grown in it. It was not possible to determine when it was built, or who built it. The firm of Hitchings

(later Lord and Burnham Co.) was very active in the northeast and built or supplied the prefabricated parts for many residential and institutional greenhouses. As early as 1865, the firm of Woodward advertised prefabricated, lean-to "graperies" for grape vine culture in its catalog. It is possible that the Museum greenhouse was originally intended as a grapery. Further investigation is necessary to determine if this was the case. The presence of vine-eyes on glazing bars, lack of a heating system or specific recollections of Rotch-Jones-Duff descendants would help determine use patterns which might have included plant propagation and wintering-over functions.

An early (circa 1870) photograph also reveals that diagonal lattice fencing now screening the greenhouse was in place then. Although it is now badly damaged and deteriorated, the screen fencing is certainly worth replacing, for it is a thread of continuity stretching back through the garden's history. It is interesting to note that, although fragile, it was retained by all of the House owners since 1870 and survives to the present.

Although photographs are not distinct enough for a positive identification, they point to a possible orchard located near the greenhouse. Old pear and apple trees have a distinctive branch pattern. In one photo, it appears that an old pear tree is sited near the greenhouse entrance. An apiary is in the same area. Apiaries were usually set in or near fruit orchards so that the trees were adequately pollinated. Although it is still conjecture, the greenhouse and Coachman's House areas may have been the sites for an orchard and vegetable or kitchen garden. The wide-board boundary fence may have had berry fruits grown along its length in that area. Plans in period gardening books (circa 1870) often show these locations for food plants. Flowers and vegetables propagated from seed in the greenhouse could be conveniently set out in the vegetable garden outside the door. Manure, often the only available early fertilizer, was easily accessible from nearby stables (the former Jones stables are directly across the street). Rampant or thorny berry plants were easiest to cultivate against the fence. All were within easy access of the House kitchen. Lattice fencing, which still exists, would have screened these utilitarian areas from the purely decorative areas of the garden.

Examination revealed that the areas immediately adjacent to the greenhouse entrance were an eyesore. Plants consisted of a miscellaneous collection of native dogwood (*Cornus florida*), winged euonymous (*Euonymus alatus*), pin cherry (*Prunus pensylvanica*), and waste ground. The area had no focus or clear purpose. It functioned primarily as an informal staging area for garden chores. A small area between the greenhouse and boundary fence also served as a service yard for gardening activities. Pots and a compost were located here.

Recommendations:

This is the most promising area for reintroducing former presumed Rotch period garden features including an orchard, berry patch and vegetable garden. These features most represent the horticultural interests of the early and mid-1800's fruit and vegetable culture. Determination of exact former locations would require further research. This might include

6.8 continued

garden archeology to determine stump positions of an old orchard and location of a manure pile or especially fertile ground indicating a former vegetable garden site. The planting of heirloom varieties would duplicate those grown during the period or documented as actually grown by William Rotch Jr. The apiary should be reinstalled, but not fitted for actual use. Bees in public areas are a potential danger and nuisance to visitors.

Although garden chores are not always neat activities, the service area between the greenhouse and board fence should be retained. However, an evergreen screen planting would be a visual improvement. The service yard could then be permanently fitted to provide an efficient, practical workspace for necessary gardening activities without constantly considering public visual aesthetics.

A comprehensive design for the greenhouse area is necessary. It might also include an area that is currently maintained as a perennial bed by the Garden Club of Buzzards Bay. Close cooperation and input from the Garden Club would be essential for successful utilization of this area.

At present, areas adjacent to the greenhouse - including perennial bed, yew-cornered lawn, and areas near the board fence - are the least cohesive and purposeful in the garden, but the richest in potential aesthetic and educational value.

6.9 Evaluation of and Recommendations for the South Porch and Embankment

Old photographs revealed a large and flourishing wisteria vine on the south porch embankment. An unidentified man is pressing himself into the blooms which cascade from the vine like a waterfall. It is an endearing picture of someone truly enjoying a garden (See Appendix C).

An old, dead wisteria stump was found partially behind the lattice work under the half-moon bow in the south porch. Garden Committee members confirm past existence of wisteria and a since-demolished timber trellis. Climbing roses were being trained along the porch lattice-work.

Recommendations:

Reconstruct a stout pipe or timer support for the wisteria which should be replanted. This is necessary to keep this extraordinarily vigorous vine from attaching itself to the porch structures and ripping them apart. The lattice is especially vulnerable. The wisteria supports should be painted to match adjacent House structures so that they remain unobtrusive. White Wisteria is recommended as the replacement plant material for it would best highlight the House colors of gold, green and white. Garden Club members confirm that the previous vine was a white wisteria. The climbing roses should be removed. They are unattractive, very old and woody and are a threat to the lattice, should it be used to support the rose canes.

Seedlings of the original wisteria vine still exist and it was suggested that they be used as replacements for the parent vine. A better solution is to plant three vines using a mixture of original seedlings and nursery-grown stock. Seedlings flower unreliably. Blooming nursery

6.9 continued

stock would insure bloom. Vines should run horizontally along the entire length of the porch at the foot of the railing. Again, this would be a natural picture-taking area with the wisteria as background.

6.10 Evaluation of and Recommendations for the Terrace and Coachman's House Area

Early photographs (circa 1870) do not reveal the terrace. Obscuring the view on the south side of the terrace was a long pergola running its entire length. There did not appear to be any vegetation growing on the horizontal lattice strips of the pergola, circa 1870 (See Appendix C).

Examination revealed very overgrown yews bordering the south side of the terrace. The encircling wrought iron fence was badly rusted and falling apart. Wisteria, twining around the fence, was further stressing it. Old plans (circa 1937) indicate a fountain in the center of the terrace. The terrace was completely paved. Narrow beds at the edge of the terrace held a few small boxwood plants, but little else. An embankment on the north side of the terrace was planted with English ivy and lilacs. The lilacs were not very vigorous and needed pruning.

Recommendations:

Until evidence of actual terrace planting surfaces, the small beds are an ideal place to display annuals - thus demonstrating the typically Victorian technique of "bedding out" tender annual plants. This is particularly appropriate since the terrace would be used primarily during warm weather and annuals would flower during that entire period until frost. The terrace rail needs replacement. Wisteria planted nearby should be removed to prevent it from damaging the new railing. The lilacs are worth saving but are in need of complete renovation pruning and fertilization performed by an expert. Further work depends on plans for the garden as a whole.

The area between the Coachman's House and main House is currently a "dead" area of interest. Granite steps are awkwardly placed and lead nowhere. Forsythia bushes lining the board fence are poorly pruned and require renovation pruning, if they remain. The main feature on this side is a large copper beech tree. However, old guy wires on its branches must be removed immediately. The rubber hose padding has crumbled and the wires are cutting into the branches. Further work on the tree must be determined after removal of the wires. A qualified arborist should be engaged to evaluate the situation and perform the work. The copper beech can be safely underplanted with minor spring bulbs such as scillas or pushkinias. These would not interfere with the tree's shallow root run. Underplanting the beech with a groundcover - the ground is now bare - should be approached cautiously. Under no circumstances should a selected groundcover interfere with the roots and health of the beech.

6.11 Evaluation of and Recommendations for the Perimeter Fence

An 8' wide-board fence currently surrounds the property. In several places the wood is decayed and termite-ridden. Fortunately, replacement of the most damaged sections can proceed piecemeal as funds become

6.11 continued

available. Garden areas which immediately border the fence, however, are uniformly in need of attention. Plant material here is among the most neglected in the garden.

On the south side, valuable flowering shrubs, possibly planted by noted plant explorer E. H. Wilson, have become overgrown and spindly. Most have become shaded out by adjacent, broadleaved evergreens. A proposed wildflower walk for this area would make the shrubs inappropriately placed for only the *Clethra* is a native plant. The pruning job, neither renovation nor artistic pruning, has compounded the plant problems by removing all current dormant buds.

The west side also contains valuable plant material which is now being obscured. Two *Aesculus parviflora* (bottlebrush buckeye), known to have been planted by E. H. Wilson, cannot be seen easily and are being shaded out by adjacent plants. Air circulation is poor and, although a large garden seat suggests resting in this area of the garden, the planing does not merit attention in its present tangled condition.

Recommendations:

The west side requires very careful, artistic pruning by an expert and should not be left to garden maintenance workers.

The east side is a weedy tangle of miscellaneous shrubs of little horticultural merit. Victorians carefully considered not only the view within their gardens, but borrowed scenery from outside their gardens by incorporating these views. The view to the east needs softening.

Recommendations:

A planting of mixed, needled evergreens along the eastern fence would help screen utility lines and lessen their modern impact on a period garden setting. In fact, both south and east borders need more conifers. Victorians often screened large suburban lots with conifers to provide respite from the sights and sounds of the street. Spaces in the planting provided sightlines to desirable views of the street. The William H. Rodman house next door at 388 County Street has a splendid stand of hemlocks visible from the Rotch-Jones-Duff House. Its value to the rest of the neighborhood as "borrowed scenery" and as a haven for birds and other wildlife is probably unappreciated. However, this kind of screen planting is essential if one is to achieve the true feel of a Victorian garden.

6.12 Evaluation of and Recommendations for the Lawn Area with Large Corner Yews

This area has gone through several changes over the years. A photograph from 1870 shows a central lawn bordered by narrow 3' beds containing roses and edged with what appears to be boxwood. In 1937, the area was a perennial garden with central pool and clipped yews at the four corners.

Examination revealed the perennial garden plan still evident in varying colors of the lawn which now occupy this area. Yews and azaleas still mark the corners, but look out of place since there is no longer a

6.12 continued

central focal point - the garden pool. The visual and functional effects are awkward. Both pathways and corner plantings set the area apart from the rest of the garden, yet nothing is "going on" inside, except a lawn area.

Recommendations:

This area should be, once again, a perennial garden, following the design illustrated in a plan from 1937, which includes the garden pool. However, this would interfere with use of the garden for concerts and parties, for which the additional lawn area is vital. This problem illustrates the need to consider and map a comprehensive plan for the garden so that contemporary Museum needs, Garden Club needs and historical perspective can dictate the final form the garden must take.

6.13 Evaluation of and Recommendations for the Pergola

Restored in 1984, the pergola is both a garden focal point and pathway axis. It is present in garden photographs (circa 1870) but the exact date of original construction is uncertain.

Examination revealed climbing roses - probably multiflora - of great vigor trained on the lattice work and intertwined with the individual lathing strips. Although the pergola is in good condition, the roses threaten its future. Heavy rose canes lace in and out of the lathing. As they grow, they will rip the wood strips apart.

Recommendations:

Remove all roses trained on the pergola. Even if they are carefully tied to the exterior of the structure, the woody, thorny branches make maintenance and painting of the pergola difficult. A far better choice would be to plant Clematis varieties. With selection for continuous bloom sequence throughout spring and summer, the pergola would be an effective background for wedding and visitor photographs. Clematis vines are not heavy or woody and can be easily removed or cut down for maintenance.

Further research is necessary to determine when the pergola was built and by whom. We know it existed during the Jones family residence as did the basic garden plan, which still exists today. If both the pergola and garden plan can be traced to the Rotch residence, other Rotch garden features, such as a presumed orchard and kitchen garden, can be pinpointed.

6.14 Evaluation of and Recommendations for the Main Garden Paths

These form the main axis of the garden and divide the landscape into rectangular spaces. Early circa 1870 photographs show that they were gravel. There is no evidence that brick edging was used. The gravel surface was roughly level with all adjacent lawn, flowerbed and parterre areas. Use of some kind of edging material is suggested by well-defined path edges. Steel or iron strips may have been used, although this is not substantiated in the available photographs.

6.14 continued

Recent examination revealed badly deteriorated gravel walkways. The surface was from 8" - 10" below adjacent lawns and beds. Suspected drainage problems were confirmed by Committee members. With little gravel remaining as a pathway surface, runoff from higher areas creates large puddles. Bricks, used to edge the paths, were not anchored in the soil, but lay diagonally on end, pressed into the lawn. These are very easy to dislodge and pose a pedestrian hazard. As a result, gravel walkways divide the garden instead of connecting and unifying it. Paths are visual and functional valleys cut into lawns and beds. Their brick borders are perilous and discourage walking on the lawn. In heavy rains, they are impassable.

Recommendations:

If the House and grounds are to be used for formal and informal gatherings, such as parties, concerts and tours, pedestrian flow must be better accommodated. Remove all brick edging. In its present state it is not suitable for public area use. Resurface, where necessary, and gravel all paths to bring surface level with adjacent beds and lawns. Install an alternative edging material. Marrow steel strips are preferred although relatively costly. They were in use during the late 1800's and are still useful and used in the public landscape. Their biggest advantage is low maintenance. There is virtually no frost heaving of this material and it takes extreme abuse without damage.

6.15 Summary of Future Hatch-Jones-Duff Garden Needs

1. Complete a soil report.
2. Obtain a detailed site survey including mapping of major woody plants.
3. Identify existing plants and acquire records of plant data.
4. Develop a site plan which integrates Museum and Garden Club of Buzzards Bay lands.
5. Site development may include the following areas which do not now exist:
 - a) Heirloom fruit orchard
 - b) Heirloom vegetable garden and/or kitchen garden
 - c) Wildflower walk
 - d) Formal perennial garden
6. An analysis of site maintenance requirements will generate:
 - a) Maintenance recommendations and specifications
 - b) Funding suggestions for this maintenance
 - c) Evaluation procedures to review garden condition and maintenance
7. Further research into the history of the site is needed. This would include limited archeology and search for additional available documentation.

6.15 continued

8. Collect garden tools and artifacts for display. These can be those actually used in the Museum garden or in use from 1834-1935.

6.16 Summary of Evaluation Goals

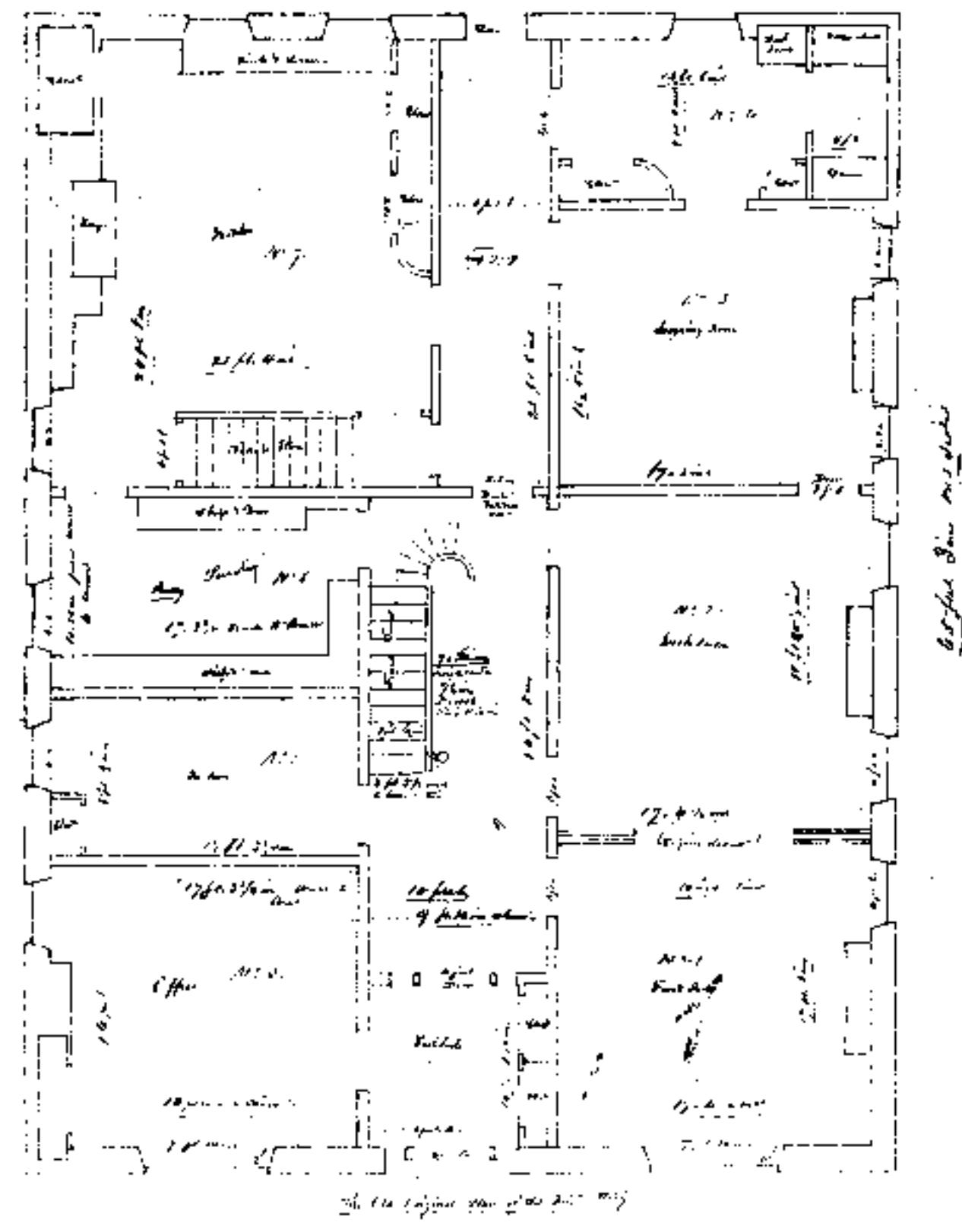
This report and my lecture on 19th century gardening in America (delivered on May 17, 1985) should act as a catalyst for future development of the Rotch-Jones-Duff Garden. It is not often that the unique opportunity of developing both house and garden as complimentary parts of a museum presents itself - by virtue of happy circumstance and museum goals.

More specifically, it is hoped that my participation in the process of discovery will:

1. Encourage the participation and cooperation of both the Rotch-Jones-Duff House and Garden Museum and the Garden Club of Buzzards Bay in the garden's design.
2. Help identify and protect current elements of the landscape.
3. Help identify and restore historic elements no longer in evidence.
4. Provide a framework for developing a comprehensive plan for the entire property.
5. Provide guidelines for implementation of maintenance procedures.
6. Generate interest among Rotch-Jones-Duff descendants who can provide the garden with vital links to its past.

APPENDIX A: ARCHITECTURAL DRAWINGS.

Plan Original as I. Price off. 1st floor of house as per plan of proposed improvements
purchased 1857. 365 feet 10 1/2 inches
Drawing R. C. 1415 as revised in 1857



0 4 8 12 Feet

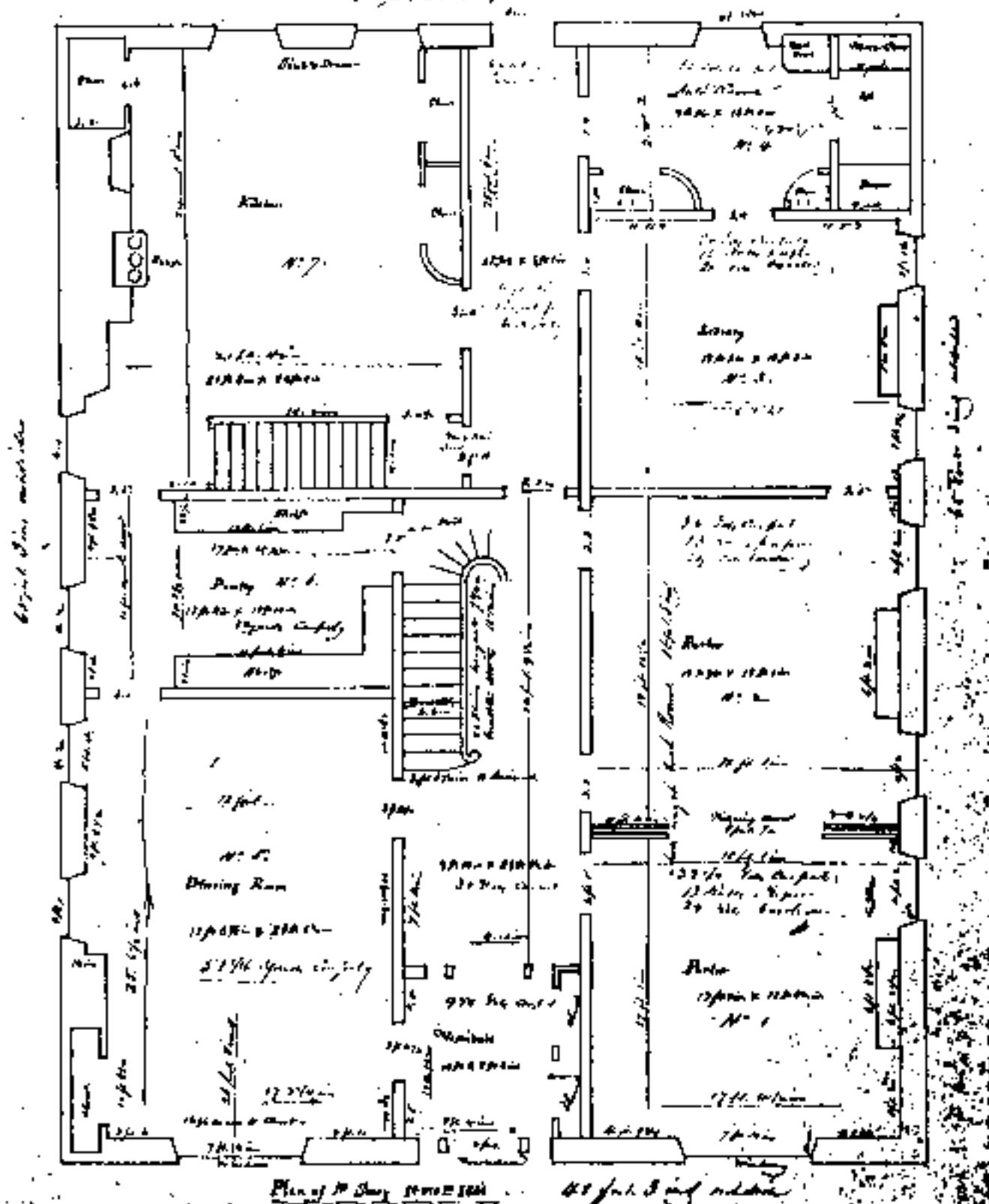
NORTH

PLAN AS PURCHASED 1857
FIRST FLOOR PLAN

1st Plan. Plan of River. Feb'y 1820.

A. M. H. M. M. M.

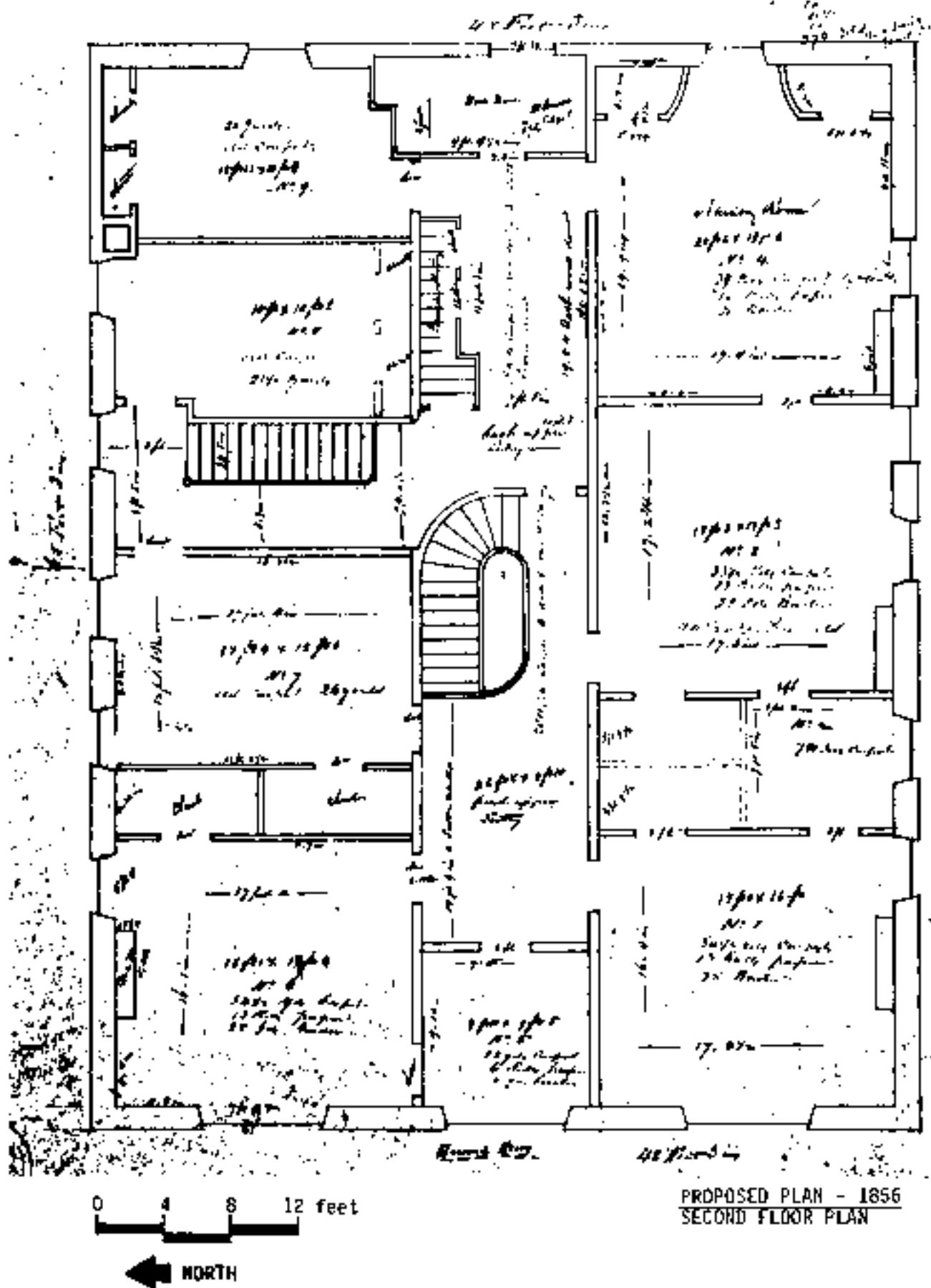
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PROPOSED PLAN - 1856
FIRST FLOOR PLAN

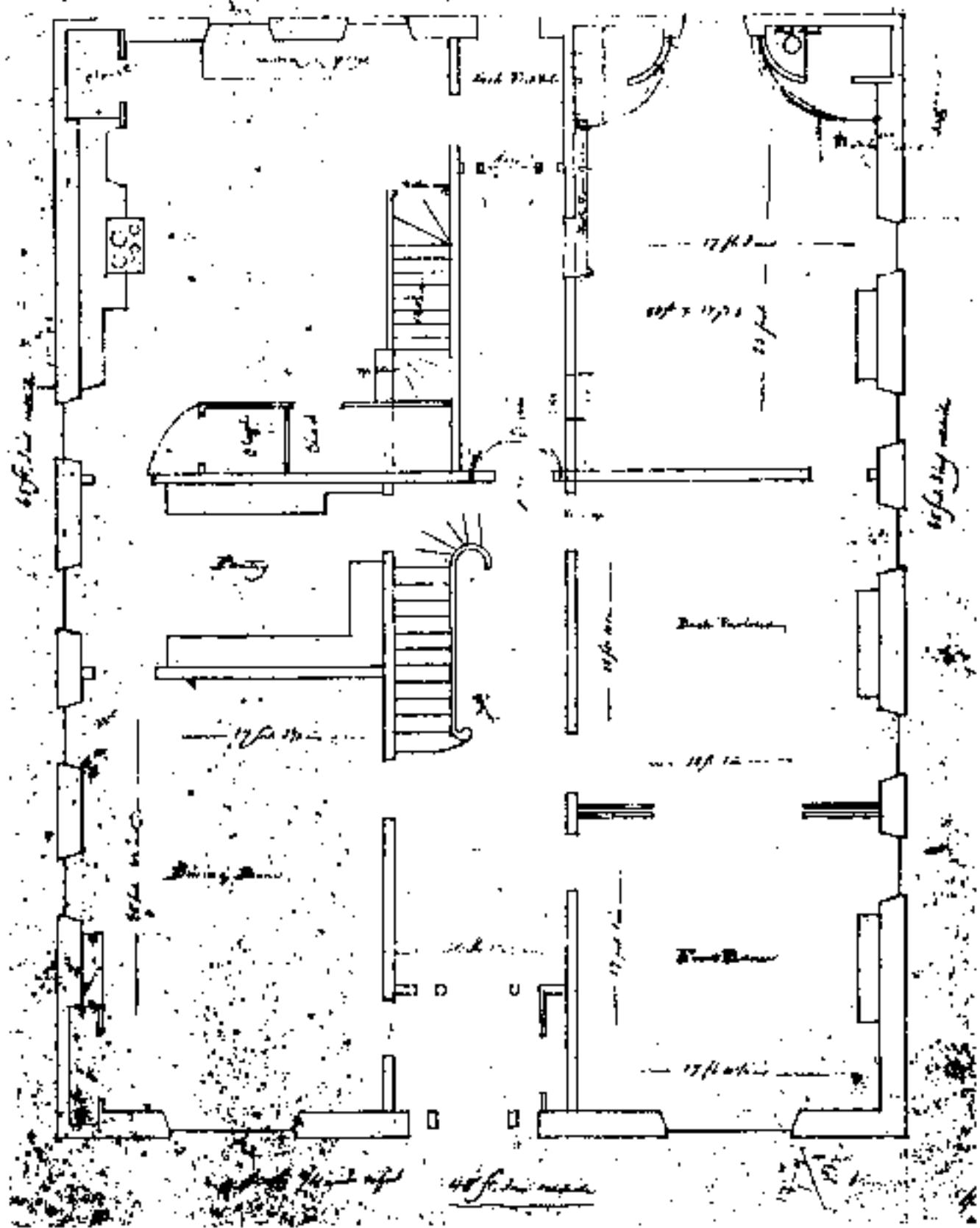
Chamber 2nd floor, Hotel of America, 17th and 18th.

Growth of *Chloromyces* on *Leptothrix*



first floor plan, proposed 2nd-1-1856
N.Y. Plan

45 ft. 6 in. width



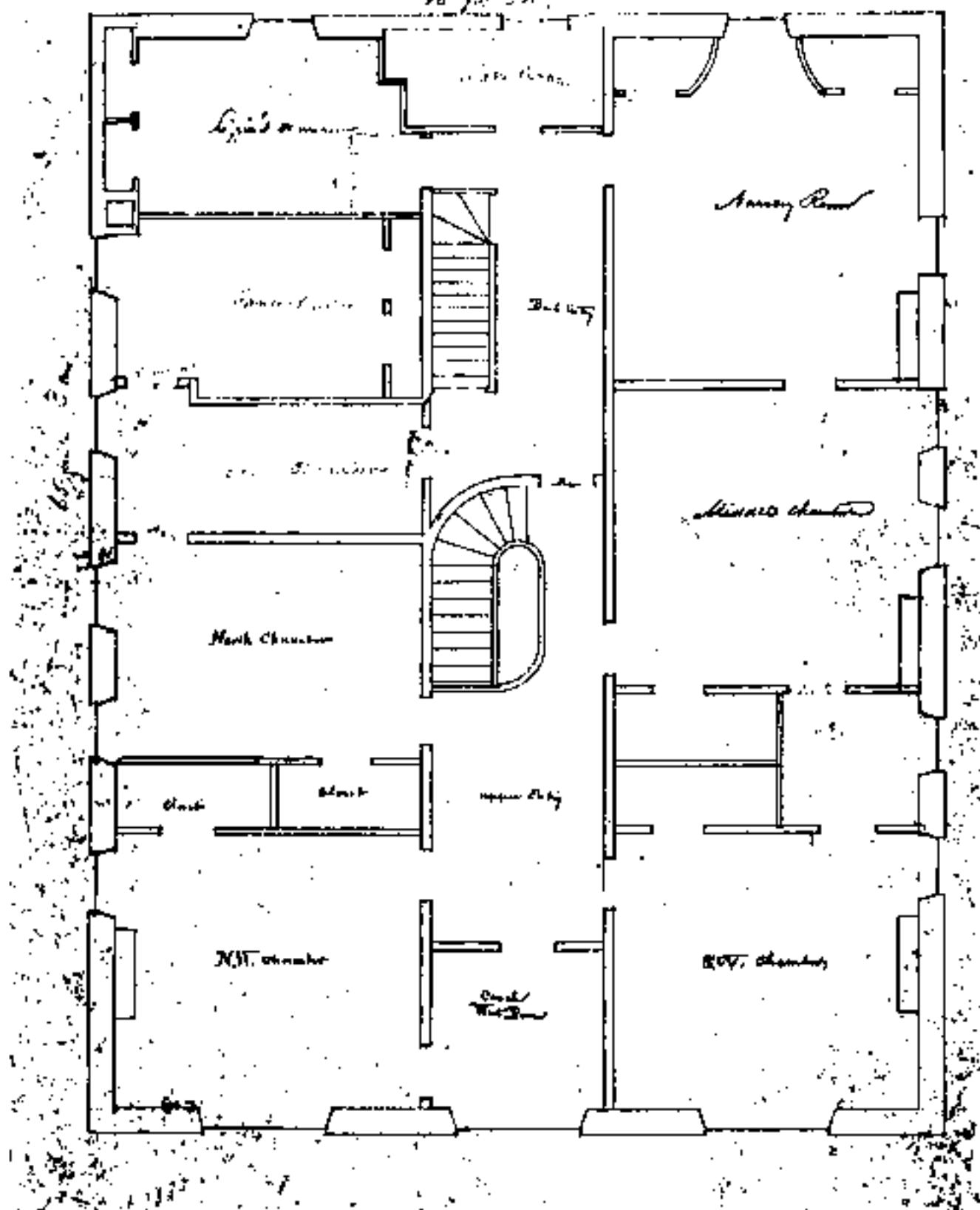
0 4 8 12 feet

NORTH

PROPOSED PLAN - 1856 (NOT BUILT)
FIRST FLOOR PLAN

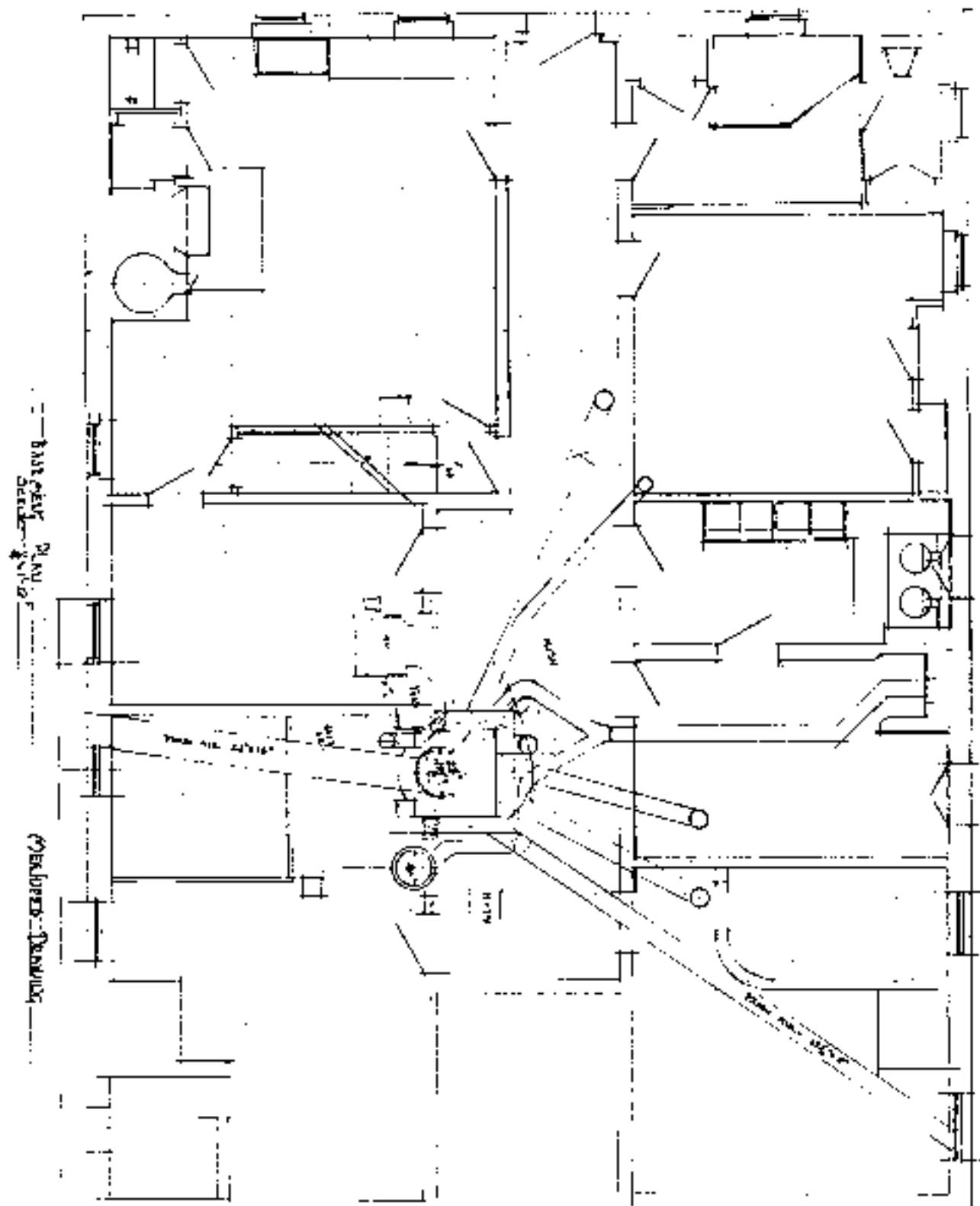
proposed plant B/1000. 20-11-1886. —

400 *W. J. R. Wilson*



A black arrow pointing to the left, indicating the direction of North.

PROPOSED PLAN - 1856 (NOT BUILT)
SECOND FLOOR PLAN

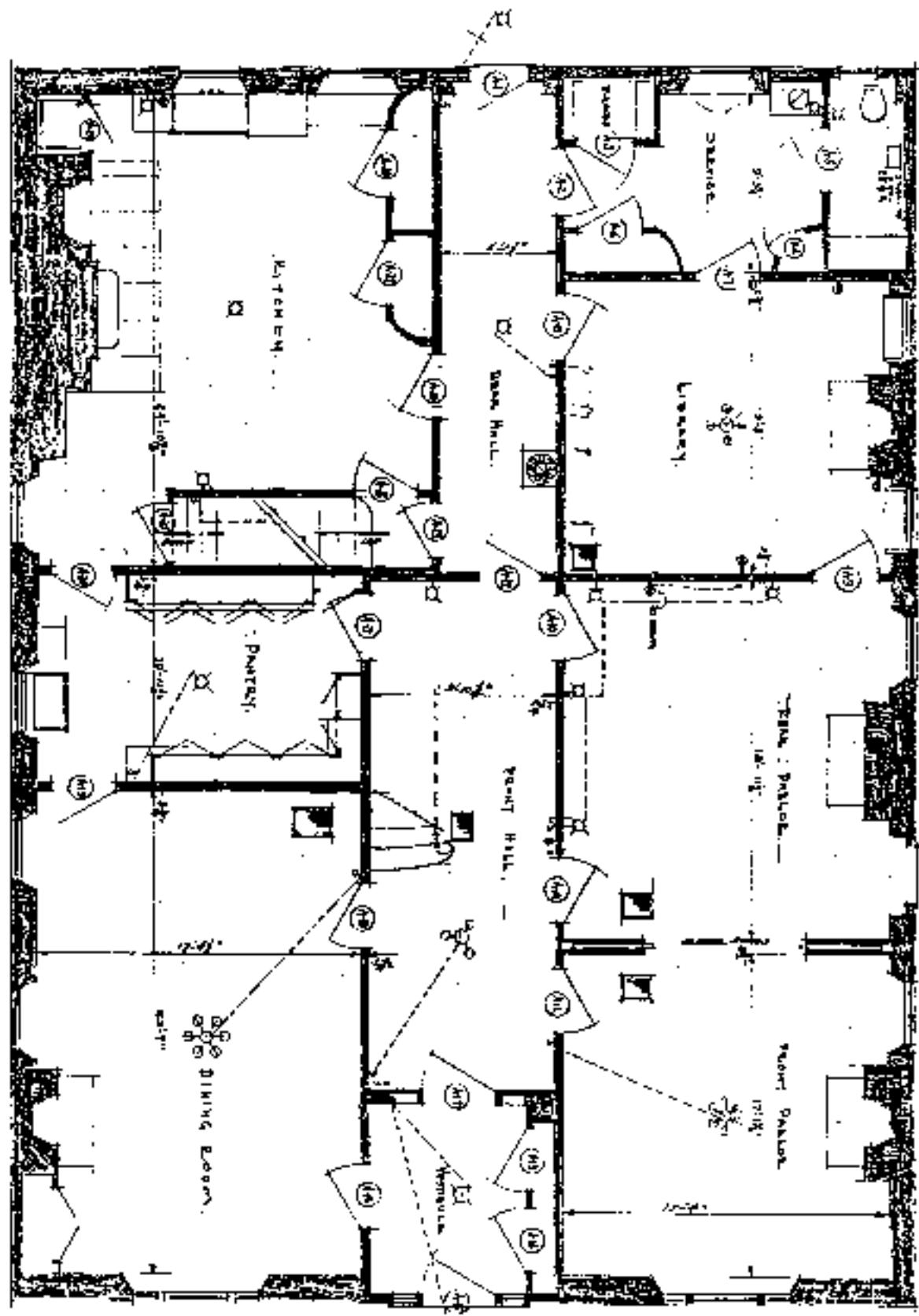


0 4 8 12 feet

 NORTH

TALLMAN MEASURED DRAWING ca. 1935
BASEMENT PLAN

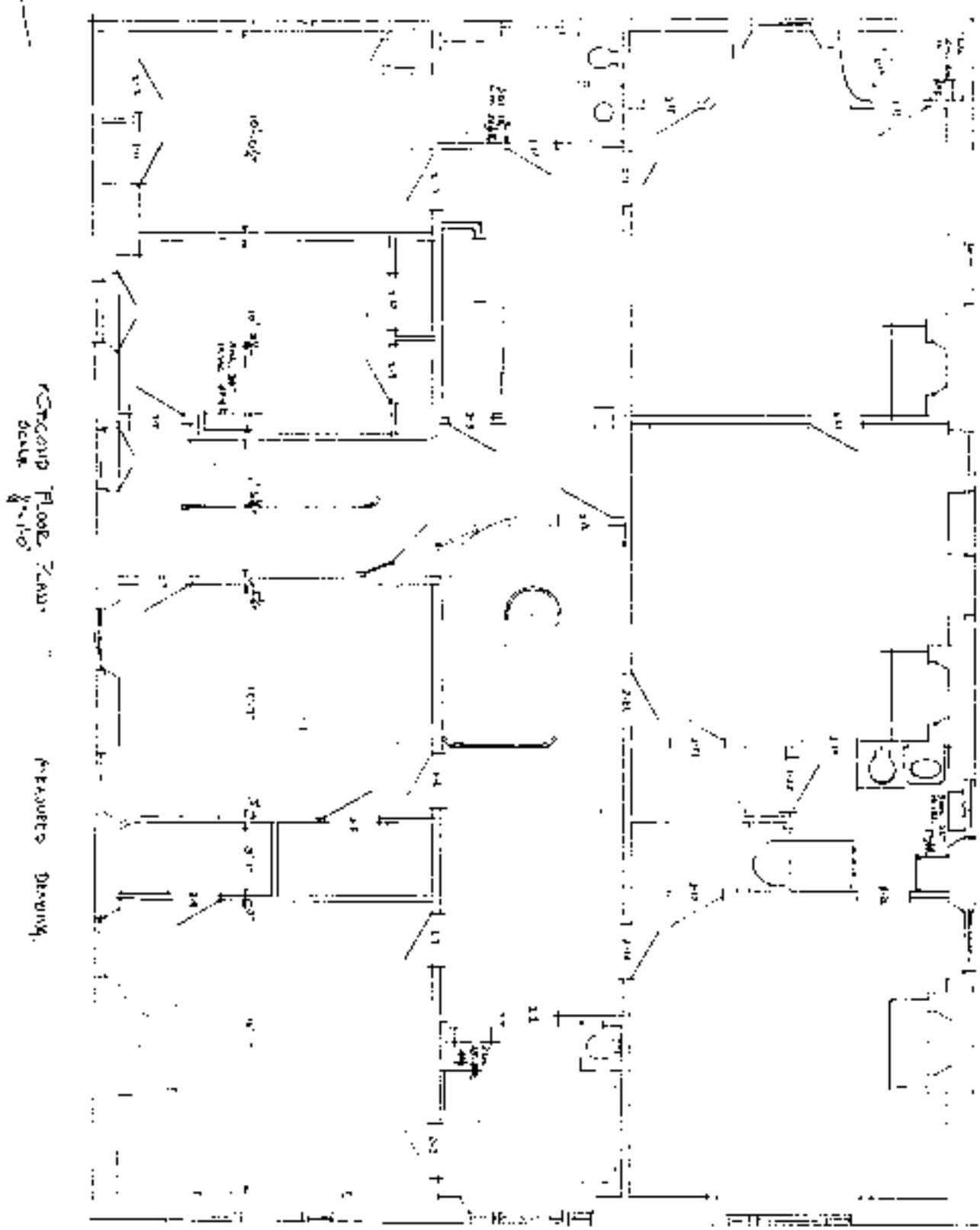
First Floor Plan
Marjorie Brown



0 4 8 12 feet

NORTH

TALLMAN MEASURED DRAWING ca. 1935
FIRST FLOOR PLAN



0 4 8 12 feet

NORTH

TALLMAN MEASURED DRAWING ca. 1935
SECOND FLOOR PLAN

卷之三

PLATEAU

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TALLMAN HEATING LAYOUT - 1935
BASEMENT PLAN

1120

THERMODYNAMICS

where $\tau_{\text{TD}} = \tau_{\text{TD}}(\rho, \alpha, \beta, \gamma)$.

D 4 B 12 feet

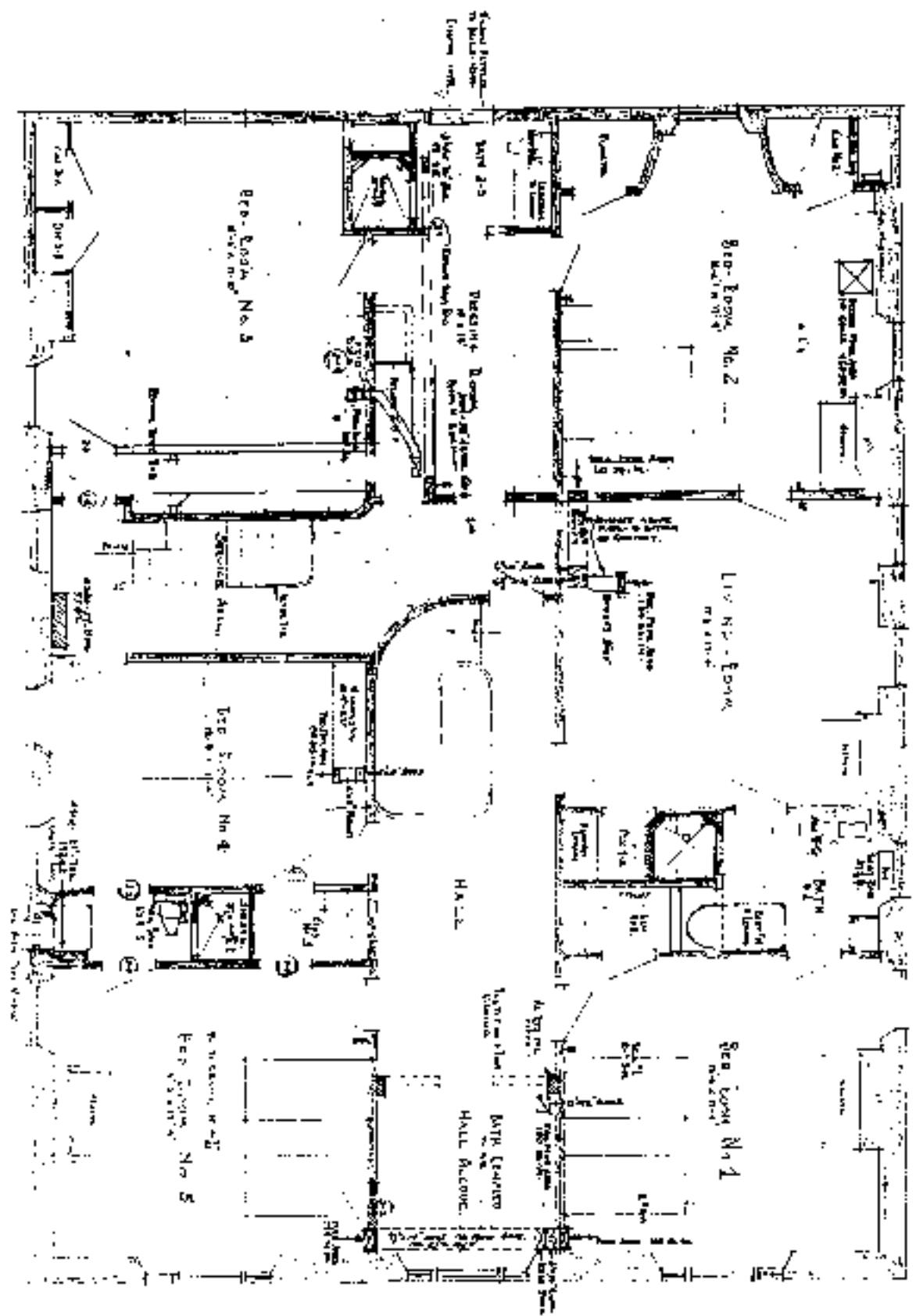
← NORTH

TALLMAN HEATING LAYOUT - 1935
FIRST FLOOR PLAN

Architectural Layout

- 2nd Floor Plan - Tallman - 11-20-35

Exhibit 1, 4, 5, 6



0 4 8 12 feet

← NORTH

TALLMAN HEATING LAYOUT - 1935
SECOND FLOOR PLAN

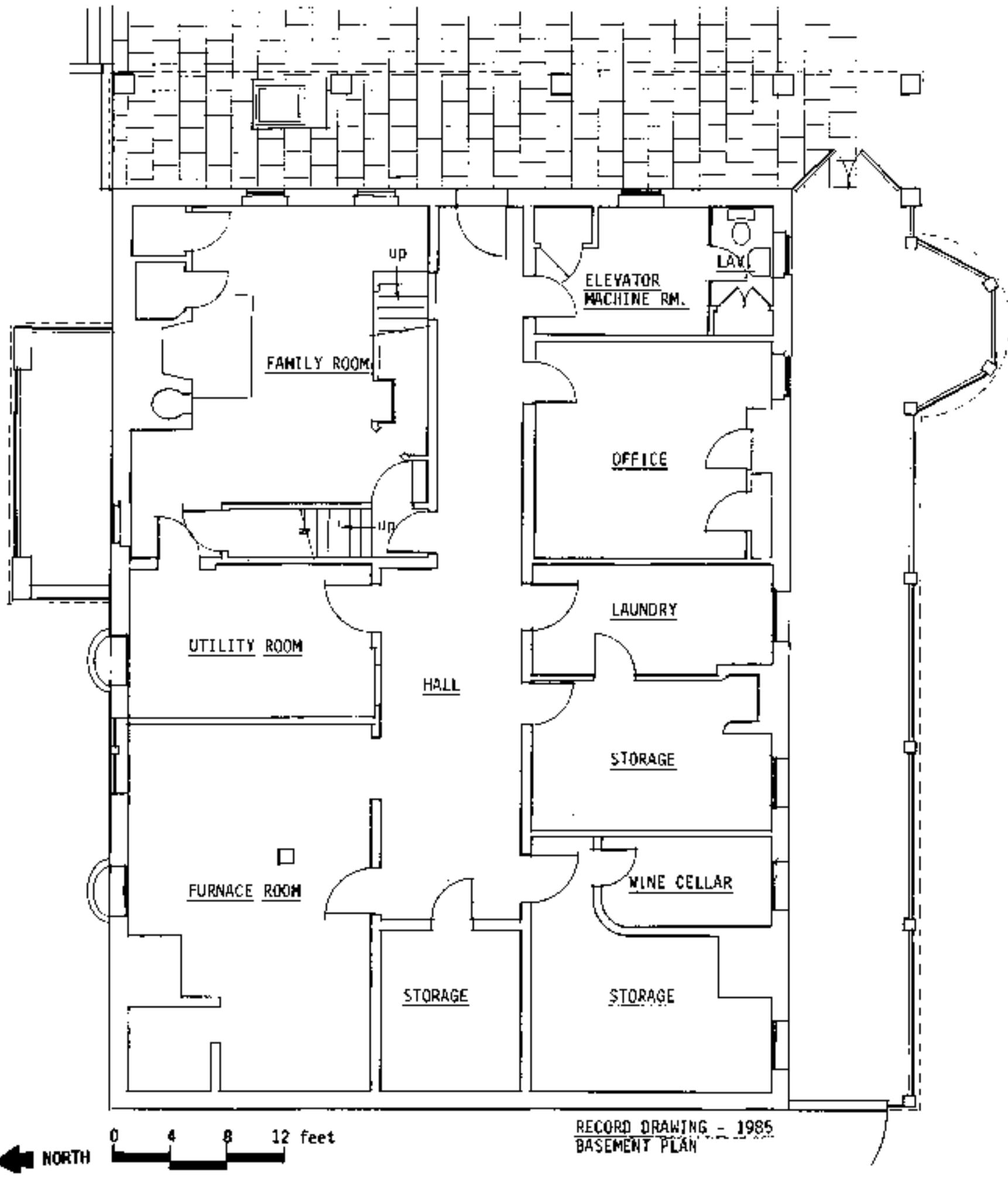
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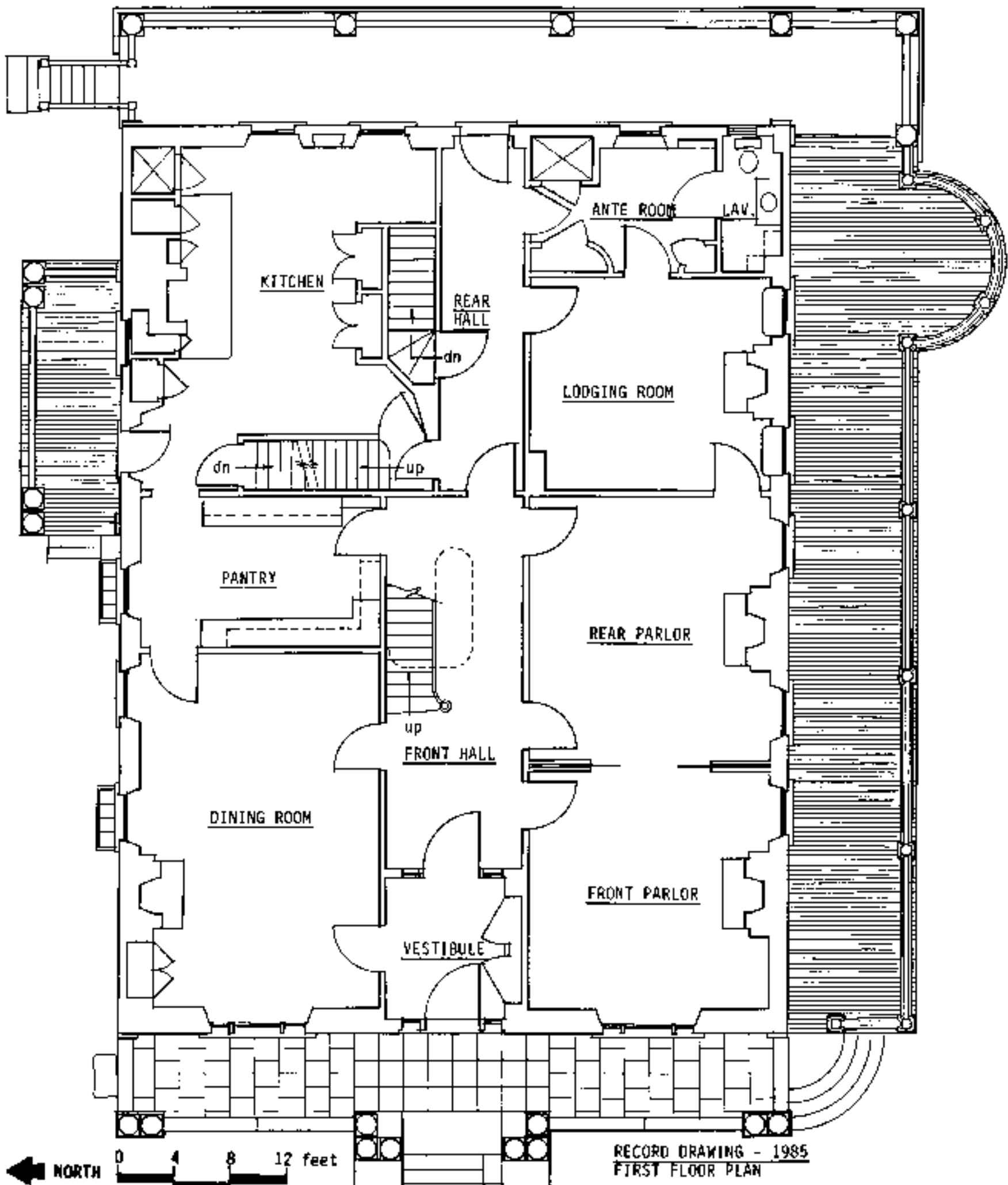
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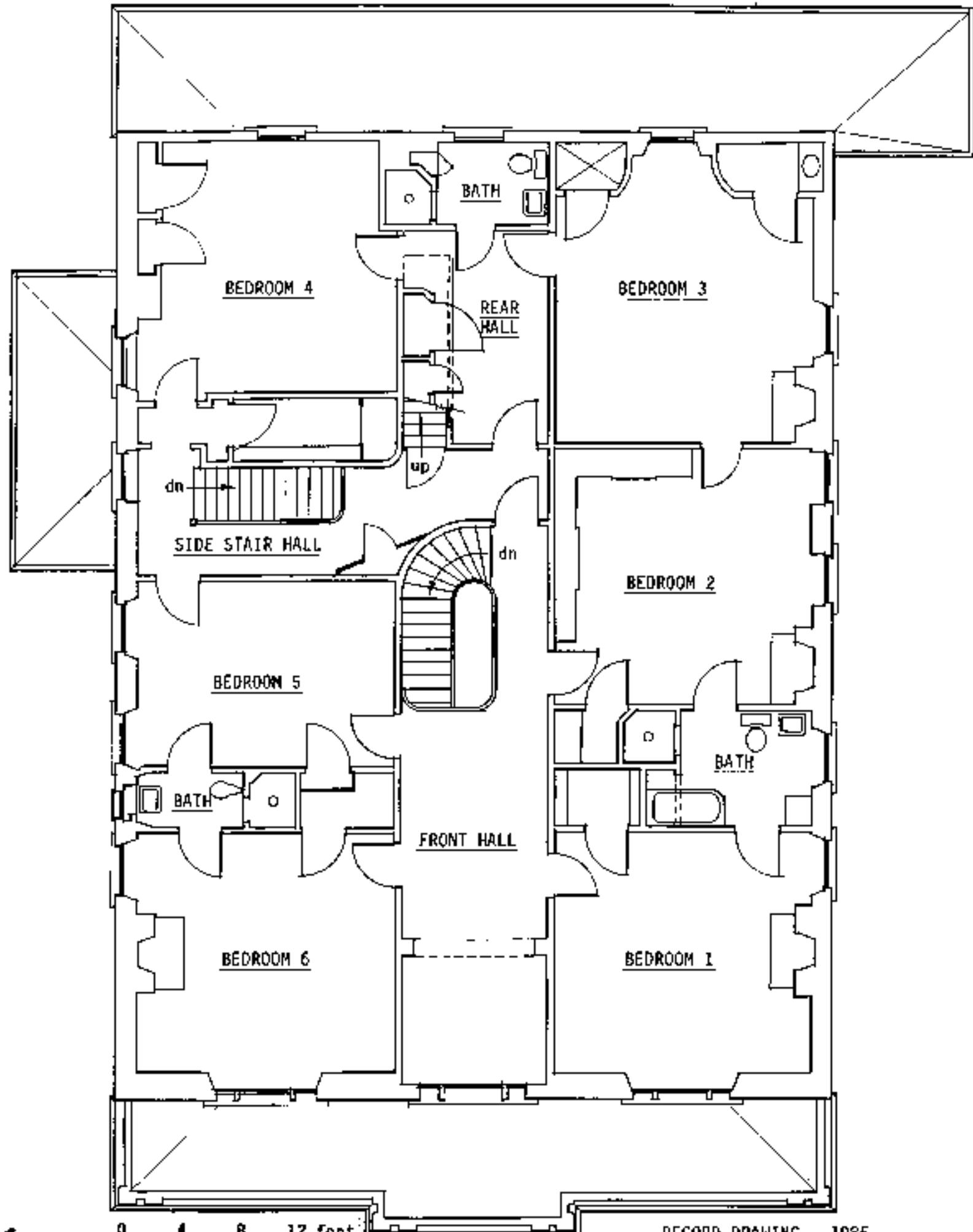
PHILADELPHIA, NOVEMBER 25, 1894.

 NORTH

TALLMAN HEATING LAYOUT - 1935
THIRD FLOOR PLAN



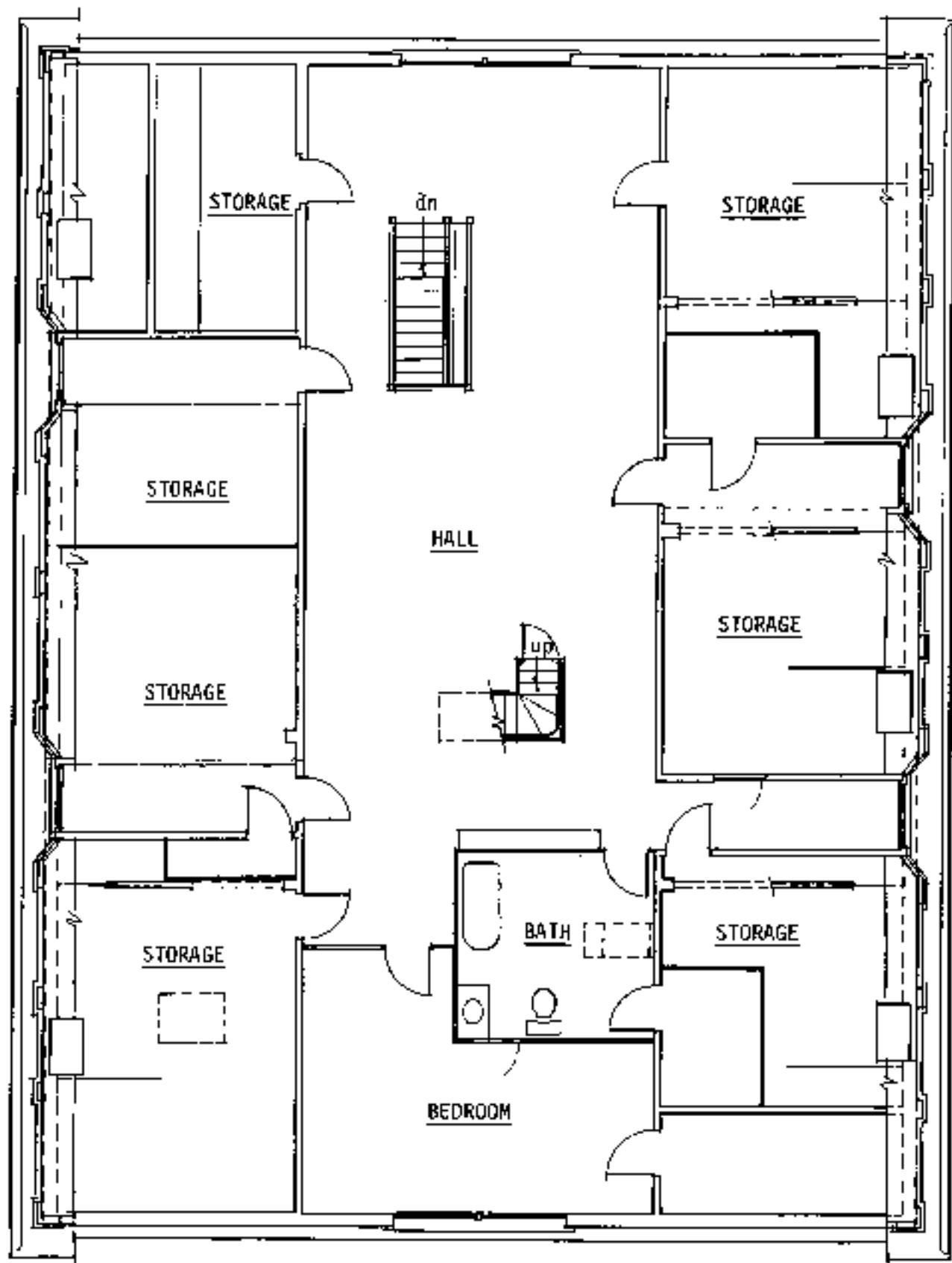




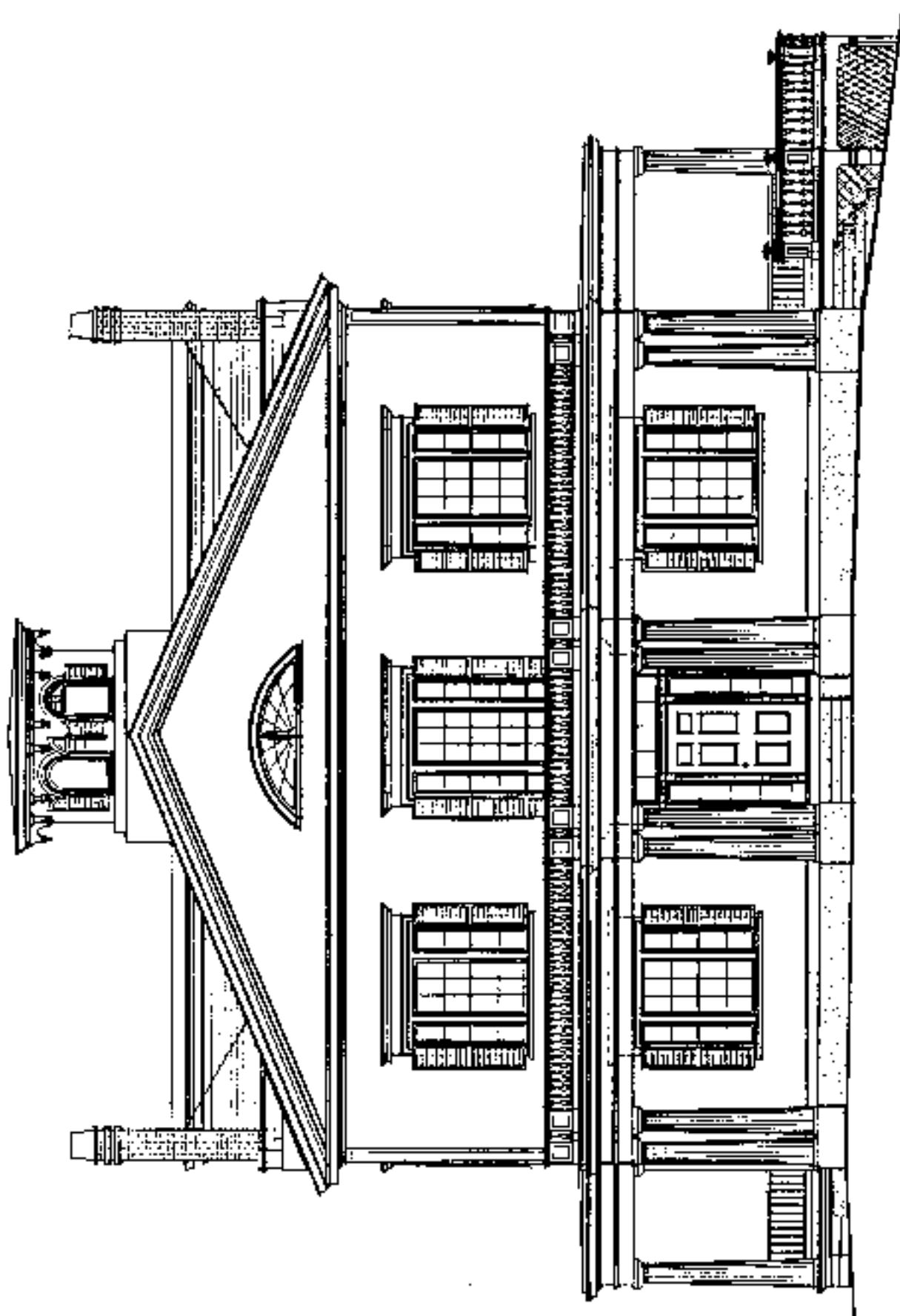
NORTH

0 4 8 12 feet

RECORD DRAWING - 1985
SECOND FLOOR PLAN

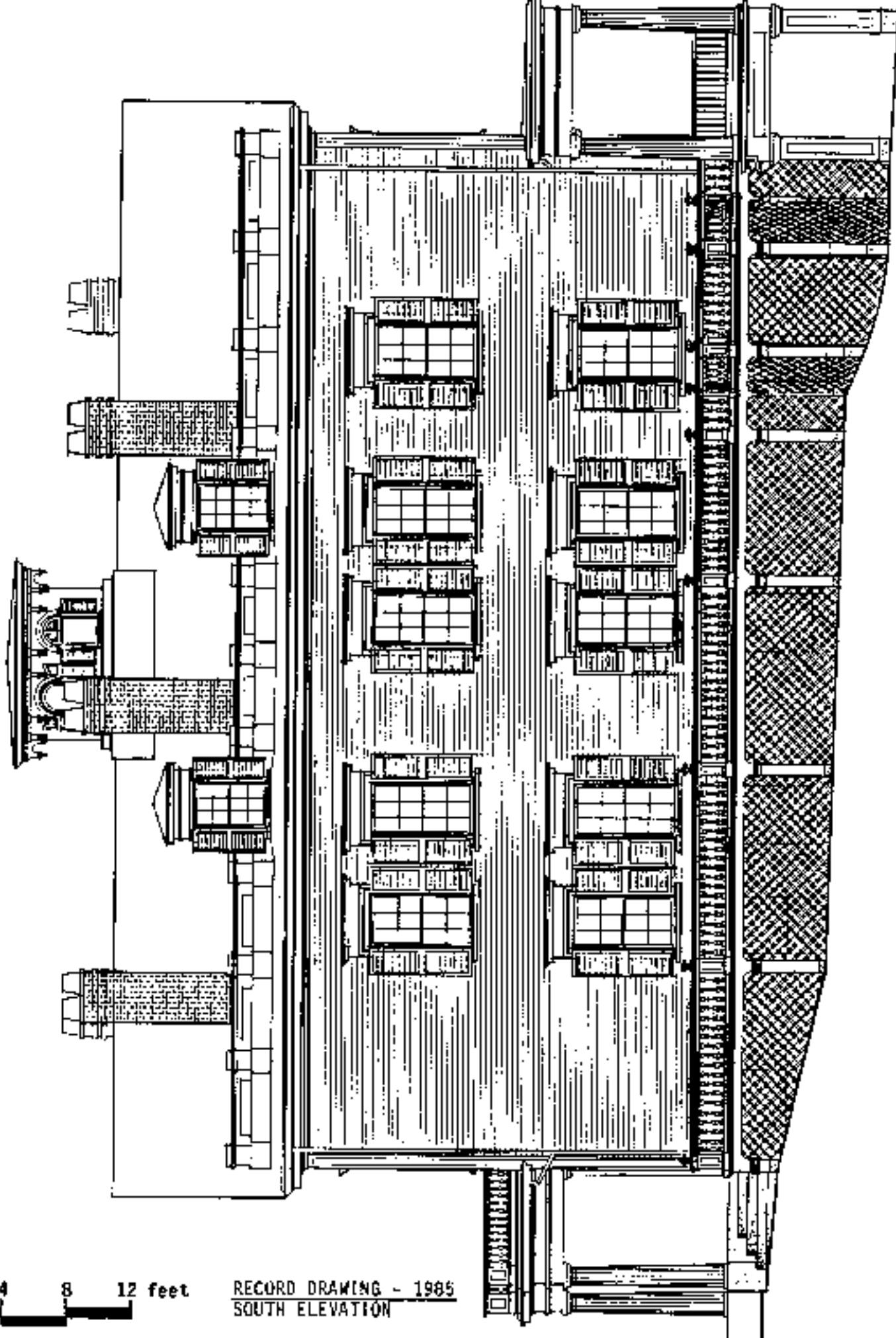


RECORD DRAWING - 1985
THIRD FLOOR PLAN



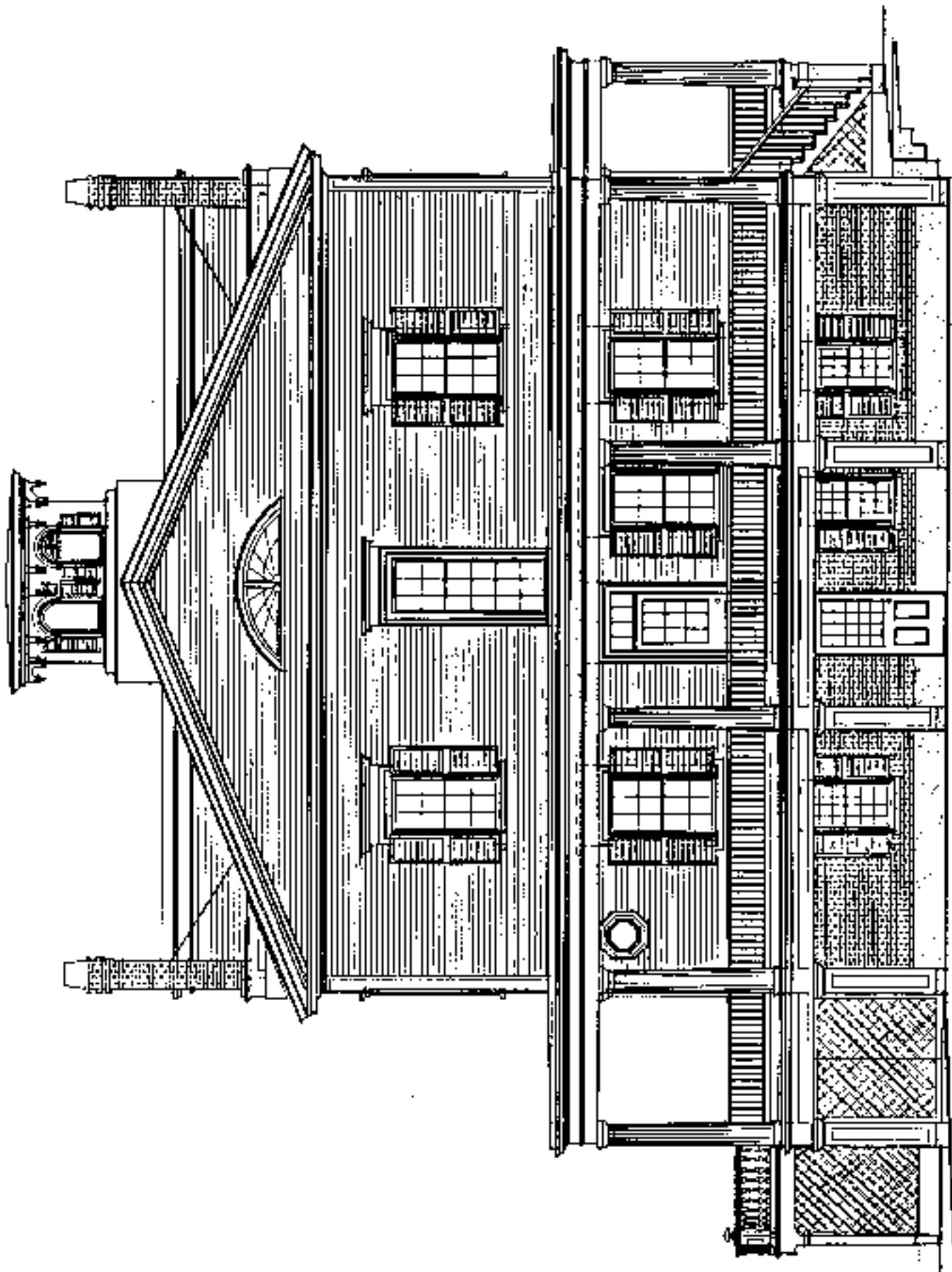
0 4 8 12 feet

RECORD DRAWING - 1985
WEST ELEVATION



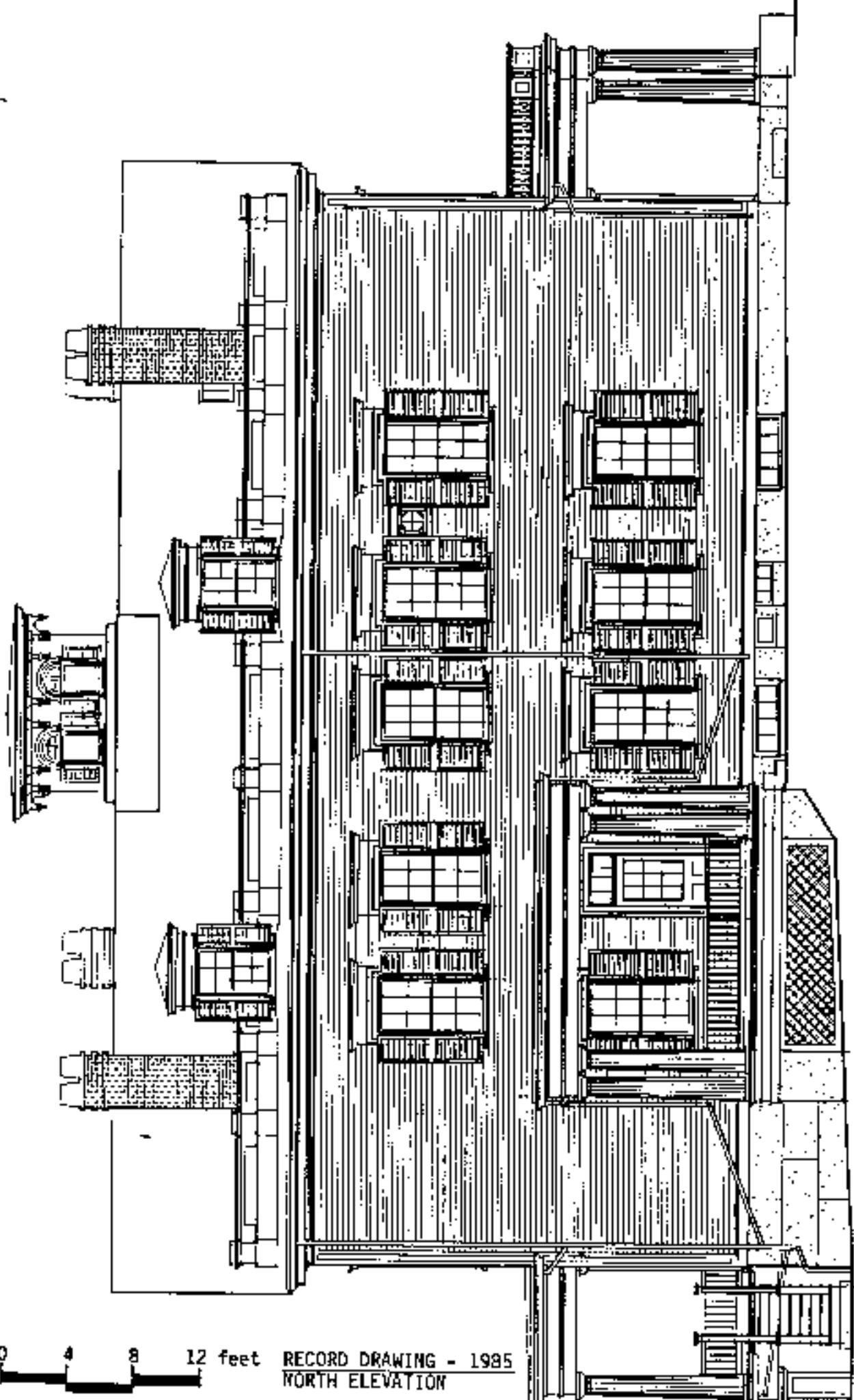
0 4 8 12 feet

RECORD DRAWING - 1985
SOUTH ELEVATION



0 4 8 12 feet

RECORD DRAWING - 1985
EAST ELEVATION



0 4 8 12 feet RECORD DRAWING - 1985
NORTH ELEVATION



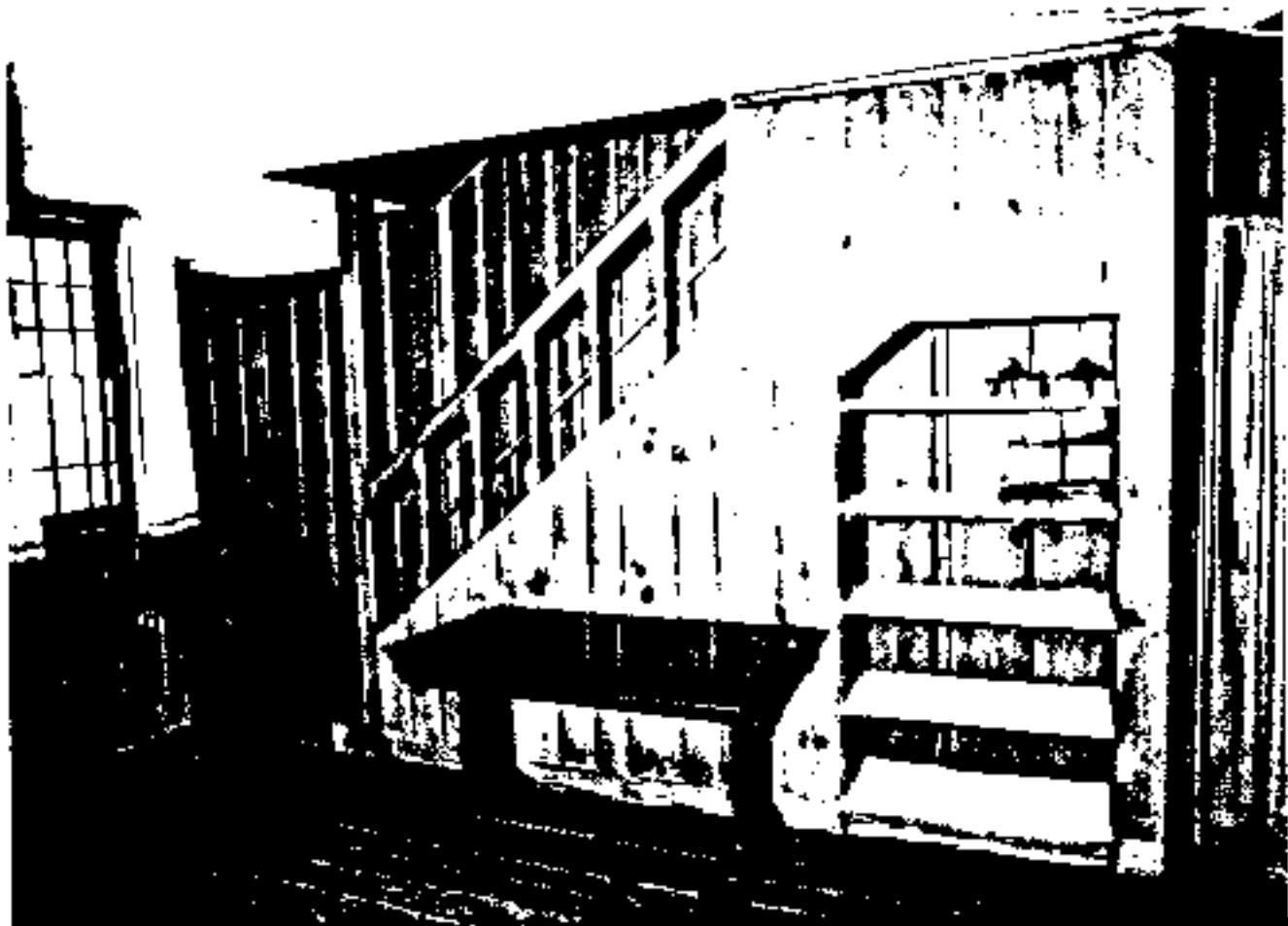
 NORTH

PROPOSED LANDSCAPE PLAN - 1937

APPENDIX B: RECORD PHOTOGRAPHS - 1985



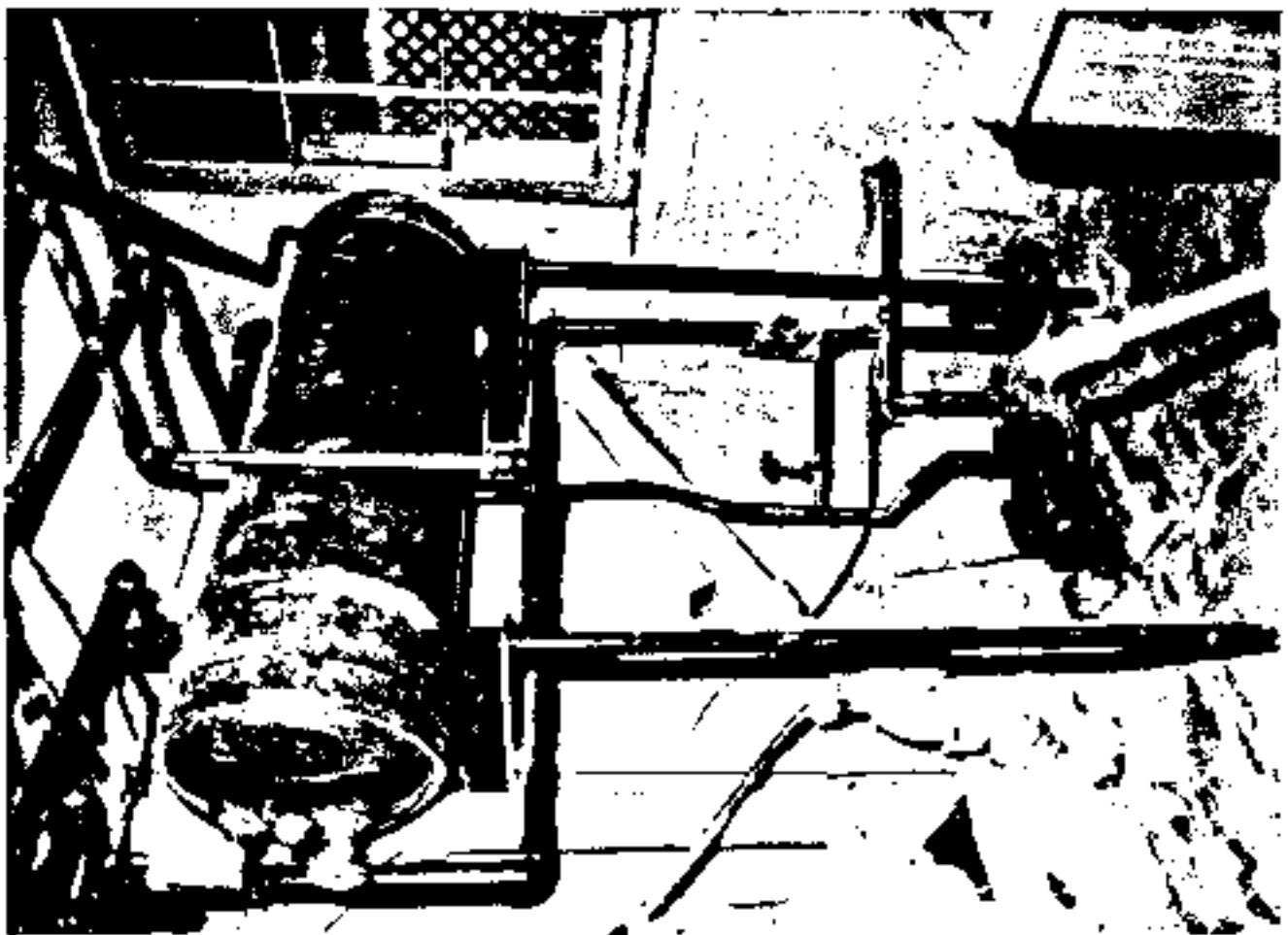
Basement Above: Family Room, north wall.
Below: Family Room, south wall.

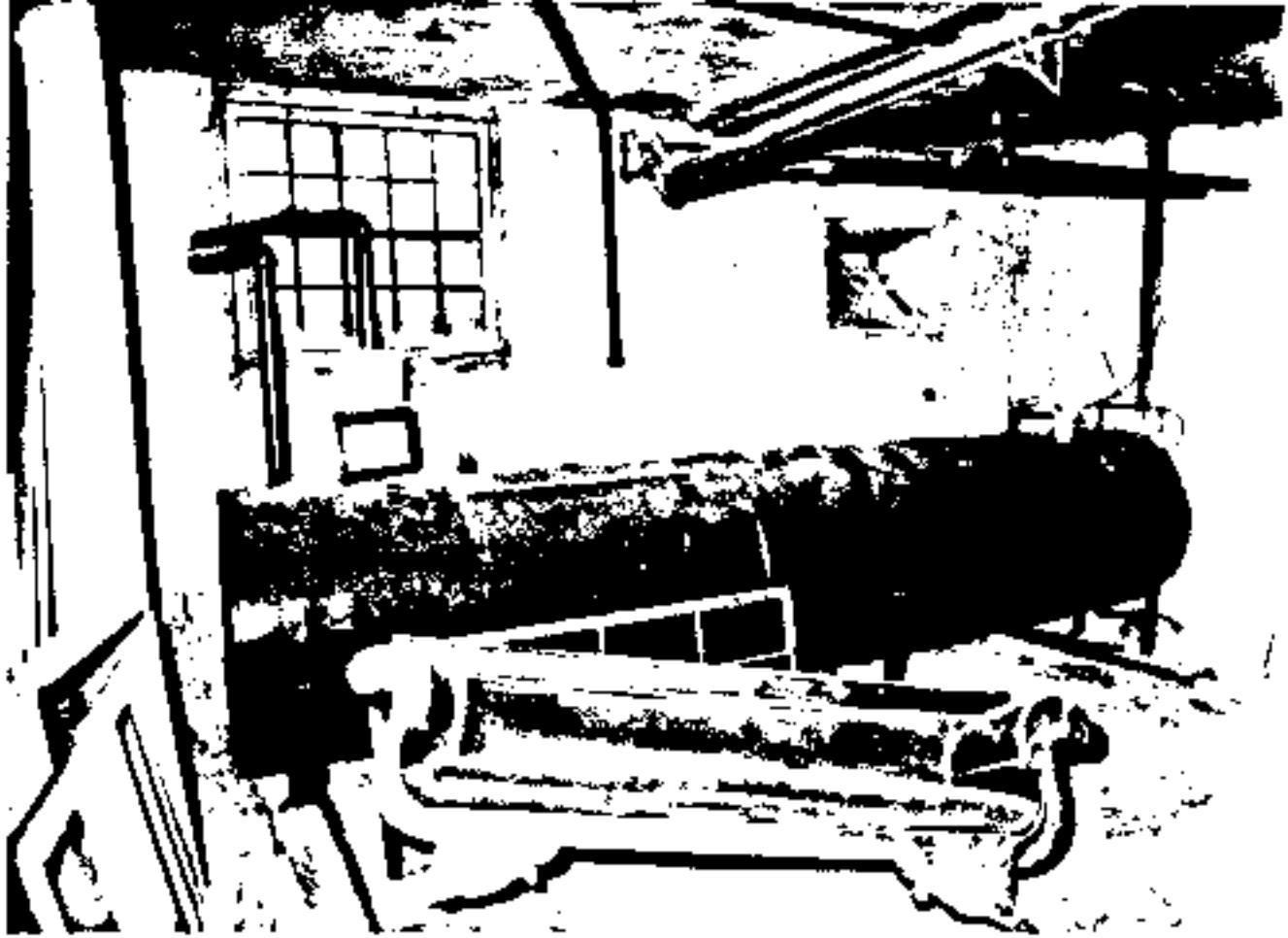




Basement Above: Furnace Room.
Below: Laundry, hot water holding tank.

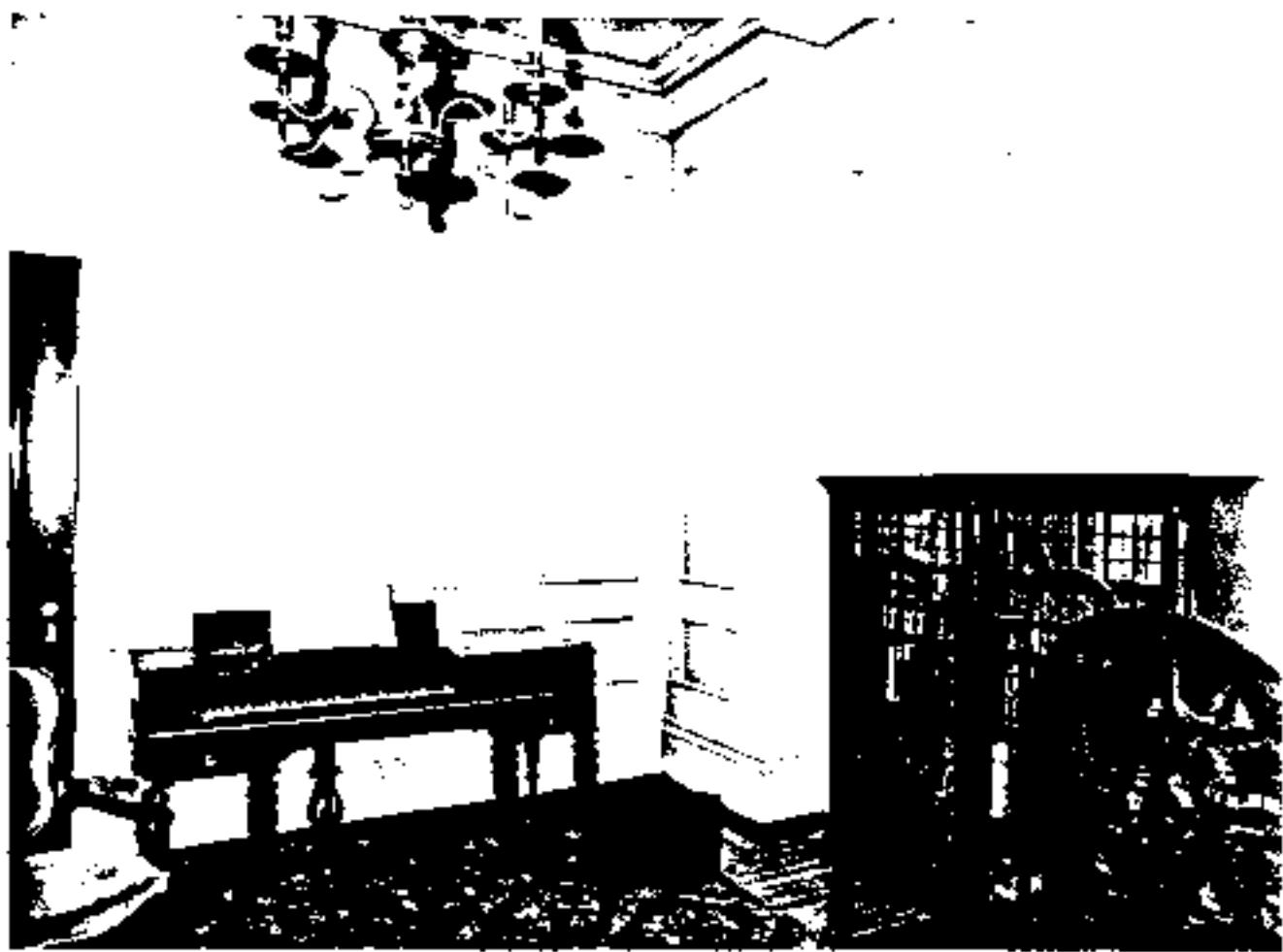
TOP





Basement Above: Furnace Room, oil tank.
Below: Utility Room.



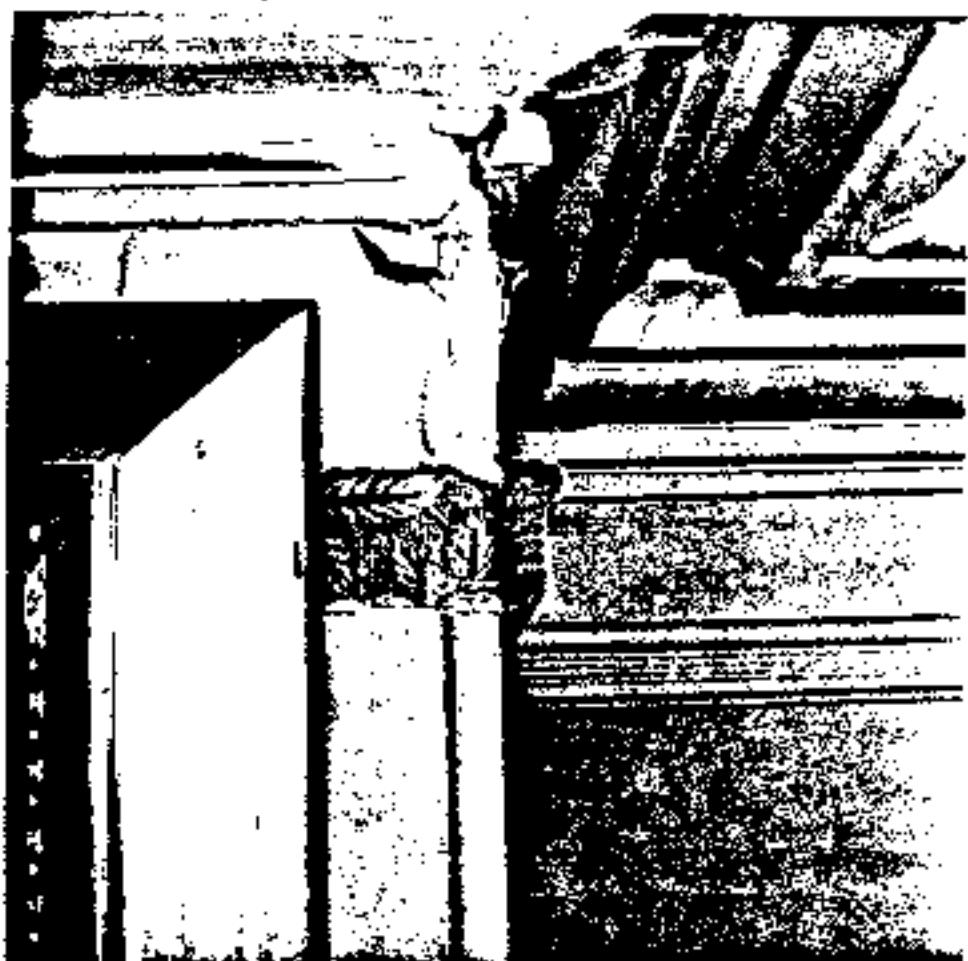


First Floor Above: Lodging Room, west wall.
Below: Rear Parlor, south wall.



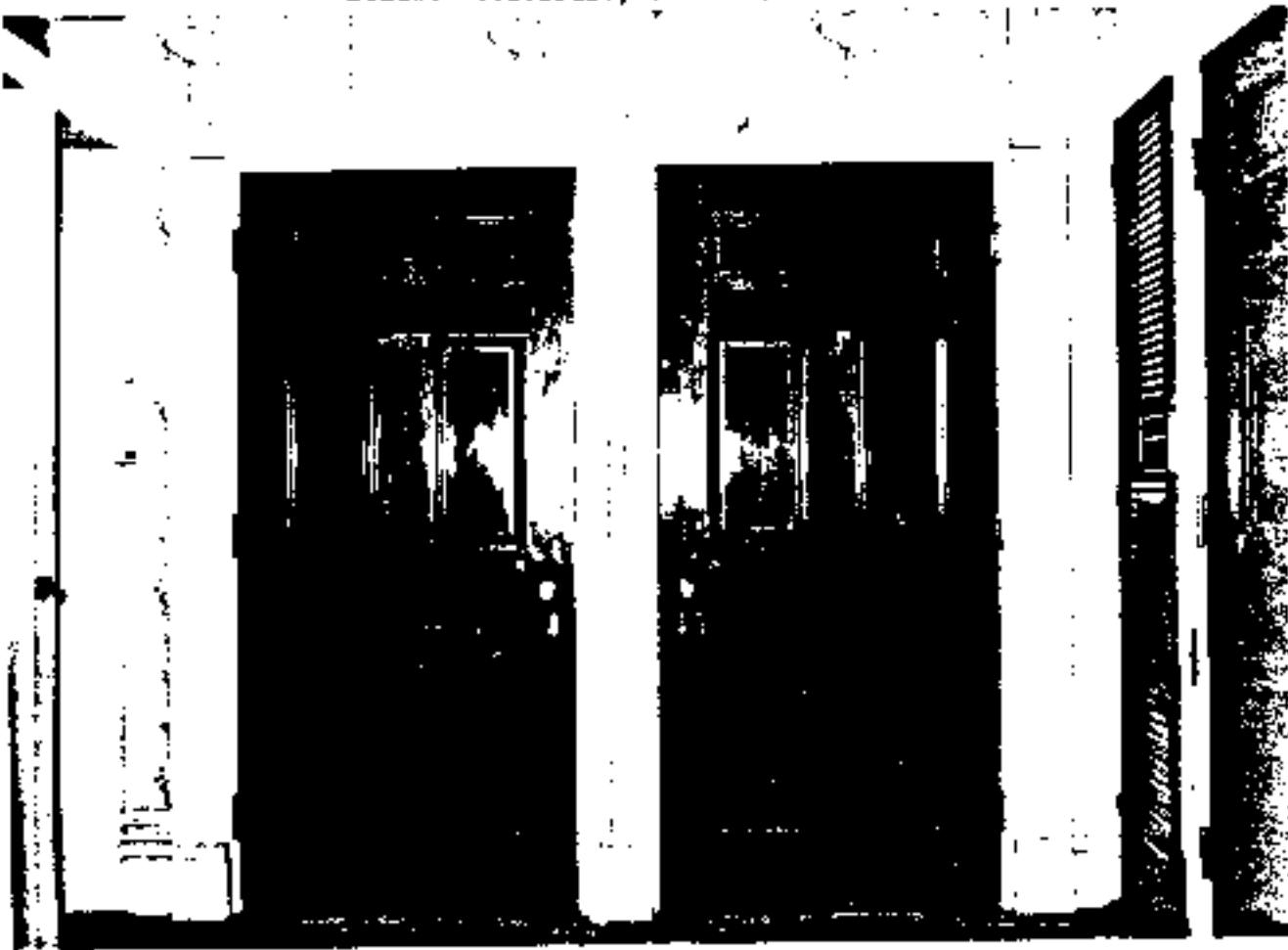


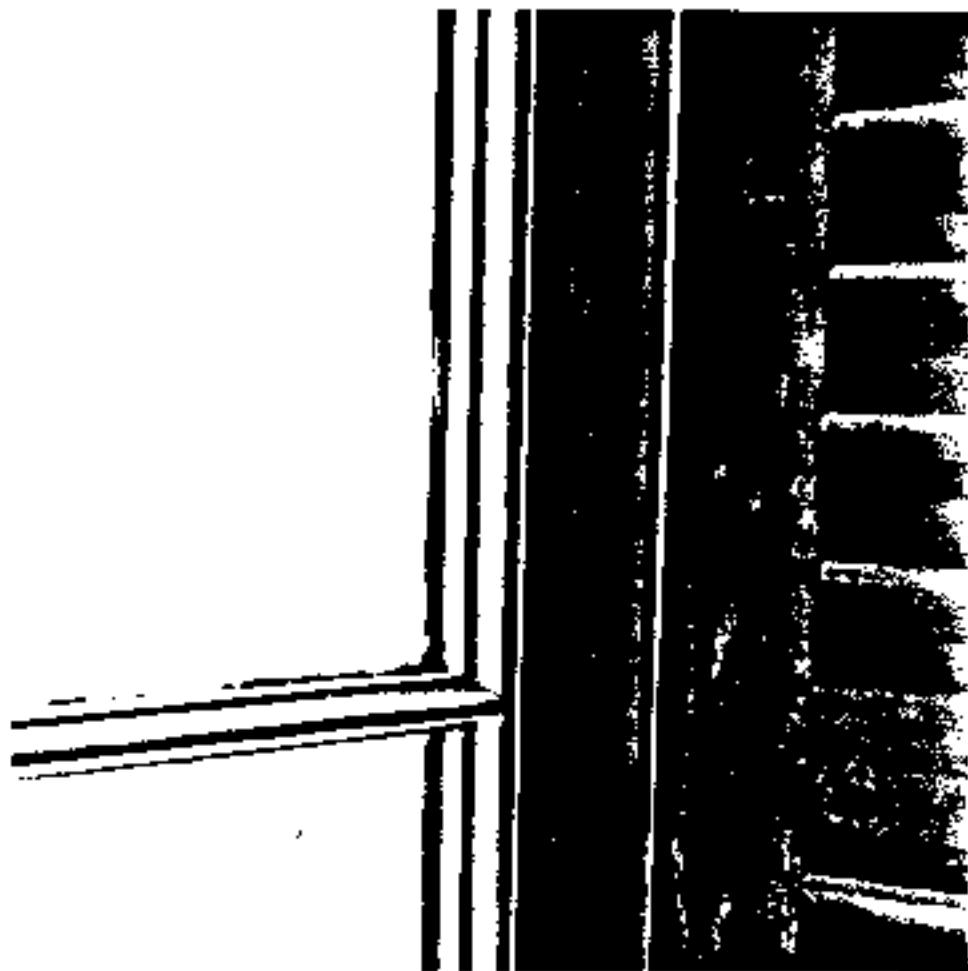
First Floor Above: Front Parlor, south wall.
Below: Front Parlor, cornice detail.





First Floor Above: Vestibule.
Below: Vestibule, closets.





First Floor Above: Vestibule, muntin detail.
Below: Vestibule, front door.

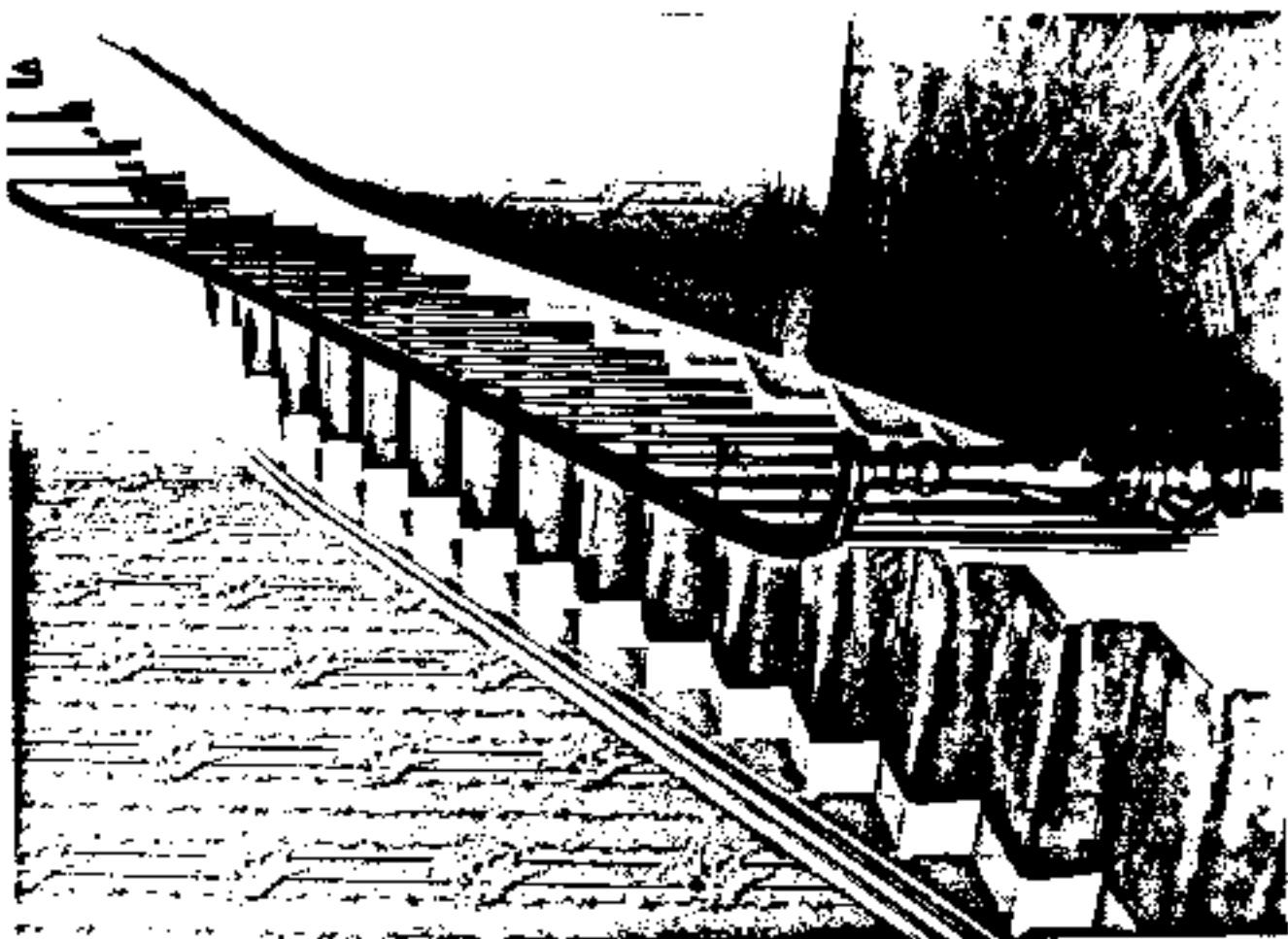


Top



First Floor Above: Front Hall, pantry door.
Below: Front Hall, staircase.

Top



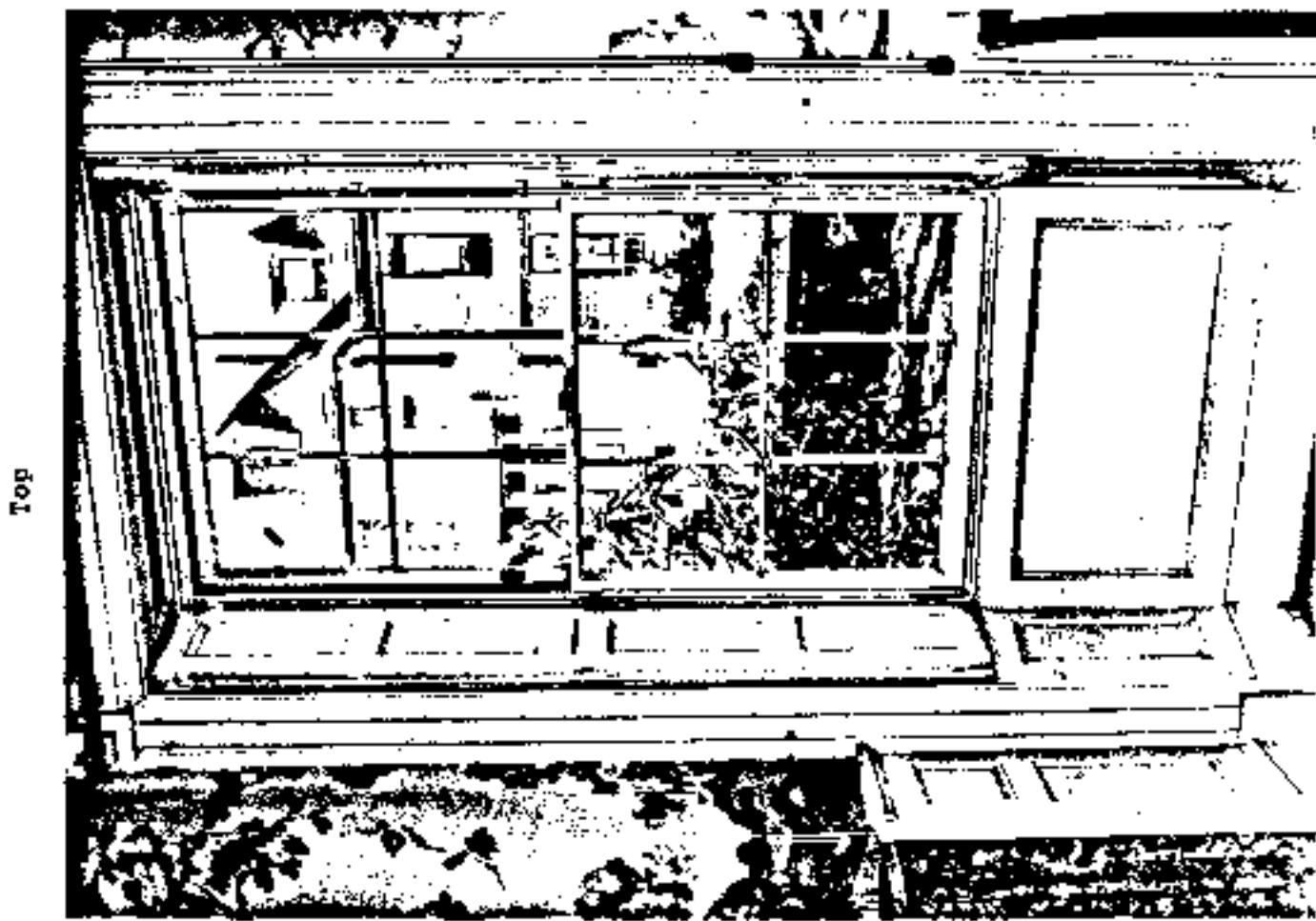


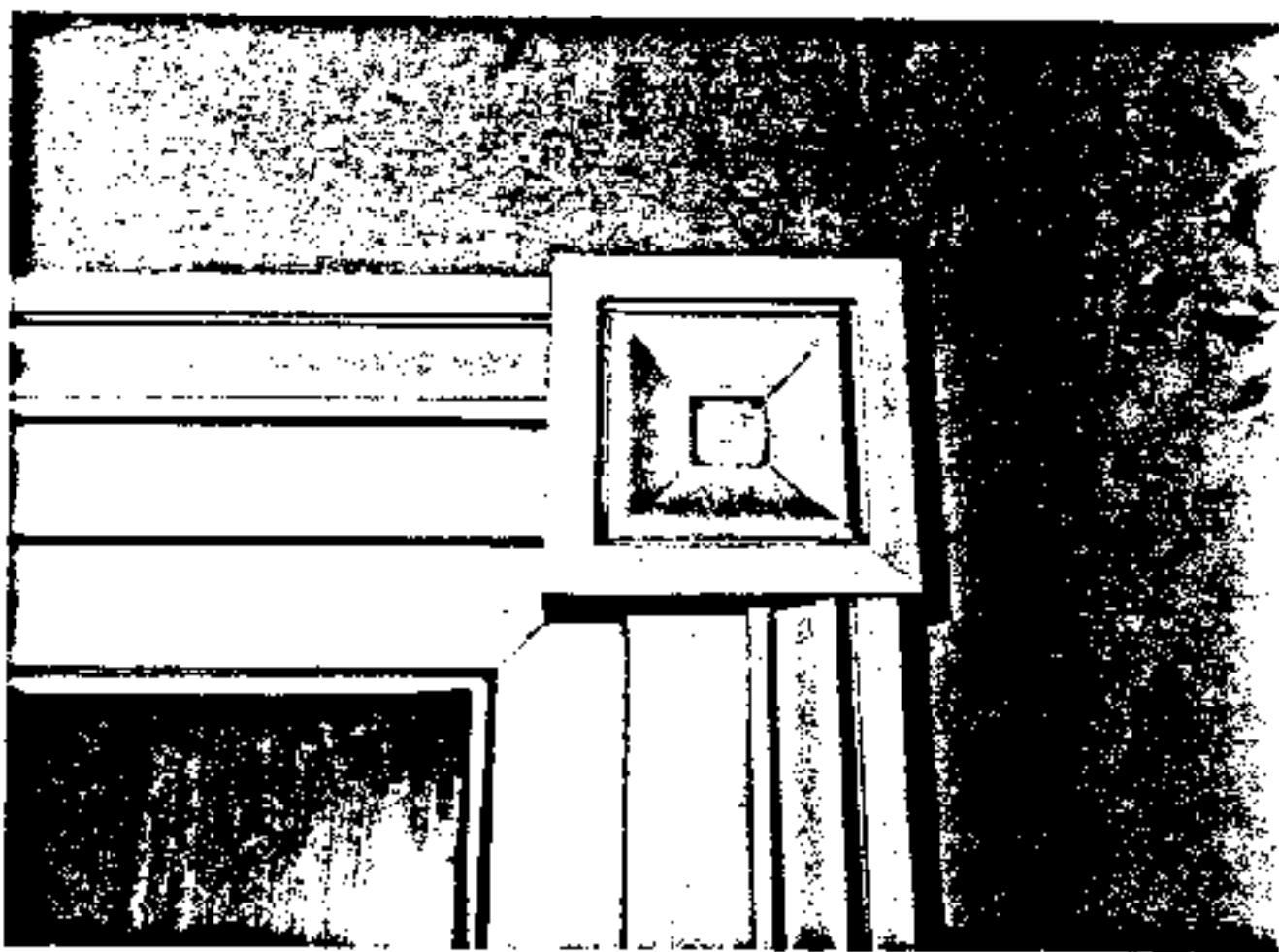
First Floor Above: Front Hall.
Below: Dining Room.





First Floor Above: Dining Room, west front window.
Below: Dining Room, north window.

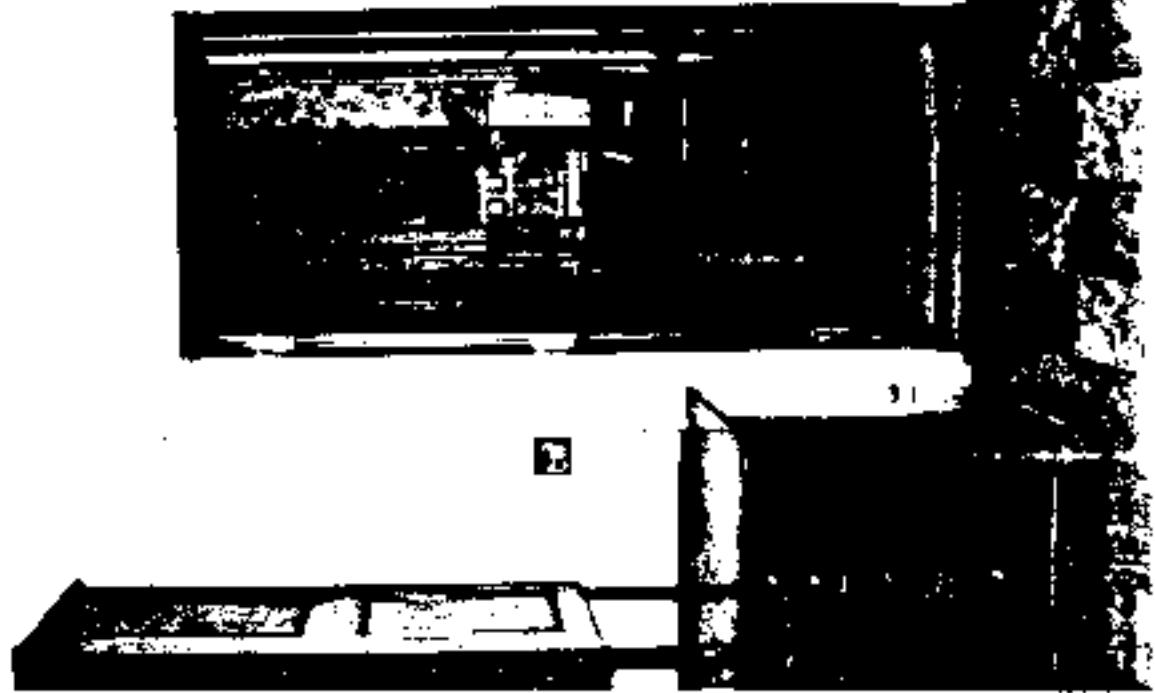




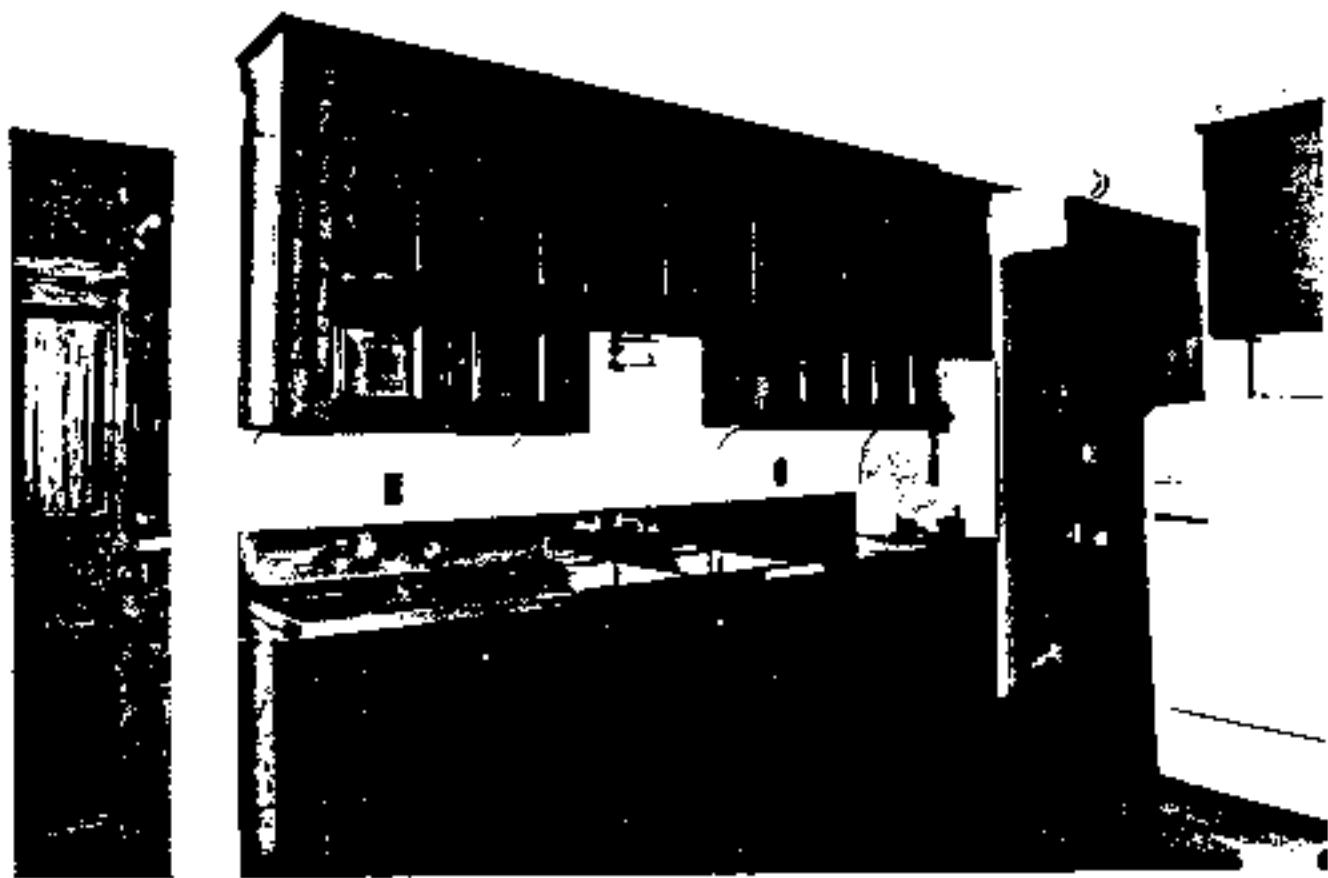
First Floor Above: Dining Room, door moulding detail.
Below: Dining Room, wainscot.



Top

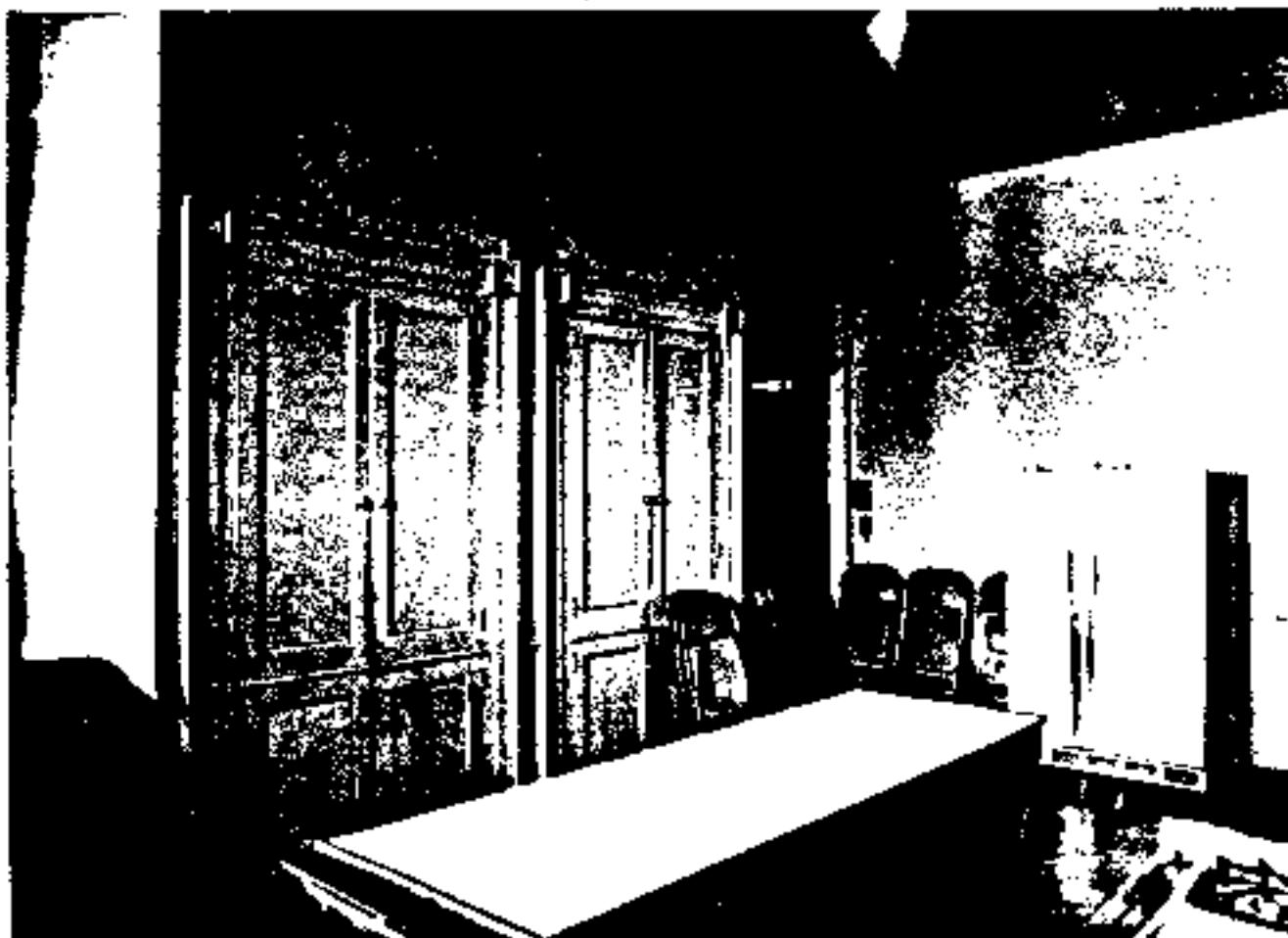


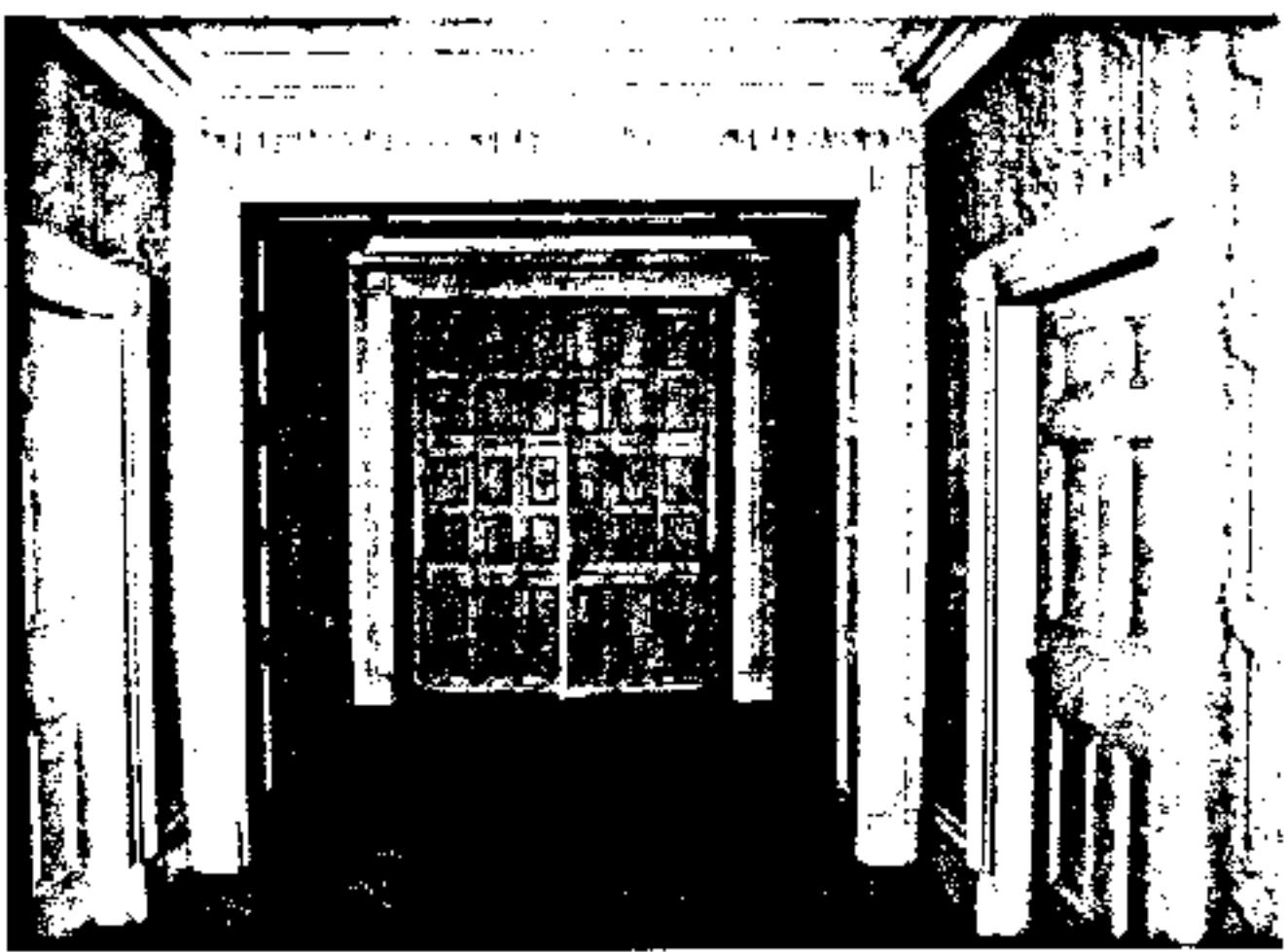
First Floor Above: Pantry, door to dining room.
Below: Pantry, east wall.





First Floor Above: Kitchen, north wall.
Below: Kitchen, south wall.





Second Floor Above: Front Hall, vestibule.
Below: Front Hall, center west window.





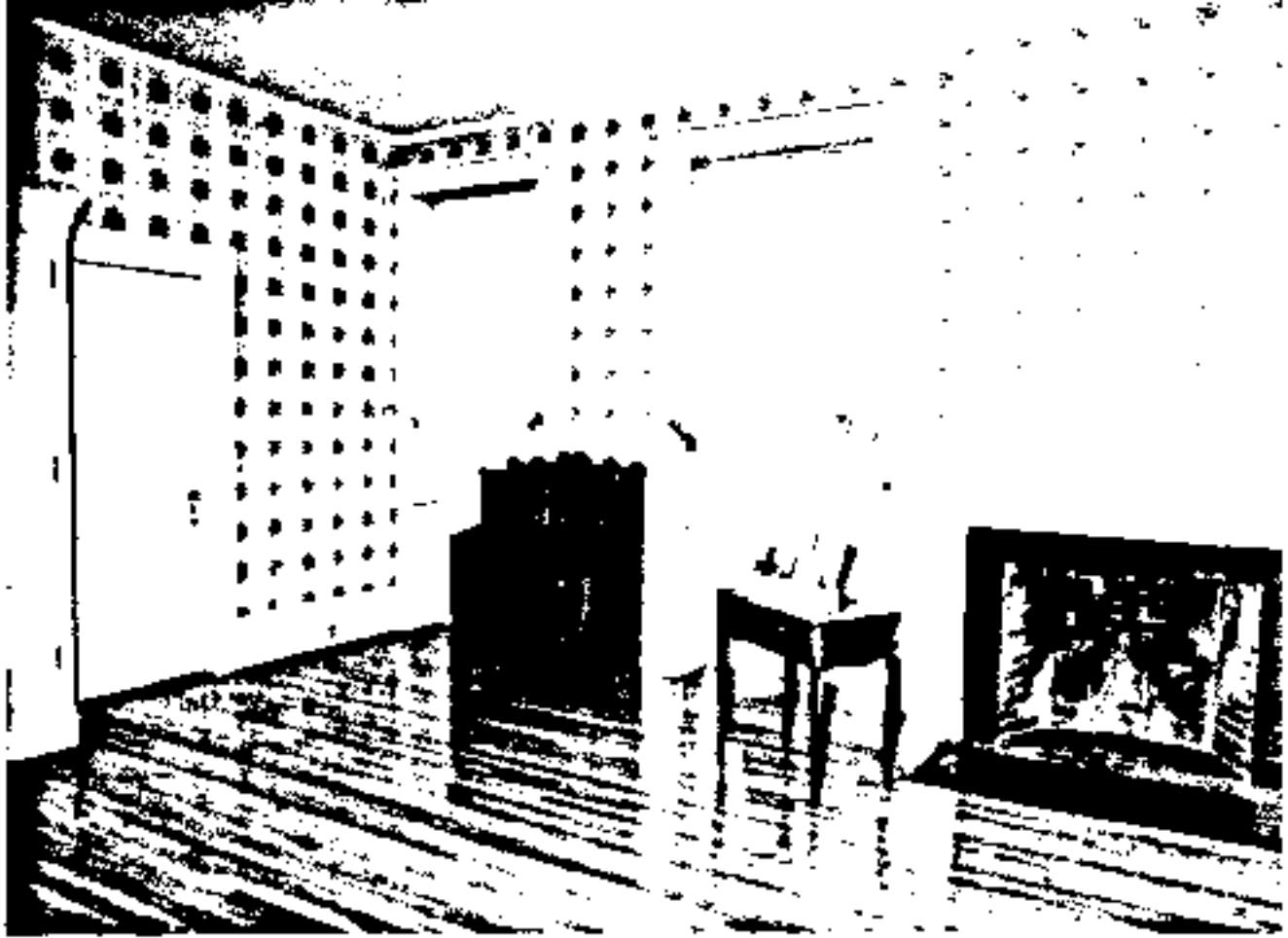
Second Floor Above: Bedroom 1, south mantle wall.
Below: Bedroom 1, Bath.



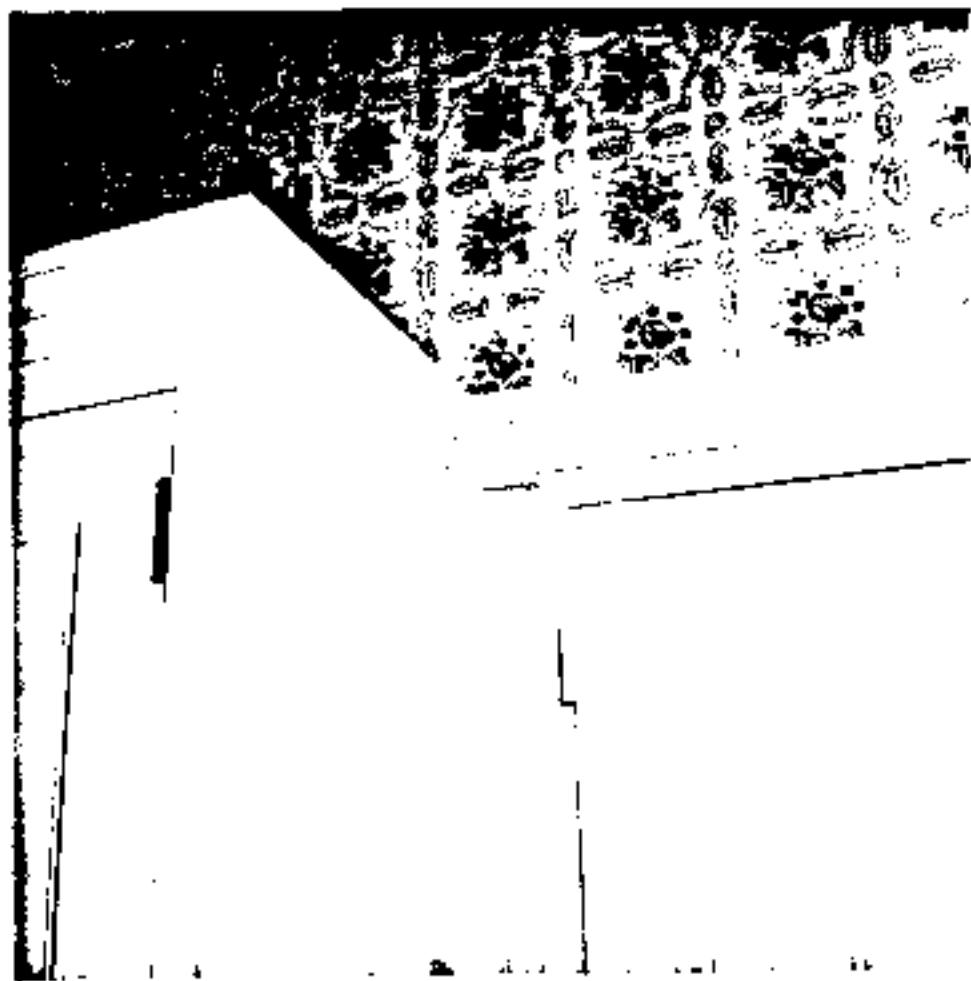


Second Floor Above: Bedroom 1, Bath.
Below: Bedroom 1, north wall.





Second Floor Above: Bedroom 2, south wall.
Below: Bedroom 2, closet detail.

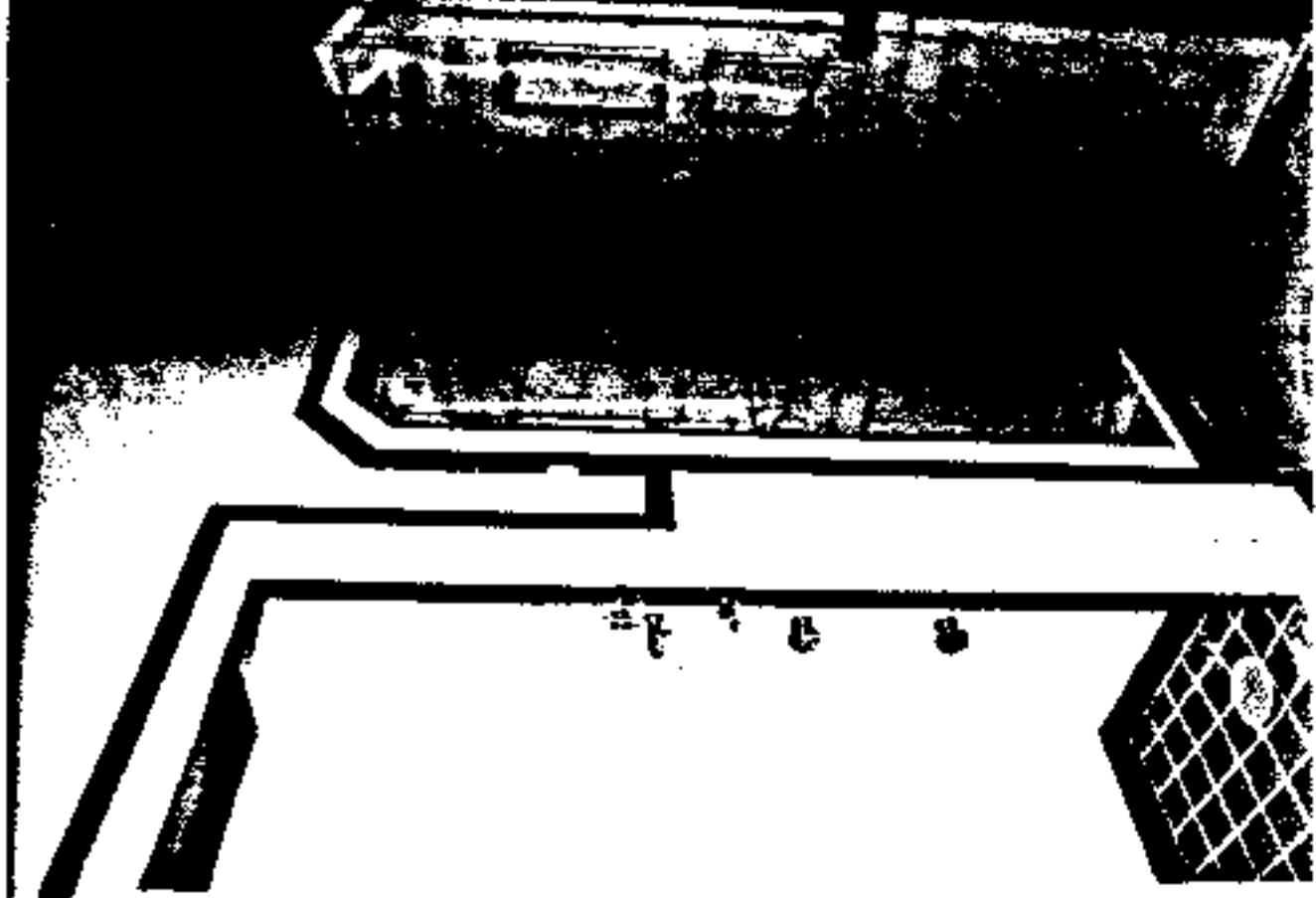




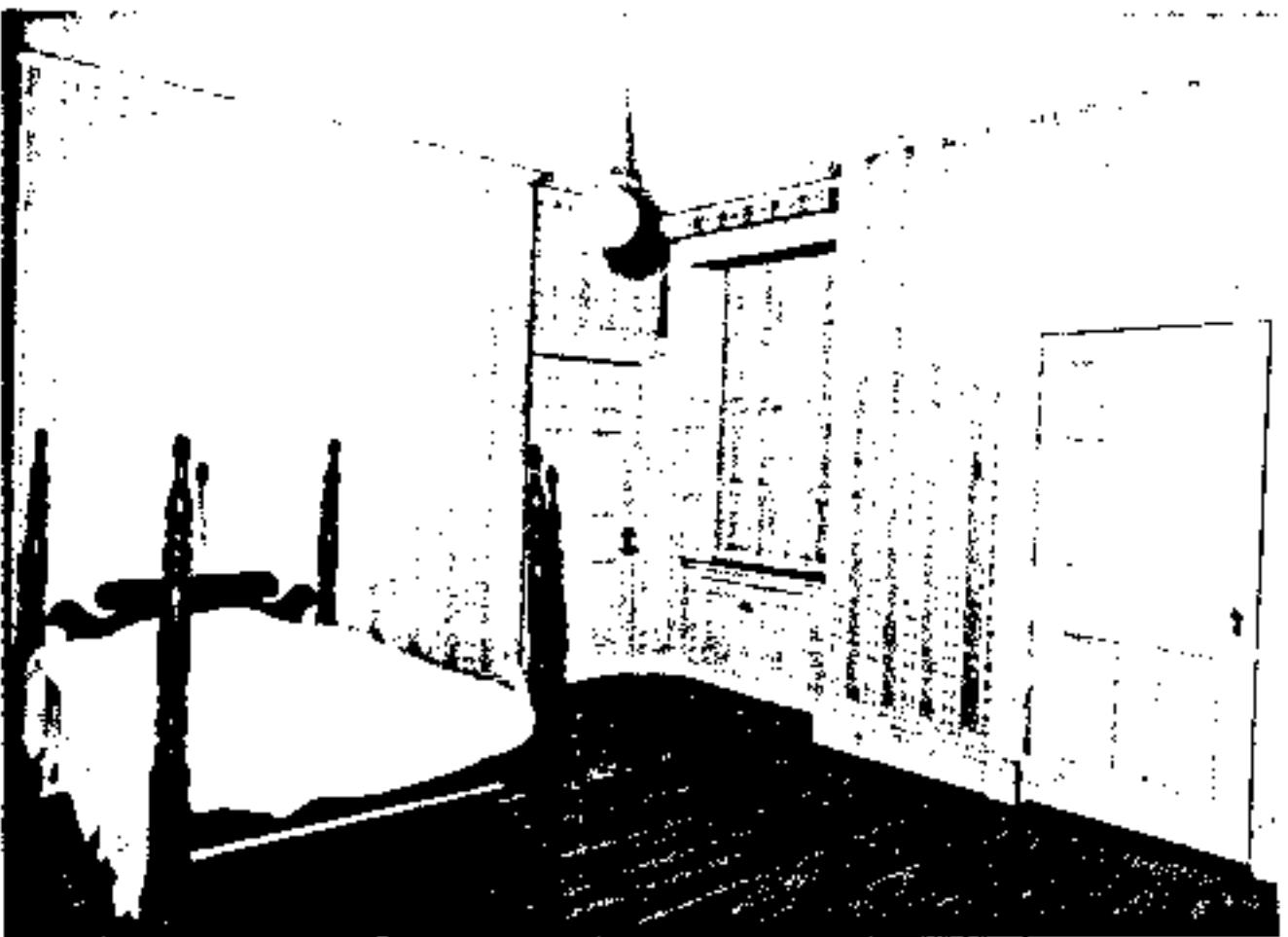
Second Floor Above: Bedroom 3, south mantle wall.
Below: Rear Hall.



Top



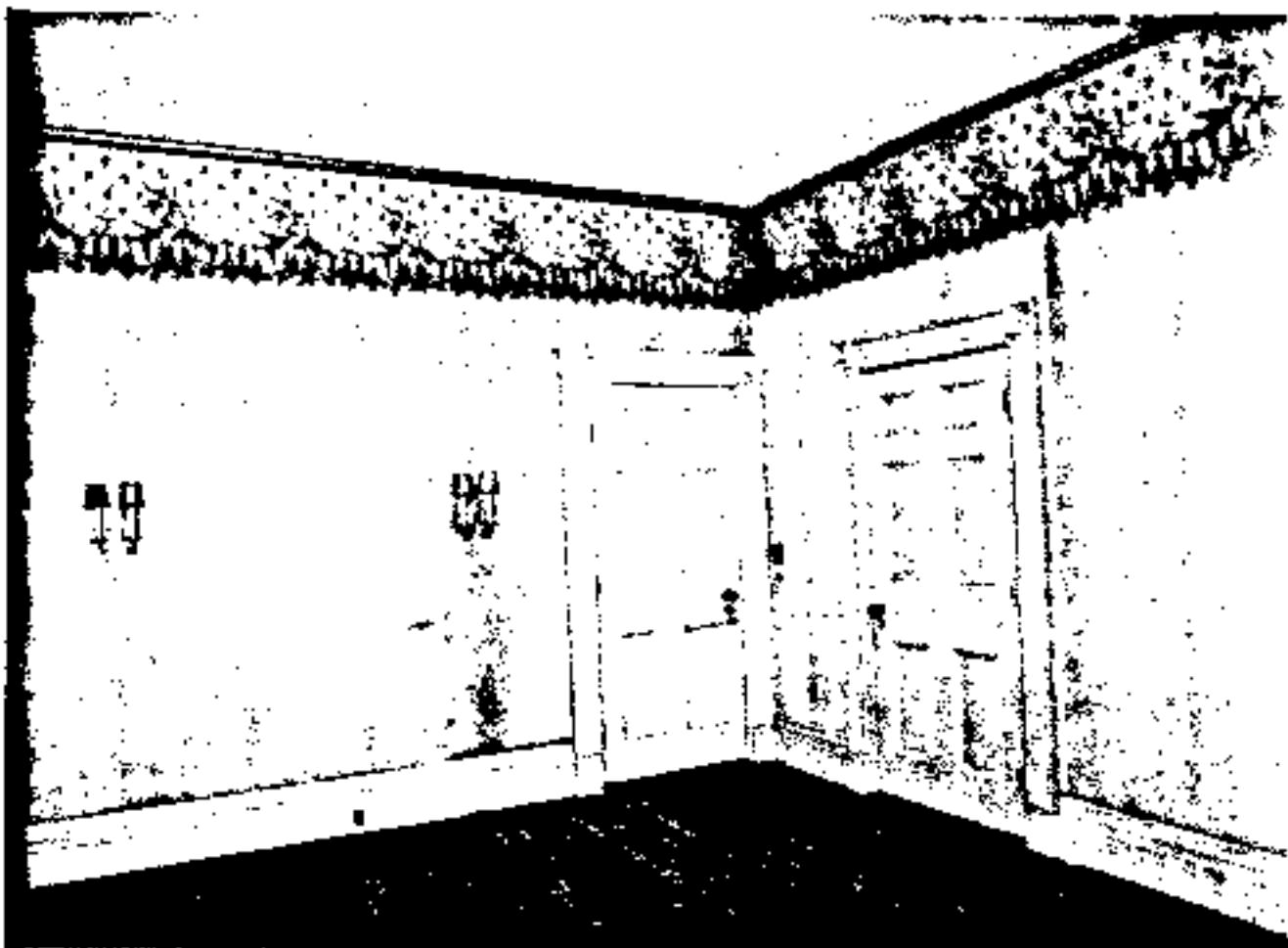
Second Floor Above: Rear Hall, Bath.
Below: Bedroom 4, west wall.



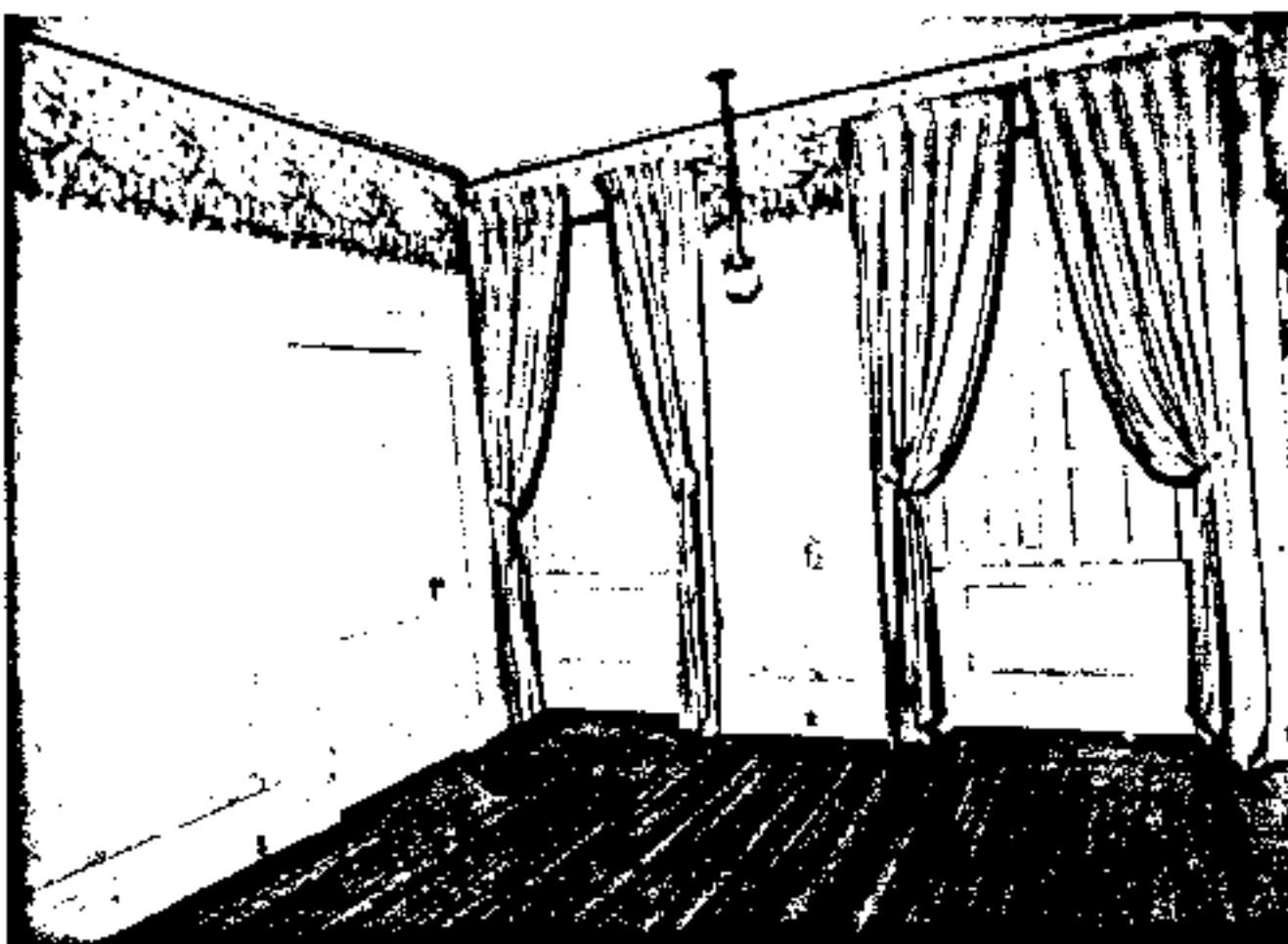


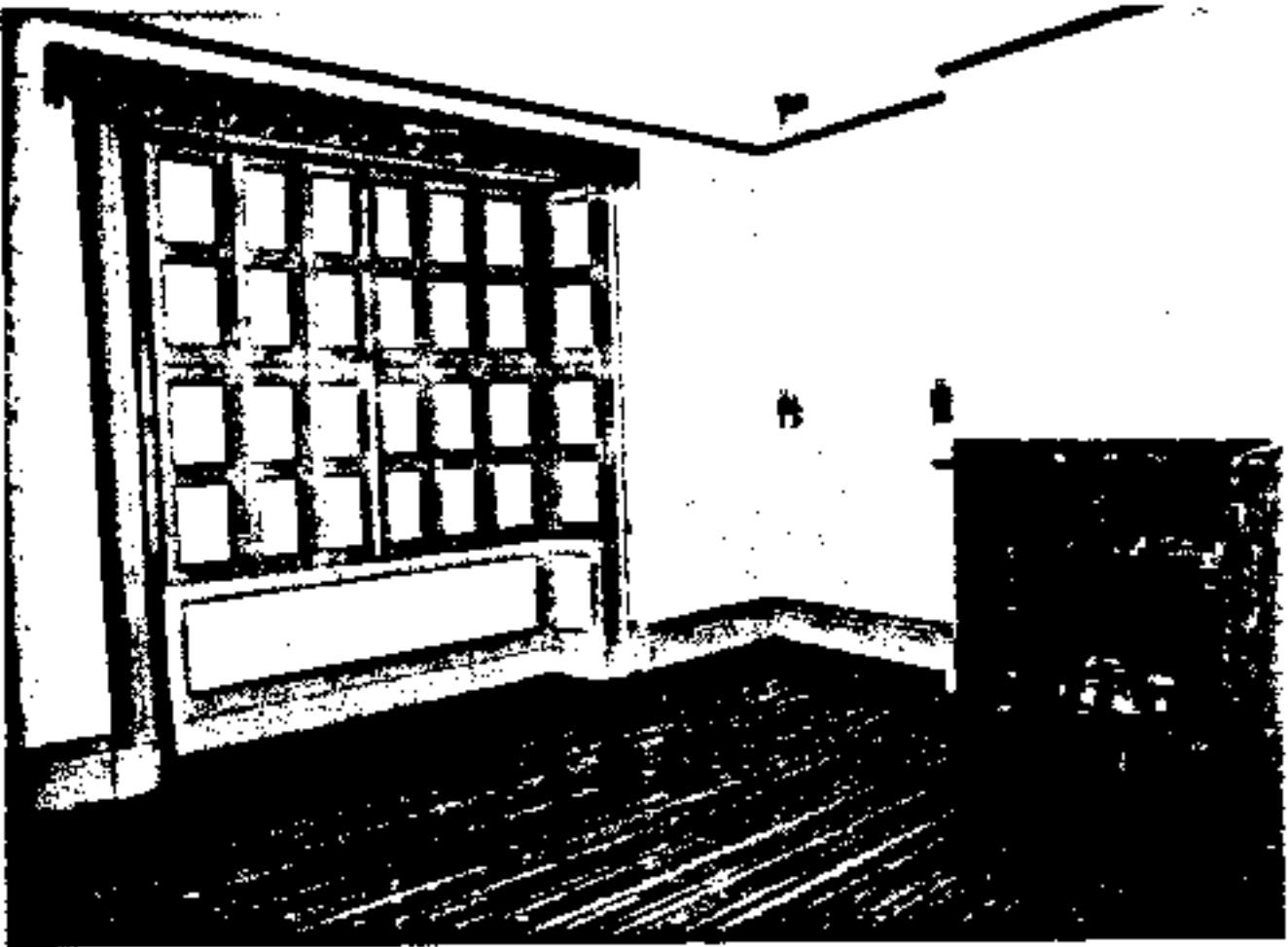
Second Floor Above: Side Stair Hall.
Below: Side Stair Hall, newel post.



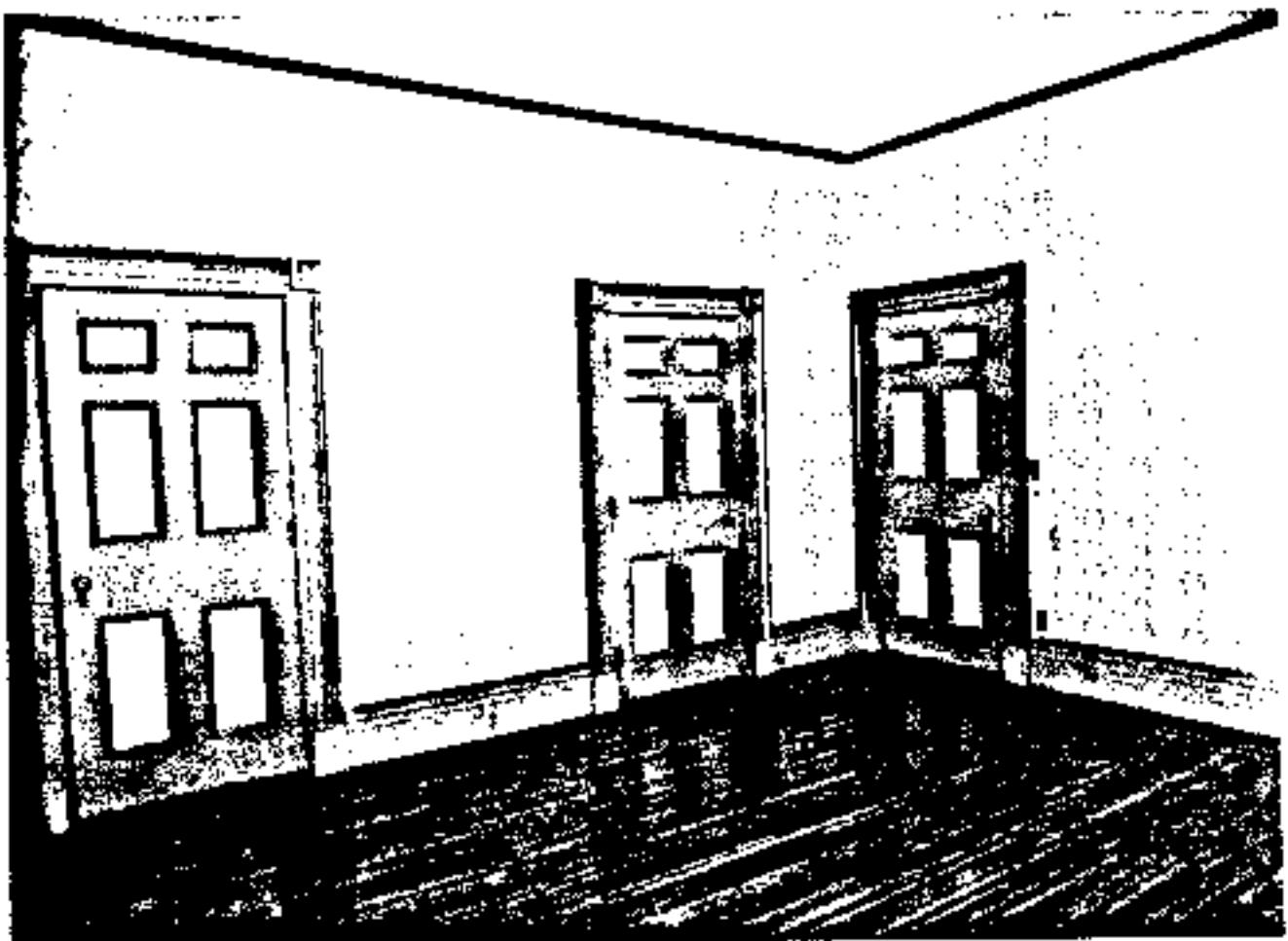


Second Floor Above: Bedroom 5, south wall.
Below: Bedroom 5, north wall.





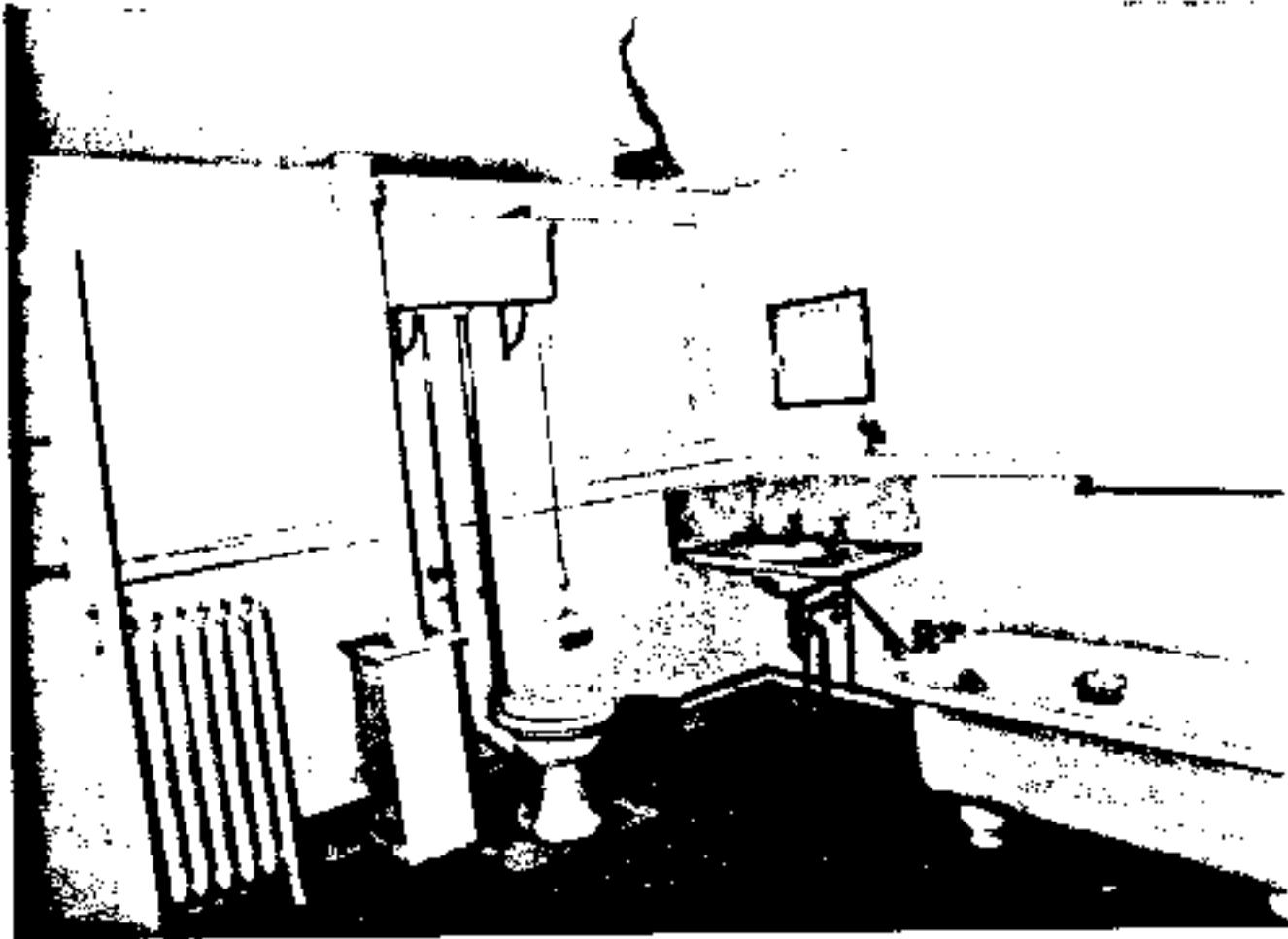
Second Floor Above: Bedroom 6, west wall.
Below: Bedroom 6, east wall.





Third Floor Above: Hall.
Below: Hall, east end.

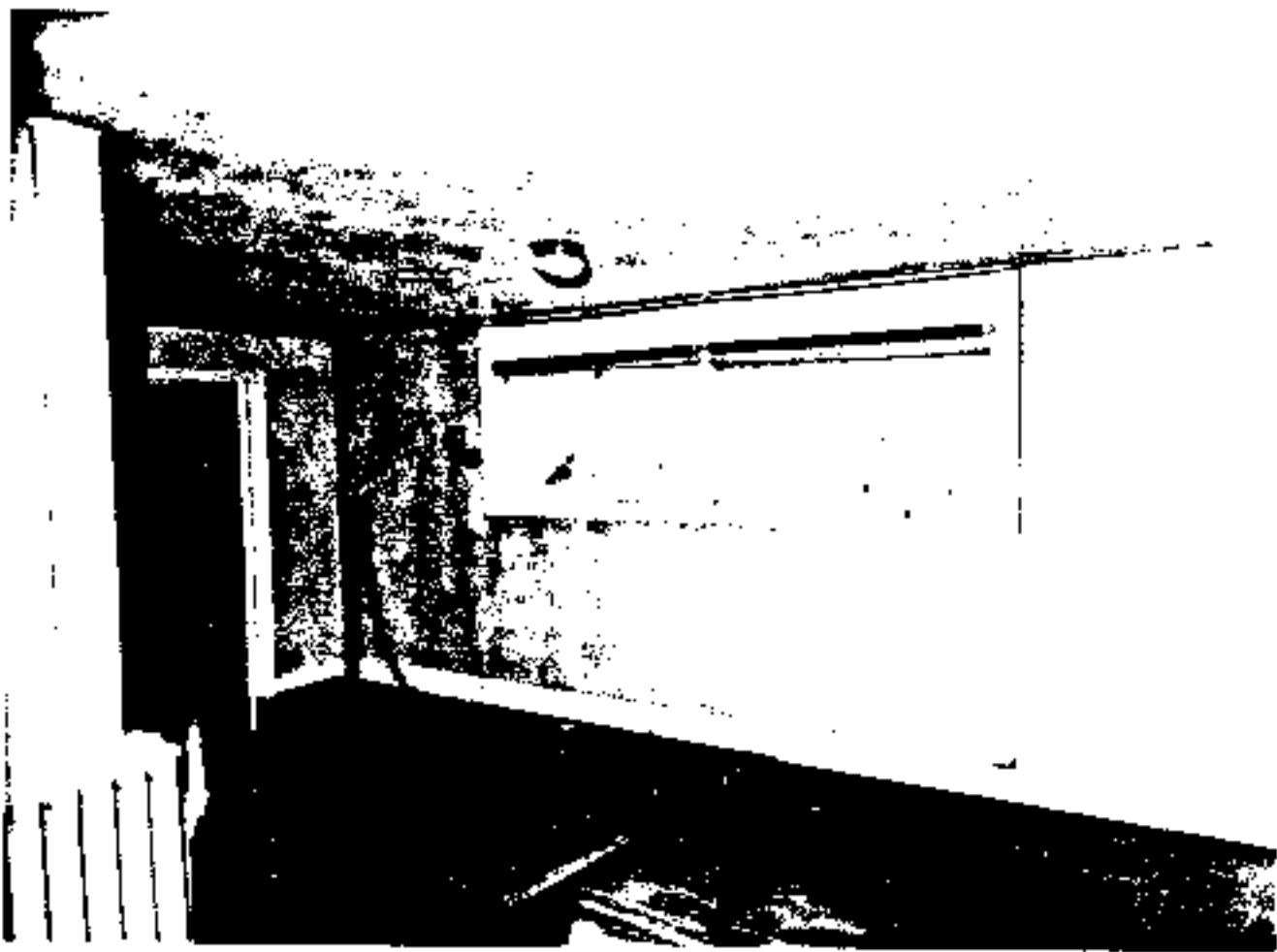




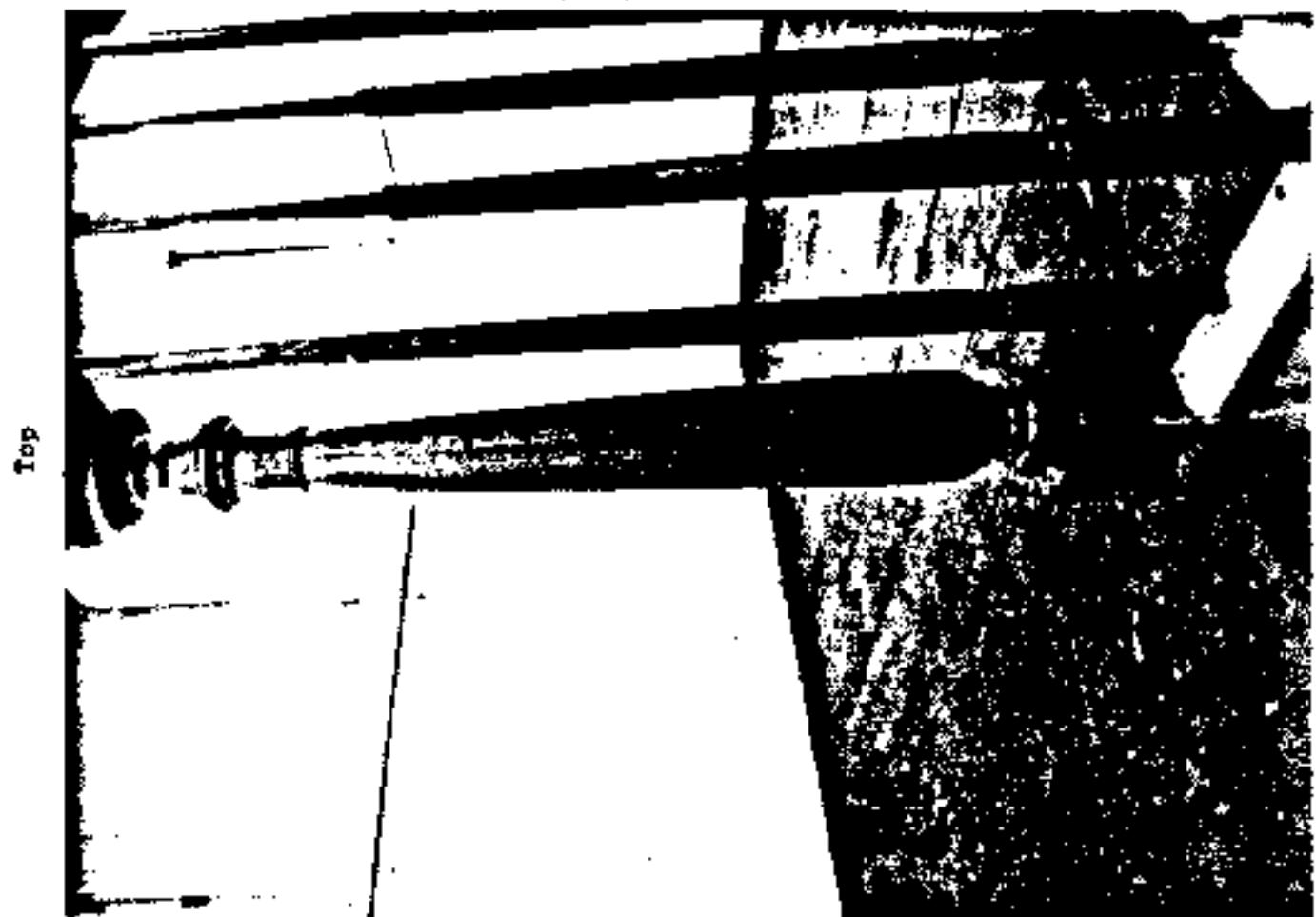
Third Floor Above: Bathroom.
Below: Cupola.

TOP





Third Floor Above: Bedroom.
Below: Cupola, newel post.





Exterior Above: Roof Dormer.
Below: Pergola.





Exterior Above: Greenhouse.
Below: Coachman's House.



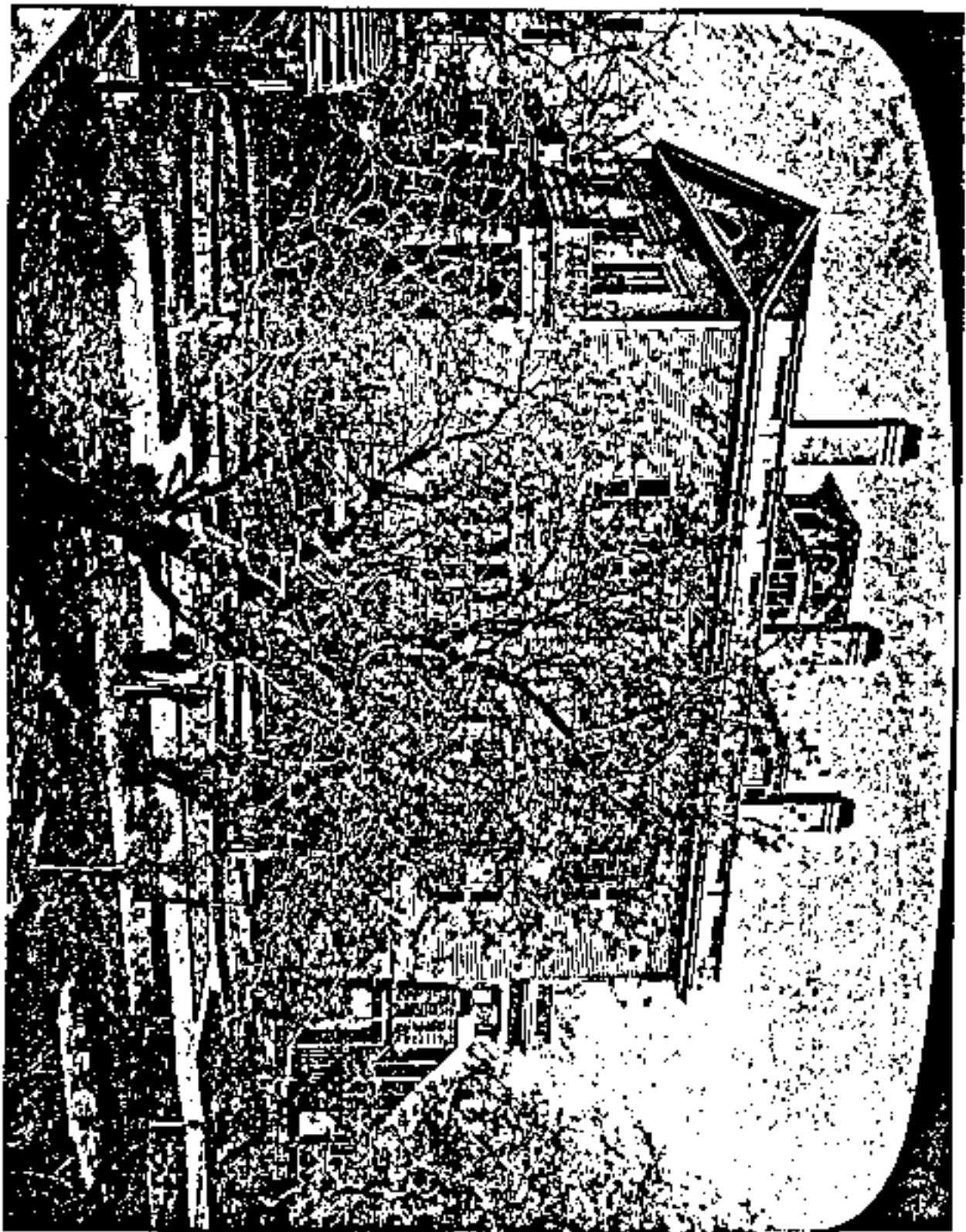


Exterior Above: House, north elevation.
Below: House, south elevation.

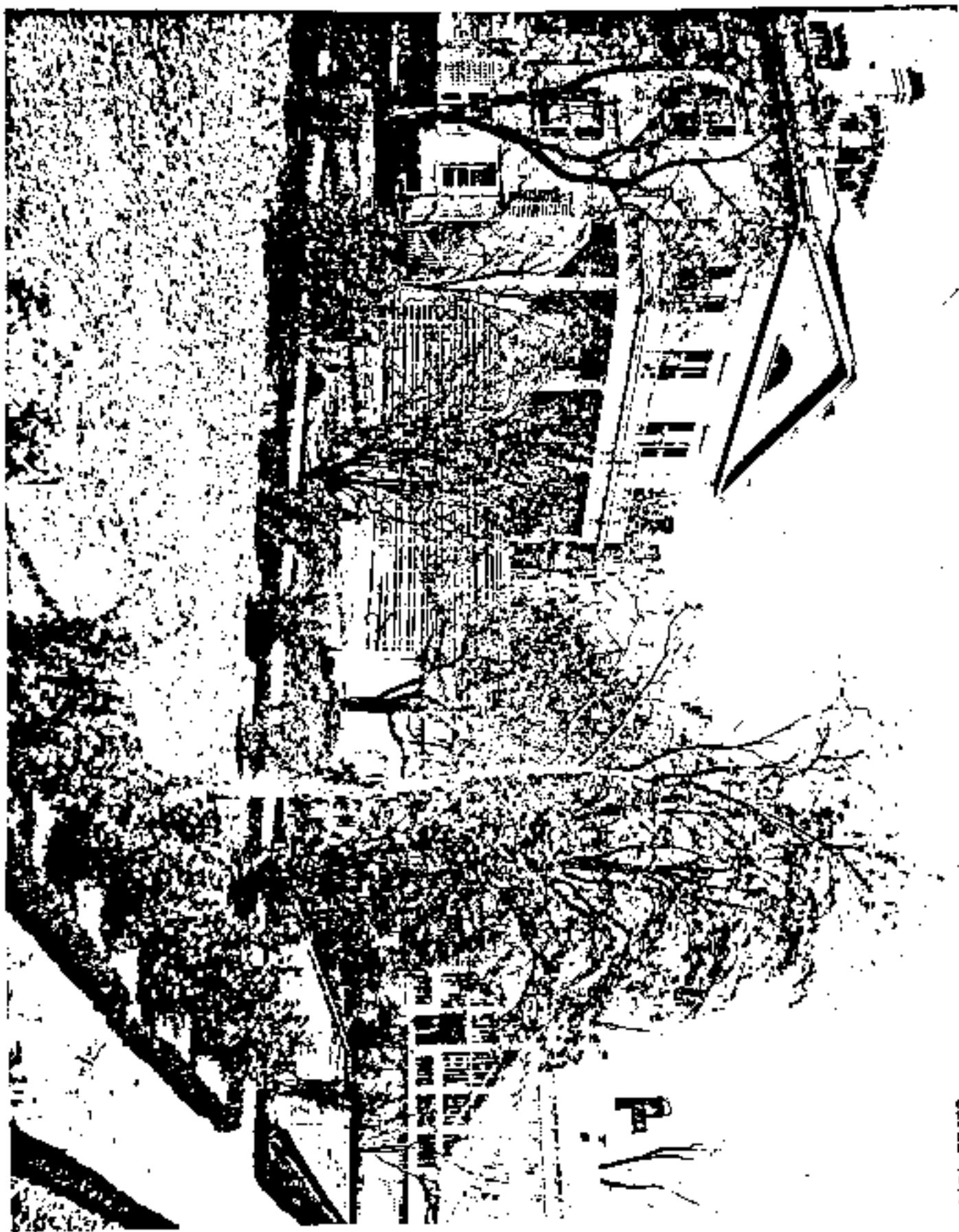


APPENDIX C: HISTORIC PHOTOGRAPHS

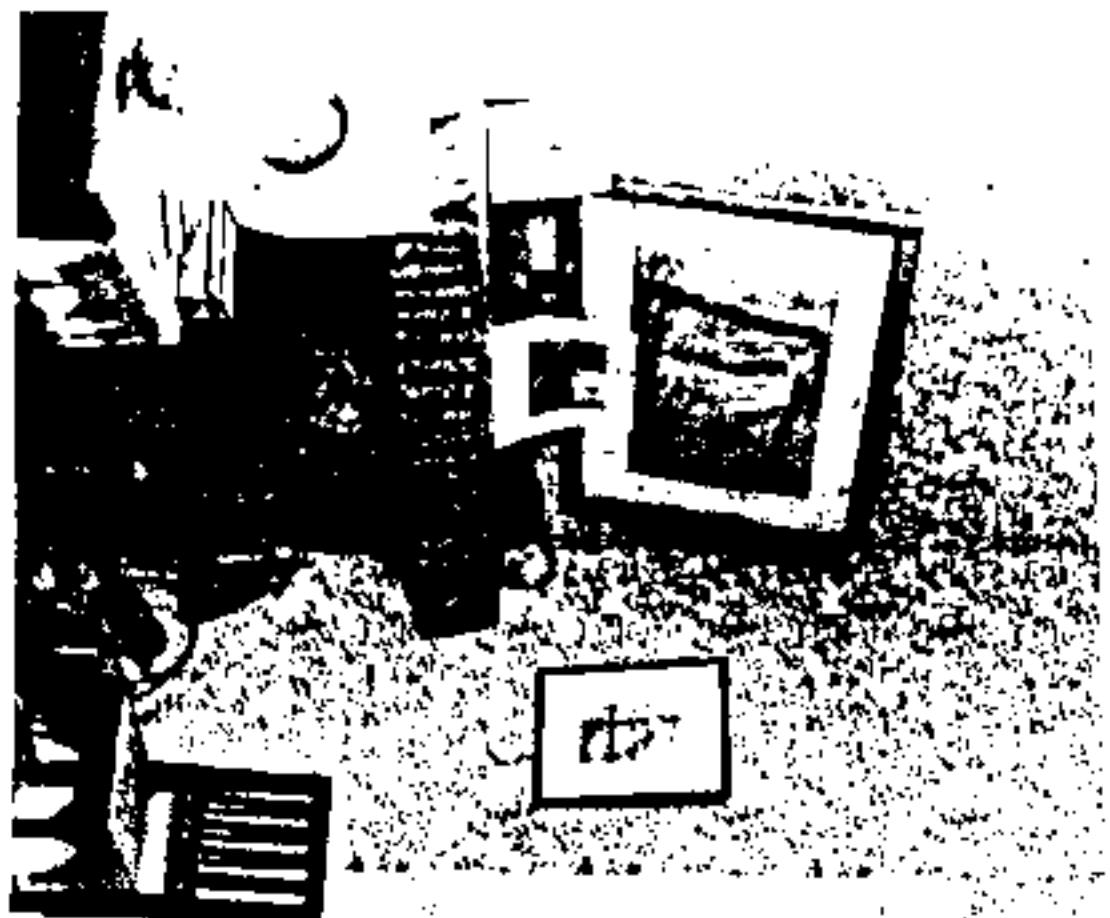
Edward Coffin Jones Occupancy



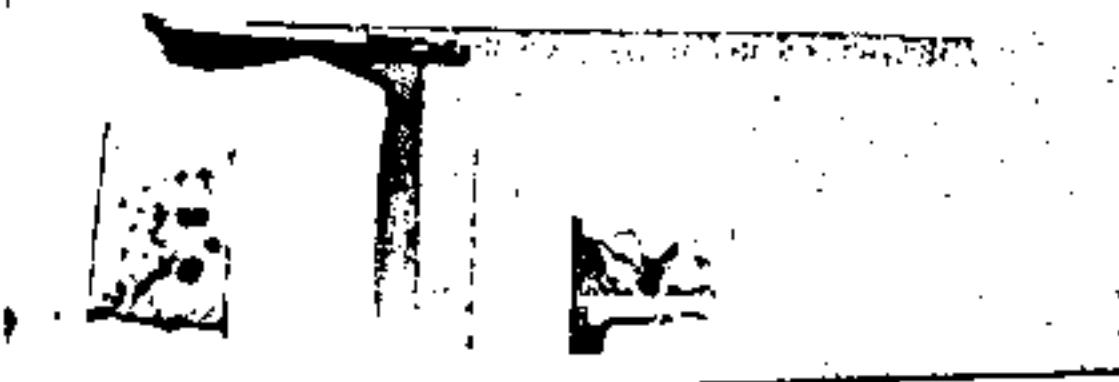
Office 1870



circa 1970



Top

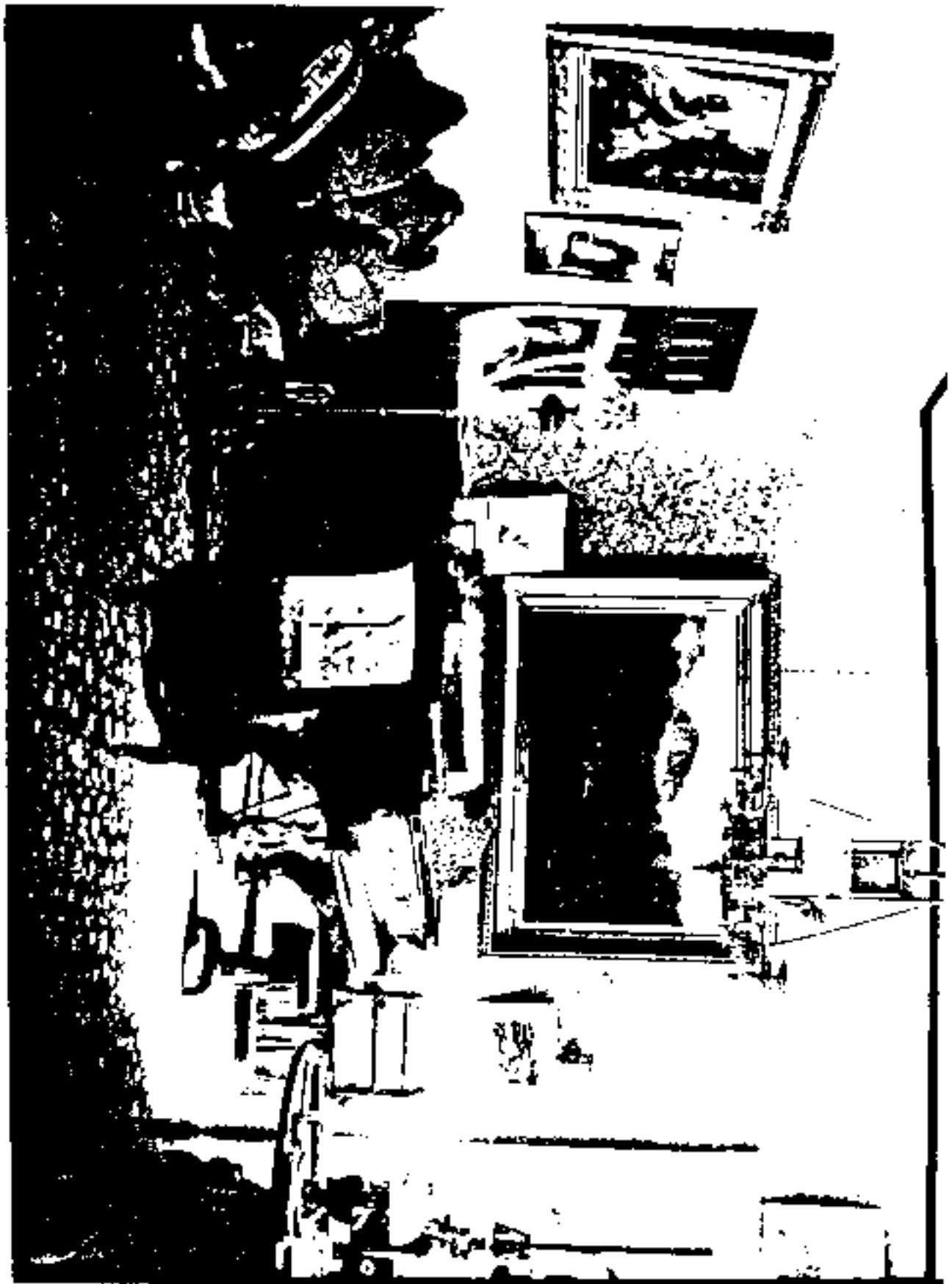




Top



Top



Top



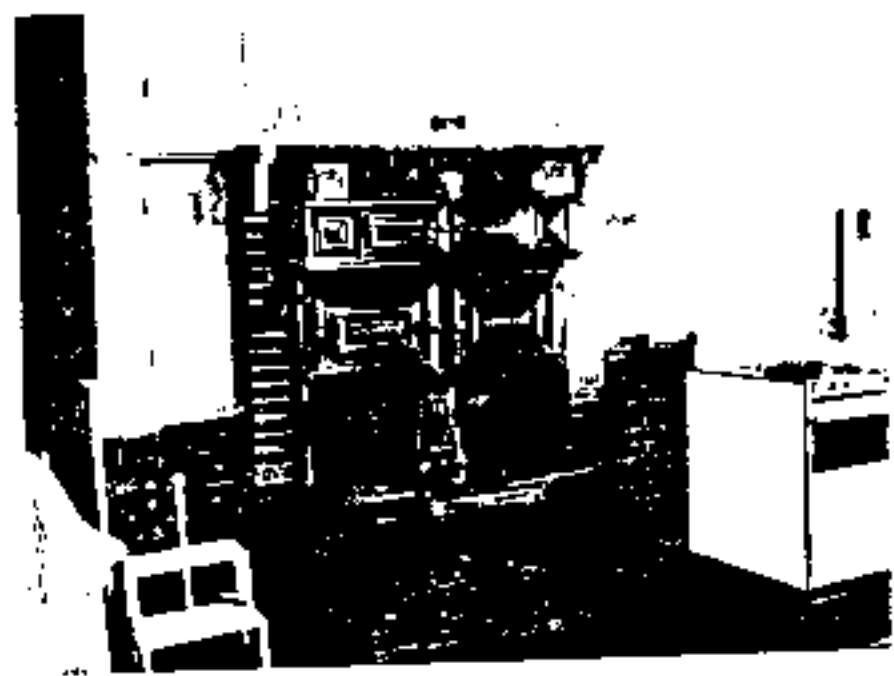
Top



1930

Mark M. Duff Occupancy





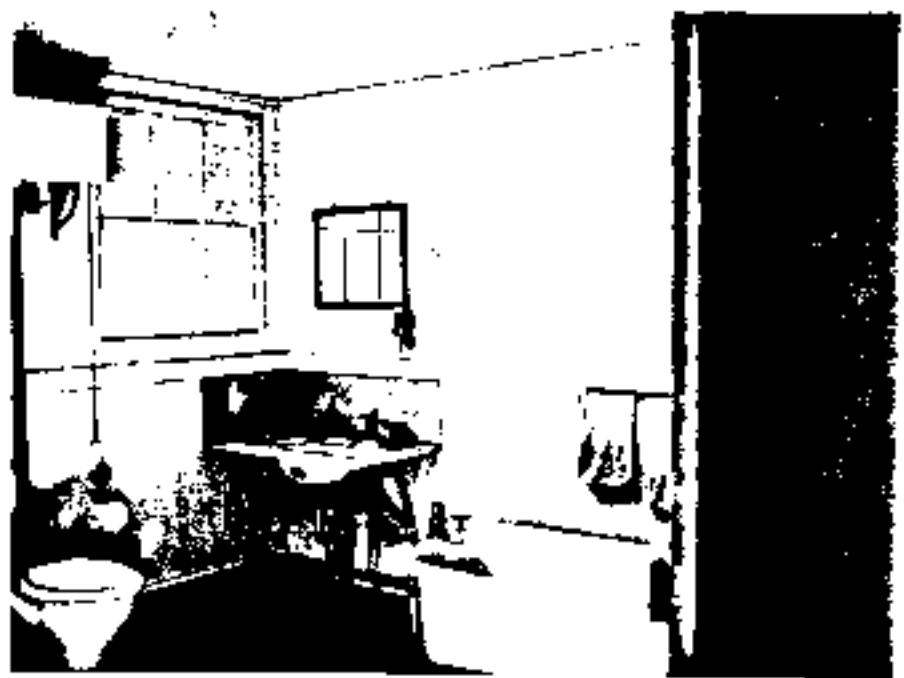














APPENDIX D: LANDSCAPE RECORDS

Sample Plan of Victorian Residence
From: The Art Of Beautifying Suburban Home Grounds
Of Small Extent by Frank J. Scott, 1870

the house-wall may be low-growing roses, or red-flowered alyssum with the scarlet salvia among them. In the inner angles of the bay window, if of brick, we would have the English ivy, or the Virginia creeper; if of wood, then some rhododendron of medium height, and around them a, and c, compact masses of the smallest sort; or one side may be more quickly filled with a single pink datura, and the other with a trailing bush honeysuckle. The shrubs at the corner of the rear veranda may be the Chinese snow-cremum honeysuckle on the post; a Swedish juniper next to it; and the erect rose, the golden yew, and the golden arbutus around the juniper.

The materials for the flower-beds a, b, c, d, e, f, g, h, i, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z, need not be specified in detail.

The border back of the rear walk represents cultiva bush.

It might better be a grape-vine.

PLATE XVI.

A Large Mansion on an Acre Lot of One Hundred feet front by three hundred and forty feet deep.

This house is, in size, much above the average of suburban homes, and the area of the lot is sufficient to harmonize with the massive character of the house.* The arrangement of the driveway is quite simple. The house being placed nearly in the middle of the width of the lot, and the stable, vegetable-garden, and orchard, occupying the rear third of the length of it, there is not an extent of lawn in proportion to the depth of the lot; the ground design being in this respect inferior to that of Plate XI, where a lot forty feet shorter has a lawn much longer. The difference is mainly in the greater extent of the orchard, the vegetable-garden and the stable yard on the plan now under consideration; and the different positions of the mansion and the stable on the respective

corners. The design of Plate XI is for a front to the east; the house is therefore placed near the north side of the lot, the exposures of the principal rooms are to the east, south, and west, and the views out of them are made longer and nobler by thus crowding the house and all its utilitarian appendages towards that side. The present plan is suited to a lot having a frontage to the south, and the plan calls for an equally good exposure for the rooms on both sides of the house. The liberal spaces allowed for orchard, vegetable-garden and stable-yard necessarily deprives the ground of the fine air that longer and broader stretches of unbroken lawn produce; but each of the principal rooms having exposures differing essentially from the others, the variety of views must suffice for their want of extent.

The carriage-entrances to this place are shown nearer to the corners than they should be. On so broad a front there should be twenty feet instead of ten, between the drive at the entrances and the nearest part of the adjacent lots. Presuming this alteration to be made in the plan, the only change in the planting would be that the trees B, C, and I, J, shall be planted nearer together, and more nearly at right-angles, than parallel, with the front of the lot. The capital letters on the plan are used to designate the larger class of trees of a permanent character, and the small letters, the shrubs and very small trees.

Though this is an in-lot, and generally marginated by high fences and close plantations, one opening on each side has been left to give views across neighbor-lots which are supposed to warrant it. If the reader will follow on the plan we will select trees and shrubs as follows: on the left of the left-hand gate at the center may be a weeping willow, midway between the drive and the adjoining lot line, and ten feet from the front. The margin, A, is to be planted with a dense mass of fine common shrubs, or left more open, accordingly as the neighbor-lot at that point is pleasing or the reverse. B, is a golden willow; and C, a creeping birch. All these trees grow with great rapidity. D, may be a weeping beech; E, a group of three sassafras trees; F (nearest the house), the *Kaducaea paniculata*; G (northand of the bed-room), the golden-leaved sycamore maple; H (nearest the street), the purple-leaved

* The drawing at the head of Chapter VI is from a drawing of this house, kindly furnished by Mr. Edmund A. W. French, Esq., of Ridgewood, Conn., for the greater convenience of the student in the use of the plan.

sycamore maple; H (though it is not so marked), we would prefer to make a pair of pines, the Austrian and the white, the former in the rear of the latter. The pine tree directly west of the back room may be either the white, Austrian, Rhodian, or Pyrenean, the two latter being the most interesting, but of uncertain longevity. Beginning at the right-hand front entrance, J, K, may be Scotch weeping elms, and L, the Scamander elm. The shrubbery at and near the entrance is for effect during the first two years after planting, and to be removed when the elms shade that entrance sufficiently. At L, plant a *Kalmia latifolia*; at M, the paulownia; at N and O, weeping birches; at P, the *Magnolia macrophylla*; at Q, Nodding larch; at R, a *Magnolia stellata*; at S, the weeping beech; at T, a white or Austrian pine; at U, a hemlock screen; at V, a group of Norway spruces. The thin trees on the plan may be known by their symbols.

Of shrubby and stumpy trees, the middle group (undertoned) near the front is the most important, as it is visible from almost every point of view in and near the grounds. Measured on the curved line of its centre, it is fifty feet in length, and may be made in artistic miniature arboretum of choice things, either evergreens or deciduous; but should be all one or the other, on its upper outline; though the under-shrub may be deciduous and evergreen mingled. In either case its arrangement should be planned, and its materials selected by a skillful gardener. It is impracticable, in the limits of this work, to present the working details for such groups on a scale that can be readily followed; we therefore merely suggest that the centre should be made with something that will not exceed twenty feet in height at maturity, and the group should diminish in height at the sides, so that the points may be occupied by interesting dwarfs that may be overlooked by persons passing on the sidewalk.

The shrubbery at S, and A, B, D, H, K, and L are simply masses of the good old springers, lilacs, honeysuckles, snow-balls, currants, altheas, and the newer wisterias, deutzias, spireas, and other shrubs, which may be arranged in a hundred different ways to give the foliage and forms of each a good setting.

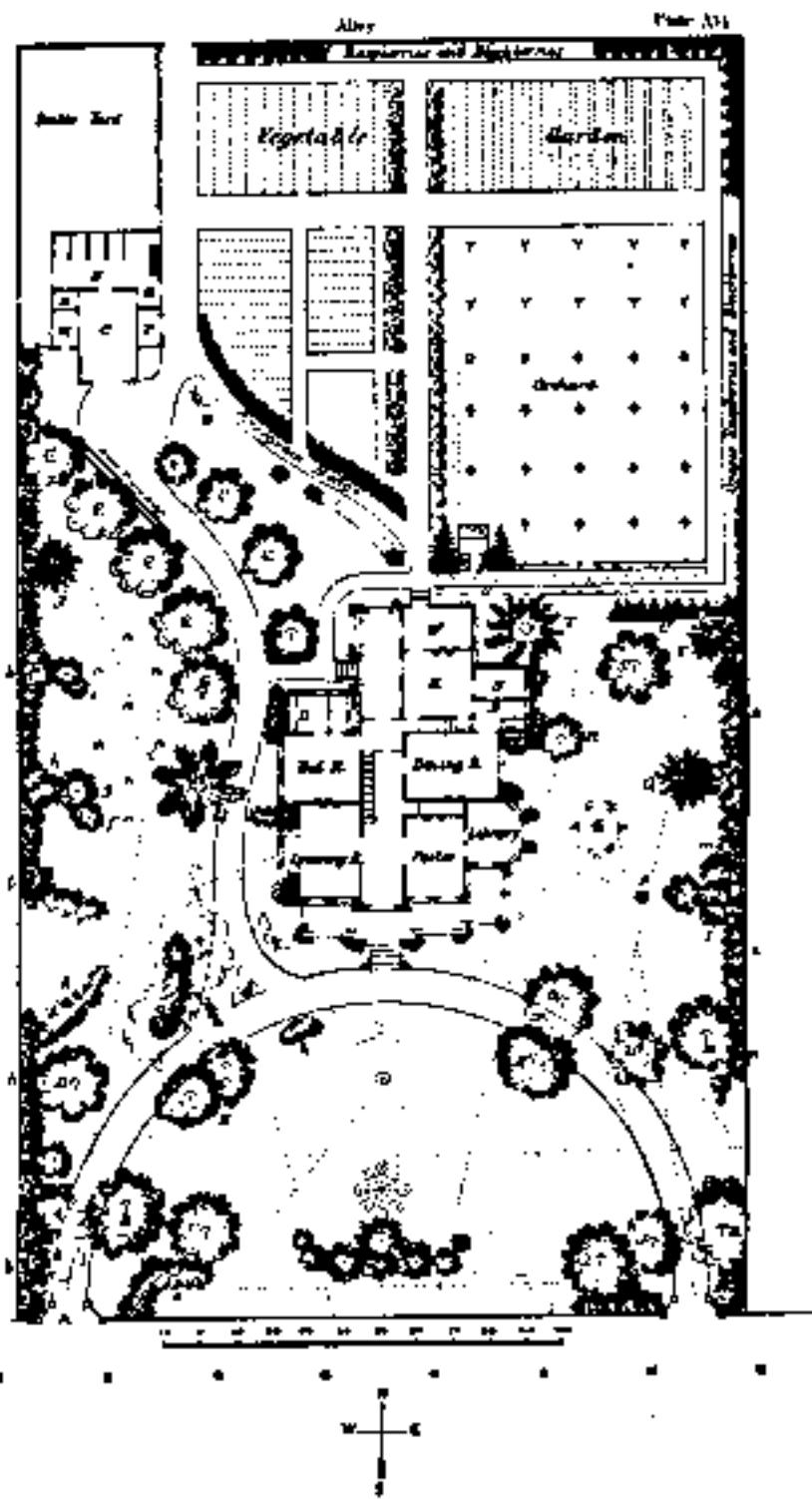
The small tree at 6 may be the American red-bud or Judas tree.

Ceanothus; at J, *Magnolia virginiana*; at L, *Magnolia macrophylla*; at K, a mass of hemlocks; at L, a pair of weeping Japan sophoras; and behind them the white-flowering dogwood, the broad-leaved eubonymus, and the variegated-leaved elder; at J, a Norway spruce in front of a hemlock hedge; at J (near the front veranda), a dwarf white pine in the centre, the Hudson's Bay fir on one side, and the dwarf silver fir, *Picea pungens*, on the other. While these are small, fill in between them with low compact rhododendrons. At F and M, Austrian pines headed back from time to time to keep a dense growth; at K, S, R, a belt of hemlocks and arborvitae; at S, Sargent's hemlock; at J, the weeping juniper, *J. elongata* *pendula*, or the *Taxus canadensis*. The shrubbery adjoining the house on the east side may be composed largely of rhododendrons; on the west side of shrubs and bedding-plants that flourish in great light and heat.

The rose-bed adjoining the front middle group may be omitted without detriment to the plan, and a smaller rose-bed made in the triangle formed by the intersecting branches of the carriage-road, where a vase is marked, for which a rose-post may be substituted. Besides the climbing roses to be planted out on each side of the post, there will be room in this triangle for three compact rose-bushes.

The flower-beds and vases shown on the plan need no explanation to the intelligent reader.

We desire to call the reader's attention to the fact that this house-plan, and the size and form of the lot, are precisely the same as in Plate XVII, following; but the lots have different exposures, the houses are placed quite differently on them, and the ground designs are totally changed to suit the circumstances. A comparison of the two is a good study.



List of Important Landscape Plants
Introduced by Ernest H. Wilson

PLANTS INTRODUCED BY ERNEST H. WILSON

(This is a partial listing. All botanical names are italicized)

Abelia engleriana
Abelia schumannii
Abies fargesii
Abies faxoniana
Acanthopanax henryi
Acanthopanax setchuenensis
Acer griseum
Acer davidi
Acer tetrapterum
Aconitum hemisleyanum
Aconitum wilsonii
Actinidia chinensis
Aesculus wilsonii
Ampelopsis micans
Ampelopsis thomsonii
Ampelopsis watsoniana
Anemone hupehensis
Anemone vitifolia
Aristolochia heterophylla
Artemisia lactiflora
Astilbe davidi
Astilbe grandis
Astilbe koreana
Rhododendron obtusum japonicum
Berberis aggregata pratti
Berberis atrocarpa
Berberis candidula
Berberis gagnepainii
Berberis julianae
Berberis palyantha
Berberis sargentiana
Berberis triacanthophora
Berberis vernae
Berberis verruculosa
Berberis wilsoniae
Buddleia asiatica
Buddleia dawdi magnifica
Buddleia davidi wilsonii
Buxus microphylla koreana
Camellia cuspidata
Catalpa fargesii
Celastrus angulata
Celastrus latifolius
Celastrus loeseneri
Celastrus rugosa
Cercidiphyllum japonicum sinense
Cercis racemosa
Citrus ichangensis

Cladrastis sinensis
Cladrastis wilsoni
Clematis acutangula
Clematis armandi
Clematis chrysocoma sericea
Clematis montana rubens
Clematis montana wilsoni
Clematis speciosa
Cornus kousa chinensis
Corydalis thalictroides
Corydalis tomentella
Corydalis tomentosa
Corydalis wilsoni
Corylopsis veitchiana
Cotoneaster acutifolia villosula
Cotoneaster apiculata
Cotoneaster dammeri
Cotoneaster divaricata
Cotoneaster henryana
Cotoneaster horizontalis perpusilla
Cotoneaster hupehensis
Cotoneaster racemiflora soongarica
Cotoneaster salicifolia floccosa
Cotoneaster salicifolia rugosa
Cunninghamia henryi
Cypripedium luteum
Cypripedium tibeticum
Daphne retusa
Davidia involucrata
Deutzia longifolia elegans
Deutzia longifolia veitchii
Deutzia wilsoni
Dicentra macrantha
Dipelta floribunda
Dipelta ventricosa
Dipteronia sinensis
Euptelea franchetii
Euonymus aquifolium
Euonymus sanguinea
Euonymus wilsonii
Evodia henryi
Evodia hupehensis
Exochorda giraldi wilsonii
Fagus engleriana
Fagus longipetiolata
Fagus lucida
Forsythia ovata
Fortunearia sinensis
Gaultheria veitchiana
Hanabusaya asiatica

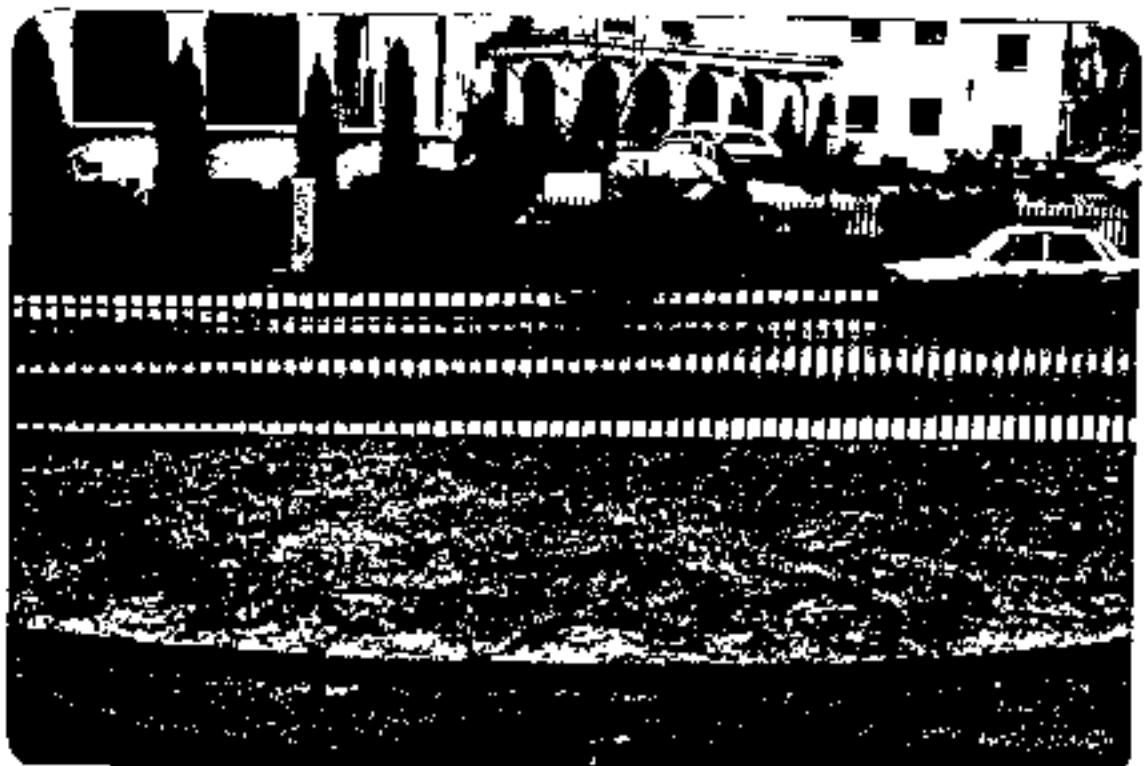
Hydrangea sargentiana
Hydrangea xanthoneura wilsoni
Ilex pernyi
Ilex pernyi manipurensis
Ilex wilsoni
Indigofera amblyantha
Iris wilsoni
Jasminum primulinum
Juglans cathayensis
Juniperus conferta
Kilkwitzia amabilis
Ligularia clivorum
Ligularia veitchiana
Ligularia wilsoniana
Ligustrum henryi
Lilium davidi
Lilium henryi
Lilium leucanthum chloraster
Lilium philippinense formosanum
Lilium regale
Lilium sargentiae
Lilium speciosum gloriosoides
Lilium thayerae
Liriodendron chinense
Lonicera chaetocarpa
Lonicera henryi
Lonicera maackii podocarpa
Lonicera nitida
Lonicera pileata
Lonicera prostrata
Lonicera tragophylla
Magnolia delavayi
Magnolia wilsoni
Malus theifera
Malus toringoides
Meconopsis integrifolia
Meconopsis punicea
Meliosma boaniana
Meliosma veitchiorum
Neillia sinensis
Parthenocissus thomsonii
Philadelphus purpurascens
Philadelphus subcanus wilsoni
Photinia davidsoniae
Picea ascordens
Picea asperata
Picea koyamiae
Picea wilsoni
Pieris taiwanensis
Pleione pogonoides
Populus lasiocarpa
Populus wilsoni
Potentilla fruticosa veitchii

Primula chungensis
Primula cockburniana
Primula Pulverulenta
Primula beitchii
Primula vittata
Primula wilsonii
Prunus dielsiana
Prunus mira
Pyrus calleryana
Quercus aquifolioides
Rehmannia angulata
Rehmannia henryi
Rheum alexandrac
Rhododendron ambiguum
Rhododendron amesiae
Rhododendron coccinum
Rhododendron discolor
Rhododendron deisdei
Rhododendron lutescens
Rhododendron micranthum
Rhododendron orbiculare
Rhododendron polylexis
Rhododendron williamsianum
Rodgersia tabularis
Rosa bella
Rosa helenae
Rosa moyesii
Rosa cneiensis
Rosa willmottiae
Sarcococca humilis
Sarcococca ruscifolia
Sorbaria arborea
Spiraea henryi
Spiraea sargentiana
Spiraea trichocarpa
Spiraea veitchii
Spiraea wilsonii
Stranwacsia davidiiana undulata
Syringa dilatata
Syringa julianae
Syringa reflexa
Syringa wolfii
Thalictrum dipterocarpum
Thuja koraiensis
Viburnum davidi
Viburnum rhytidophyllum
Viburnum theiferum

Garden Record Photographs



Garden Above: Front elevation with Copper Beech tree.
Below: Half-moon bed in front of House.



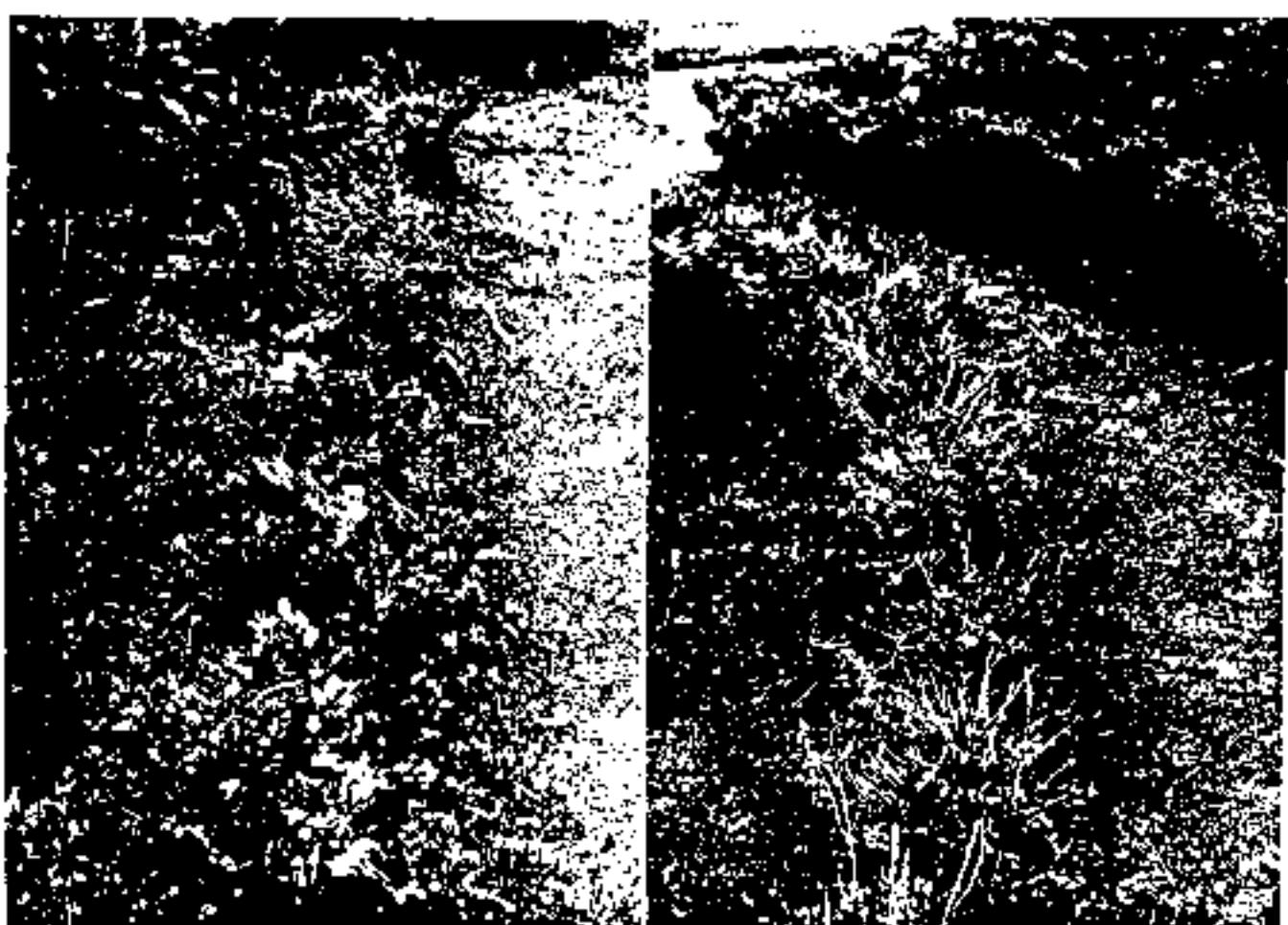


Garden Above: Boxwood parterre and Pergola.
Below: Side elevation showing site for wisteria replanting and addition of new path.





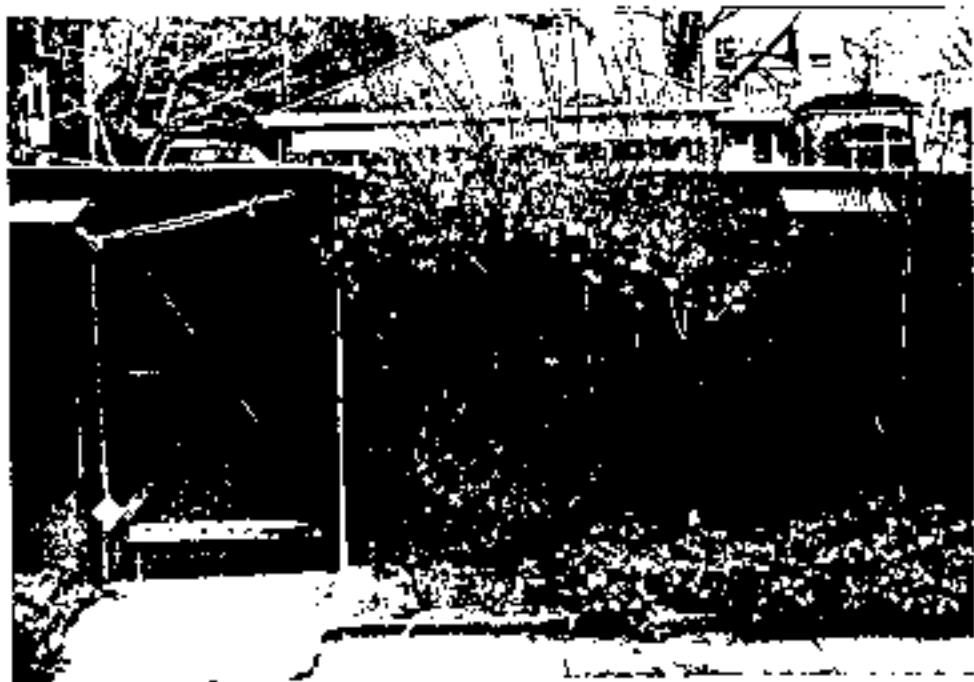
Garden Above: Roses in boxwood parterre in need of pruning.
Below: Attempted renovation pruning of boxwood plants.





Garden Above: Shrubs in need of renovation pruning in proposed wildflower walk. Below: Granite steps near Crackman's House. Copper Beech tree.





Garden Above: Forsythia in need of pruning near Enchanted's House.
Below: Diagonal lattice screen fence circa 1870 in need of reconstruction.





Garden Above: Bupleurum Buckeye planted by Ernest H. Wilson.
Below: Area near eastern boundary which requires expert pruning.



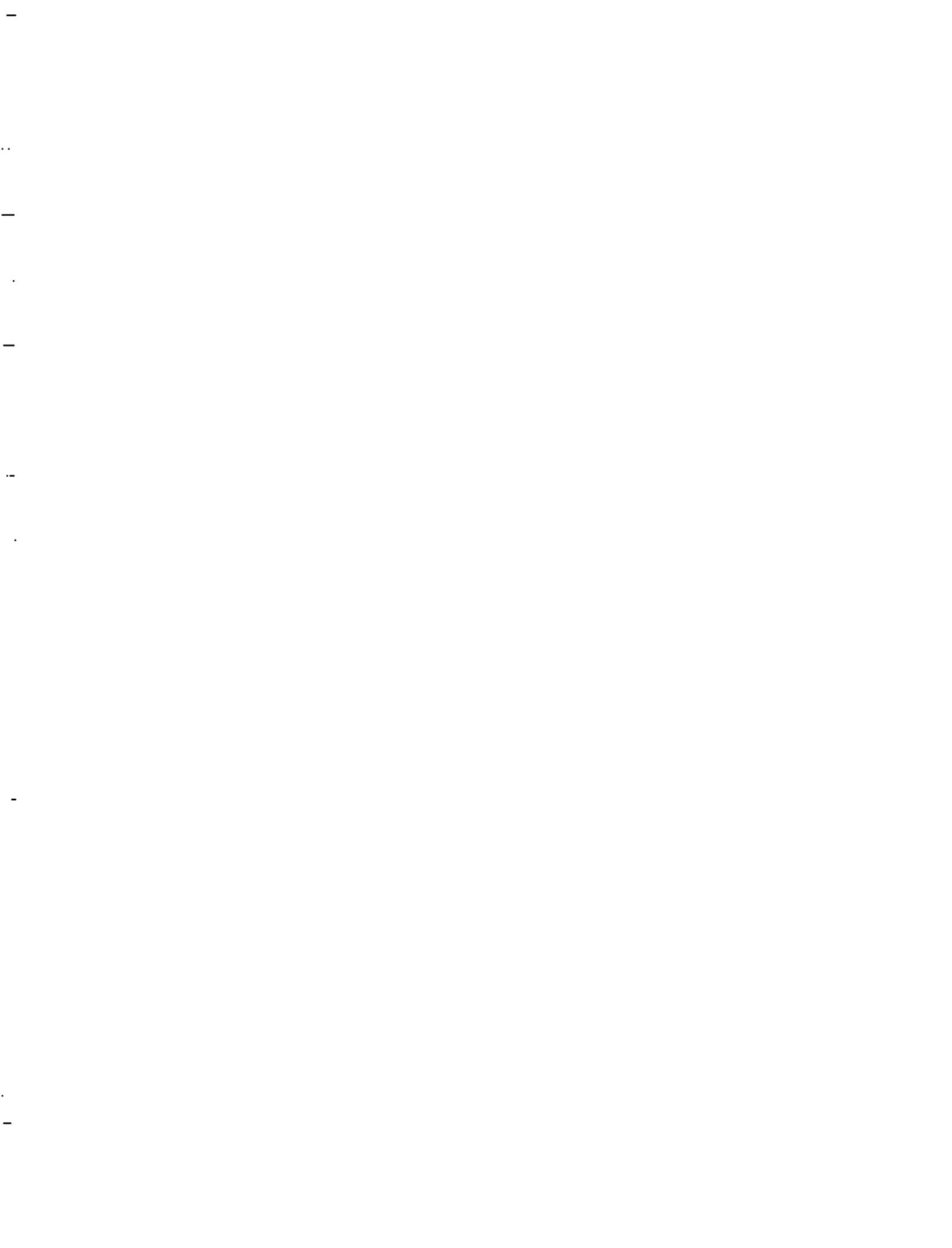


Garden Above: Rose canes which threaten Pergola structure.
Below: Wisteria which is damaging terrace railing.



A Catalogue of the Plants Found in
New Bedford and Its Vicinity
by E. W. Harvey, 1860

Reprinted by the Garden Club of Buzzards Bay in 1975
and available at the Rotch-Jones-Duff House and Garden Museum











WILLIAM ROTCH, JR. HOUSE
New Bedford, Massachusetts

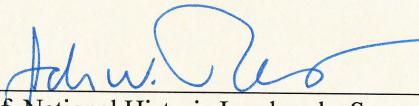
Designated a

NATIONAL HISTORIC LANDMARK

By the Secretary of the Interior on
April 05, 2005

Under the authority of the Historic Sites Act of 1935,
this site has been found to possess exceptional significance in
illustrating or commemorating the history of the United States for the
benefit and inspiration of the American people.




John W. Reps
Chief, National Historic Landmarks Survey
National Park Service



Collections Assessment for Preservation (CAP) Survey
ROTCH-JONES-DUFF HOUSE & GARDEN MUSEUM
New Bedford, Massachusetts



Submitted to:

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Executive Summary

On October 28 and 29, 2019, the federal-funded Collections Assessment for Preservation (CAP) program, a joint effort of the Institute of Museum and Library Services and the Foundation for Advancement in Conservation, brought a team composed of collection care professional Alexandra Allardt and historic preservation professional Shantia Anderheggen to the Rotch-Jones-Duff House & Garden Museum in New Bedford, Massachusetts to identify the outstanding preservation needs and priorities of the collections located in the National Historic Landmark (NR # 05000456; April 5, 2005) building owned and overseen by the RJD. The report is an overview of the collections, buildings, and building systems, as well as the institution's policies and procedures relating to collections care. This general assessment, within the constraints of the two-day site visit, reflects a recognition of a complex interrelationship of factors and is often a first step for institutions that wish to improve the stewardship of their collections and to enhance long-term planning and fundraising.

It is an essential responsibility of any institution with collections at the heart of its mission that management be guided by collection standards. The following three primary standards guide basic preservation actions. They broadly include all risk factors and are foundation elements of a collections care program. This CAP report makes recommendations in all three areas, allowing RJD to continue to build upon their foundation of care as they look to their future sustainability. The three essential collection standards addressed in the report embrace:

- A dry building and clean space (hospitable, accessible and clean environments)
- Safe and secure location (protection from unauthorized access, theft or vandalism)
- Documented knowledge of what you have (up-to-date collection management oversight)

The delicate task of balancing preservation needs, site use, interpretation, public accessibility, and operational sustainability has been a challenge to the management of the RJD. Balancing the external visitor demands with preservation goals and operational needs master planning is recommended. The planning process requires a multi-faceted approach that knits together a review of current conditions and the mission statement, governance, management, visitor, fund raising, and collection factors.

With master planning an overarching guide for the advancement of the RJD, the following priority recommendations are key collection planning initiatives to add to the institution's upcoming strategic planning process and goals:

- **Participate in the AASLH STePs Program (to strengthen core documents and raise awareness of standards of practice).**

- Establish a year-long environment monitoring program (to record and interpret existing conditions with the purpose of informing appropriate collection and building preservation planning needs and solutions).
- Complete a collection inventory and records reconciliation (to gain full knowledge of the collections and to address fundamental collection management needs).
- Commission short (2 to 5 year) and long-term (10 and 20 year) plans for cyclical maintenance, including a lifecycle analysis of systems, to inform fiscal planning needs into the future.

Because buildings play critical roles in the protection and display of the collections and because the buildings should be seen the largest objects in the collection, their preservation and maintenance are vital. This assessment did not find any emergency conditions, but numerous deficiencies were noted, especially in the weather envelopes and in mechanical systems, and these high priorities should be addressed as soon as possible. Neither of the buildings fully comply with the Americans With Disabilities Act (ADA) nor with numerous aspects of the state building codes dealing with access, egress, emergency lighting, etc. While significant historic buildings are allowed some exemptions to some codes, and local building and zoning officials are given some latitude about enforcement, all reasonable efforts should be made to protect the health and safety of the RJD staff and visitors while preserving the collections and the historic buildings.

I. Project Overview

The dedicated work of the Rotch-Jones-Duff House Executive Director, Board, and Committee members has required introspection and appreciation of the complexity of changing external environments and operational realities. In 2016, they reflected upon strategies for identifying and implementing their responsibilities to advance the institutional purpose and mission, resulting in a Strategic Plan. This effort poised the RJD to be pro-active rather than reactive, enabling them to anticipate needed change rather than simply respond to it. This 2016 planning process recognized the responsibility to identify and prioritize collection care needs and to develop a realistic plan of action.

In support of these planning initiatives, in October 2019, a collaborative collection and building preservation needs assessment was undertaken over two days by collection care professional Alexandra Allardt, Principal and Managing Director of ArtCare Resources, LLC and preservation professional Shantia Anderheggen, Principal of Preservation Strategies. The CAP preservation team, within the constraints of the site visit, characterized:

- collections sensitivities;
- building condition and performance;
- risks from the environment and use of the collection and building; and,
- risks from policies and practices relating to management, operations, or visitation.

Funded by the Institute of Museum and Library Services (IMLS), the Collections Assessment Program (CAP) goals of this assessment of the Rotch-Jones-Duff House & Gardens Museum (RJD) were as follows:

- To identify the preservation threats to the collections;
- To identify collection care preservation needs and goals to strengthen stewardship;
- To draft a prioritized plan of action for suggested short, medium and long-range activities;
- To increase Board and staff awareness of preservation concerns and standards of practice; and,
- To produce a document which can be used to substantiate collection and building care needs objectively and then be used as a tool for obtaining funding for collections care.

II. Introduction

The Rotch Jones Duff House (RJD) is located, in New Bedford, Massachusetts, a city of 95,000 residents in the heart of southeastern Massachusetts along Buzzards Bay. 58 miles away from Boston and 28 miles west of Cape Cod, New Bedford is a famous whaling port and center of Portuguese American culture. New Bedford continues to earn its living and pride from the sea as America's most active fishing port.

Heritage tourism visitors are often first introduced to the city through Herman Melville's classic 1851 book, *Moby-Dick, or, The Whale*. The lure of the city draws visitors to New Bedford to the center of the historic district to visit the New Bedford Whaling National Historical Park, the only national park that addresses the history of the whaling industry, and the New Bedford Whaling Museum, located within the national park and in the center of the historic district.

The William Rotch Jr. House, now the Rotch-Jones-Duff House & Garden Museum, is a National Historic Landmark just outside the downtown historic district, in an area of privately-owned historic homes. The RJD campus is comprised of the main house as well as the coachman's house, attached to which is the greenhouse and a later garage addition now used for programs. The coachman's house currently provides rental income and education programming space.

The three families whose names (Rotch, Jones and Duff) are attached to the property were all closely tied to the city's nineteenth-century dominance of the whaling industry as well as to twentieth-century commerce as well. The RJD is a collaborative partner of the New Bedford Whaling National Historical Park but receives relatively low annual visitation.

The historic main house is the largest object within the collection and is, according to recent (2019) visitor surveys, the primary focus of visitor interest. The house is interpreted through historic furnishings and materials representative of three consecutive periods of the home's occupancy—the Rotch family beginning in 1834, the Jones family beginning in 1851, and the Duff family beginning in 1935. First and second floor rooms are furnished using selections from a collection of approximately 2800 items that include domestic furnishings, decorative arts, and other related objects. A small collection of decorative arts, including furniture, glassware, porcelain and silver, populates the dining room, double parlors, butler's pantry, main hall, and bedrooms. The collections also include a notably generous collection of clothing and related accessories, currently stored in the attic with other furnishings and event supplies. Finally, the RJD cares for a modest archives collection of manuscripts and ephemeral, with a collection focus on the families who resided in the house.

The institution's stewardship team is guided by the following three-part institutional mission statement:

- To preserve one of the nation's finest Greek Revival mansions and its historic grounds and gardens to the highest standard;

- To interest and educate the public through exhibits and interpretive historical and horticultural programs that document the history of New Bedford and important chapters in American history through the lives of the three families who lived in the house; and,
- To acquire and care for appropriate artifacts, furnishings and period collections.

The vision statement is “The RJD is a highly valued resource of New Bedford---for both the community and individuals.”

The RJD is managed by four staff members: a full-time Executive Director, a full-time Facilities Manager, a full-time Membership and Events Coordinator and a part-time Curator and Manager of Collections. Volunteer committees for the buildings and grounds, and the collections support the work of the staff and together they report to the 18-member RJD Board of Trustees. The FY2019 general operating budget of the RJD was approximately \$350,000. With approximately 7000 visitors annually (3500 for house tours and another 3500 attending events), operations rely on funds generated from (i) an endowment principal of approximately two million dollars, (ii) events and (iii) a historically successful membership annual appeal.

Reflecting upon the 2016 Strategic Initiatives to *become more engaged with the community and develop additional collaborations with other institutions*, the CAP preservation team’s initial discussions with the Executive Director and committee members began with an overview of the institution’s history, studies that have been undertaken on the house, and the more recent completion of the historic landscape rehabilitation plan which has expanded opportunities for income generation. Further discussions explored the concerns of collection storage space and environment, the best use for the coachman’s house and its greenhouse and garage adjacencies, and the challenges to bringing visitors from sister organizations, located a half mile away, in the heart of the historic district. It is clear that, in the near term, RJD stewardship team is seeking guidance on (i) the suitability of the unheated attic location for collections storage and (ii) resources to raise both staff and board awareness of collection care concerns and the process for gaining intellectual and physical control of collections.

The CAP preservation team’s remaining time was spent reviewing the RJD’s building facilities and systems, exhibit spaces, and storage areas, and conducting an exit meeting with the Executive Director, staff, and several Board and Committee members to review preliminary findings and recommendations.

Documents reviewed by the CAP preservation team included:

Background Reports/Studies

- Cultural Landscape Report, vol. II (2012)
- Historic Furnishings Report Implementation Plan (2008)
- National Historic Landmark Nomination (2005)
- Historic Structure Report (1985)
- Drawings (including site, elevation, and floor plans of various dates)

Institutional Policies, Procedures and Other Documents/Publications

- Collection Assessment Program Site Questionnaire (2019)
- Board Officers and Directors (2019)
- Summer/Fall Newsletters (2019)
- Draft Collections Policy (2018)
- Pest Control Products (2019)
- Staff List and Job Descriptions (2019)
- High-Leverage Initiatives Recommended by Strategic Planning Task Force (2015)

Financials

- Operating Budget (2019)
- Financial Statements (for year ending June 30, 2019)

III. Property Location and Description

The Rotch-Jones-Duff site is located at 396 County Street in New Bedford, Massachusetts, close to the harbor in a dense and relatively urban neighborhood of historic buildings from various periods, diverse in size, scale and use, including residential, commercial, medical, non-profit, and others. The property slopes gently from a high point at the northwest corner to a low point along 7th Street to the east. The one acre site is essentially square in shape and comprises an entire city block, located less than half a mile—approximately 6 city blocks—from New Bedford’s harbor to the east.

There are three buildings on the site: the Main House, the Coachman’s House—attached to which is a greenhouse and a garage, and the Apiary. The buildings are all situated on the north half of the property, with the façade of the main house facing west. A large garden encompasses the southern half of the site. A wooden board fence surrounds the site, except at the west façade of the house. The only on-site parking is in a half-round driveway accessed from County Street. On-street parking is available on numerous surrounding side streets.

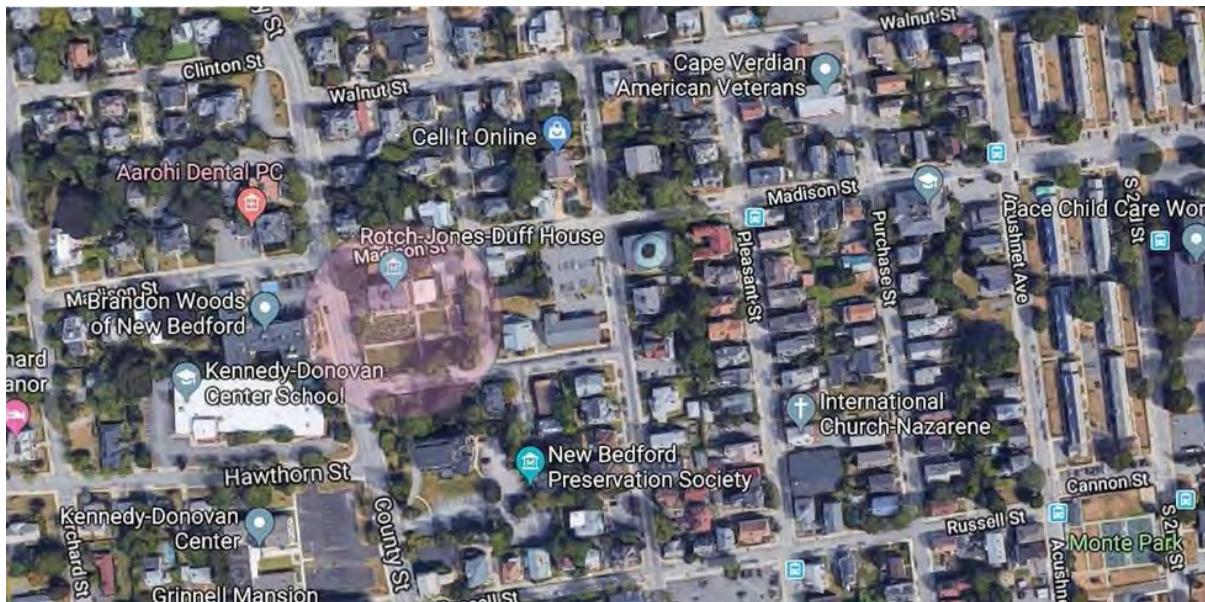


Fig. 1 Rotch-Jones-Duff House is located at 396 County Street in New Bedford, Massachusetts. True north is at the top of the photo. (Google Maps)

IV. Climate and Weather

The below weather chart taken from www.weatherbase.com shows the temperature ranges for New Bedford, Massachusetts. The yellow line tracks the highest temperature reading for each month. the green line is the average high temperature. The blue line tracks the lowest temperature reading in each month. The red line tracks the average low temperature.

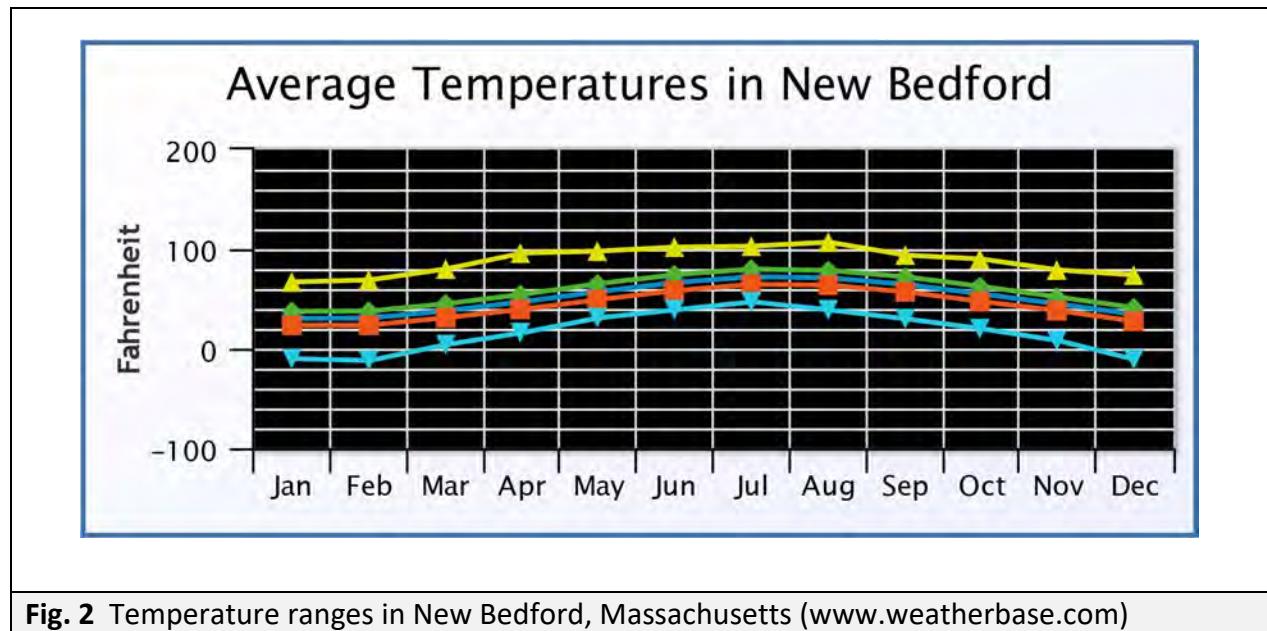


Fig. 2 Temperature ranges in New Bedford, Massachusetts (www.weatherbase.com)

"This climate is characterized by relatively high temperatures and evenly distributed precipitation throughout the year. This climate type is found on the eastern sides of the continents between 20° and 35° N and S latitude. In summer, these regions are largely under the influence of moist, maritime airflow from the western side of the subtropical anticyclonic cells over low-latitude ocean waters. Temperatures are high and can lead to warm, oppressive nights. Summers are usually somewhat wetter than winters, with much of the rainfall coming from convectional thunderstorm activity; tropical cyclones also enhance warm-season rainfall in some regions. The coldest month is usually quite mild, although frosts are not uncommon, and winter precipitation is derived primarily from frontal cyclones along the polar front.

The Köppen Climate Classification subtype for this climate is "Cfa". (Humid Subtropical Climate).

The average temperature for the year in New Bedford is 51.0°F (10.6°C). The warmest month, on average, is July with an average temperature of 72.3°F (22.4°C). The coolest month on average is January, with an average temperature of 30.5°F (-0.8°C).

The highest recorded temperature in New Bedford is 107.0°F (41.7°C), which was recorded in August. The lowest recorded temperature in New Bedford is -12.0°F (-24.4°C), which was recorded in February.

The average amount of precipitation for the year in New Bedford is 43.8" (1112.5 mm).

In New Bedford, there's an average of 32.7" of snow (0 cm). The month with the most snow is February, with 9.7" of snow (24.6 cm)."

Although the average climate in New Bedford is not especially harsh, it does challenge the weather envelope of the building, leading to moisture and temperature problems especially for the collections in the attic of the house. In addition, there is real potential for damage from specific weather events, such as the strong storms that occasionally come in directly off the ocean from the northeast direction in the fall and winter. These unusual and extreme weather events can overwhelm weather envelope defenses that are not challenged by "normal" weather. Extraordinary efforts must be taken to protect these sporadically vulnerable areas.

V. COLLECTIONS ASSESSMENT

A. Introduction

As with all museums, the RJD collections are an important means to advance its mission and serve the public. Because collections are held in trust for the public, the stewardship of collections incurs legal, social, and ethical obligations to ensure that the objects the museum owns, borrows, holds in its custody, and/or uses are available and accessible to current and future generations. The overarching stewardship obligation is to minimize damage through a continual refinement of plans that address agents of deterioration to provide:

- A dry building and clean space (hospitable, accessible and clean environment)
- A secure location (protection from unauthorized access, theft or vandalism)
- Documented knowledge of what you have (up-to-date collection management oversight)

The following section of the report is written from the perspective of collection needs and the risks to the preservation of the collections. Risks to collections result from exposure to ten core agents of deterioration. These are: 1) physical forces; 2) fire; 3) flood; 4) criminals; 5) pests; 6) pollutants; 7) light and ultraviolet radiation; 8) incorrect temperature levels and rates of change; 9) incorrect relative humidity levels and rate of change; and, 10) custodial vulnerabilities. The risks from most of these factors may be manifested continuously, sporadically or rarely, but they all directly affect the preservation of every type of collection. Effective stewardship is accomplished by eliminating, blocking or mitigating these collection preservation risks.

B. Stewardship Policies and Planning

Identified Risk Stewardship Vulnerabilities

Goal Strengthen Policies and Strategic Planning

Plan of Action

- Read National Standards and Best Practice in U.S. Museums
- Take field trips to sister institutions to learn how they addressed similar challenges
- Participate in the AASLH STEPS program
- Review, revise as needed and approve core documents
- Expand the Board and volunteer Committees with job descriptions
- Read Magnetic: The Art and Science of Engagement
- Familiarize Board and Committee members with Active Collections Manifesto
- Revise the strategic plan to address the collection needs

Site Observations

Governance Policy and Operational Documents

Core operational documents as delineated by the American Alliance of Museums (AAM) are a mission statement, strategic plan, an institutional code of ethics, a collection management plan, and an emergency preparedness and response plan. The RJD is operating with three of five core documents needed to meet these standards of practice. The RJD has a mission and vision statement and 2016 initiatives from a Strategic Planning Task Force. The collection management plan (CMP) is in draft form and addresses core issues of accessions, loans, deaccessions and a purchase policy. These are elemental foundation blocks for governance that position the RJD for continuing to strengthen operations. The emergency preparedness and response plan and the institutional Code of Ethics Statement are outstanding.

2016 Strategic Plan

The RJD has an energized all-volunteer Board, Collection Committee and a separate Buildings and Grounds Committee. Committee members are commended for their dedication to the RJD as an important community asset, their history of steadfast contributions, successfully completed projects, and their willingness to reach for the next level of professional standards of practices. Committee members who have had experience with collection care and management with a sister institution are a strong asset that positions the RJD for the challenges ahead.

A strategic plan tasked in 2016 is aging out and the Board is poised to identify new tasks to steer the RJD into the future. The 2016 plan underplayed resolving the collection needs as a key interpretive goal to support the Abolition Row Historic District, deferring directions to address the stewardship challenges presented by the various collections in the attic storage. The Board is currently looking to resolve the concerns in the next round of strategic planning. There is a conundrum, however, as to how to optimally organize these collections, and to provide a hospitable storage environment.

The Assessor noted the following management concerns that have impeded resolution. With “75% of the collection inventoried, 50% photographed and 90% cataloged,” as stated in the CAP Site Questionnaire, the RJD does not have physical or intellectual control over its collection. Not knowing what the RJD has for collections hampers the ability to make informed collection decisions. RJD’s mission also clouds an understanding and value of the collections as an RJD asset to the mission. The mission statement sets the house and historic landscape as the institution’s primary assets (by placing them first in the listing, with the fiduciary obligation that they be “preserved”) while the collections are cloaked, at the end of the statement, as a more generic grouping of lesser importance of “artifacts, furnishings and period collections.” The phrase “care for appropriate artifacts, furnishings and period collections” also implies a less stringent level of stewardship for these collections.

The need to gain intellectual and physical control over collections is a complex and time-consuming process that requires an experienced team to complete. There are insufficient RJD staffing resources at present to successfully undertake this project in a timely fashion. The current part time curatorial staff has no practical experience in the process and already has a full workload with the dual responsibilities of daily collection management tasks and preparation of two annual exhibits. The absence of a fully accessible and hospitable collections work area also inhibits the efficiency of her work execution.

The assessor noted that while the approximate 2800 artifacts, furnishings and period collections make up the RJD collections, the textile collection comprises a dominant portion of the collection. This type of collection (textiles) is notably preservation risk prone and requires a weighted proportion of operational and staff resources to maintain with due diligence. To this assessor, their value to the mission is unclear. The assessor also noted the risks to muddling the visitors understanding of authenticity when visiting a Landmark building of a specific date but furnished through a broader timeline of through the interpretation of three unrelated families.

A mission and vision-related observation begs the question, how do the collections as a whole, and by individual type (furnishings, accessories/artifacts, textiles, archives) support the mission. Is your story about the house or about the people (or one family)? What is the story that is a unique draw for visitors? Does the institution see itself as a museum of period furnishings and accessories, or are the Landmark house and historic grounds stand alone on their recognized national merits?

Recommendations

Core Documents

The review, revision or formalization of the core RJD operational documents is recommended to guide operational needs and fiduciary oversight. These documents are all related; however, the Collections Management Policy (CMP) and the Disaster Preparedness and Emergency Response Plan fall within the scope of this collection needs assessment. The Emergency Response Plan is addressed in a separate section in the report.

In anticipation of raising awareness of the importance of these core documents, it is recommended that the stewardship team and Board Members read Elizabeth Merritt's "*National Standards and Best Practices in U.S. Museums*". This user-friendly publication will establish a common language and a sound basis for developing museum policies and procedures. It will also raise a common awareness of the fiduciary responsibilities of holding collections in public trust. These efforts will allow the staff and Board Members to partake in strategic planning from a position of strength and understanding of stewardship responsibilities.

A recommended distance program useful to museums seeking information on governance and stewardship is the American Association of State and Local History (AASLH) StEPs (Standards and Excellence Program for history organizations). It is recommended that the RJD participate in this

program as a staff and volunteer development tool to strengthen practices. The Program will also help clarify the focus of the RJD mission, the interpretive timeline, and how the collections support it.

StEPs is a self-study program designed specifically for small- to mid-sized history organizations. Through a workbook, online resources, and an online community, organizations enrolled in StEPs assess their policies and practices and benchmark themselves against national museum standards. The program is divided into six sections that can be addressed in any order. StEPs breaks down national standards into manageable levels: Basic, Good, and Better. This allows you to measure progress while working incrementally to make improvements. After completing each level within a section, the RJD will receive a certificate from AASLH that lets your community and stakeholders see that you are making meaningful progress toward national standards. These documents will translate into increased credibility that can help justify funding requests and move strategic planning forward effectively. Information about the program and to join the program is at <http://tools.aaslh.org/steps/>.

Supplemental Governance Resources

Further recommendations on your governance and strategic planning is outside the scope of this report; however, the following information is included to raise awareness of other resources, in addition to the STePs program, in support of seeking information and advice to continue to strengthen standards of operations.

Five documents have been designated as core by the American Alliance of Museums (AAM) because they are fundamental for professional museum operations and embody core museum values and practices. They are the Mission statement, an institutional Code of Ethics, a Strategic Institutional Plan, a Disaster Preparedness and Emergency Response Plan, and a Collections Management Policy. They codify and guide decisions and actions that promote institutional stability and viability, which in turn allows a museum to fulfill its educational role, preserve collections and stories for future generations, and be an enduring part of its community. A summary description of the foundation documents is found at <https://www.aam-us.org/programs/ethics-standards-and-professional-practices/core-documents/>.

Each document is linked to a page of background information and resources on how to move forward to develop the individual planning document. Tier 3 AAM members have access to Sample Documents as a benefit. The American Association of State and Local History also have sample documents to share with members and with STePs participants.

The five core documents are informed by the Core Standards issued by AAM. The Core Standards are grouped into the following categories: *Public Trust and Accountability, Mission & Planning, Leadership and Organizational Structure, Collections Stewardship, Education and Interpretation, Financial Stability, and Facilities and Risk Management*. To seek advice on strengthening your standards of operations participating in the Museum Assessment Programs (MAP) may be helpful. MAP provide five different peer review assessment types that help historic sites look at

both functional and strategic aspects of their operations through the lens of the Core Standards. Each assessment assists museums define key areas of operations or functions that need to be strengthened. The types of assessment are 1) organizational assessment, 2) Collections Stewardship Assessment, 3) Education and Interpretation Assessment, 4) Community and Audience Engagement Assessment, and 5) Board Leadership Assessment. Information on the MAP programs and how they fit into the AAM Continuum of Excellence Program is located at <https://www.aam-us.org/programs/accreditation-excellence-programs/museum-assessment-program-map/>

Board and Stewardship Committees Development

Adding job descriptions or needed skill sets to the Board and each Committee is recommended to strengthen their effectiveness and frame accountability. Active engagement with your Chamber of Commerce will raise community awareness of your planning needs and may guide you in identifying potential candidates from across the community to add to the committees. It is also common for the Director to reach out to area institutions to ask those familiar with these documents to become a committee member for a specified time and project (such as 6 month commitment to review the collections management policy). Inviting a collegial museum registrar, collections manager, museum archivist, or seasoned director to join your team will provide a practical perspective that insures you are not overreaching but are effectively aligned with your resources.

Day trips to sister institutions also are recommended to both develop a network of support and to see how they have or are addressing similar needs to the RJD. The New England Museum Association(NEMA) may be able to provide sites to approach or connect you with appropriate NEMA professional affinity groups. This assessor suggests visits to Blithewold Mansion and Gardens, Little Compton Historical Society, Lippitt House Museum, and the Plymouth Antiquarian Society in New Bedford to learn about their struggles and successes in tackling inventory reconciliation needs and building retrofitting.

Collection Management Policy Review

The RJD has a draft Collection Management Policy (CMP) to guide management decision making and procedures. As part of the STePs program review the draft policy and add simple statements to address missing topics. Your efforts will make it a more robust policy that mirrors recognized standards of practice. You are encouraged as members of AAM and AASLH to copy sample documents (or portions) available for use and guidance, keeping in mind not to over detail the policy with management requirements that drain the resources you have. Keep in mind that a CMP is not a static document but can be revised as issues not addressed in the policy are raised.

A Collection Management Policy (CMP) covers the following related topics:

- Bears date approved by the governing authority
- Scope and categories of collections

- Acquisitions and accessioning (including criteria and decision-making authority)
- Deaccessioning and disposal (including criteria and decision-making authority)
- Loans, incoming and outgoing (if the museum does not lend or borrow, it should state this)
- Collections documentation and records, including inventory
- Collections care and conservation
- Access and use of collections
- Responsibility and authority for collections-related decisions
- Collections-related ethical issues
- Statement on the use of funds from deaccessioning, limiting use to new acquisitions and/or the direct care of collections (language must be identical to that in the Code of Ethics)

The CMP often states a Code of Ethics committing the Museum to practices endorsed by nationally recognized standards of collection management. The American Alliance for Museums, the American Association of State and Local History, the Secretary of Interior Standards for both Historic Preservation and Treatment of Cultural Landscapes, the Association for Preservation Technology, and the American Society of Archivists are primary sources delineating nationally recognized standards of practice. Citing them in the collection management policy identifies them as the sources for foundation principles that guide the development and practices within your CMP.

A complete review of the CMP is outside the scope of this project; however, several additions are suggested. A helpful procedure is to identify required review periods in the CMP biennially or at least every five years. Another commonly overlooked area is the requirement to renew loans annually. This is helpful to have current contact information and avoids the impediments for them becoming unclaimed property. With this in mind, identify object loans to RJD and re-evaluate their status and possibly return objects to lenders. Be sure to have a legal review of your policy and forms to ensure they are reflective of Massachusetts laws.

A procedural manual often is the next step after developing a CMP. This simply starts by creating and grouping all the accessioning, loan, receipt, donation, bequest and other legal forms into a single location. Housekeeping and maintenance checklists often build upon these, as do written instructions on processing environmental data or the procedures to access and manage the collection database. The presence of a manual is particularly important as staff change over time.

Scope and Categories of Collections

RJD will find it helpful to define different types of collection categories in your CMP, especially since artifacts, archives, reference and institutional records, the buildings, the historic landscape and architectural elements are collections with different stewardship needs. Each collection classification (in a self-defined tiered system) articulates guidelines for the level of use (how much or under what conditions it can be accessed) and describes what value they bring to the institution or the visitor experience. This is a helpful means to contain the costs of preserving collections in perpetuity. For example, objects can be defined by their relative significance for exhibition, research or education and by the levels of supervision required for care and maintenance. Education collections or a resource category as discussed during the site assessment for rugs can be handled, used and eventually replaced or disposed of once "used up". They can also be stored in less hospitable environments. Permanent collections, however, would be given the highest level of care, exhibit standards, and resources for protection. They would not be handled (or walked on) except by the collection managers for formal exhibition purposes because they are meant to last for public benefit in perpetuity.

The following examples of collection classifications are common types to consider. Networking with sister institutions to gain a better understanding of their tiered collecting categories and use protocols is often helpful. Be aware that each category should have its own set of tracking, management and preservation guidelines with permanent collections having the most stringent of guidelines for housing and access protocols.

Permanent Collection – These are to be cared for in perpetuity. They are provided the highest order of preservation care and the greatest amount of resources. Some institutions have no permanent collections. One question you ask is what in your holdings are essential items or icons that exemplify your core mission and your institutional vision. RJD may wish to categorize the building, gardens and artifact collections separately due to different approaches to preservation and restoration parameters.

Architectural Elements – These are from prior decoration periods. They inform future study of the building and interior finishes. They are important to keep as a separate category. Doors, lintels, valences molding, hardware are examples. Window hangings and rolls of wallpaper are often maintained by keeping a design repeat rather than the entire contents.

Educational Collection – These are common items or lesser quality duplicates of items in the Permanent Collection. Most commonly they are used as teaching aids in programs or on exhibit. They may also be reproductions. Institutions often find they help the visitor cope with that overwhelming desire to touch. They have a life expectancy and can be replaced. They have their own numbering system to clearly separate them from permanent collections. Their care is less stringent and their storage, as a best practice, is outside of the permanent collection room. There is a line item in the budget for their replacement. The stereoscope, silverware, tea set, ice box, watercooler, and other items

fall into this category. Examples might be textiles that do not represent targeted time periods or direct family connections but are generic examples. Duplicates may be a viable education resource also.

Institutional Records – These are archives or documents that relate to the history and governance of the organization. Some of these are legally required to be kept, and others such as board minutes provide historical documentation of Board decisions. The MA State Archivist will have guidelines as to what must be legally kept.

Special Collections – These are archival materials or documents that relate to and have core value to the history or mission of the organization. They are commonly unique and not replaceable. Family documents often fall into this category.

Archives – Archives are books of special merit or documents that are used for reference or research. These commonly can be replaced, and often electronic versions are available online or kept in state libraries.

Resources – Exhibit props or other equipment related items which you've either purchased or have been donated specifically for exhibition purposes and which you may alter to suit the interpretive strategy. Some of the room floor coverings are suited to this category.

Strategic Planning

As the RJD Board considers its future, a recommended strategic planning initiative is to clarify the value of the collections to the mission. The first step in planning for “what to do with collections in storage” is a review of the mission statement to confirm that the mission, collecting vision and collecting timeline(s) remains relevant to today’s cultural engagement needs and organizational sustainability. This both reminds board members of their charges and is a means for accountability when aligning future planning discussions with core responsibilities.

Central to the discussion is the question about the value and purpose of the stored collections and how they “earn their keep”. This process will help clarify the relevance of collections to the mission and strengthen the guidance set forth in the collection management policy. Identifying a specific time period(s) to interpret is also helpful to clarify what to add to the collection and what to remove from the collection after the inventory reconciliation. With decreased public funding and more engaged donors, museums can no longer just be institutions that simply preserve collections. History museums must demonstrate real public value to their communities or face extinction. A recent initiative named Active Collections provides useful questions and conversations to have among your stewardship teams that may help show a path toward change. The manifesto is a new model for thinking about collections and believing that some objects support the mission better than others, not based on monetary value or rarity but based on the stories they tell and the ideas they illuminate. The website is at

<http://www.activecollections.org/manifesto>. Reviewing the manifesto's eight questions and starting the conversation will shed new light on planning discussions.

An evolving approach in today's retooled business climate is for historic sites to evaluate alternative uses for their building assets while respecting preservation as a core responsibility. Some keep properties under their oversight to maintain preservation restrictions, bringing them up to code and repurposing them for income generation. Recommended initiatives for the next round of strategic planning is to include assessing the range of possible reuse and revenue options for the Coachman House, Greenhouse and Garage as well as the RJD House. Assessing the feasibility of acquiring adjacent buildings and/or parcels to accommodate the institution's potential and growing needs, is also a recommendation.

Should the decision to maintain the size of collections and exhibit rotation as they exist now be envisioned, funding for a full-time staff collection manager is also a key strategic planning initiative recommended for inclusion. This position is responsible for executing the daily collection management tasks with consistent and vigilant oversight and the semiannual rotation of exhibits.

C. Stewardship Physical and Intellectual Control

Identified Risk Lack of Physical and Intellectual Control Over Collections

Goal Up-to-date collection management practices

Plan of Action Gain physical and intellectual control over collections

- Impose a moratorium on collecting until a reconciled inventory is complete.
- Gain physical and intellectual control over collections
 - Clear/prepare the attic central space for inventory process
 - Assess and purchase technology needs to support the collection management database
 - Dedicate individual eave rooms for architectural elements, furnishings, institutional records, holiday/event supplies
 - Conduct a pilot project
 - Secure funding to outsource the inventory processing
- Purchase HEPA vacuums and supply housekeeping carts for each floor.
- Hire a collection manager
- Deaccession collections as needed
 - Assess the collections for the mission related value
 - Commission a textile historian to identify collection strengths, weaknesses, and interpretive themes
- Draft a collecting plan to guide future collecting.

Site Observations

With “75% of the collection inventoried, 50% photographed and 90% cataloged,” the RJD does not have physical or intellectual control over its assets. A physical inventory and records reconciliation project is impeded by insufficient staffing resources and workspace constraints in the RJD building space.

Attic Storage

The third floor of RJD is a large open space covering the entire footprint of the building. It serves as de facto storage. A central common space is subdivided along the south and north perimeters into a series of rooms built into the eaves. The west end of the common space also opens into rooms against the west wall. An interior room sharing a common wall with the west end room is a former bathroom. The southeast corner of the common space also features the upper outcropping of the elevator shaft.

The attic is accessed from the second story below by a staircase opening towards the center east end. It is not known whether this staircase is code-compliant, but it does heighten risks to moving collections between floors. The code compliance would need verification with the City. An enclosed stairway to the cupola is set in the west center of the open area.



Fig. 3 A steep stairway provides access to the attic, opening in the middle of the floor at the east end (left). A second enclosed stairwell (red circled) at the center west end of the room provides access to the cupola (right).

Four of the small north and south rooms have dormer windows for light and ventilation. The east and west walls have operable wide fanlight windows for cross ventilation. The attic space currently is unheated, although a layer of insulation is above the ceiling and cast-iron radiators were used in recent RJD history. They remain in situ but are currently inoperable. The windows

are loosely fit and have no storm covers, exacerbating the drafts and moisture ingress from weather incidents. The lack of heating or cooling controls in the attic makes human comfort for collection management tasks problematic. The incentive during warmer months to open windows for ventilation further compromises tasks to maintain a clean and hospitable space.

The open portion of the attic serves as a general mixed storage area for unused furniture, an education house model and a variety of extraneous items. The 3 north side rooms house textiles and furnishing accessories, generally boxed and stored on shelving. A single room with no window is planked with cedar and customized with cedar drawers fit into the slope of the eave. The room also accommodates two rolling textile racks with costumes on padded hangers. The south side rooms house a mixture of architectural features, institutional records, holiday decorations, chairs and other furnishings. The west rooms contain additional furniture and bedding, and some boxed textiles. One room retains the bathroom fixture.

The use of this space as currently organized for mixed storage is an environmentally inhospitable space prone to work inefficiency and security risks.

Furnishings, Textile and Mixed Collection Categories

Over the history of the RJD, a broad collecting focus has enabled a well-intended but unstructured growth in a breadth of collections that today exceeds the RJD staff and facility resources to manage, access, and care for this collection with due diligence. Undertaking ongoing collection management needs and/or the more labor-intensive inventory reconciliation is impeded by the lack of an environmentally hospitable space and of a full-time staff position dedicated to the full array of collection management responsibilities. The result today is that the collections present substantial spatial, environmental and management challenges in need of resolution for the RJD to move forward.

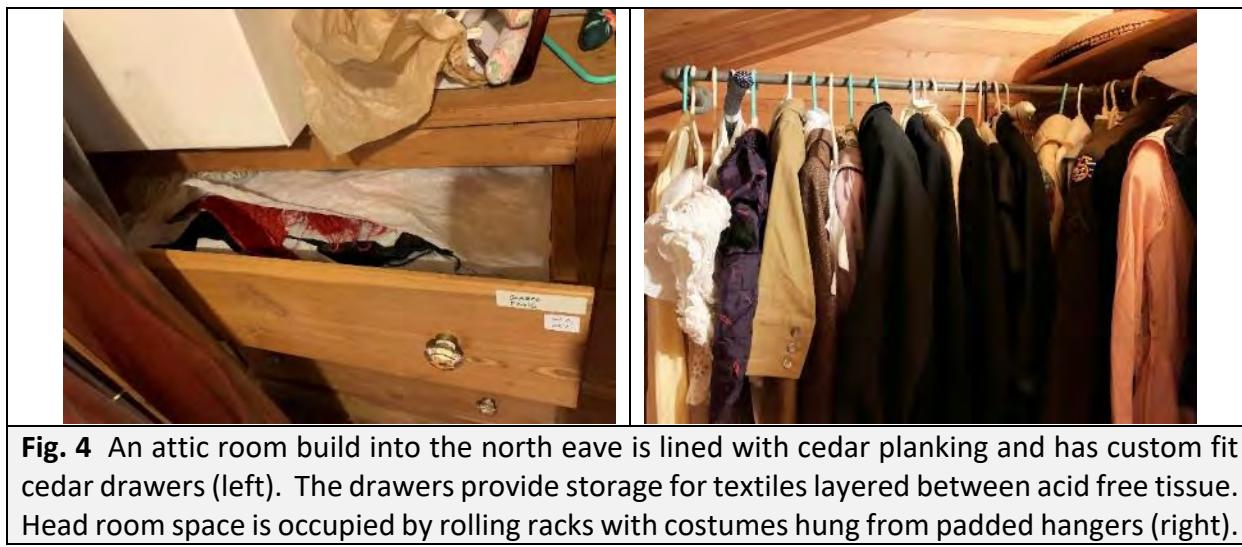


Fig. 4 An attic room built into the north eave is lined with cedar planking and has custom fit cedar drawers (left). The drawers provide storage for textiles layered between acid free tissue. Head room space is occupied by rolling racks with costumes hung from padded hangers (right).



Fig. 4 Boxed collections recognize best practices, but space constraints and mixed storage functions impose physical access and security risks.

To the RJD staff credit, steps to address the protective housing needs were undertaken. The textile collection has been layered between acid free tissue in



Fig. 5 The north side attic rooms fit into the roof eaves, have been fitted with shelving to maximize available space and are dedicated to storage of a variety of collections.

tissue lined cedar drawers, in acid free boxes or on padded hangers in covered racks following recognized standards of practice. This rehousing project is a commendable protective preservation action, but space constraints require most boxes and drawers to be packed in multiple layers. This presents deleterious physical risk to clothing accessibility and long-term care. Storage constraints require their location in several unheated and drafty attic rooms, exposing these fragile materials to accelerated deterioration from extremes in environmental fluctuations throughout the year.

The south side attic rooms serve as a mixed storage area for furnishings, architectural features, institutional records, programming, and holiday decorations. They are protectively housed in acid free boxes or covered with sheets, but accessibility is challenging and verging on overcrowding. The mixture of collections with non-collections compromises security and further impedes safe access.

A draft collection policy is available to guide item by item evaluations for mission relevance. The lack of a full inventory and insufficient resources to administer the policy, however, continues to challenge the Curator's time and competing management responsibilities. Faced with the backlog of collection needs and insufficient working space the Curator understandably struggles with task saturation.



Fig. 6 Institutional records are stored in the attic mixed with holiday and event supplies south side eave rooms.



Fig. 7 Rooms against the west end of the attic are an inactive bathroom and repurposed adjacent room for excess boxed textiles and an assortment of furniture

Archives

A discreet archive and a mixture of framed artworks are stored in two second floor closets. Archives are stored by finders' aids inside bankers' boxes and document boxes and demonstrate good practices. Additional processing is needed to make them publicly available. They support of in-house research needs. A staff position is unavailable to focus on remaining and ongoing management needs.



Fig. 8 Archive collections are organized by finder's aid following standards of practice. They are secured in dedicated spaces accessed by a key/lock managed by the curator.

Recommendations

One of the keys to sound leadership in the museum field is an effective collections' management program that provides full knowledge of what the RJD owns and manages. With approximately 75% of collections inventoried and 50% photographed, an inventory and records reconciliation for all collections is essential for the RJD to know what it has and to justify or advocate for the resources to preserve and exhibit them in the future. The process strategically positions RJD for improvements to collections stewardship and enables foundation decisions about an optimal sustainable size and scope of the collections. A completed inventory reconciliation honors the fiduciary responsibility of the Board and is a recommended first step in revitalizing the collection.

RJD is under resourced to address this need in a timely manner. Outsourcing the inventory reconciliation, and physical sorting and organization is recommended. Grant funding is recommended to expedite the initiative. Exploring the state community preservation funds and federal agencies are viable options. The textiles collection, as previously noted, is the priority collection for an inventory reconciliation. An inventory process with digital imaging, however, is also recommended for the archives, furnishings, accessories and architectural elements currently housed in the attic.

In support of gaining physical and intellectual control over collections, the adoption of a more robust collections management plan, as stated in the stewardship section, is a parallel recommendation to both guide deliberations for deaccession, and/or to begin to strategically address gaps in the collection. Exhibits and programs will have greater knowledge and access to collection contents for planning because database records will be more readily available and reflective of current holdings. With increased transparency community partners, researchers, and educators will begin to see the collection as a viable resource. In addition, efforts to strategically plan for the size and scope of the collections, will lead to greater engagement and public knowledge of the collection, as well as inform storage and management space planning needs.

The process to gain intellectual and physical control, or knowing what you have, is framed by a three-pronged approach. The three steps are to:

- Plan for an inventory reconciliation with digital images of existing holdings
 - Review the mission and revise collection management plan as necessary
 - Familiarize the collection committee with ActiveCollections.org manifesto and 8 questions “A Path Towards Change”
 - Facilitate the discussion with professional assistance if needed
 - Prepare the attic space for inventory
 - Clear the center attic room of all items
 - Tighten the building envelop
 - Monitor the environment
 - Add storm windows, wall and ceiling insulation, door sweeps
 - Add adequate heating/cooling systems for the common room
 - Dedicate and secure individual side rooms as sole purpose storage for each collection category (cull, deaccession or consolidate)
 - Relocate the textile collection to rolling racks that line the center room walls
 - Map out inventory workstations and workflow
 - Purchase additional rolling storage racks to line the walls for temporary boxed storage
 - Assess database and computer equipment needs
 - Conduct a pilot project to test workflow and track time and supplies
 - Prepare bid packets
 - Outsource the project through grant funding
- Conduct the inventory reconciliation
 - Inventory, photograph and reconcile records for all collections
 - Sort and evaluate the relevance of the individual items to the mission
 - Consult with a costume historian concerning the strengths and weaknesses of the textiles for preservation and interpretation
 - Review the collection management policy and revise as needed
 - Identify collection categories in the CMP

- Deaccession as needed following the CMP
- Conduct a storage space and furnishing needs assessment
- Develop a collecting plan
 - Fund an RJD Full Time collection management position

Inventory Space Planning Needs

The inventory project for all the collections requires a planning phase to determine optional building locations to repurpose for this project. Space needs include multiple work functions and holding areas for the temporary storage of collections awaiting processing, workstations for photography, physical inventory and condition examination, physical sorting and organization, evaluation for deaccessioning, numbering and physical records reconciliations, data processing, and post process rehousing and storage. Planning for staffing needs and the storage of rehousing supplies is also part of the workflow design process. A large open footprint will optimize work function flexibility and efficiency. Three options to consider are noted.

The educational room in the Coachman House may be a viable option, however, the commitment to this space eliminates the room for educational programming for the length of the project and imposes tenant fire risks and additional security, lighting and physical risks from transferring and storing these collections in that location. Anticipated spatial limitations may also impose work and storage conflicts indicating the project would need to be phased, lengthening the project timeline. In a practical sense the space is considered “offsite”, presenting management, physical and environmental challenges for the movement of collections. Of the three locations, this space hosts the greatest risks to collections that will be actively used in the house.

Within the RJD House, repurposing one or two of the second floors furnished rooms is a second option suited to a multi-phased inventory project. The location presents an existing environmentally hospitable work site and enables the collections to be transported from the attic to the workroom and back to the attic for storage as inventory and evaluation processes are phased. Choosing this location eliminates these spaces to the public for the length of the project but cost effectively (no renovations needed at this time) positions RJD for determining the size and scope of the collection’s suitable for future oversight. Two second floor rooms also have potential for long term storage of a reduced collection size with an adjoining management space, a best practice. The second-floor elevator additionally minimizes physical risks to moving collections and mannequins between floors, by eliminating the staircase. The use of these rooms may still require the attic for storage of furnishings, architectural elements, institutional records, and seasonal resources.

A cursory review of the attic suggests retrofitting the common central space as a “room within a room” for an inventory and sorting location is a feasible third option. The use of the center room imposes the least physical risks to the collections because its location expedites access to the stored collections in adjacent eave rooms and obviates the physical risks inherent to stair access.

In preparation the space must be cleared of existing furnishings and supplies to accommodate planned work functions and processed collections.

To minimize the exposure to extremes in T and RH fluctuations in the attic side/eave rooms, a visual assessment suggests the existing textile holdings could be brought into the central space and stored on rolling bakers racks set perpendicular to both north and south walls. If the racks are placed one next to the other, they form an inexpensive compactor storage design. This will mitigate environmental risks to this sensitive material and serve as a temporarily permanent storage location. Although not a best practice, solid furniture is less risk prone to damage from an inhospitable environment and can be stored in an eave room dedicated to their storage until the inventory is complete. It is also advisable to use a portable air conditioner in the eave rooms during the warmer months until the space needs of the entire collection can be more accurately determined.

The use of the central common space, however, requires actions to tighten the building envelop and moderate the environmental extremes by creating a “room within a room”. Tasks to modify the building envelop may include but are not limited to the addition of storm windows and seals, adding door sweeps to the side room doors, blocking drafts, and adding a localized heating and portable cooling system to eliminate extreme climate variations in the space. A feasibility review is needed to determine the requirements and project operational costs, as well as Code Compliance for emergency egress. The Buildings Assessment section below provides additional information.

Inventory Sorting and Evaluation

Simultaneous to a physical inventory, a sorting of all collections for mission relevance is recommended.

The inventory process is an opportunity to review the collecting history and focus on developing a collecting plan. A sorting process commonly begins with sorting holdings into three general sections: 1) keep/is clearly mission related; 2) maybe/needs further justification; and 3) remove/not mission related/hazardous/incomplete/excess damage/needs too many resources. The Collection Management Policy (CMP) will guide the sorting process. To further facilitate discussions, contract a textile historian to advise on the merits of the collection and supporting interpretive themes.

Deaccessioning and Disposal

Addressing the topic of deaccessioning and objects found in collection are often viewed as a challenge. How you wish to proceed on this topic should be delineated as clearly as possible in the CMP.

It is also advisable to consult an attorney to ask what, if anything, you can do under Massachusetts law and local law to strengthen the deaccession policy, and what, if anything, you can do legally to provide the Museum protection.

Reviewing the following management tools will help clarify your steps. Begin with the web-based Connecting to Collections Care webinars on Deaccessioning.

- The Deaccessioning Dilemma: Laws, Ethics, and Actions (2015) with John Simmons: https://www.connectingtocollections.org/the_deaccessioning_dilemma_laws_ethics_and_actions/
- Introduction to Legal Issues in Collections Management (2017) with John Simmons: <https://www.connectingtocollections.org/intro-legal-issues-in-collections-management/>
- Why do we need this? Insights and Hindsights from Deaccessioning (2017): <https://www.connectingtocollections.org/why-do-we-need-this/>

A bookshelf of references will be helpful in addition to on-line resources provided by the American Association of Museums. A primary reference is *Museum Registration Methods*, Fifth Edition by Rebecca Buck, considered the bible of museum registration procedures. *Registration Methods for the Small Museum* by Daniel Reibel has been a definitive guide to registration methodology for small museums since 1978. The book covers all aspects of the registration process and provides practical solutions for the small museum professional in a concise, readable manner. This step-by-step guide begins with developing policy and takes the reader through acquisition, numbering, accessioning, documentation, loans, and deaccessioning. There is also a useful introduction to both manual and computer systems. Further recommended core bookshelf resources are John Simmons' book *All Things Great and Small* published in 2005, and the newest edition of Marie Malaro's *Legal Primer on Managing Museum Collections*. This is the standard reference for collections management policies when one is interested in learning more about the legal aspects of the fiduciary responsibilities of collections held in public trust. A final published resource is Stephen E. Weil's book "A Deaccession Reader" published by the American Association of Museums. All are available at the online AAM bookstore <http://www.aam-us.org/bookstore>.

A recent publication by Julia Courtney entitled "*Is It Okay to Sell the Monet*" presents a series of essays by professionals in different capacities both directly and indirectly involved in museum work. Contents include a reminder of the background of this aspect of collection management and provides context for the changes seen over the years. The review furthers along the discussion as how to view the need for and use of funds as collection managers move forward. The publication is available from Rowman & Littlefield: <https://rowman.com/ISBN/9781442270817/Is-It-Okay-to-Sell-the-Monet-The-Age-of-Deaccessioning-in-Museums>.

Rehousing

An inventory reconciliation project presents the opportunity to refresh the aged housing materials with new acid free tissue, boxes or dust covers or address outstanding housing needs. This is advisable due to the history of questionable environments and the risks of mold, dust or pest contamination. All rehousing materials are best purchased as confirmed acid-free products by the vendor or are listed in the museum supplier product description as having passed the international standard test (ISO18916) Photographic Activity Test (PAT). <https://www.imagepermanenceinstitute.org/testing/pat>

The continued use of padded hangers and the removal of plastic garment bags is recommended. Replacing wood and plastic hangers with padded long necked metal hangers and breathable dust covers is a best practice to incrementally evolve towards. This makes a discreet ongoing project that accomplished over time will show progress and build morale. If volunteer seamstresses are available Tyvek bags with open side seams tacked with twill ties or Velcro are recommended for garment covers. Building upon the existing practice to label textile boxes with images and numbers, labeling each bag for ease of identification with information and an image secured to the exterior is recommended.

Creative options for storage arrangements of the more unruly sized collections are available online. Commonly for artifact collections identifying the means to store them safely while still ensuring safe accessibility requires problem solving for housing formats and space planning to optimize the available storage footprint. These handy following references illuminate the process, give tips and allow you to celebrate success. The recommendation is to reference them for solutions that best work with the RJD collection needs and available resources. The inconsistency of sizes and shapes means there is no “one size fits all” solution when resources are limited, but guiding principles always apply 1) protect them from dust, 2) use acid free materials 3) don’t over pack but make it obvious how to handle them when removing them from boxes, and 4) label the container exteriors. The following webinar is a useful place to start when facing this challenge. <https://www.connectingtocollections.org/archivectorscare/>

The website <http://stashc.com/> provides information and tools so that institutions of all types, sizes and resource levels can learn how to create safe and appropriate storage solutions. These solutions were written by and for collection care professionals in all fields. In some cases, there are multiple examples to demonstrate that there is no single best solution for storage. Rather the process is about meeting the needs for your collection, in your space with your resources.

Another valuable website devoted to storage reorganization is <http://re-org.info/en> . Developed by an international consortium of museums, the site tackles the complexity of existing situations. Members have access to free tools to start the process, assess their needs, and develop plans to reorganize and implement solutions.

The National Park Service (NPS) on-line resource for a range of collection care topics are Conservation O-grams. These are always handy as a starting point. The main page is located at https://www.nps.gov/museum/publications/conserveogram/cons_toc.html#collectionpreservation. Scroll down to section 4 - "Museum Collections Storage" and choose 4/10 and 4/11 "Determining Museum Storage Equipment Needs." *National Park Service Conserve O Gram 4, 10 (1997)* and "Determining Museum Storage Space Requirements." *National Park Service Conserve O Gram 4, 11 (1997)*.

Archives

The archives currently stored on the second floor in discreet closets are stored in suitable housing formats. Checking them for the consistent use of acid free materials or refreshing supplies that are aged or discolored is a best practice as often over time the pH levels will change, or the enclosure materials become contaminated by adjacent materials or a variable climate. Physical rehousing resources and procedures for paper and archive collection needs are well articulated in the Northeast Document Conservation Center (NEDCC) series of Preservation Leaflets, located on line at <https://www.nedcc.org/free-resources/preservation-leaflets/overview>, are especially helpful. The Canadian Conservation Institute (CCI) Notes, located on line at <https://www.canada.ca/en/conservation-institute/services/conservation-preservation-publications/canadian-conservation-institute-notes.html> are also helpful resources.

Funding for Collection Care Projects

Funding for small mostly volunteer sites is a common challenge and conundrum. The recommendation is to start small and establish a history of successfully completed discreet projects before larger requests are submitted. The National Endowment for Humanities (NEH) Preservation Assistance for Smaller Institutions, a federal funding program, supports the purchase of shelving, environmental dataloggers, software, and small equipment and supplies for room upgrade modifications up to \$6,000. Detailed in the environmental section of this section is the recommendation in an upcoming NEH cycle to request funds to purchase dataloggers and environmental equipment to start an environmental program. An alternative request is for multiple rolling storage racks to provide accessibility to the textile collections in the center attic space in preparation for an inventory reconciliation. NEH also supports consultants to advise on the merits of the collections, such as a textile historian. Historic New England offers small community preservation grants of \$1000 to consider. Small grants of \$1,000 or less for textile related collections to support housing needs are also available from the Costume Society of America.

Continuing to cultivate awareness with local businesses, the Chamber and area foundations is important. Funders will appreciate learning of the new directions and appreciate RJD's recognition and adherence to national standards of practice. Engaging your membership is also a component that can be helpful in support of smaller collection care projects. Fund-raising events tagged to a specific collection need can be fun for the local community and a means to raise awareness of your needs.

Most federal funding agencies like to see core documents in place as part of justification of your grant request. With that in mind, take care that your current strategic plan identifies your funding need, (such as the need to gain physical and intellectual control over collections), as a priority initiative. This shows reviewers that you have a road map for addressing stewardship needs and gives funders confidence that their funds are being effectively used. Other strategies may be gleamed from the Connecting to Collections webinar

<https://www.connectingtocollections.org/fundraising-for-collections-care/>.

The National Endowment for the Humanities (NEH) and the Institute for Museum and Library Services (IMLS) are federal funding agencies that will support larger projects such as the recommended inventory project. Their office staff will guide you through your applications and tell you if core documents, such as a strategic plan, a collection management policy and an emergency management policy, need to be in place before these funding agencies are approached. The NEH is also a source for funds to support strategic and interpretive planning consultants. 1772 and the National Trust are funding sources for a variety of bricks and mortar projects.

Forward-Looking Collecting Plan

Creating a future collecting plan is recommended as a longer-term goal, if the various collections are to be interpreted. This is a means to fill gaps in the collections, identify specific types collections or target topics that strengthen the archives.

Recognizing that few history museums have unlimited resources or can responsibly maintain every object that is offered, narrowing what will be collected is a far-sighted use of resources. A Collecting Plan articulates this goal and is a demonstration of strong stewardship and best practices. As with a deaccessioning process, collecting into the future also takes into consideration the existing space, volunteer, staff and fiscal resources within a five to ten-year horizon. Setting these parameters makes a collection stewardship team focus on what is central to how RJD serves New Bedford history without duplicating efforts of sister institutions.

A collecting plan also places limits on future collecting by prioritizing the collections that are desired to fill interpretive gaps of existing stories, or even the number of objects that will be collected to illustrate a theme or potential community event that you want to document. Having separate collecting plans for the education collection, or an archive collection or the permanent collection can also be helpful. Discussions during the site visit referenced narrowing the future collecting scope and assessing the benefits to transferring some collections to other institutions as a means to responsibly use your resources.

The steps to developing a well-reasoned collecting plan, as articulated by “Guide to Collections Planning,” by James Gardner and Elizabeth Merritt, follow these general guidelines:

- **Step 1** Identify museum's audience(s) and how their needs will be served by the collections
- **Step 2** Review strengths and weaknesses of existing collections
- **Step 3** Include a "gap analysis" contrasting the real and the ideal collection
- **Step 4** Set priorities and target objects for acquisition and deaccessioning based on 2 & 3
 - Limited resources necessitate a prudent approach to narrow the collection acquisition focus;
 - Target specific areas of the collection, by materials category
 - Develop interpretive plans to provide the guidance to make these decisions
- **Step 5** Identify complementary collections held by other organizations that may affect the museum's collection's choices
- **Step 6** Take into account existing or needed resources
- **Step 7** Define the collection categories
- **Step 8** Define the level of intervention and conservation treatment for each category of collection

The book is available online through Amazon or the AAM bookstore if you wish an expanded understanding of these steps.

Storage Space Needs and Planning

Resolving the RJD storage needs will take planning and time. Not until the inventory and evaluation of collections for deaccession is completed, is a storage space needs assessment most beneficial. This assessment will determine the types of furnishings and the configuration of space needed to safely house and manage the collection. An assessment will also determine special needs, work, and environmental requirements. Those determinations will inform the feasibility studies for renovating existing spaces or the need for a new building. A well-focused Collecting Plan will also assist the Executive Director and the Board in planning for capital needs with projections of operational costs, collection growth, space and management needs.

When considering building spaces for storage it is important to apply the principle that collections storage is not a place; it is a process. Elements of good collection storage to consider in designating a location include:

- **Attitude** Recognition, respect and sensitivity for collections by staff are the most important demonstration of the commitment of an organization to preservation.
- **Accountability** Being able to locate both the object and all pertinent information about the object quickly is very important. Accountability within the storage area means object numbering, shelf, cabinet and drawer numbering and maintenance of a locator file or data base.

- **Accessibility and Visibility** These promote security monitoring and limit the need to handle and object.
- **Security** This includes the means to limit and control access and use.
- **Fire Detection and Suppression** These are critical for the health and safety of the staff and visitors and essential for reducing the risk of total loss of the collections and buildings. Selecting appropriate systems depends on the nature of the collection and the design of the storage facility.
- **Appropriate Building Construction and Location** The siting, design and layout of a facility directly impacts a collection. Knowledge of the different preservation criteria for various collection materials and for the collections storage area in total should meet helps avoid costly mistakes in new construction as well as in modifications. Attic and basement spaces are generally unsuitable.
- **Proper Environmental Parameters** All materials are affected by the environment in which they are stored. High temperatures and high relative humidity are generally destructive and rapid and extreme fluctuations in temperature or relative humidity make the damage even greater for most materials. Visible light, ultraviolet radiation, dust, mold, mildew and air pollution will take their toll. Understanding the environmental factors and what degree of control is required for the preservation of a materials is critical.
- **Environmental Monitoring Program** Monitoring is essential to determine whether a collection environment is one that promotes preservation or degradation. The monitoring will also collect data that will be useful in understanding how the building envelope performs and this will help guide future interventions to improve building performance.
- **Periodic Inventory** This verifies that security is being maintained and that accountability procedures are being followed.
- **Cleanliness and Routine Maintenance** Airborne pollution and particulate matter promote corrosion and chemical change and with time can cause irreparable alterations. Dirty conditions and debris encourage insect and other pest infestations.
- **Proper Storage Equipment and Technique** Object handling puts objects at risk. Appropriate supplies and equipment should always be on hand. This includes the identification and proper containment of hazardous materials, as well as handling procedures.

- **Dedicated Space** Collection storage must be a dedicated space. Allowing the storage of extraneous materials compromises security and promotes accidental damage.
- **Proximity to Compatible Function** Curatorial and preparation spaces, conservation laboratories, receiving areas and loading docks and fumigation areas should be adjacent to each other.
- **Isolation From Incompatible Function** Public access, maintenance and food service areas should not be near collection storage areas.

D. Light

Identified Risk Exposure to artificial and natural light sources

Goal Modified lighting plan for collections

Plan of Action

- Replace the UV film protection on the storm windows
- Consider interior window shade treatments to diffuse and dim natural daylight intensities
- Purchase a light meter from a museum supplier to monitor light and UV levels;
- Complete the transition of all light fixtures to LED light;
- Adopt vigilant procedures to monitor and minimize light damage
 - Follow exhibition standard practices for light levels;
 - Require vigilant closing of shutters procedures
 - As feasible, rotate collections on exhibit,
 - Substitute digital facsimiles of original photographs or paper-based objects on exhibit,
 - Evaluate glazing replacement needs for framed artwork on paper with UV filtered glazing.

Site Observations

RJD is commended for having good light management procedures in place to minimize the risks of fading and light degradation. All windows have ultraviolet filtering on the exterior storms. Monitoring levels of ultraviolet light were 95-45 indicating the UV absorption capacity, however, is diminishing and verging on exhaustion.



Fig. 9 A rotation of framed art on paper is used in the permanent Quaker Gallery and no natural light falls on the surface (left). Dimmer exhibit areas, like this closet, use spot lights (right).

The RJD historic rooms and their furnishings are illuminated with natural daylight through large windows. To limit exposure to daylight, shutters are used to block natural light during nonoperational hours. These procedures are best practices that limit the risks of light damage from the quantity of light (brightness and time exposures). The inconsistent shutting of shutters combined with the window size and lack of a window treatment to diffuse and lower the quantity or brightness of the light during operational hours, however, continue to advance light damage. Items at highest risk are those within the direct path of sunlight, often fabrics and finishes. Even during the site visit days of threatening rain, the brightness of light was well in excess of acceptable levels within fifteen feet of the windows.

The furnished rooms have been on long term display with the exception of a twice-yearly rotation in the textile galleries. A variety of artificial light sources brighten dim hallways or room locations. They are a mixture of different LED and incandescent fixtures and create no significant heat risks. Enclosed cases have no interior lighting sources, also a commended practice. These fixtures are placed exterior to the case, resting on the top glass cover. The placement creates an uneven illumination, however, with the highest levels at the top of the case fading to the lowest levels at the bottom of the case. The variable ranges of illumination present an exhibit design challenge.

Light sensitive paper items are rotated in the Quaker Gallery and following best practices these framed pieces are sheltered from direct exposure to daylight.

Light as a Preservation Risk

Light is one of the greatest risks to the preservation of a collection. Regrettably for all collections this presents a double edge sword as light, whether it is artificial or natural daylight is required to enjoy exhibits. Light, in both its visible and invisible forms causes accumulative and irreversible damage to all types of materials. Any exposure to light advances chemical and physical degradation leading to changes in color and brittleness, thus it is important to remember that every time an object is exposed to light, its physical security and chemical stability are being affected. The damage is proportional to the light's energy (brightness and wavelength) as well as how long the object is exposed to light.

Light management protocols utilize combinations of passive or active resources to limit:

- The quality (how much is visible and ultraviolet light (UV)),
- The quantity (how bright is the light),
- The length of light exposure (how long is the object lit by the light source).

To better understand what causes light damage, a helpful learning tool about fade damage and how to balance the different aspects of lighting factors is available for free at <https://app.pch.gc.ca/application/cdl-ldc/description-about.app?lang=en>. A free webinar detailing the online light damage calculator is accessed online at <http://www.connectingtocollections.org/lightcalculatorrecording/>.

Recommendations

Because the current UV film is nearing the end of its service life, it has diminishing protective qualities. Planning for its replacement on the storm windows is recommended. It should be noted that applying a film to the original window glass is commonly avoided due to reversibility and application/removal risks that may break the glass. The recommendation is to consider both clear and tinted options with the goal to both eliminate 1) ultraviolet radiation (quality of light) and to reduce the 2) quantity or amount of daylight within the furnished rooms.

Identifying the UV film and fiscal resources for their replacement is recommended as a short-term planning need. The Conserve-O-gram # 3/10 “Choosing UV filtering window films” provides answers to how to find the most effective film. It is important to choose a film that filters rays below the 325-380 angstrom (Å) range, and not to be swayed by deceptive marketing material that indicates 98% of UV is filtered. See <https://www.nps.gov/museum/publications/conserveogram/03-10.pdf>. Its use of a silvering on the film needs on-site evaluation, as this reflective quality, although mild, may negatively impact the interpretation of the house exterior. Be aware that if storm windows are seasonally removed there will be no protective film in place. If this is a practice, the use of interior window treatments, often a UV filtering plexiglass panel, is required to eliminate ultraviolet radiation.

High light levels, and especially natural daylight, present continuing accumulative harm to the range of collections in the historic rooms. The installation of interior window treatments to both diffuse the light and reduce the intensity of the daylight within the furnished rooms is recommended as a second layer of protection. Options to consider are light diffusing gauze curtains, tinted UV mylar shades, or light filtering scrim shades which can include UV filtration. If interior window treatments are used (as with films applied to the exterior storm windows), plan to fit all windows with the same system to provide visual consistency between rooms and throughout the house.

A light monitoring program is recommended as part of a housekeeping protocol. Wallpapers, upholstery, rugs, and finishes on wooden objects are highly sensitive to fading risks. The damage is not easy to note by the human eye until fading has progressed too far. The use of Blue Wool textile fade cards or the ultra-sensitive Light check cards are recommended to monitor and raise awareness of advancing light damage to these particularly sensitive. These cards are a one-time use, non-reversible product that are useful tools to quickly demonstrate that the exhibit spaces provide insufficient light protections and too much light is hitting an object. Placing them discretely in exhibit spaces is a simple, practical and effective way to document fading, especially if you need to build a case for greater light protection. Monitor them following the instructions at the end of this section.

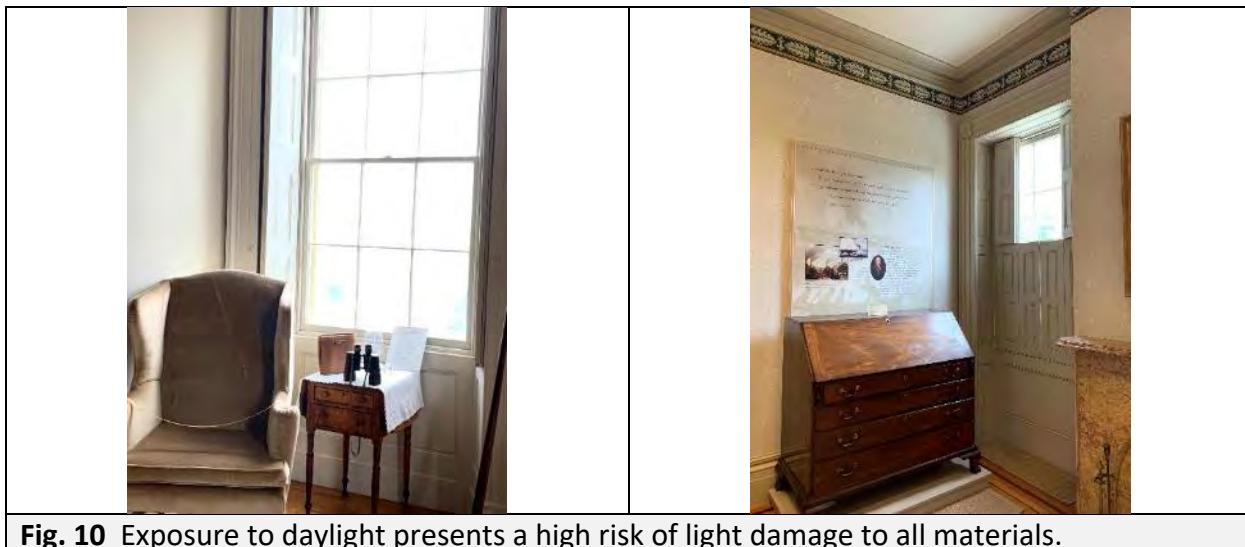
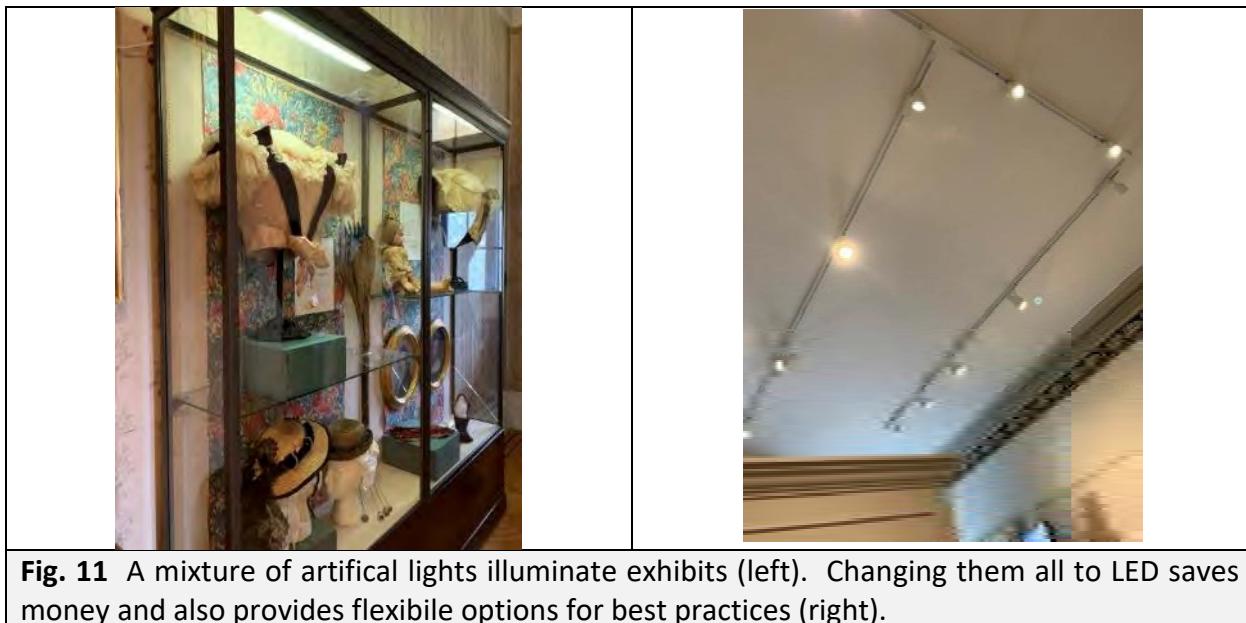


Fig. 10 Exposure to daylight presents a high risk of light damage to all materials.

A program to complete the changeover to LED lights is recommended. LEDs are not only energy efficient, and produce less heat buildup, but also produce a negligible amount of the harmful UV. The changeover will also provide a consistency in illumination which is pleasing to the visitor eye. To raise awareness, review the Connecting to Collections webinar How to change a lightbulb. At <https://www.connectingtocollections.org/how-to-change-a-lightbulb/>.

This webinar demonstrates how light-emitting diodes (LEDs) emit light, describes methods for assessing the qualities of light and provides examples of how good lighting design can help provide a dynamic visitor experience while minimizing light's harmful impact on collections.

Substituting a strip of LED spots along vertical edges of standing cases is recommended to resolve uneven case lighting.



The use of high-quality digital copies of drawings, letters or prints is encouraged, especially when on long term display. The substitution obviates fading risks and maintains the value of the individual pieces if the originals are protectively stored in the dark. A best practice when reframing items with new acid free mats is to require the highest quality of UV filtering glazing available.

Collection Sensitivities to Levels of Illumination

To assist in the objective assessment of light levels, the purchase of a light meter is recommended as part of a housekeeping kit. A light meter is an essential piece of equipment that measures the brightness level in foot candles and/or lux (10.76 lux=1 foot-candle). These measurements guide how to illuminate an exhibit within recognized standards of practice.

User-friendly light meters are available from museum suppliers for between \$200 and \$300. A best practice is to purchase the more comprehensive and expensive (\$1,400) Elsec 765 meter with T, RH, Ultraviolet and light level/foot-candles capacity as part of a curator's kit to monitor all environmental factors with a single piece of equipment. This specialty equipment is available from <https://www.sperdirekt.com/elsec-765c-environmental-monitor-logger-293-prd1.htm> and <https://www.elsec.com/collections/environmental-monitors> .

To guide you in assessing your light levels, the recommended levels of illumination for the categories of museum objects are as follows:

- **least sensitive objects** **Up to 30 foot-candles**
(stone, metal, and most glass and ceramics); average annual exposure: 90,000 foot-candle-hours or less, assuming 3,000 hours illumination per year
- **moderately sensitive objects** **Up to 15 foot-candles**
(oil and tempera paintings, frescoes, ivory, bone, horn, undyed leather, lacquer, unpainted wood,); average annual exposure: 60,000 foot-candle-hours, assuming 3,000 hours illumination per year
- **very sensitive objects** **Up to 5 foot-candles**
(textiles, costumes, tapestries, works of art on paper, manuscripts, natural history specimens, dyed leather, fur, feathers, natural fibers, paintings in gouache, miniature paintings); annual exposure: 15,000 foot-candle-hours per year
assuming 3,000 hours illumination per year
- **ultraviolet light** **75 or less microwatts per lumens**
0 readings are a best practice for all types of objects and materials. Filtering natural daylight is imperative. Artificial lights sources vary in emitted UV levels and must be checked for filtration needs.

Note that light measurements need to be measured at the surface of the object or the future location where the object will be displayed. Since the light meter measures the incident light (at 90° to the surface), even minor rotations of the meter will result in inaccurate readings.

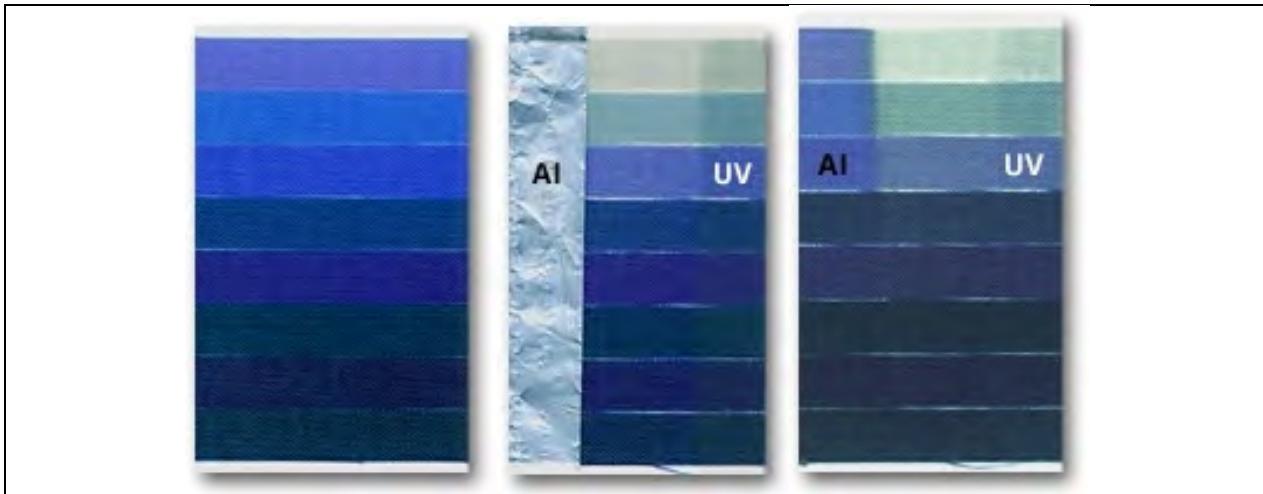


Fig. 12 The card on the left is a fresh unfaded card. The card in the middle has an aluminum (AL) strip protecting the left side, and a UV filtering film strip (UV) protecting the right edge. The middle of the card is unprotected. The card on the far right has had the aluminum barrier and the UV filtering film strip removed, showing the amount of fading in the protected area. The middle has also been unprotected. Placed in a south window for eight months, the Blue Wool Standard on the right shows fading equivalent to several decades of exposure under both controlled and uncontrolled exhibition lighting conditions.

The use of the fade cards is an effective tool when raising an awareness of risk factors to those unfamiliar with collection care risks. These small paper strips are composed of stripes of different types of blue dyes that gauge the fading caused by light and ultraviolet light exposure. By comparing the exposed cards to a master card kept in the dark, the degree of fading is readily visible. For instant comparison on exhibit, block the light with a piece of foil on one half of the card. Placing the textile fade card alongside of vulnerable materials will show the degree of fading that is occurring, even with window treatments and low light levels in place. The standard cards are useful for regular exhibit displays that are installed for 6 months or longer. More sensitive cards named Lightcheck are helpful for an 8 week or shorter display. Light Check cards are available from www.keepsafe.ca. The standard blue wool fade cards are available from museum suppliers such as Talas.

E. Particulates and Pollutants

Identified Risk Exposure to Particulates and Pollutants

Goal Vigilant Preventive Care Management

Plan of Action

- Hire a full-time Collections Manager
- Create housekeeping carts for each exhibition floor
 - Purchase HEPA vacuums, microfiber cloths, natural bristle brushes, small hand tools
 - Add flashlights and headlamps for supplemental light
- Create a checklist of daily, weekly, seasonally and annual housekeeping tasks
 - Add task sheets for each type of furnishing with resources for procedures, materials and frequently of task
 - Reference National Trust Handbook for Historic Housekeeping
- Remove exhibited household and medical product contents
- Protect or replace permanent rugs from foot traffic
 - Add needle punched polyester kaput (18") rug pads under all rugs
- Assess preventive care needs for framed artwork
 - Add air spacers to the bottom edge of framed air
 - Refresh matts and glazing systems to frame fine art on paper

Site Observations

The RJD furnished rooms and surrounding hallways are neatly presented. The Facility Manager undertakes weekly cleaning of visitor pathways and dusting of easily accessible furniture surfaces, following recommended procedures detailed in the Minnesota Historical Society Historic Housekeeping Handbook: www.mnhs.org/preserve/conservation/reports/manual-0102.pdf. These consistent efforts follow a standard of best practices resulting in a clean and welcoming space.

The absence of a dedicated full-time position to oversee preventive care needs hinders a consistent application of best management practices. It precludes the ability of RJD staff to conduct more involved “behind the ropes” monitoring or collection care tasks on a regular monthly, seasonal or annual basis. Many tasks are seemingly simple but easily deferred in the face of time limits and competing responsibilities. As an example, the use of mylar separator sheets between objects and padding of textiles on exhibit is a demonstrated best practice. The deferred placement of a support for a map however has contributed to the current physical deformations. Framed artwork in aged mats or with wood backings, and a selection of household products also have outstanding preventive care needs that would be addressed by a Full Time collections manager.



Fig. 13 A more vigilant preventive care program is needed to monitor the active flaking on both the painting and the lacquer table and plan for needed conservation services (left). An evaluation of the merits of these pieces to the mission and interpretive plan may guide decisions to address the costs of conservation treatment to stabilize the flaking paint(right).



Fig. 14 The use of mylar to separate objects from furnishings is a good practice (left). The map exhibited on the desk is suited to additional support to keep it from distorting (right).



Fig. 15 Initiatives to reframe artwork on paper with acid free mats and non acidic backing boards is recommended for all paper based artwork on exhibit. Adding cork stops to the lower corners to raise them off the wall increases airflow and reduces risks of microclimates that foster mold growth.

A medicine chest and household cleaning products were noted on display. A best practice is to evaluate the potential of hazards. Commonly only the containers of household products are kept, and the contents disposed of.



Fig. 16 A best practice is to remove the contents from inside household products but to keep the containers intact for display. Medical chests often have hazards due to the dried concentration of medicinal tinctures. Testing for identification and subsequent removal, with documentation of findings in the collection record, is also a best practice.

All furnished rooms are carpeted with synthetic open weave rubber pads. A number of the rugs are part of the visitor pathways or cover areas used for program seating arrangements. These areas are vacuumed regularly and kept clean.



Fig. 17 Evaluating the rugs for permanent or service collections in visitor pathways is recommended due to the wear and soiling from foot traffic. A preventive care protocol uses needlepunched polyester as rug pads as a best practice and silicone moving discs to distribute the weight over a larger surface mitigating the physical compressin risks from heavy objects with small feet.



Fig. 18 Placing cork spacers along the bottom corners of paintings and a wooden stop between the back of the chair legs and the wall mitigate risks to wall paper abrasion.

Recommendations

A full-time Collection Management position is recommended to oversee a collections maintenance program as currently envisioned. A well-designed housekeeping plan serves more than one function. It not only keeps collections clean and dust-free, but also allows staff time to regularly monitor the state of the collection. Housekeeping can also serve as a low-budget way to support other collections care activities, such as pest management. The development of a housing schedules of tasks that details a housekeeping log and cyclical housekeeping schedules is recommended. Because of the variety of materials, finishes and manufacturing methods of house furnishings, working with a conservator to review your maintenance plan is advisable. Bookshelf and on line references are listed at the end of this section.

In support of the housekeeping tasks, a dedicated housekeeping cart with HEPA vacuum, crevice micro-tools, natural soft bristle art brushes, and micro cloths are recommended for each floor. This obviates the physical risks to transporting equipment up and down the stairs. Proprietary cleaning products, due to the perfumes, stabilizers and additive for home use, are not recommended. Dusting cloths, Vinegar, distilled water, ammonia, iso propyl alcohol and Murphy's Oil Soap and Renaissance microcrystalline wax are products to use. A You tube playlist of historic housekeeping procedures is found at <https://www.youtube.com/playlist?list=PLF73955BF129CCCC4>.

A good vacuum is the most effective way to manage dust. Choosing a vacuum for collections care is very different than picking one for facilities maintenance; there are many brands and models, from hip-vacuum to backpack and floor styles, and the style chosen will vary depending upon the needs and budget of the collection. The National Park Service Conserve O Gram Number 1/6 choosing a museum vacuum cleaner provides helpful information at

<https://www.nps.gov/museum/publications/conservogram/01-06.pdf> In general, the following features are important to look for when choosing a vacuum:

- Variable suction—cleaning fragile objects will necessitate using less suction than more stable items
- Micro-tool set to vacuum very small areas
- HEPA (High Efficiency Particulate Air) filter, which will remove 99.97% of particles 0.3 microns in diameter or above
- For even finer particle removal, an ULPA (Ultra-Low Penetration Air) filter will remove 99.99% of particles 0.12 microns in diameter or above
- Fiberglass screen for vacuuming textiles

If possible, avoid using the same vacuum to clean the facilities and clean collections, unless all parts are cleaned thoroughly between uses. If the same vacuum is used to clean both floors and collections, separate hose and tool attachments should be available, and the bag and filter should be replaced before use on collection items. Never vacuum any flaking or particularly delicate object without consulting a conservator first.

It is important to note that having an efficient HVAC system with a HEPA filter can also drastically reduce dust. This doesn't replace the need to vacuum, but it does help to control the amount of dust in collections.

An overlooked cyclical maintenance task at RJD is to annually vacuum all textiles, including bedding, hangings, and other fabric surfaces through screening. This procedure mitigates against the incremental accumulation and embedment of dust causing a graying of these fragile surfaces. Polishing the brass fire accessories with specially designed treatments once a year is recommended to reduce darkening oxidation and mitigate the formation of active corrosion. Silver objects require a customized precipitated calcium carbonate paste, and not commercially available polishing products. Lacquering newly polished brass and solid silver objects is often a preferred protective coating to diminish the annual cleaning time commitments. The Canadian conservation Institute Notes 9/3 provides helpful guidelines for a range of materials and collection questions at:

<https://www.canada.ca/en/conservation-institute/services/conservation-preservation-publications/canadian-conservation-institute-notes.html>

A guide for polishing brass and copper is located at:

<https://www.canada.ca/en/conservation-institute/services/conservation-preservation-publications/canadian-conservation-institute-notes/care--brass-copper.html>

An often-overlooked housekeeping need is to clean the wallpaper surfaces every few years of the air borne particulate deposited from open windows or heating systems. An example is the visible buildup on the dining room wallpaper, now evident from the fingerprints left behind.



Fig. 19 A notebook with task sheets for frequency, procedural information and materials is recommended. Examples are how often and how to clean dull brass, and the dining room wall paper that is disfigured by an accumulation of air borne dirt, revealed by fingerprint marks.

To ensure consistent use of products as well as cleaning and handling procedures, the formation of a housekeeping manual is recommended. This is particularly helpful with the rotation of staff. Often prepared by room when furnishing do not rotate, each notebook contains a task sheet by object. The sheet identifies the object, any handling or mount risks, the procedure for cleaning and the list of products used and their source for purchase. Each task sheet also references online resources for learning about how to undertake the task and what specific products to use or not to use. The handbook can be developed overtime, with new sheets added as part of the tasks for annual cleanings.

An evaluation of the rug placement and the impact of visitor traffic on them is recommended as part of a preventive care plan. A preventive care protocol is to either substitute a rug that is not from the permanent collection or to recategorize the existing rug as “resources,” a collection category that is used and its replacement planned for. A recommended practice to protect rugs from deforming due to pointed heavy objects, such as the piano, is to use silicone moving cups under the feet to distribute the weight over the surface.

To incorporate a best practice to maintain the rugs, the use of needle punched (no glues no finishes) polyester kaput, 1/8th inch (white) is recommended for an underlay. The direct source is Buffalo Felt at <http://buffalofelt.com/felt-products/needle-punched-felt/#polyester> (716/674-7990 x207). The current rubber mats readily degrade and off gas harmful products directly degrading the rug and flooring finish. The use of these rubber mats are not recommended for long term exhibit.

Household products commonly are corrosive in their undiluted product form or are attractive to pests. An evaluation of collections for potential health and safety hazards is recommended. A

best practice recommendation is to remove the contents and to preserve the containers for display. If the contents are important to keep, they are best housed and stored separately.

Medicine chests often masked chemical hazards in the array of bottles. Laudanum, a tincture of opium is a common medicinal, often apparent as a white powder residue. As these dry out, they become concentrated elevating the risks. A best practice is to remove them from exhibit until the contents are identified by an industrial hygienist or medical toxicologist.

Collections Resources

A core reference for historic housekeeping, which explains and details procedures, is The National Trust Manual of Historic Housekeeping available on Amazon at:

https://www.amazon.com/National-Trust-Manual-Housekeeping-Collections/dp/0750655291/ref=sr_1_2?hvadid=77790502383917&hvbmtn=be&hvdev=c&hvqmt=e&keywords=the+national+trust+manual+of+housekeeping&qid=1573677695&sr=8-2'.

Other sources include the Canadian Conservation Institute Notes available as pdf files at <https://www.canada.ca/en/conservation-institute/services/conservation-preservation-publications/canadian-conservation-institute-notes.html>.

A useful resource is the National Park Service Museum Management Chapter 13 Historic Housekeeping, located at <https://www.canada.ca/en/conservation-institute/services/conservation-preservation-publications/canadian-conservation-institute-notes.html>. This reference has housekeeping checklist and information on how historic housekeeping is different from your own residential housekeeping.

<https://ccaha.org/resources/collection-housekeeping-guide> also offers exemplary foundation information and a template format to customize your own housekeeping guide.

F. Theft

Identified Risk Jeopardy due to theft

Goal Increased collection security

Plan of Action

- Undertake an inventory and photograph reconciliation of holdings
- Photo document exhibit spaces annually
- Establish a database backup procedure and store off site

Site Observations

The RJD is located in a trafficked residential and institutional neighborhood, within a short drive or walk of a major artery and the city's commercial and more urban settings. The use of contact door alarms, assigned keys, locked cases, and perimeter alarms and an external video camera secure the buildings. Competing financial needs for operations and building projects and a history of no documented thefts have also deferred a needs assessment of facility wide security options.

The outstanding inventory needs of the collections present the greatest risk of loss to RJD. Not having full documentation of your collections places the historic site at risk of not knowing when a loss has occurred. To mitigate this risk, the staff maintain the storage keys and, demonstrating best practice, accompany Collection Committee workers when collections are accessed.

Smaller pocketable size collections are displayed inside cases or behind barriers reducing the risks of opportunistic theft. Collection artifacts too large for cases are displayed behind exhibit stanchions in one room but in other rooms are generally outside of the easy reach of visitors. The rooms are monitored by volunteer docents, a practice that also reduces the risk of theft but is prone to opportunistic theft if docents are distracted by multiple visitors. These are all commended risk reducing practices that align with available resources.

Recommendations

The greatest security risk identified is the lack of a complete inventory of the collections. It is essential to fiduciary oversight that the RJD has documented knowledge of its holdings. The commissioning of an inventory and record reconciliation with photographs is a priority recommendation that will also be the first step to clarifying collection space, furnishing and specialty environmental needs.

In the short term, a practical annual security procedure is to photograph exhibits annually. Dated images will document what is on exhibit and support police reports should something be missing. Other exhibition tips describing inexpensive security options using hardware, sensors and alarm systems are described in the Canadian Conservation Institute (CCI) Security Hardware and Security System Planning for Museums technical bulletin #19. The publication is available by mail at CCI, Department of Canadian Heritage, 1030 Innes Road, Ottawa ON K1A 0M5 or on-line at <https://www.canada.ca/en/conservation-institute/services/conservation-preservation-publications/technical-bulletins.html>. An example of a popular method are floor positioned infra-red motion detector alarms. These small units can be positioned to deter visitors from coming too close to areas during unsupervised times with an alarm. These can be particularly helpful in areas when visitors want to move closer and when docents may be distracted.

The RJD is located in a community environment where the value and respect from its visitors and residents are considered fundamental and an assumed cultural behavior. In the larger national environment, however, attitudes of respect are changing, and honesty can no longer be assumed of all visitors. In addition, while it may initially appear counter intuitive, regrettably the majority

of loss in historic sites is from in-house workers having unaccompanied access to collections. It will benefit the RJD to consider these cultural changes in light of additional ways to protect the site and collections from theft or possible mistreatment. Start with a review of your insurance policy by your insurance representative to inquire if there are any staff protocols or upgrades to your existing security systems that may lower your insurance rate. The Connecting to Collections webinar How to Manage your Organizations risk provides a good review in preparation to a dialog with your insurance broker. <https://www.connectingtocollections.org/insurance-manage-risk/>

As the popularity of RJD as a function space increases, commissioning a security assessment by an experienced security professional will inform you of growing needs. Evolving towards an electronic key card system, commonly used in historic sites to track and control access, is recommended as a long range goal.

G. Environment

Identified Risk Inhospitable Environmental Risks

Goal Establish an environmental monitoring program

Plan of Action

- Purchase a kit of monitoring equipment (dataloggers, moisture meter, and Elec365) to support the ongoing program
- Initiate a 4 season 24/7 environmental monitoring program in each building
- Identify and correct breaches to the building envelop (air leaks, moisture seepage, areas with high dew points)
- Remove the rug in the curator/collection managers work room
- Raise all file cabinets in the basement at least 4 inches off the floor.
- Provide staff with professional development opportunities through Connecting to Collections <https://www.connectingtocollections.org/> and Environmental Sustainability webinars <https://ipisustainability.org/>
- Commission the evaluation of the data with a HVAC mechanical engineer or a suitable preservation architect and a collection care specialist versed in museum needs.

Site Observations

There was no documented environmental history available during the site visit. Spot monitoring was undertaken in each room on each day by the assessors during the site visits.

The ambient environment was monitored for temperature, relative humidity and dewpoint using an Elsec 365C environmental monitor in each room. Readings consistently indicated the interior ambient environment followed the exterior weather conditions. Dewpoints readings consistently between 57°F and 62°F were encroaching on high risk range and foster an inhospitable collection environment that hastens degradation. Dew points were highest in the basement and lessened with each higher floor level indicating the concern of rising damp through the building structure.

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The smells of dampness and presence of drafts suggest a history of building envelope breaches in the basement. Ground slope, drainpipes and window wells are suspected influencers for the basement semi-terrarium floor.

Building performance and landscaping concerns and other suspected areas for moisture infiltration are detailed in the architect's report.



Fig. 20 Prior leaks in the curators office have fostered an embedded mold colonization in the rug (left). Building breaches have also contributed to water seepage creating stains on wallpaper (right).

Recommendations

Although a new roof and repairs to the building envelope are current, the past history of building envelope deficiencies suggest a need to evaluate the effectiveness of the repairs with an ongoing environmental monitoring program. A yearlong program to monitor environmental conditions, independent of the thermostat sensor readings, is the first step to understanding the ambient conditions and building variables, and to alert staff of developing problems. This initiative is a priority recommendation to begin in 2020 as funds are received. It involves a three-pronged approach:

- The use of environmental monitoring equipment to document the range of fluctuations in Temperature, Relative Humidity and Dewpoint in exhibit and storage locations,
- On-site inspection of the conditions to evaluate the building's weather proofing systems, landscape characteristics and evidence of past problems,
- The analysis of both the observed and recorded information to determine the building's needs and capacities.

Monitoring Program

Using state-of-the art data logging equipment to document a 24/7 history of T, RH and dewpoint over a full four seasons is a primary recommendation to begin as early as possible. It is important that accurate information is recorded and that it includes concurrent data about outside weather conditions. With this accrued information, professional assessments can identify the optimum locations for collection storage and work-related functions in the buildings. They also will guide options to improve the building fabric and interior heating and cooling systems. Working with mechanical engineers and collection care professionals versed in collection needs as part of your overall facilities management team, will insure you have an effective and efficient system that maximizes the efficiency and minimizes costs while also supporting the long-term environmental needs of the collections.

To raise awareness of sustainable practice in environmental management or diagnosing inefficient HVAC operations, participate in the many free webinars on collection care and sustainability by Image Permanence Institute. The list and links to the presentations are available at <https://ipisustainability.org/webinars.html>. Series I webinars are designed for institutions beginning a program; Series II will teach participants with at least one year of environmental data how to progress from the monitoring stage to the management stage. At the end of the series, participants will be able to analyze and interpret meaning from environmental data and respond to data interpretation by creating appropriate action plans. Each live webinar will run for approximately 60 minutes including time for questions, and webinar recordings will remain accessible through December 2020.

To initiate a monitoring program, dataloggers must be purchased and placed a minimum of one on each floor of the Main House and Coachman's House. Data loggers are available from many suppliers and will range in accuracy generally reflective of their cost. The Connecting To Collection webinar <https://www.connectingtocollections.org/wireless-environmental-monitoring/> is a helpful resource to raise awareness of the multiple environmental monitoring options. Hobo units from Onset <https://www.onsetcomp.com/> are a frequently used product by many historic sites that have the resources to design their own system and manage the data in-house. Due to lack of staffing resources at RJD and the risk to missing monthly download tasks, an alternative unit named PEM2 from Image Permanence Institute is suggested by this assessor. These units have a narrow range of deviation, have a continuous 10-year multi-year tracking feature, and come with a proven history of user-friendly support with their software program "Climate Notebook". Available by subscription, the program organizes, tracks and analyses the environmental data with reports suitable to curators, collection care managers and facility managers:

<https://www.imagepermanenceinstitute.org/store/environmental-monitoring/pem2-datalogger>. A minimum of one datalogger for each floor of each building (Main House and Coachman's House) is recommended with additional ones one for eaves and attic spaces used for collection storage. An NEH Preservation Assistance for Smaller Institutions program grant is a funding agency that commonly supports the purchase and environmental study:

[https://www.neh.gov/grants/preservation/preservation-assistance-grants-smaller-institutions.](https://www.neh.gov/grants/preservation/preservation-assistance-grants-smaller-institutions)

Eliminate of Sources of Moisture

The second step in a phased plan is the elimination of moisture infiltration into the building. As the building envelope is the collections first line of defense, improvements made at this level will provide the greatest risk reduction. A tool that is helpful to identify and track the extent of an area suspected of high moisture is a pin less moisture meter. Tramex has several versions with pads to place against a surface (wood, plaster, cement) to register a relative scale of dampness. To understand the reading, identification of a dry surface reading is needed for comparison.

The elimination or reduction of liquid water or water vapor infiltration is typically done through repairing or rechanneling rain runoff systems away from foundations, cutting back overgrown tree canopies, repairing roofing and flashing, and regrading around the structure to improve groundwater drainage. Complex and expensive foundation drainage treatment is occasionally necessary in instances where decades of poor subsurface and groundwater runoff have severely damaged the structure's natural drainage. More often an old weather proofing system only needs slight modifications or repair so that its original capacity to moderate the environment can function. The preservation building assessment portion of the report provides guidance on these issues.

The dew point reading is a helpful tool for evaluating the environmental risks that may be present and if corrective measures have successfully reduced the moisture infiltration. To understand what the dew point is, its relationship to relative humidity and temperature and why it is important for managing environmental conditions, visit:

<https://www.imagepermanenceinstitute.org/environmental/dew-point-calculator>

or <http://www.dpcalc.org/>. The IPI online Dew Point Calculator allows you to:

- Explore the relationship of Temperature, Relative Humidity (RH), and Dew Point;
- Explore the preservation consequences of environmental conditions with respect to Natural Aging, Mechanical Decay, Mold Growth, and Metal Corrosion;
- Help plan, evaluate, and manage storage environments with respect to preservation benefits, preservation risks, or the realities and capabilities of your system.

Use of Humidistatic Controls

Evaluating the means for humidistatic controls is Step 3. This incorporates circulating air through the buildings using ventilation such as attic fans, or the chimney flues, if possible, for discrete positioning of exhaust fans. It also includes introducing low humidistically controlled levels of heat both in summer and winter to reduce RH levels. The important word here is low. This does not mean heating for human comfort in the winter. This step seeks to reuse existing heating and ventilating systems and to avoid the need for intrusive and expensive modern climate control equipment. A team that includes an environmental engineer, a preservation architect, and a

conservator, all with experience with historic buildings and humidistatic controls, will bring the expertise of important perspectives into play when deciding how best to move forward on this issue.

Mechanical Systems

Step 4, the revision or new installation of major mechanical systems to provide year round climate control is the least applicable of all the phases for the majority of historic house settings due to the complexities of engineering and installing a heating system into a building that was not designed to incorporate modern heating systems. It is only appropriate where the condition of the structure and the particular collections inside warrant its use, and where the physical and aesthetic impact of such a system is minimal.

The modification of the current mechanical systems to provide year-round heating and cooling is not advised at this time. The recommendation for RJD is to first gather and evaluate the history of environmental data with a mechanical engineer and conservator fluent in museum parameters before any decisions or actions are made at the system level. Evaluation of localized options to provide suitable environments at the exhibit and storage room level, rather than the overall building level, are recommended as part of assessing needs and sustainable practices.

Interior and Exterior Maintenance Plans

The last step is the ongoing rigorous attention to building and site maintenance and identification in breaches to the building envelope that makes the rest of the plan work. Unless gutters are kept clean and in good repair, doors sweeps tight, roof and flashing kept with unbroken seams, exhaust fans maintained in proper working order, and drainage systems effectively manage ground water, and kept free of buildup and overgrowth, it will not be possible to maintain a sustainable environmental plan. Some suspect site drainage and downspout issues worthy of further investigation were noted along the north side of the building during the site visit.

A prescribed and vigilantly implemented maintenance inspection is recommended with the change of each season and after storms. A checklist is a recommended tool to insure inspection consistency over time. See the building report for suggestions. A schedule and documentation of maintenance tasks on a semi-annual or quarterly basis, kept in a maintenance notebook or database, will log a history for staff, volunteers and vendors to follow. The notebook/database is also a centralized management location to document vendors, and when and how deficiencies were corrected. A section devoted to product information, such as paint types and brands, caulking, membrane repairs or insulation types is helpful as it aids staff tracking failure rates of materials and applications.

A staff point of contact to coordinate joint site examinations with the landscape and building repair vendors is recommended. A consistent collaboration reveals overlooked needs.

H. Integrated Pest Management

Identified Risk Risk of Active Pest Infestation

Goal A pest free environment with integrated non-chemical focus to pest management

Plan of Action

- Establish an in-house integrated pest management (IPM) program;
- Appoint a pest management coordinator;
- Put together a team to coordinate and implement the IPM program,
- Survey the building for point of ingress and correct building breaches;
- Initiate a monthly monitoring program with sticky traps and regular visual inspections by qualified individuals of problematic areas in the basements and attics for telltale signs of pest activity; and,
- Keep areas of pest activity particularly clean, as this will aid in identifying activity.

Site Observations

To the RJD staffs' credit, exhibits were clean, and accessible for inspection and light cleaning tasks. Inspecting for insects or rodents is not part of the schedule of housekeeping tasks, however, all these coordinated housekeeping efforts are applauded for the consistent and thoughtful oversight that presents an attractive visitor experience and deters pests. Mice are occasionally caught but a trapping program keeps them under control.

The museum further supports pest management efforts by ensuring food waste is removed from the building promptly. Pest ingress risks are also lessened by a minimal use of shrubs planted adjacent to the foundation. Currently shrubs are only planted along the west face driveway entrance. A low number of spiders and other indicator pests were observed along the interior basement edges, eaves and corners of upper floors, all risk prone areas easily overlooked for a vigilant regular cleaning program.

The high basement dewpoint reading of 60°F however supports the potential for an attractive pest environment. Building envelope draft breaches that provide easy ingress to the building for pests, especially noted in the attic, exacerbate the risk of pest infiltration.

The use of the patio for functions presents a heightened pest risk to the house due to consistent opportunities for food and beverage spills if not immediately cleaned by caterers.

The historic gardens present opportunities for the congregation of collection eating pests, especially in the summer months, coming into the house to colonize. There is no monitoring program in place that detects what the degree of risk is from the gardens.

Recommendations

Establishing a baseline integrated pest management program (IPM) in exhibit and collection storage areas is recommended. Basic information is provided below. The plan can be established in steps over time as resources allow and spaces become more accessible for monitoring. Until that time, focus on inspecting the existing trap placement and inside boxes as they are pulled for exhibits or inventory tasks to alert you to activity, past or active. Even with no activity noted, sticky traps should be replaced at least every three months to ensure the quality of the traps.

An integrated pest management plan is resource dependent; therefore, volunteers are a resource to explore as they are often open to learning more in support of new responsibilities. Be sure function and catering policies identify clean up and disposal mandates immediately after each function.

Within collection or storage spaces, remove old mattresses to lessen the risks of insects or rodents using the fillers for food or shelter. For exhibit purposes a faux box spring provides the needed shape but not the shelter for insects.

Integrated Pest Management (IPM) Plan

An integrated pest management plan is a procedural focus to eliminating pests without using chemicals. The first step is a monitoring program for pests to establish a baseline of pest information. Start by placing sticky traps along baseboards, inside lights, and on windowsills and check them every two weeks throughout the year until you have a documented amount of information to reference. Prepare an Excel spreadsheet to track trap activity. Be aware the height of activity commonly occurs between May and August for most flying insects. The traps may be changed when full or every three months whichever comes first. Monitoring traps is especially important in areas with textiles and rugs as these are a particularly attractive food source to pests. The current cedar closet is a pest deterrent that has lessening benefits over time if the wood is not freshly sanded to expose the cedar oil to evaporation.

A parallel task to controlling pest activity is the identification and elimination of all moisture sources. This has been discussed in the building assessors report as well as in the environmental section of this report. It places emphasis on vigilant inspections of the building fabric and the correction of identified building deficiencies and site concerns that are sources for moisture ingress or raised levels of humidity. Environmental monitoring of the spaces with dataloggers will help evaluate the success, as pest activity will decrease as their food (living pests and organic materials) and moisture are removed.

Coordinating with landscaping vendors is also part of a holistic IPM program of tasks. Ask them to cut the grass so that it is directed away from the building foundation and prepare an incident sheet for them to fill out if nesting birds or insects are noted. Keeping the foundations clear of plantings or trimming growth closely and away from the foundation is also a good practice. A

best practice to deter pests is to install a two foot wide stone perimeter around the building footprint.

IPM Resources

An exemplary on-line resource for implementing a plan is www.museumpests.net. Questions can be posted, and a free data base program can be downloaded from this site for tracking trap information. To familiarize the collection committee with common museum pests, a helpful poster to display in the collection work room is "Common Insect Pests of Museums in North America", available at Insect Limited <http://www.insectslimited.com/museum.htm>. The site sells sticky pest traps but also includes web based images and information free of charge. The National Park Service Conserv-O-Gram Number 3/11 Identifying Museum Insect Pest Damage is also a useful resource. <https://www.nps.gov/museum/publications/conservogram/03-11.pdf>. Technical Bulletin 29 Combatting Pests of Cultural Property, available through the Canadian Conservation Institute at: <https://www.canada.ca/en/conservation-institute/services/conservation-preservation-publications/technical-bulletins.html> also offers practical advice.

A user-friendly resource is "Pest Management, a Practical Guide," by David Pinniger. The publication guides you through creating a pest management team (commonly curator, housekeeping, events, landscaping and facilities staff) and implementing the steps through the beginning set up, how to survey the situation, the initial steps if you find an active infestation, preventive measures, and on-going activities as well as longer term initiative.

When pest activity is found it is important to clean the impacted collection items by vacuuming through a fine screening and vacuuming the surrounding areas with special attention to cracks and floorboards. Freezing procedures are also beneficial for some materials. Contact your assessor if the need arises for further information or reference the www.museumpests.net website.

Establishing a contact with an entomologist at a local college or the U Mass Amherst Extension or the URI agricultural program is suggested for difficult pest problems that need resolving. These professional connections have an integrated pest management program that can help determine the kinds of pests you have, once they are trapped, and provide advice as to their life cycles, food sources and other attractants, where they are colonizing or how they may be entering the area. <https://ag.umass.edu/integrated-pest-management>.

I. Emergency Preparedness and Response

Identified Risk Emergency Disaster Threats

Goal Emergency Preparedness

Plan of Action

- Conduct a needs assessment to upgrade the existing fire/smoke alarm system;
- Purchase and schedule regular rotations of external hard drive backups of the collection database and store one off site;
- Conduct an electrical assessment to identify risks and needed upgrades;
- Identify loans and high-value objects to be first removed in case of an emergency and make sure they can be quickly identified and accessed;
- Purchase copies of the Emergency Response and Salvage Wheel for office and storage locations;
- Customize the Pocket Response Plan (PReP) and task a point person to annually update contact and resource information;
- Confirm that hand-held fire extinguishers are regularly inspected and serviced. Such inspections should be dated and noted on tags attached to each extinguisher.
- Prepare simplified floor plans for each floor of each building showing exist doors and firefighting equipment, laminate and place in appropriate locations. For the basement plans, identify the locations of the water and gas shutoffs and the electrical panels (which have their own shut offs). Reference AIC Heritage Emergency Program Tools for Risk Assessment <https://www.culturalheritage.org/resources/emergencies/risk-evaluation-and-planning-program>.

Site Observations

The RJD Executive Director and staff have incorporated several solid actions and practices to reduce risks to fire. No smoking is allowed in the houses. Hand ABC fire extinguishers located around the floors offer additional quick action aid in the event of a localized fire. Attic storage contains a mixture of burnable cellulosic and synthetic materials but is not overcrowded, and access is unimpeded.

There are audible fire and smoke alarm systems on each floor that are connected to an alarm service; they are tested annually. The electrical systems in both buildings appear to have undergone upgrades over time; however, these should be checked for code compliance. Neither building has a fire suppression system.



Fig. 21 Hard wired smoke detectors are in placed. A basement mixed facility space adjacent to the furnace room presents a fire hazard.

The presence of a snowblower and a selection of oil based pesticides and paper products in a basement store room, adjacent to the furnace room, presents a fire hazard.

The presence of a cloud-based back up of the collection database is a solid action that supports post incident source for collection documentation.

Recommendations

This may seem daunting, but disaster preparedness doesn't have to be difficult. You can take simple steps throughout the year toward your goals. The following are some recommendations. Start with a commitment to creating a collection emergency response plan by making a timeline for developing it.

A simple recommendation but best practice, in addition to cloud-based data, is purchasing a desk top hard drive to back up the active hard drive, in particular the collection database, weekly and to keep off site. Use two remote backup hard drives - one stays at a safe off site location, such as safe deposit box, while the other backs up the active drive and is then swapped out monthly with the safe deposit one. Having access to a secondary source for the collection management database honors your fiduciary responsibility to document what has been damaged or lost should the computer drives become inaccessible due to a fire or other emergency disaster.

The separation of the paper goods from the snowblower/supply rooms is recommended. Relocation of the snowblower outside of the historic building is a preferred practice, even when drained of gas during warmer months. Locating a smoke detector in this room will also lower risks by increasing response time. Be aware that paints and solvents in the basement are best removed if outdated/dried. and best disposed of through the community recycle days for hazardous home products such as paints, pesticides and computers. A best practice is to store these products in closed flammable cabinets. used cabinets can be purchased used from

industrial furnishing suppliers in southern New England such as Yankee Supply (<https://www.yankeesupply.com/>). A good practice is to also keep pesticides in a secured sole purpose location.

The development of emergency disaster response plans to address visitor safety and collection response needs is recommended. A recommended first step is to create a call list for staff, Board and committee members and to distribute it among all involved. A handy wallet-size emergency plan is to customize the online [Pocket Response Plan™ \(PReP™\)](#) template. To learn how to tailor the template to fit your needs, reference the five Connecting to Collection Care webinars by Julie Page to <https://www.connectingtocollections.org/archiveresponseplan/>

As your collection documentation is verified, a good practice is to identify and prioritize important collection materials for an emergency response. Customizing the PReP with the collection locations of these items is a helpful reminder in times of emergency. Be sure to task a point person to be responsible for updating and distributing the call list annually and when major changes are made.

Confirming the RJD's coverage in the event of an emergency disaster and building a relationship with your insurance representative is recommended. Your representative will be your first line advocate in the event of a natural or emergency disaster, and if he/she knows your needs, will often be able to provide timely and essential support that reduces the costly recovery expenses for conservation. Solidifying your relationship with fire responders is a second recommended action. Invite the fire chief off hours to give you pointers on safety and preparedness. Familiarize them with the collection locations and special response needs. [Working with Emergency Responders: Tips for Cultural Institutions Poster](#) provides advice on how to interact with responders before, during, and after an emergency:

<https://www.culturalheritage.org/docs/default-source/emergency-resources/working-with-emergency-responders>.

If the fire chief and personnel from different fire shifts are familiar with the site, they will arrive with more knowledge and ability to effectively and efficiently respond. With pre-planning they can arrive with fire blankets to cover cases and furnishings as firemen seek out the fire origin.

In support of public safety emergency responses during open hours, populating and posting an emergency procedures flip chart template is also recommended to empower the director and docents manning the floors. These color-coded pages provide a quick reference during times of response. Locating them at key public access areas, often alongside fire extinguishers, is a recommended practice. Committing to an annual date to review responses and evacuation procedures and meet up location is a best practice. The museum community targets MAY 1 and suggests you mark your calendars also for some type of emergency management training on that date.

Be sure to conduct a building evacuation drill, evaluate the results, and discuss ways to improve response performance. Some historic sites identify an emergency evacuation spot with a sign.

Planning and Preparedness Resources

- Reference the Connecting to Collections Care webinars for risk evaluation and planning <https://www.connectingtocollections.org/risk-evaluation-and-planning-program/>
- Purchase **Emergency Response and Salvage Wheels to hang on staff office and collection storage doors.** The wheel has essential information to help you cope quickly and effectively when disaster strikes. Wheels are available at: <https://store.culturalheritage.org/site/index.php?app=ecom&ns=prodshow&ref=FAIC-1>.
- Identify the three biggest risks to your collection or building (such as a nor-easter, leaking water pipe, heavy snow, or power failure) and outline steps to mitigate them. You can use FAIC's <https://www.culturalheritage.org/resources/emergencies/risk-evaluation-and-planning-program> to guide your assessment.

Collection Focused Emergency Disaster Resources

The following are the resources mentioned above that are most helpful of developing a collection focused emergency disaster response and recovery plan.

PReP Template

This free, user-friendly template is recommended to keep all the important contact numbers and information readily at your fingertips. If printed on Tyvek, the plans are waterproof and will withstand much physical abuse. The template organizes the information you need for the first 24 hours on the front and back of a single sheet of legal sized paper that folds into a wallet size pocket envelope. On one side is the emergency communications directory with contact

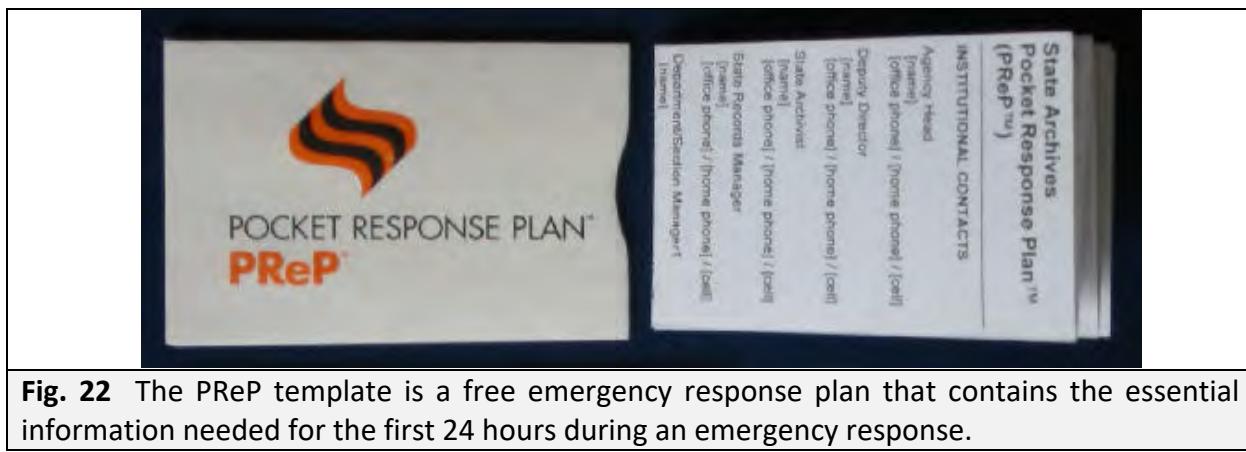


Fig. 22 The PReP template is a free emergency response plan that contains the essential information needed for the first 24 hours during an emergency response.

information for staff, first responders, emergency services, utilities, vendors and suppliers, disaster teams and other essential individual and agencies. The other side contains an Emergency Response checklist which is an organized list of those actions that each individual should take. It also can be customized to include floors plans and a list of priority collections. Copies of these PReP plans are best updated annually and distributed to board members with copies kept in multiple locations for easy and prompt access. The template is available at no charge on the website for the Council for State Archivists at:

<http://www.statearchivists.org/prepare/framework/prep.htm>

To help guide you in creating your own PReP plan, a number of webinars with resources are available through Connecting to Collections. The home page is:

<https://www.connectingtocollections.org/>. The archive focused webinars 'Writing a Disaster Plan' and 'Exercising your Disaster Plan' presented by Julie Page are intended for the small organizations with limited staff and resources. They focus on filling out the Prep template and exercising your plan. The five webinars are accessed at:

<https://www.connectingtocollections.org/archiveresponseplan/>.

An important contact to include in your plan is the 24 hour HOT LINE Number hosted by volunteers of the American Institute of Conservation's National Heritage Emergency Responders Team. The National Heritage Responders come from all corners of the United States, including Alaska, Hawaii, and American Samoa. (Your preservation architect author is a member of this team.) They are conservators, archivists, collection managers, and other professionals. Together, they have a diverse skill set and experience in handling a wide range of materials, from paper to textiles to paintings and more. This volunteer peer support provides advice and referrals by phone at the 24 Hour Hotline number 202.661.8068. Putting the number in your PReP plan and posting the number on any museum landline telephone, in your digital device contact list or emergency plan binder keeps it easy to find.

Response and Recovery Plan

To continue to raise awareness about disaster preparation and recovery listen to the four part webinar series named Risk Evaluation:First Step in Disaster Planning. These one and a half hour no cost webinars are available at <http://www.connectingtocollections.org/courses/risk-evaluation/> once you register on line through the website.

Two other published resources which have been specifically designed for smaller staffed institutions, provide helpful tools when you need to initiate a recovery plan. They are the Field Guide to Emergency Response and the Emergency Response and Salvage Wheel. Both resources are available from the American Institute for Conservation on line bookstore at



Fig. 23 The *Field Guide to Emergency Response* and the *Emergency Response and Salvage Wheel* are foundation tools to guide you through an emergency plan.

<https://store.culturalheritage.org/site/index.php?app=ecom&ns=prodshow&ref=FAIC-1>. Follow the Field Guide's step-by-step instructions tailored to the scope of your emergency: what to do first, whom to call, how to prevent further damage.

The ***Emergency Response and Salvage Wheel*** has essential information on protecting collections when disaster strikes and is made to hang on the back of doors or in prominent retrieval locations for quick reference. This hands-on tool will help you find "What to do" information quickly and effectively so that important artifacts aren't lost forever. Side 1 of the Wheel outlines the critical stages and steps of disaster response, while Side 2 provides salvage steps for 9 types of collections, including books, documents, photos, electronic records, paintings, and more.

The American Institute for Conservation also hosts a website for heritage emergency programs. The on line resource located at <https://www.culturalheritage.org/resources/emergencies/risk-evaluation-and-planning-program> provides a comprehensive overview of web based resources for risk evaluation and planning. A collection of one-page documents share tips or simple mitigation measures and offer steps for getting started with planning efforts. Click through the website to identify tools, check list resources and free forms to use.

Other resources are the National Park Service series of Conserve-O-Grams. This series of on-line leaflets has a number of technical sheets that address to how to salvage damaged items during an emergency. They are located in section #21 Disaster Response and Recovery http://www.nps.gov/museum/publications/conserveogram/cons_toc.html#collectionpreservation.

Salvage of wet books and records is also found at the Northeast Document Centers website at http://www.nedcc.org/resources/leaflets/3Emergency_Management/06SalvageWetBooks.php

SUMMARY | Collections Assessment

Priority action plans to implement in the near term are these four initiatives:

- participate in the STePs program
- initiate an environmental monitoring program
- undertake an inventory reconciliation and space planning
- prepare short and long-term maintenance and systems replacement plans

Each priority action plan is divided in the body of the report into a proposed list of actions to implement as resources and funding are available over a multi-year timeframe. These actions can be further divided into smaller tasks to align with available resources as needed. They will take time to complete but form a foundation upon which other preservation tasks will build.

As an example, the UV film is reaching the end of its life service and its replacement is recommended as part of a systems replacement plan. Planning for replacements involves a phased time commitment to gather product information, identify funding sources, and evaluate product options. This planning phase should start in the near term to identify the products and systems to use but may take a year for RJD to position themselves to seek funds to implement. Incremental low/no cost but direct actions that can be accomplished in the near term include imposing a more restrictive shutter operational schedule, purchasing a light meter, and placing light fade cards. These are positive steps that also advance RJD towards the goal to strengthen the light management plan. A similar approach is recommended for identifying collection storage spaces. Such a goal begins with an information gathering phase including environmental monitoring, an inventory and records reconciliation process, and a review of the CMP and mission to guide the collection size and scope. Confirmed knowledge on the size and scope of the collection and evaluation of the environmental data will inform a suitable building location and set the stage for a storage furnishing assessment.

A recommended approach to address the remaining tasks is to commit to annual reviews by risk factor. This is a time to look back over the RJD year and celebrate what has been accomplished. It is also a time to review available resources looking forward and identify one task from each preservation risk category to take on in the coming year. Some tasks, as resources allow, may be taken on as small tasks (change over to all LED bulbs, read a pest management resource, purchase the Salvage Wheel, relocate the snowblower) while others will require more resources and need to be divided into planning, assessment, evaluation and implementation phases. Regardless of the size of the task, all efforts will build momentum and confidence to achieve the identified goals. This methodology encourages accountability and incrementally moves stewardship forward without losing sight of the interplay of the ten agents of deterioration and the core fiduciary responsibility of your collections to your master plan.

IV. BUILDINGS ASSESSMENT

MAIN HOUSE | Existing Conditions

The Rotch-Jones-Duff House was constructed in 1833/4 as a two-and-one-half story single-family residence in the Greek Revival style, from designs of the preeminent American architect Richard Upjohn, likely one of his earliest commissions. The building features later (mid-19th and early 20th century) campaigns of alteration, with elements representing the tastes of each of the three families that occupied the house between the early 19th century and the late 20th century. The building measures 48 ft. (west to east) by 66 ft. (north to south) and is comprised of approximately 3170 sq. ft. of area per story (basement, first story, second story and attic). The current exterior appearance of the building essentially dates from the early to mid-twentieth century and the tenure of the Jones family.

The three-bay west façade of the house features a one-story, full-length, flat-roofed portico supported by fluted Doric columns and pilasters and topped by a wood balustrade with turned balusters. The sidewalls are covered in horizontal flush boarding and the foundation of the house is dressed granite that extends west to form the foundation of the portico. This façade's pediment features a lunette window that lights the attic. The front entrance is elaborate, with a six-paneled door flanked by two four-light sidelights and capped with a five-light transom. Each of the six window openings contains a central wide 6/6 double-hung sash window surrounded by two narrow 2/2 double-hung sash windows.

The two-story south elevation, which faces the garden, has clapboard siding (recently replaced); a full-length porch with lattice below obscures the dressed granite block foundation at this elevation. The porch has square posts with turned balusters and caps and piercing the wood flooring are two sets of prism lights set into the flooring. The east end of the porch is semicircular where it returns to join the east elevation's two-story portico. At the south elevation, molded cornice has a concealed gutter that connects to metal downspouts at the east and west ends of the building. The roof (now asphalt) terminates with a paneled parapet intersected by two hipped dormers. Three tall and narrow brick chimneys project from the edge of the roof and a large Italianate-style cupola caps the roof.

At the three-story, three-bay east elevation, the south elevation porch wraps around and continues as a full-length and covered porch along that east elevation. Four fluted Doric columns support the flat roof; four square piers support the porch at grade. Between each column is a railing with square balusters, and at the north end, a wooden staircase accesses the porch. The porch floor is wood covered by painted canvas, the east edge of which intersects a gutter that runs north to south along the east edge of the porch floor. Below the porch, the cellar story's brick walls are exposed, supported by the dressed granite foundation. The east elevation's sidewalls are clapboard, and at the cellar and first story are asymmetrically placed entries.

The five-bay north elevation, facing Madison Street, is similar to the south elevation in sidewall covering (clapboard) and fenestration pattern, with the addition of a small second-story

octagonal window and a false first-story window at the east. At the first story, at the east end, is a one-story porch with paired fluted Doric columns. Two brick chimneys project from the north roof plane.

The current appearance of the Rotch-Jones-Duff House is not as constructed, as the two families who owned and occupied the house after the Rotch family both undertook significant alterations to accommodate their desires and needs. At the exterior, these include the addition of the cupola and changes to the porches, and at the interior, particularly during the Jones' family tenure, extensive interior alterations over the course of nearly six decades.



Fig. 23 The Rotch-Jones-Duff House & Garden Museum



Fig. 24 Main House façade (west elevation) looking east from County Street (left) and south elevation looking northeast (right).



Fig. 25 Main House north elevation looking south



Fig. 26 View looking north from south lawn/garden toward Main House, Apiary, and Coachman's House (with Greenhouse and Garage)

A. Roofing

Site Observations

The Rotch-Jones Duff House features a gable roof with its ridge running west to east. A composite paneled parapet with aluminum frame surrounds the roof; two large dormers at both the north and south roof planes intersect the parapet at the roof's edge. The main gable roof, including the dormer roofs, is covered in architectural asphalt shingles that were installed in 2018. The cupola roof is also sheathed in architectural asphalt shingles installed in 2018. The three porch roofs are rubber membrane. These roofs are showing signs of deterioration and end-of-life issues, such as patching and fraying.



Fig. 27 Roofing: Asphalt and membrane roofing conditions. Main roof (left) and north porch (right).

Recommendations

- Routinely (on a weekly basis) monitor all roof conditions to ensure that the shingles are in good, weathertight condition, preventing water from penetrating the building.
- The tree located in the northwesternmost corner of the property should be routinely monitored and, as necessary pruned, to ensure that does not overhang and/or substantially shade or encroach on the Main House. This will not only reduce the risk of damage from broken/falling tree limbs but will also improve air circulation (including ensuring drying of wet architectural features) around the building in this location.

Resources

- *NPS Preservation Brief # 47: Maintaining the Exterior of Small and Medium Size Historic Buildings*
<https://www.nps.gov/tps/how-to-preserve/briefs/47-maintaining-exteriors.htm>

B. Chimneys

Site Observations

The Main House has five tall and narrow and rectangular corbelled brick chimneys: three are located on and integral to the south roof plane, near the edge of the roof, and the other two are located on and integral to the north roof plane, also near the edge of the roof. All of the chimneys are painted and each appears to have two flues. The Main House chimneys are no longer actively used for wood-burning fires; however, the furnaces may vent through one or more of the flues, so routine (at least annually) professional chimney inspections and cleaning, if necessary, are recommended to ensure that the chimneys are structurally sound and appropriately venting.

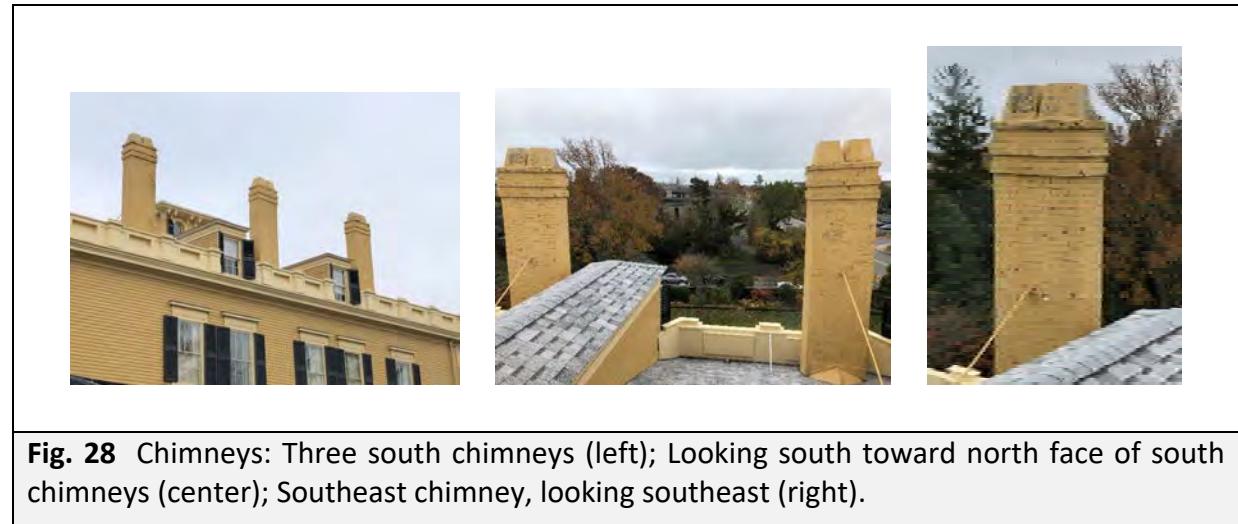


Fig. 28 Chimneys: Three south chimneys (left); Looking south toward north face of south chimneys (center); Southeast chimney, looking southeast (right).



Fig. 29 Chimney: Typical conditions of chimneys in attic, including damage from water intrusion around the chimney, resulting in creosote-staining as well as failing plaster parging.

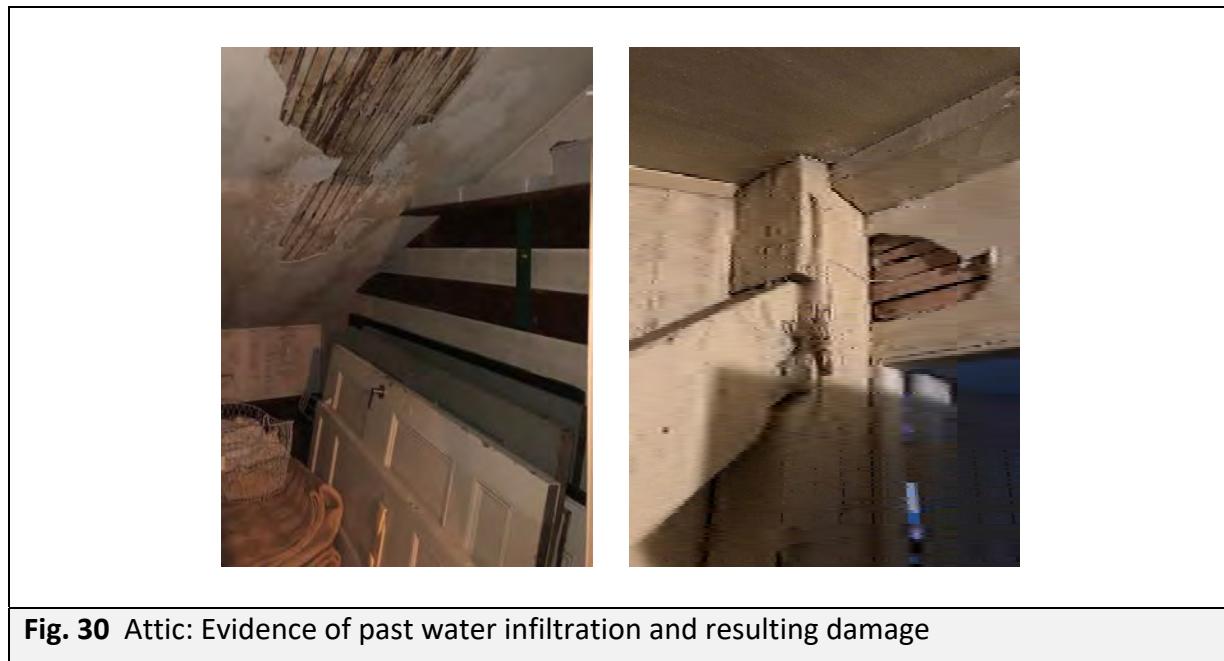


Fig. 30 Attic: Evidence of past water infiltration and resulting damage

All of the chimneys also display some measure of deterioration, both at the exterior as well as when viewed at the interior of the house, specifically in the attic. Some of this evidence pre-dates the replacement of the roofing in 2018, and specifically at the attic (see below), represents long-standing vulnerabilities around the chimneys (and likely of the roof shingles as well) that allowed water leaking into the attic.

At the interior, all of the chimneys show significant staining from water-mobilized tar/creosote deposits. These deposits occur when chimneys are cold, functioning inefficiently, and allowing

combustion gases to condense inside the chimney. If there are leaks in the flues or if the flues are missing altogether, these highly acidic and corrosive gases can attack the porous mortar of the chimneys' masonry. Over time, water coursing down and leaking through a chimney's brickwork can dissolve and mobilize creosote, transporting it through gaps in the damaged mortar to the masonry found at the interior of the building. At the exterior, the painted surfaces of the chimneys are deteriorating, and in numerous areas, the underlying brick is spalling (surface peeling or flaking off) as a result.

At the exterior, there are numerous open mortar joints and cracked bricks, both of which allow water to penetrate into the chimney, causing significant damage during freeze-thaw cycles, and ultimately result in structural deterioration of the chimney.

Recommendations

- At the interior of the house, there is obvious evidence of significant past water intrusion that resulted in damage to various elements of each of the five chimneys, and although the recent (2018) re-shingling of the roof and re-flashing of the chimneys likely addressed areas of water intrusion, it is recommended that the chimneys be professionally inspected to ensure their structural stability and functionality for furnace combustion usage. This inspection of existing conditions should include examining the interior of all of the flues using a small fiberoptic video camera.
- For chimneys that are no longer in any active use, including furnace exhaust, the tops could be capped with metal (copper caps) or slabs of bluestone. Caps should be pitched slightly (1/4" per foot) to allow rain and snow melt to run off in a controlled manner and should allow a small amount of air ventilation from the chimney to aid in drying out the masonry.
- Open mortar joints at the chimneys' brickwork should be carefully repointed using an NHL 5.0 natural hydraulic lime and sand mortar (ensuring that a test panel of mortar samples matches the existing mortar of the areas to be repointed).
- The existing opaque painted finish at the chimneys is likely a long-standing and character-defining feature of the Main House; however, applying paint to masonry is generally not recommended because this type of coating can result in deterioration caused by trapped water, especially in areas where there is a freeze-thaw cycle. Oil-based and latex paints should be avoided in the future; a better choice are vapor-permeable mineral-based paints that penetrate and chemically react with the masonry substrate.

Resources

- *NPS Preservation Brief #2: Repointing Mortar Joints in Historic Masonry Buildings*
<https://www.nps.gov/tps/how-to-preserve/briefs/2-repoint-mortar-joints.htm>
- *NPS Preservation Brief #21: Repairing Historic Flat Plaster Walls and Ceilings*
<https://www.nps.gov/tps/how-to-preserve/briefs/21-flat-plaster.htm>

C. Foundation

Site Observations

The foundation of the Main House is dressed granite block at the west façade and south and north elevations, and brick at the exposed foundation (basement) walls at the east elevation. The overall condition of the masonry foundations is good. There are selective areas that need mortar repointing, including at the east brick wall and the north elevation. Repointing will ensure that water and pests have less opportunity to enter the building and cause damage.



Fig. 31 Foundation: Showing areas where water splashes back or accumulates, resulting in brick and mortar deterioration

Recommendations

- Open mortar joints at the foundation should be carefully repointed using an NHL 5.0 natural hydraulic lime and sand mortar (ensuring that a test panel of mortar samples matches the existing mortar of the areas to be repointed).
- The grading immediately along the foundations should be regraded, if necessary, to ensure that water deposited along the foundations flows *away* from the building, not toward it. Regrading could require carefully re-establishing walkways and paving but is essential to undertake to prevent any water penetration into building fabric or interior areas of the building.

Resources

- *NPS Preservation Brief # 47: Maintaining the Exterior of Small and Medium Size Historic Buildings*
<https://www.nps.gov/tps/how-to-preserve/briefs/47-maintaining-exteriors.htm>

D. Gutters, Downspouts, Leaders

Site Observations

Gutters, downspouts, and leaders are essential architectural elements: they direct roof water over, around and away from the historic building and its surrounding grade. The existing system's elements appear to be varied in date and condition; there are numerous areas of concern. It should be noted here that the overall amount and force of rainfall (and storm conditions that include rainfall) in New England continues to increase, stressing historic gutters and downspouts' ability to successfully handle the amount of water generated by rainfall. Historic gutters and downspouts are often smaller in dimension than what is currently needed to address water dispersal around historic buildings, rendering them under-capacitated. In addition, there are occasional situations where later re-roofing can impact gutters' ability to function. Both of these conditions exist at RJD.



Fig. 32 Gutters, Downspouts, and Leaders: Typical conditions, including shallow gutters

Recommendations

- Gutters should be carrying water from the roof to the downspouts, with very little water left standing in the gutter. In addition, water should not be overflowing the gutters; if this occurs, either the gutter has vegetative or roof debris that is preventing water flow, or perhaps the gutter's capacity is inadequate for the amount of water. All gutters should be inspected and cleaned at least twice a year and after major storm events. Areas of wood rot or metal failure should be addressed through repair or selective replacement. If under-capacity is identified as an issue, plans should be made for a compatible and appropriate replacement system.
- Downspouts should dispense water leaders that carry the water further away from the buildings, onto splash blocks, into a storm sewer (which is the case in several of the RJD downspouts) or into a purpose built dry well around the foundation. All downspouts, leaders and/or splash blocks should be inspected at least twice a year and, in the event of metal failure, displacement, or other functional impediment (crushed downpipe ends are very common and seen at RJD, at one west and another east downpipe) should be repaired or selectively replaced, as needed, to ensure appropriate functionality.
- Unlined wood gutters should be oiled at least once a year, when thoroughly dry. Unboiled (raw) linseed oil or a wood preservative like Cuprinol Clear can be used; however, *boiled* linseed oil should *not* be used because of solvents that cause it to dry and harden, trapping rot-inducing moisture below it.
- Lined gutters should also be routinely monitored for any compromises, and if any are found, they should immediately be repaired (metal can be soldered—*carefully*—and rubber can be resealed).

Resources

- *GSA Guidance on Inspecting and Maintaining Gutters and Downspouts*
https://www.gsa.gov/real-estate/historic-preservation/historic-preservation-policy-tools/preservation-tools-resources/technical-documents?Form_Load=88052

E. Sidewalls and Woodwork

Site Observations

The flush-board and clapboard sidewalls and other exterior woodwork is in fair to good condition overall, displaying typical conditions of a predominantly wood building nearing its next round of painting. There are some areas and features with peeling paint, others with deteriorating wood features. Surprisingly, given the building's proximity to the harbor and the generally moist ambient air conditions, there were few areas (mostly at the north elevation) of mildew and algae observed.



Fig. 33 Woodwork: Conditions needing repair/re-painting



Fig. 34 Woodwork: West façade balustrade needing repair and re-painting

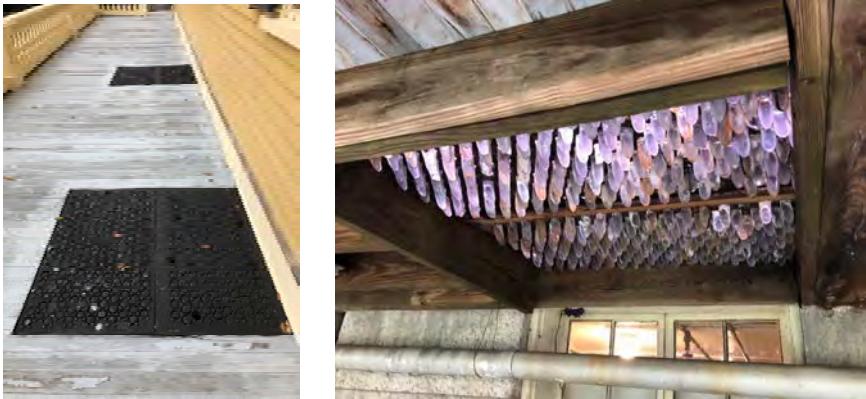


Fig. 35 South porch wood flooring with prism glass insert

Recommendations

- Schedule repainting with selective wood repair as soon as possible to prevent further water intrusion into wood elements, and damage that will accelerate and require replacement of fabric rather than repair.
- To preserve the prism glass inserts at the south porch floor, which are character-defining features of this architectural feature, it is recommended that a reversible and minimally-visible method to prevent standing or trapped water from deteriorating the surrounding flooring be considered. If, however, these features continue to advance the deterioration of surrounding architectural fabric and features, the inserts could be photographically documented and measured (both their size as well as specific location at the porch floor), and then carefully removed, in a manner that ensured that they remain intact. They should then be clearly labeled, using a method that is secure but reversible and that indicates date of removal, original location information, etc. These features would then be stored with the building's other architectural elements—on-site, in a secure and dry location. This approach provides the option for re-installation of this removed feature at a later date, if that is desired.

Resources

- *NPS Technical Preservation Services Resources*
<https://www.nps.gov/tps/education/online-pubs.htm>

Resource 1: Proper Painting and Surface Preparation

Resource 2: Paint Removal from Wood Siding

F. Windows

Site Observations

The majority of the windows are historic divided-light, double-hung, wood sash windows in good condition overall. The exceptions to this type are the at the cupola and at the east and west gable ends of the attic, where operable wood fanlight windows light this area of the building. It is also in the attic where the worse window conditions were observed, both at numerous double-hung sash as well as the fanlights.



Fig. 36 Windows: North room, cellar window/well that is not weathertight and allowing water into the building's basement (center) office, near electrical panels



Fig. 37 Windows: Typical window conditions that need repair

Recommendations

- Historic windows are primary character-defining features of historic buildings, and as such, should be well-maintained to ensure their survival as important architectural features but also as a primary defense against water infiltration/intrusion.
- The attic's fanlight windows, which are original historic features of the building, should be carefully repaired, following best practices (see Resources below). Roller scrim shades should be added to these windows to mitigate the amount of daylight that enters the attic at these locations.

Resources

- *NPS Preservation Brief #9: The Repair of Historic Wooden Windows*
<https://www.nps.gov/tps/how-to-preserve/briefs/9-wooden-windows.htm>
- *GSA: Restoring Wood Window Sash and Frames*
https://www.gsa.gov/real-estate/historic-preservation/historic-preservation-policy-tools/preservation-tools-resources/technical-documents?Form_Load=88188
- *GSA Preservation Technology Source Book*
https://www.gsa.gov/real-estate/historic-preservation/historic-preservation-policy-tools/preservation-tools-resources/technical-documents?Form_Load=88386
- *GSA: Wood Double-Hung Windows*
https://www.gsa.gov/real-estate/historic-preservation/historic-preservation-policy-tools/preservation-tools-resources/technical-documents?Form_Load=88174
- *NPS Preservation Brief #45: Preserving Historic Wood Porches*
<https://www.nps.gov/tps/how-to-preserve/briefs/45-wooden-porches.htm>

G. Site and Landscape

Site Observations

The site slopes from the northwest corner to the southeast corner, with the north portion of the parcel occupied by the buildings and the south portion by the garden. In general, the grade around buildings should be such that water is directed away from, and not pooling around or infiltrating into, the building. This is generally referred to as a negative grade. At RJD, several circumstances at the north yard contribute to more water than is healthy for the building being present, and in some locations, entering the building. Specifically, immediately along the foundation is paving that appears to slant toward the foundation, not away. The granite steps at the north porch are likewise pitching to the south, toward the building. And at the east elevation, the large paved terrace area used for the seasonal tent and RJD functions abuts the granite foundation and brick wall and should be monitored for water collection and infiltration in this area.



Fig. 38 North elevation showing displaced granite steps (shedding water south toward building)



Fig. 39 North elevation showing displaced step (shedding water south toward building) (left); paved walkway west of the Coachman's House and Greenhouse.

Recommendations

- Ensure that the grade surrounding the building is appropriately pitched to divert water away. If necessary, sensitively regrade (using hand tools and digging), and reset any paving stones or steps that are pitching water toward the building.
- Monitor the east terrace to ensure that water is being properly displaced from this large impervious area.

H. Insulation

Site Observations

Insulation (which appears to be vermiculite) was observed in one location of the Main House: at the ceiling of the attic, accessible through two small wall hatches located in the walls of the staircase leading to the cupola. Otherwise, the building does not appear to be insulated in any other areas or manners. A building with little or no insulation, and no vapor barriers, can be drafty and cold in the winter. With heat, and with added humidity in the winter or significant cooling in the summer, means that relatively good ventilation will help dry out the building. Adding insulation, like adding major HVAC systems, requires very careful consideration as the unintended consequences can be extremely damaging to historic buildings if not done thoughtfully.

Recommendations

- If the environmental data from the recommended dataloggers suggest additional insulation would be beneficial to the collections or if the building were to be used in the winter by more people, do the following:
 - Hire an energy auditor with a blower door to evaluate the tightness of the weather envelope.
 - Carefully examine the envelope for small holes and gaps that leak air and also allow access for vermin.
 - Hire an infrared (IR) weather envelope energy specialist with a high resolution IR camera to record the exterior facades of the building.

Resources

- *GSA Preservation Technology Sourcebook: Thermal and Moisture Protection*
https://www.gsa.gov/real-estate/historic-preservation/historic-preservation-policy-tools/preservation-tools-resources/technical-documents?Form_Load=88485

I. Cellar

Site Observations

Basement: There is a full basement under the entire footprint of the building; this area has been rehabilitated for use as staff offices (four) and includes several restrooms, a kitchen and staff dining area, a small storage room, and a furnace room. Both a straight run staircase and a single elevator access the first story of the building from the basement. There are numerous vintages of systems located in the basement, and in addition, some exterior downspouts feed into the waste (sewer) pipes that run through and across the basement. There is evidence of water intrusion in numerous locations (staining at carpets, around windows, or along the foundation wall, specifically in the north center room and southeast office; it is unclear whether this is active intrusion, but likely in some areas, it is.

Attic: As reviewed above (Chimneys), there is abundant evidence of long-standing water intrusion and resultant damage in many areas of the attic. The 2018 re-roofing should address this concern, but the areas should be routinely monitored. It is observed that there is a significant amount of unused, or poorly used, space in the attic. The potential to rehabilitate and reuse some of this space for collections, or perhaps additional offices, could be explored.

Recommendations

- Observe areas where water has, in the past, entered the building (around chimneys and in other areas of the attic, and along basement windows and other interior areas along the building's foundation) inspect areas during and after storm/rain events for active intrusion; if problems are discovered, assess exterior conditions for vulnerabilities (abutting grade, gutters/downspouts/leaders, poor masonry foundation conditions, etc) and address through repairs.
- Analyze the feasibility of reusing the attic's main room as a collections workspace, along with rehabilitating the eave rooms for safer collections storage, and possibly for additional office space. The Buildings Assessment Summary (below) suggests a range of concerns related to reusing this area of the building.

J. Heating, Ventilation, and Air Conditioning (HVAC)

Site Observations

The HVAC systems in place date between the 1930s and early 21st century; some of these systems were well-engineered and sophisticated for their time (ca. 1935), installed by the property's third and last private residential owners, the Duff family, and thus have been recognized to contribute to the historic value of the building. The building's first and second stories are currently heated by three heating units: two oil-fired, warm-air furnaces and one oil-fired boiler (forced water heat). All of these units are located in the northwest room of the basement. The existing network

of galvanized metal ductwork (mostly uninsulated) is complicated and appears to include elements from several campaigns of change and update; ductwork is routinely cleaned and furnace filters are changed annually. The most recent updates to the heating systems include the installation of new oil tanks in 2017.

Two air condenser units are located under the north porch and cool the basement of the building. The first and second stories are heated and cooled. The collection storage areas in the attic are not heated nor cooled and are thus not an archival-quality environment for the collections.

Windows and doors (presumably using screens) are occasionally opened during seasonal weather.



Fig. 40 HVAC: Furnaces in basement, steam radiator in attic, and AC condensors under north porch

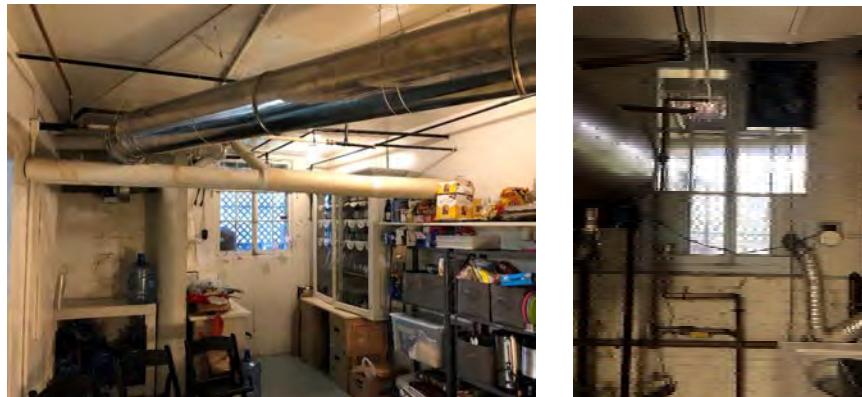


Fig. 41 HVAC: Ductwork, pipes, and wiring for various systems in the basement

Recommendations

- A heating system should:
 - balance supplied and returned air volumes and pressures;
 - use exterior combustion air for the boiler (which is may already do);

- include an appropriate, replaceable air filter in the return air stream that is tagged with a label that lists replacement dates;
- not use any air from the basement for makeup or balancing air;
- be professionally inspected and maintained regularly (per the manufacturer's instructions), including routine replacement of air filters (annually) and cleaning ductwork (every three to five years).
- Old and non-functional equipment should be identified, documented, and eventually removed from the basement and discarded. *It should be noted that the property's third owner, the Duff family, installed very modern systems for the time-period; these systems items may have some acquired historic or social significance and their removal should be carefully considered, and if possible, avoided.*

Resources

- *NPS Preservation Brief #24: Heating, Ventilating, and Cooling Historic Buildings—Problems and Recommended Approaches*
<https://www.nps.gov/tps/how-to-preserve/briefs/24-heat-vent-cool.htm>

K. Electrical, Plumbing, Fire Detection, and Security Systems

Site Observations

The electrical system appears to be relatively complicated, judging by the numerous panels located in several areas of the basement. No major problems were noted; however, an overall assessment of the condition of the electrical system, if not already undertaken, is recommended. Smoke detectors are present in various locations and are monitored through the security system company; however, the fire detection/alarm system appears to be outdated (ca. 1985).

No plumbing issues were noted. There are four functioning bathrooms, three at the basement level and one on the first story. The plumbing and heating pipes to the second and attic stories of the house, including lines for two bathrooms and numerous radiators, were recently disconnected.

A 19th century elevator shaft is located in a small first story hallway at the southeast corner of the building.



Fig. 42 Systems: Electrical panels in closet of north center room (left) and in hallway outside north center room (right)

Recommendations

- The fire detection and alarm system for both the Main House and the Coachman's House should be inspected and evaluated by the municipality's fire department to ensure that they are in good and functional condition. If the fire department recommends upgrading the fire detection system, bids should be solicited from multiple service providers for an updated (or new) fire system with security integrated and the entire system hardwired to provide comprehensive and modern services.
- Insulating all hot and cold water lines with self-sealing, closed cell neoprene (3/8") pipe insulation is important because (i) insulating hot water lines can save 3-4% of the building's energy bill annually and (ii) insulating cold water lines helps prevent condensation in the basement. The temperature of water entering the building from the ground is generally 50-55°F—this can be below the dew point temperature of an unheated basement's relative humidity. This means that cold pipes act like a dehumidifier—water will condense on it, eventually corroding the copper pipe, but also dripping onto the floor and puddling there, often leaving a diagnostic linear stain.
- Installing water alarms at selected locations throughout the house, including near the deactivated radiators and plumbing at the first, second and attic stories of the building, is advisable to prevent unanticipated water events in these areas.
- The ability of smoke and hot gasses to migrate quickly through unobstructed vertical elevator shafts can be dangerous and, as such, the historic elevator's open shaft should be assessed for concerns related to fire, and if circumstances exist, they should be sensitively mitigated.
- A licensed electrician should assess the existing electrical system and deficient and/or non-code compliant conditions should be identified and sensitively corrected, if required.

Resources

- *GSA Preservation Notebook Series: Fire Alarm and Smoke Detector Systems*
https://www.gsa.gov/real-estate/historic-preservation/historic-preservation-policy-tools/preservation-tools-resources/technical-documents?Form_Load=88524
- *GAS Preservation Notebook Series: Basic Mechanical Requirements*
https://www.gsa.gov/real-estate/historic-preservation/historic-preservation-policy-tools/preservation-tools-resources/technical-documents?Form_Load=88461
- *GSA Preservation Technology Source Book*
https://www.gsa.gov/real-estate/historic-preservation/historic-preservation-policy-tools/preservation-tools-resources/technical-documents?Form_Load=88496

L. Interior Environment

Site Observations

There are currently no long-term records of temperature and relative humidity for the Rotch-Jones-Duff House, making it challenging to understand the specific environmental conditions faced by the collections and the building itself, and therefore to suggest and/or design improvements to those conditions. There are, however, some observable (as well as staff reported) conditions that are helpful to understanding the overall environment of this building. The seasonal opening of windows and doors in dry weather and the limited winter heating and summer cooling would indicate that there are interior micro-climates where humidity levels may reach excessively high levels. This can lead to damage to sensitive objects and finishes. Not all window openings have storm windows installed, specifically the cellar and attic windows do not have storms installed. The temperature in the building was noted as generally even during the assessment site visit; humidity rises from the cellar to the attic.

The use of curtains and window shutters significantly reduces summer heat gain and light damage. While many, if not all, of the exterior storm windows have some form of UV (and possibly visible light) absorbing films applied, there is evidence that these films are no longer serving their function, seen most dramatically in the first story's double parlor, at the east parlor's southeast wooden window shutters and the walnut-veneered mahogany door between that parlor and the east room beyond it.

The collections assessment above addresses the need for specific lighting to prevent damage to collections. Because UV-inhibiting films can cause irreversible damage to historic glass, including breakage of glass lights during application and removal, this application is not recommended for the RJD. Further, UV films can cause glass to absorb radiant heat from the sun, which causes glass to expand and contract, leading to cracking.

The attic fanlight and sash windows are in poor condition, allowing water, air and pests into the building in these locations. The mail slot located at the west façade entry does not close, allowing both air seepage and almost assuredly insects and possibly pests into the building.



Fig. 43 Interior UV: Deteriorated finishes at doors and shutters at first story south rooms

Recommendations

- In order to quantify and understand the building's environment performance and the climatic stresses, and the risks that the collection is thus exposed to, automatic data loggers should be installed to record temperature, relative humidity, and dew point at all stories of the building, including the basement, as well as in all storage areas. There should also be a data logger installed at the exterior of the building to record outdoor conditions. The data loggers should record at least one full year of data, with a recording interval of 20 minutes. For more details, see the data logger discussion in the collections assessment section of this report.
- Failing window sash, specifically at the attic, should be repaired to ensure that these historic features remain intact and functional, and further, can contribute to the institution's ability to responsibly care for the collections located throughout the building, and specifically, in the attic.
- UV and visible light should be filtered, to the greatest extent possible, to prevent damage to collections and architectural fabric, as well as to reduce the heat load within the building. Determine which areas of the building are a priority for UV and visible light-reducing treatments (checking this on a seasonal basis), and then identify how to reduce the overall damage that light is causing in each. Reversible sunlight/daylight control options include (i) installing specially-treated plexiglass panels (or roller screens) at the interior of the room and (ii) installing plastic film to exterior storm windows, but in addition, (iii) relocating light-sensitive objects away

from the source of direct daylight and (iv) closing shutters/blinds/curtains as often as possible throughout the day, and whenever rooms are not open to visitation are also practices that can help reduce the overall amount of UV/visible light entering a building.

- Install UV filters to fluorescent lights.

Resources

- *NPS Preservation Briefs #39: Holding the Line: Controlling Unwanted Moisture in Historic Buildings*
<https://www.nps.gov/tps/how-to-preserve/briefs/39-control-unwanted-moisture.htm>
- *National Park Service, Technical Preservation Services Reducing Visible and Ultraviolet Light Damage to Interior Wood Finishes*
<https://www.nps.gov/tps/education/online-pubs.htm>

COACHMAN'S HOUSE (including Greenhouse and Garage)

The Coachman's House was likely constructed by the Jones family at the same time that alterations to the Main House were undertaken, perhaps ca. 1851. The building currently serves as both a residential rental unit (primarily at the second story) as well as space leased (for a nominal \$1/year fee) by a local garden club (at the first story). A Greenhouse, likely dating to the early 20th century, is attached to the west end of the south elevation of the Coachman's House; also extending from the south elevation of the Coachman's House, directly abutting 7th Street at the east, is what appears to be an early 20th century garage addition to the Coachman's House. The Greenhouse is currently in active use by the garden club; however, the opportunity for alternative uses of this space could be considered. The Garage, which is comprised of a single large room directly accessed from the abutting street, is currently used for public programs.

The buildings that comprise the Coachman's House are in good condition overall, and although toured as part of the two-day assessment, were not examined in detail. The assessment considered but quickly dismissed the prospect of using the Coachman's House for staff offices or collections activities, including storage. This building is too small and inaccessible for these uses, but more importantly, provides the RJD institution with consistent monthly rental revenue. It should be noted that the Coachman's House asphalt roof was replaced approximately ten years ago.



Fig. 44 Exterior: Coachman's House looking east at the west elevation (top); looking southwest at the east elevation, Garage at left (left); southeast at the north elevation (right)

APIARY

The existing Apiary, located in the north yard between the Main House and the Coachman's House, was constructed in ca. 1995, based on plans developed to recreate an apiary that had historically existed on the site. This small wooden building is currently used for programming related to bees and beekeeping. Due to the openings and lack of flashing details, this structure is inherently vulnerable to the weather and, as a result, cannot be utilized in any useful way for storage, for example.



Fig. 45 Apiary: Looking north (left) and southeast (Greenhouse behind)



Fig. 46 Coachman's House (left) with Greenhouse and Garage, looking northeast

SUMMARY | Buildings Assessment

General

Overall, the RJD buildings are all in good condition, with only selective areas and elements of building fabric needing attention. This assessment is focused on the needs of the Main House, since this is the building that currently houses, and is anticipated to continue to house, the institution's collections.

As a National Historic Landmark (NHL), the Rotch-Jones-Duff House is a nationally-significant and remarkably intact historic building, one that preserves the evolution of a New England domestic dwelling from ca. 1834 until ca. 1981, when it became a historic site. As such, the recommended treatment approach to ensure that the building is preserved into the future is *rehabilitation*, one of the four approaches detailed in *The Secretary of the Interior's Standards for the Treatment of Historic Properties* (<https://www.nps.gov/tps/standards.htm>). Other helpful resources and guidance is available through the National Park Service and the General Services Administration:

- *NPS Preservation Briefs*
<https://www.nps.gov/tps/how-to-preserve/briefs.htm>
- *GSA Historic Preservation Tools and Resources, General Resources*
<https://www.gsa.gov/real-estate/historic-preservation/historic-preservation-policy-tools/preservation-tools-resources>
- *GSA Historic Preservation Tools and Resources, Technical Documents*
<https://www.gsa.gov/real-estate/historic-preservation/historic-preservation-policy-tools/preservation-tools-resources/technical-documents>

Changes to a historic building's architectural fabric and structure can happen gradually, sometimes over years. Routine monitoring and photographic documentation of the site and buildings, including known areas of vulnerability or problems, creates a baseline from which to track and compare changing conditions. This documentation would, ideally, accompany the routine maintenance checklist that should be part of the institution's cyclical maintenance program and manual.

Small historic sites and museums typically create customized and individual approaches to managing their buildings and facilities' conditions, responsibilities, undertakings, history, etc—there's no one approach or program that works for all institutions, nor has specific software been developed to help smaller cultural institutions with limited resources and budgets. Spreadsheets are the most commonly used tracking tool, especially for routine maintenance activity. One good resource has been developed by the Texas Historical Commission, although intended for the oversight of courthouses, much of the information is relevant to other building types, and further, the cyclical maintenance tracker can be downloaded and modified for the specific needs

of other properties. Both the courthouse manual and the maintenance spreadsheet are available at:

https://www.thc.texas.gov/preserve/projects-and-programs/texas-courthouse-stewardship/historic-courthouse-maintenance-handbook?fbclid=IwAR28_0zr9ApY9njdHyzZ02Ksha_yo6hjeTDK1g-WC87I2YW2wPvL-HmfVjk.

Finally, for any physical work undertaken on the architecture of the RJD House, all contractors—carpentry, HVAC, electric, plumbing and other—should be vetted for their knowledge about and experience in the care of historic buildings. Preservation Massachusetts, the statewide non-profit preservation organization, maintains a directory of historic preservation and building experts at: <https://www.preservationmass.org/preservation-directory>.

Water

While there are numerous circumstances that can compromise a building's structural stability and sustainability into the future, one of the primary physical impositions is water, and to that end, it is critical to address and mitigate water infiltration as early in its discovery as possible. Water infiltration leads to deterioration and decay of the building fabric surrounding the entry points, but importantly, will ultimately invite other issues, including insects and other pests as well as compromising environmental conditions such as high interior humidity.

At RJD, the failing condition of various gutters and downspouts, as well as conditions at the north elevation's grade, which in several areas slopes (albeit subtly) back toward the building (south) rather than away (to the north),— are allowing water to penetrate the building. This was specifically observed at the cellar window leading into the basement's center office (located west of the staircase). In addition, water has entered the building at various times over the past century or so, in various locations, but predominantly in the attic but over both the west façade and east elevation entry doors. The assumption would be that, in these latter locations, the porch roofing and flashing around the entries may have resulted in this water intrusion.

Maintenance and Planning Documents

Preparing certain planning documents related to the RJD buildings could contribute to developing a financial and institutional sustainability plan and help manage the inevitable deterioration of building fabric in a responsible and proactive (as opposed to reactive) manner. Sustaining existing building fabric and systems, to the greatest extent possible, and undertaking routine maintenance to mitigate minor problems before they result in major intervention, is simply good practice for the care of historic buildings. Recommended plans are:

- Cyclical Maintenance Plan/Manual
<https://www.nps.gov/tps/how-to-preserve/briefs/47-maintaining-exteriors.htm>
- Capital Needs Assessment (identifying both short-term (2-5 years) and longer-term (10 – 20 years) capital needs, including systems
- Disaster Planning

- Sustainability/Sustainable Practices Manual, if desired
- Master Plan for Building Acquisition, if desired

Funding

There are fewer and fewer sources of funding for historic buildings, but as an NHL, the RJD House has some advantages over the competition. The following funding sources should be considered for projects that address building preservation:

1772 Foundation

<http://1772foundation.org/2017-historic-preservation-matching-grants/>

Massachusetts Community Preservation Act Funds

<https://www.communitypreservation.org/>

Massachusetts Historical Commission

<https://www.sec.state.ma.us/mhc/mhcmpf/mppfidx.htm>

National Endowment for the Humanities

<https://www.neh.gov/grants/preservation/preservation-assistance-grants-smaller-institutions>

National Trust for Historic Preservation

<https://www.nps.gov/preservation-grants/sat/>

Save America's Treasures

<https://www.nps.gov/preservation-grants/sat/>

Priorities

High Priority

- Install automatic environmental dataloggers on all floors and in specific storage areas to record temperature and relative humidity. At least a year's data should then be analyzed so appropriate plans and strategies can be developed to best protect the collections and the buildings.
- Prepare short (2 to 5 year) and long-term (10 and 20 year) plans for cyclical maintenance, including an analysis of systems replacement, to inform fiscal planning needs into the future.
- Assess roof water distribution system to ensure that gutters and downspouts are functioning correctly and to capacity, and that surrounding grade is directing water away from the foundation and other building fabric.
- Inspect chimneys and flues to determine condition, capacities, and needs.

- Inspect electrical, fire, and security systems and update systems as appropriate.
- Reduce the amount of UV/visible light entering vulnerable areas of the building to minimize the damage that daylight causes to objects and architectural fabric.

Medium Priority

- Maintain gutters and downspouts through regular inspection and routine cleaning, repair, oiling, etc.
- Restore failing windows at the attic, specifically the east fanlight window.
- Insulate all hot and cold water lines with neoprene pipe insulation.
- If chimneys are not to be used, cap, repoint, and apply water repellent.
- If dataloggers and IR specialists identify areas needing additional insulation, develop a sensitive and compatible insulation plan.

Low Priority

- Add air direction arrows to ductwork.
- Remove old, obsolete mechanical equipment.

V. CONCLUSION | Recommendations and Actions

Site observations, recommendations and resources for the care and management of the objects and architecture that make up the RJD collections have been detailed above. As previously noted, the time allocated for on-site assessment and follow up report preparation is limited, and as a result, this report is an initial summary of circumstances and opportunities noted by the assessors. The goal of the conservation of objects and the preservation of buildings is the same: to slow the rate of decay and deterioration to the greatest extent possible. Vigilant attention, care, and maintenance are essential for the long-term survival of all of the RJD's collections.

Both assessors agree: the RJD is not facing any conditions that merit emergency intervention. The institution has professional and enthusiastic staff, as well as board members, who actively participate and clearly care deeply about the collections. Like nearly all small cultural heritage organizations, there are challenges and decisions ahead; however, while some of this report's proposed recommendations will require more significant funding than is normally budgeted, many others can be addressed strategically and in a careful, creative, and paced manner, as staff time and resources permit, resulting in on-going progress with small victories along the way. And when completed, each task moves the RJD forward toward better management of its collections and fulfilling its institutional goals.

This recommended actions from this CAP assessment are prioritized as follows:

A. Human Health and Safety

The health and safety of staff and visitors is paramount, and often actions taken to address this concern will also benefit the collections. The high priority recommendations in the following areas should be carried out as soon as possible:

1. Assess and, if necessary, upgrade the electric, fire alarm/suppression, and security systems.
2. Review compliance with emergency access and lighting, ADA compliance, and other code requirements, if required; develop a plan to address any deficiencies.
3. Remove the rug from the Curators office.
4. Develop disaster and emergency plans to manage risk and protect human beings, collections, and buildings.
5. Identify and remove the powdered residues in the medicine chest.

B. Collections Preservation and Stewardship

Collections preservation and stewardship are next in importance and priority. Because the preservation of the collections is directly related to the physical environment in which objects are displayed and stored, placement of automated dataloggers to record temperature, relative humidity, and dew point is the highest priority. Once long-term data is collected and analyzed, plans for the future handling and care of the collections can be made and implemented. Other collection protection recommendations are all also high priorities but can be implemented over time.

1. Install environmental data loggers throughout the Main House and then analyze the results to determine future actions that will improve collection management.
2. Strengthen light control methods to protect the collections and building finishes.
3. Develop policies to improve collection stewardship and management.
4. Hire a Full-time collections manager
5. Gain physical and intellectual control over the collections through complete inventory/cataloguing, documentation, and archival storage.
6. Introduce an Integrated Pest Management (IPM) program to protect the collections.
7. Identify present and future requirements for collections' storage and workspace needs.

C. Building Preservation and Stewardship

The preservation and stewardship of the Main House will benefit from the installation of environmental dataloggers, so that the environmental conditions over time are better understood. In the meantime, however, water in all its forms will always be the primary agent in the compromise and deterioration of architectural building fabric. Vigilant attention is required to identify and address vulnerabilities and compromises in the weather envelope, and to maintain dry conditions in the vicinity of the institution's buildings. Assessing (and, if necessary, upgrading) the electric, fire, and security systems is critical to preventing and/or limiting casualty damage and unwanted intrusion into the building, and further, theft of collections.

1. Ensure that the soil and surrounding landscape/architectural features are re-graded or reset, as necessary, to direct rainwater and surface water quickly and efficiently away from the buildings.
2. Maintain the weather envelopes of the buildings, especially roofs, chimneys/flashing, gutters/downspouts/leaders, windows, doors, and the intersection of different materials and planes, in good and weather-tight condition.

3. Routinely inspect, maintain and, if necessary, upgrade all mechanical systems.
4. Ensure that trees and vegetation near the buildings are well-maintained and routinely pruned to prevent encroachment on or around architectural building fabric.
5. Replace the rug in the Curators office and raise the furnishings off the floor.

D. Institutional Strengthening

Institutional strengthening includes developing policies, long-term planning, and fundraising strategies, and can be complex, long-term activities for any institution. These tasks require considerable time, effort, and expertise to undertake and then subsequently to implement. While planning goals and fundraising opportunities are beyond the scope of this report, these issues are directly related to the future management and operation of the institution, including the care of the collections.

1. Provide staff with the tools, skills, and resources to better manage the collections through participation in the STePs and MAP programs.
2. Strengthen collection management through strategic planning and the development of policies and practice manuals.
3. Expand the staff and volunteer committees to add requisite expertise and additional staff/volunteers hours to the management of the collections.
4. Continue to explore and participate in mutually beneficial partnerships with other museum, preservation, and cultural heritage organizations.



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Date 7/30/2035

Elevator Inspector

Thomas R. Conway
M.G.L. c. 143 § 7

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