010008
ADAM 3
IBK

ADAMS NATIONAL HISTORIC SITE
ADAMS CARRIAGE HOUSE

HISTORIC STRUCTURE PRESERVATION GUIDE

VOL. 1

HS-#3

Hank
Hugh

WASO-560

H30-DSC-MH

OCT 28 1977

Memorandum

To: Regional Director, North Atlantic Region

From: Associate Manager, Denver Service Center

Reference: Adams, Pkg. No. 101, Park General, Historic Structure Preservation Guide, Rehabilitation of Carriage House

Subject: Transmittal of Referenced Guide

Enclosed is a copy of the Historic Structure Preservation Guide for Adams Carriage House, Adams National Historic Site, as prepared by Historical Architect Randall A. Conrad.

Copies of this Guide are being sent concurrently to the Superintendent, Adams National Historic Site and to the Chief, Cultural Resources Management Division, WASO.

The Historic Structure Preservation Guide program is in the process of developing a standard format for preservation guides. The Adams Guide is an example of one format and approach which has been tailordd specifically for Adams Carriage House.

This Guide is in final form and is ready for use at the site. As a working document, the Guide should be considered an evolving tool which can be modified by the Regional Historical Architect as preservation procedures are evaluated and new procedures are developed. Such continual updates will ensure a document which will serve the preservation of the Adams Carriage House.

(Sgd) Donald L. Bressler

Donald L. Bressler

Enclosure

cc:
Supt., Adams, w/2 cc's of enc.
WASO-560-Mr. Holland, w/c of enc.

Pentachlorophenol should not be used on wood which will have human contact - particularly visitor contact.

Why is spec for new concrete included in a maintenance guide? Except for Part 4

Mortar specs -

For brick - Too strong

Color should be obtained by aggregate color if possible. If colors - as specified - are to be used they should be dissolved or mixed with the water. Never put dry colors in with dry lime sand and cement.

Cleaning - Waking from top down will produce streaking on lower surfaces. - Work from bottom up never permitting cleaned areas to dry until full height is reached.

Nails in Carriage House would not be hand wrought or have Rose heads.

Preservatives (see above on Penta-)

~~No~~ Inadequate ~~do not~~ coverage of recording before removal and recording before change.

Gutters can also have too much pitch causing water to collect too rapidly at low end thus reducing holding capacity and cause overflow.

4a Doors - Never glue panels in place. This is a sure way to crack and destroy panel from normal door movement.

0870,1 Explain lubrication. Oil should not be used on locks.

0880,1 is missing ok in pt 3

0880,2 Why not bed glass? sash fit opg...
Why exposed marking? dating of other materials was not covered.

010008
ADAM 3

HISTORIC STRUCTURES PRESERVATION GUIDE
ADAMS NATIONAL HISTORIC SITE
ADAMS CARRIAGE HOUSE
QUINCY, MASSACHUSETTS

TABLE OF CONTENTS

VOLUME I

SECTION 1
Emergency Information

SECTION 2
Introduction to Historic Structure Preservation Guide (HSPG)

SECTION 3
A. Inspection Guide and Checklist
B. Repairs Required List

SECTION 4
Construction and Architectural Chronology Log

SECTION 5
Repair and Replacement Specifications

SECTION 6
A. Construction Specifications, Dated May, 1974
B. Addendums #1 and #2
C. Change Orders
D. Completion Report

SECTION 7
Bibliography

VOLUME II

SECTION 1
Emergency Information

SECTION 2
Introduction to Historic Structure Preservation Guide (HSPG)

SECTION 3
Housekeeping Guide

VOLUME II (continued)

SECTION 4
Housekeeping Specifications

SECTION 5
Material Identification and Description

SECTION 6
Architectural Plans

SECT. 1 EMER. INFO.

HISTORIC STRUCTURE PRESERVATION GUIDE
ADAMS NATIONAL HISTORIC SITE
EMERGENCY INFORMATION

DATE: ____/____/____
MONTH DAY YEAR

NAME	OFFICE NUMBER	HOME NUMBER
Mrs. Wilhelmina Harris	773-1177	472-4708
Mr. John Iacovelli	773-1177	472-7115
Mr. Theodore DeCristasaro	773-1177	472-1265
Police Department	479-1212	-
Fire Department	773-6400	-

SIGNATURE OF CHIEF RANGER

HOW TO USE THE PRESERVATION GUIDE

The Historic Structure Preservation Guide is divided into two volumes. Volume I is the source for repair and replacement information, while Volume II contains the information required for housekeeping.

Using the preservation guide begins with Volume I, Section 3, the Inspection Checklist. Inspections will be performed semi-annually by an experienced technician or a professional, such as an historical architect or an exhibit specialist, and generate the necessary maintenance and repair work. After the condition of the material has been described on the Repairs Required list, consult Volume II, Section 5, Material Identification and Description. Section 5 is the graphic identification and description of all the materials.

After completion of the Repairs Required list, this form will be submitted to the maintenance foreman who is responsible for completing the appropriate work.

Repair of the material will be performed after consulting the preservation guide and discussion with the Historical Architect.

After the work is completed, the maintenance foreman will date and sign the Repairs Required List. It will also have the description of the work, who performed the work and the cost. This information will also be recorded in the Construction and Architectural Chronology Log, Volume I, Section 4, as a record of maintenance and repair work on the structure.

However, in the interim between formal inspections, the Repairs Required List should be maintained at the site with problems identified on a daily basis by the maintenance, housekeeping, or park staff. If a critical problem arises, it should be called to the attention of the Park Maintenance Foreman. On a regular basis, the foreman should make interim inspections and note problems.

This preservation guide is not yet a highly refined system and therefore it is requested that additional information be added to the guide by the Regional Historical Architect, the Adams National Historic Site staff, and the Denver Service Center. It is further requested that all questions be directed to the Historical Architect.

REPLACEMENT PARTS AND ADDITIONAL COPIES OF GUIDE

Replacement parts and additional copies of the preservation guide can be obtained from the National Park Service, Denver Service Center, Micro-Graphic Division, Box 25287, Denver, Colorado, 80225. Mr. David Moorehouse can be contacted by phone at (303) 234-4570. The information required for additional replacement parts or additional copies would be as follows:

1. PARK NAME - Adams National Historic Site
2. NAME OF REPORT - Adams Carriage House Preservation Guide
3. SHEET NUMBERS -
    a. Construction Drawings and Specs. in Micro-film File
    b. Material Identification and Description sheets on mylar in file drawer storage.

DISTRIBUTION AND GUIDE LOCATIONS

The record of guide locations are as follows:

1. COPY 1. PARK HISTORIC PRESERVATION OFFICE CRM Div

   National Park Service
   Department of the Interior
   Washington, D.C., 20240
   (202) 343-2703

2. COPY 2. NORTH ATLANTIC REGIONAL OFFICE
   HISTORICAL ARCHITECT
   National Park Service
   150 Causeway Street
   Boston, Massachusetts 02114
   (617) 223-3778

3. COPY 3. SUPERINTENDENT
   Adams National Historic Site
   P.O. Box 531
   Quincy, Massachusetts 02169
   (617) 773-1177

4. COPY 4 MAINTENANCE FOREMAN
   Adams National Historic Site
   P.O. Box 531
   Quincy, Massachusetts 02169
   (617) 773-1177

5. COPY 5 HISTORIC PRESERVATION DIVISION, LIBRARY
   National Park Service
   Denver Service Center
   755 Parfet Street
   P.O. Box 25287
   Denver, Colorado 80225
   (303) 234-4582

6. COPY 6 HISTORIC PRESERVATION DIVISION - FILE
   National Park Service
   Denver Service Center
   755 Parfet Street
   P.O. Box 25287
   Denver, Colorado 80225
   (303) 234-5545

VOLUME I

SECTION 1 - EMERGENCY INFORMATION

SECTION 2 - INTRODUCTION TO HISTORIC STRUCTURE PRESERVATION GUIDE (HSPG)

A. PURPOSE

The purpose of this guide is to aid the maintenance staff at Adams National Historic Site in performing routine maintenance, minor repairs and to provide accurate data to qualified professionals regarding major stabilization or preservation work on the structures.

B. OBJECTIVE

The objective of this guide is to provide the technical data required for cyclic maintenance and repair, in order to reduce material deterioration and prolong the life of the historic fabric and structure. Quantity estimates of the materials required is beyond the scope of this guide.

C. APPROACH

The overall approach to maintenance of this historic structure is as defined in the National Park Service activity standards: This guide will reflect the following criteria:

1. The first level of treatment shall be known as housekeeping and shall consist of periodic cleaning, according to this guide, of the historic fabric by competent, trained personnel under the direction of the Maintenance Chief.

2. The second level of treatment shall be known as repairs and replacement and shall consist of minor repairs and replacement, according to this guide, of the historic fabric by competent, trained personnel under the direction of the Historical Architect.

3. The third level of treatment shall consist of major repairs and replacement of the historic fabric, as decided by the Historical Architect, by competent, trained personnel under the direction of the Historical Architect or a restoration specialist skilled in evaluation, design, supervision and construction.

D. DEFINITIONS

1. Housekeeping

Housekeeping is the part of maintenance which removes dirt from the different materials of the building regularly, to reduce deterioration and prolong the life of the material.

2. Maintenance

The maintenance consists of day to day activities necessary to prolong the life of an historic resource. These activities would include the coordination of planning, management, architecture, chemistry, contracting, craftsmen, etc., in order to preserve the material.

3. Repairs and Replacement

Repairs involve the replacement of deteriorated materials with the same or as close to the original composition of materials, in method of fabrication and in manner of installation.

4. Preservation

Preservation is designed to sustain the form and extent of a structure as existing when the National Park Service assumes responsibility. Preservation aims at halting further deterioration and providing structural safety but does not comprise significant rebuilding. Preservation includes techniques of arresting or slowing the deterioration of a structure; improvement of structural conditions to make a structure safe, habitable, or otherwise useful, and normal maintenance and minor repairs that do not change or adversely affect the fabric or appearance of a structure.

5. Specifications

Specifications are a detailed description of requirements, type, manufacturer, quality, etc., for the non-historic and historic materials.

6. Material

Pertains mainly to the historic or original fabric than to the non-historic fabric used.

7. Historical Architect

In this guide the historical architect is the Regional Historical Architect or a professional designated by the Regional Historical Architect.

8. Inspector

The inspector or inspectors would be an experienced technician or a professional such as an historical architect or an exhibit specialist. Inspections are to be performed semi-annually or as necessary.

SECTION 3 - INSPECTION CHECKLIST AND REPAIRS REQUIRED LIST

A. Inspection Checklist

The inspection checklist will be used for maintenance inspections performed semi-annually. (April and October). The checklist will point out, in detail, potential problem areas, but the inspection shall not be limited to only those areas listed.

The purpose of the inspection checklist is to identify the maintenance problems and generate the cyclical maintenance work required.

B. Repairs Required List

The repairs required list contains the date, sheet number, view number, a description of the condition of the material to be repaired, date of completed repair work and signatures from the Chief of Maintenance and Inspector.

SECTION 4 - CONSTRUCTION AND ARCHITECTURAL CHRONOLOGY LOG

This will be a record of maintenance and repair work on the structure. The date of repair, a description of work, the individual or the firm performing the work, the cost of work performed and a summary of manufacturers and local supplies will be included.

The purpose of this record will be the identification of recurring problems and assist in future maintenance planning. This record would also provide information on guarantee periods, information for necessary revisions of cost estimates and, when similar repairs are repeated, the record would indicate more serious preservation problems.

SECTION 5 - REPAIR AND REPLACEMENT SPECIFICATION

These specifications are the primary source of information for the repair and replacement of the historic and non-historic materials to match the original in design and texture. The specifications are indexed with Construction Specifications Institute (CSI) numbers for cross-reference to the contract documents and related product literature.

An evaluation of each material was made; however, technology changes with time and the historical architect should be contacted prior to additional testing or changes in techniques.

SECTION 6 -

A. Construction Specifications Dated May, 1974

These are the specifications used for the construction during 1974, 1975.

B. Addendums #1 and #2

The addendums of the above specifications.

C. Change Orders

The change orders of the above specifications.

D. Completion Report

The completion report of the above contract.

SECTION 7 - BIBLIOGRAPHY

VOLUME II

SECTION 1 - EMERGENCY INFORMATION

SECTION 2 - INTRODUCTION TO HISTORIC STRUCTURE PRESERVATION GUIDE (HSPG) (See above)

SECTION 3 - HOUSEKEEPING CHECKLIST

SECTION 4 - HOUSEKEEPING SPECIFICATIONS

The housekeeping specifications are the primary source of information for the housekeeping of the historic materials. Their purpose is to introduce maintenance personnel to the concerns involved in care for the historic materials, and suggested frequencies for performing cyclical maintenance activities. An evaluation of each material was made when preparing this guide. However, if there is any question concerning the appropriateness of the technique, the historical architect should be contacted prior to additional testing or change in technique.

The specifications are indexed with Construction Specifications Institute (CSI) numbers for cross-reference to the contract documents and related product literature.

SECTION 5 - MATERIAL IDENTIFICATION AND DESCRIPTION

This section contains the identification of historic and non-historic fabric. The material will be identified by the Construction Specifications Institute (CSI) numbers for reference to the maintenance and repair specifications.

SECTION 6 - ARCHITECTURAL PLANS

The architectural plans are as-built drawings and measured drawings available for each historic structure.

These include floor plans, elevations and details necessary for continuing normal maintenance and repairs.

INSPECTION GUIDE

02251 - BIOLOGICAL ATTACK - Inspect once each year. Look for:

1. Termites or other wood boring insects.
2. Earthen shelter tubes running up walls.
3. Piles of discarded wings.
4. Dull sound when wood struck with hammer.
5. Easy penetration of wood by awl, penknife or screwdriver.
6. 1/16 - 1/8 inch bore holes.
7. Fine to coarse piles of dust near holes.
8. Damp, musty smell.
9. Fine, dusty powder (fungus spores).
10. Rotted wood showing cross-checking patterns.
11. Multi-colored growths on lumber.

03306 - CONCRETE (Non-historical) - Inspect each spring and fall. Look for:

1. New cracks and changes in existing cracks.
2. Spalling of concrete surfaces.

04100 - MORTAR - Inspect each month. Look for:

1. New cracks and changes in existing cracks.
2. Mortar which has fallen out.
3. Mortar which has become soft and is quickly wearing away.
4. Excessively strong mortar, causing damage to masonry.

04201 - MASONRY WORK (Historical)
04202 - MASONRY WORK (Non-historical) - Inspect each month. Look for:

1. Cracked masonry units.
2. Cracks between masonry units and mortar.
3. Faces of masonry units spalling off.
4. Crumbly or powdery masonry units.
5. Dirt, stains, or vegetation.
6. Loose masonry units.
7. Soil pulling away from building at ground line.

05701 - WROUGHT IRON (Historical)
05702 - WROUGHT IRON (Non-historical) - Inspect each spring and fall. Look for:

1. Missing portions.
2. Loose Connections.
3. Rust or dirt.
4. Blistering paint.

06097 - CARPENTRY WORK (Historical)
06098 - CARPENTRY AND MILLWORK (Non-historical) - Inspect each spring and fall. Look for:

1. Chips or gouges from vandalism or visitor use.
2. Blistering paint
3. Rotting wood.
4. Wood working loose.
5. Cracking or checking wood.
6. Worn stair treads.
7. Worn thresholds.
8. Loose handrails
9. Wood damaged by biological attack. (Section 02251).
10. Dirt or stains.

07314 - SLATE SHINGLES - Inspect each spring and fall. Look for:

1. Cracked or broken slates
2. Slipped or missing slates.
3. Roof sagging.
4. Dampstaining on underside of roof, particularly at valleys, ridges, and around dormers and chimneys.
5. Ice dams at gutters.
6. Debris in valleys.
7. Eroded metal flashing.
8. Loose flashing at chimneys and dormers.

07631 - GUTTERS AND DOWNSPOUTS - Inspect each month. Look for:

1. Debris in gutters and downspouts
2. Loose and/or leaking joints.
3. Faulty connectors and supports.
4. Ice collection at bottom of downspouts.
5. Ice dams at gutter.

08209 - WOOD DOORS (Historical)
08210 - WOOD DOORS (Non-historical) - Inspect each spring and fall. Look for:

1. Poor fit of door in frame.
2. Cracks in rails or stiles.
2. Panels separating from the rail and stiles.
4. Chips or gouges from vandalism or visitor use.
5. Blistering paint.
6. Rotting wood.

08609 - WOOD WINDOWS (Historical)
08610 - WOOD WINDOWS (Non-historical) - Inspect each spring and fall. Look for:

1. Rotting wood on sills, frame, and sash.
2. Cracking sash.
3. Chips or gouges from vandalism or visitor use.
4. Blistering paint.
5. Dirty sash.

08701 - FINISH HARDWARE - Inspect each spring and fall. Look for:

1. Loose hinge screws or pins in doors.
2. Blistering paint.
3. Rust or dirt.
4. Excessive wear.
5. Excessive looseness or tightness.
6. Physical damage.
7. Items not functioning properly.

08810 - GLASS AND GLAZING - Inspect each spring and fall. Look for:

1. Dirty windows.
2. Loose and/or cracking putty.
3. Broken glass.

09100 - LATH AND PLASTER (Non-historical)
09101 - LATH AND PLASTER (Historical)
Inspect each spring and fall. Look for:

1. Cracked plaster.
2. Missing plaster.
3. Plaster which has come loose from lath.
4. Chips or gouges from vandalism or visitor use.
5. Plaster which has become powdery or deteriorated.

09197 - STUCCO (Historical)
09198 - STUCCO (Non-historical) - Inspect each spring and fall. Look for:

1. Cracked stucco.
2. Missing stucco.
3. Stucco which has become powdery or deteriorated.
4. Stucco pulling away from wall material.
5. Dirt, stains, or vegetation.

09559 - WOOD STRIP FLOORING (Historical)
09560 - WOOD STRIP FLOORING (Non-historical)
Inspect each spring and fall. Look for:

1. Excessive wear.
2. Cracked or split floorboards.
3. Paint worn to bare wood.
4. Excessively resilient, sagging or raising flooring.
5. Loose or raised nails.
6. Rotted or deteriorated floorboards.

09901 - PAINTING - Inspect each spring and fall. Look for:

1. Worn paint.
2. Chipped paint.
3. Color changes due to sun exposure.
4. Peeling, cracking, and chalking paint.

HISTORIC STRUCTURE PRESERVATION GUIDE
ADAMS NATIONAL HISTORIC SITE
INSPECTION CHECKLIST

DATE: ____/____/____
MONTH DAY YEAR

• DENOTES INSPECTION REQUIRED

		02251-Bio.Attack	03306-Concrete	04100-Mortar	04201-Masonry 04202	05701-Wrought Iron 05702	06097-Carpentry 06098	07314-Slate Shingles	07631-Gutters/D.S.	08209-Wood Doors 08210	08609-Wood Windows 08610	08701-Finish Hard.	08810-Glass/Glaze	09100-Lath/Plaster 09101	09197-Stucco 09198	09559-Wood Floors 09560	09901-Painting
	Bldg. Exter.	•	•	•	•	•	•	•	•	•	•	•	•		•		•
BASEMENT	Stable	•		•	•		•			•	•	•	•			•	•
	Maint. Shop	•	•	•	•					•	•	•	•				•
	Stairs	•		•	•		•										•
	Lavatory		•	•	•		•			•		•					•
	Stair Hall	•	•	•	•		•			•		•					•
	Boiler Room	•	•	•	•					•							•
	Crawl Space	•		•	•												
FIRST FLOOR	Tack Room	•					•			•	•	•	•			•	•
	Stable Area	•		•	•		•			•	•	•	•			•	•
	Coach Room	•		•	•		•			•	•	•	•			•	•
	Stairs	•		•	•		•			•		•	•				•
	E. Office	•		•	•		•			•	•	•	•	•		•	•
	Lavatory						•			•		•		•			•
	Hall/ Stairs	•					•			•	•	•	•	•		•	•
	W. Office	•		•	•		•			•	•	•	•	•		•	•
	Kitchen	•					•			•	•	•	•	•		•	•
SECOND FLOOR	Hay Loft	•		•	•		•			•	•	•	•			•	•
	Stairs	•		•	•		•										•
	E. Office	•		•	•		•			•	•	•	•	•		•	•
	Hall/Stairs	•					•				•		•	•			•
	Bathroom						•			•	•	•	•	•		•	•
	W. Office	•					•			•	•	•	•	•		•	•

REMARKS:

SIGNATURE OF INSPECTOR (on last sheet only) SHEET

HISTORIC STRUCTURE PRESERVATION GUIDE
ADAMS NATIONAL HISTORIC SITE

REPAIRS REQUIRED LIST

DATE: ____/____/____
MONTH DAY YEAR

SHEET NUMBER	VIEW NUMBER	MATERIAL NUMBER	DESCRIBE THE CONDITION OF THE MATERIAL TO BE REPAIRED AND ESTIMATED COST	DATE THAT THE REPAIR WORK WAS COMPLETED	SIGNATURE CHIEF OF MAINTENANCE

SIGNATURE OF INSPECTOR (on last sheet only) SHEET ____ OF ____ SHEETS

SECT. 4 CONST. LOG

HISTORIC STRUCTURE PRESERVATION GUIDE
ADAMS NATIONAL HISTORIC SITE
CONSTRUCTION and ARCHITECTURAL CHRONOLOGY LOG

BUILDING NAME: ADAMS CARRIAGE HOUSE

DRAWINGS NUMBERED: _____

DATE	DESCRIPTION OF WORK / CONTRACTOR	COST
1872	Designed by Cummings and Sears, Boston Architects.	
1873	Construction completed.	12,000
1890-20	Calf enclosure is added in easement.	
1919	Column is added in front of confinement stalls.	
1927-46	Lean-to corral is removed.	
1950	Roof supports are added at junction of central north sections.	
1951	Concrete floor is added to excavated areas under central section and south wing. Concrete pit built, and boiler installed and enclosed with a concrete block wall. Electrical and telephone service is installed. The remainder of the work at this time is limited to the south wing, first and second floors. FIRST FLOOR: The parlor, pantry, kitchen, gardener's office, and store room are remodeled into an office, toilet, closet, office and kitchen. The east office (former parlor) fireplace is blanked off and the mantel removed and reinstalled in the west office (former kitchen) fireplace; it is now used as a flue for the boiler. The west office (former kitchen) fireplace hearth and interior are relined with modern brick; it is non-functional and used only as an air intake for the boiler. SECOND FLOOR: The three bedrooms are remodeled into two offices, store rooms, bathroom and closets. Security bars are added to windows in east office. The varnished woodwork of both floors is painted white with the exception of the doors, which are left varnished. (National Park Service)	
1951		

SIGNATURE OF CHIEF OF MAINTENANCE _____

HISTORIC STRUCTURE PRESERVATION GUIDE
ADAMS NATIONAL HISTORIC SITE
CONSTRUCTION and ARCHITECTURAL CHRONOLOGY LOG

BUILDING NAME: ADAMS CARRIAGE HOUSE

DRAWINGS NUMBERED: _____

DATE	DESCRIPTION OF WORK / CONTRACTOR	COST
1972	The exterior and interior are photographed by Fasch Studio, (Milton, Massachusetts).	
1974	Gravel fill at southwest drive is removed.	60,311.62
	The southeast foundation wall is repaired, pargeted, water-proofed and a 6-inch galvanized drain pipe is installed.	(2,500.00)
	The exterior stone and masonry walls are repointed.	
	The south corner of the north wing foundation is repaired.	
	BASEMENT-NORTH WING:	
	The wood plank flooring is removed and reinstalled over new concrete sub-floor over termite treated soil.	
	The concrete pit in the south corner is filled with gravel and covered with treated planks.	
	The stalls are reinstalled and repaired.	
	The cow pen door is reassembled and reinstalled.	
	The lower half of goat pen door is replaced.	
	Lights are installed.	
	The two window sashes in the northeast foundation are removed, cleaned, painted, and reinstalled; the sills are replaced.	
	BASEMENT-CENTRAL SECTION:	
	Three electrical switches are removed and replaced by one switch.	
	A fire alarm pull box and connecting wires to control panel on first floor is installed.	
	The electrical conduit and wires in basement and first floor are painted.	
	An intrusion alarm is installed at all exterior openings.	(1,631.00)
	A fire alarm system is installed.	(8,701.00)
	BASEMENT-SOUTH WING	
	Fire alarm system batteries are installed.	
1974	Batt insulation is installed above crawl space.	(330.00)

SIGNATURE OF CHIEF OF MAINTENANCE

HISTORIC STRUCTURE PRESERVATION GUIDE
ADAMS NATIONAL HISTORIC SITE
CONSTRUCTION and ARCHITECTURAL CHRONOLOGY LOG

BUILDING NAME: ADAMS CARRIAGE HOUSE

DRAWINGS NUMBERED: _____

DATE	DESCRIPTION OF WORK / CONTRACTOR	COST
		60,311.62
1974	FIRST FLOOR--NORTH WING: All horse stall surfaces, except the floor, are varnished. The watering trough is removed, refinished, reinstalled, and the faucet replaced.	(715.00)
	FIRST FLOOR--SOUTH WING: Rotten wood under hall exterior door threshold is replaced. Magnetic contacts are placed on interior hall doors (first floor) and east office door (second floor).	
1974	GENERAL: All areas previously whitewashed are again whitewashed.	
1975	Two gutters through sidewalk at rear of house are installed and connected to downspouts. (1974-75 Work Contract No. CX1600-4-9006, W. A. MacLeod Co., Boston, Mass.)	(1,609.89)
		60,311.62
	Installed annunciator panel, control panel module, Gamewell master box, grounding kit and cable. (National Park Service).	
	Original weathervane is replaced with new. (National Park Service).	563.00
1977	The roofing slates are removed and reinstalled using non-rusting nails. The non-matching slates (from previous repair work) are replaced with matching slates from the Buckingham-Virginia Slate Corporation.	

SIGNATURE OF CHIEF OF MAINTENANCE

SECT. 5 R. & R. SPECS.

Specifications Index by Section Title (Alphabetical Order)

Section Title	CSI Number
Biological Attack	02251
Carpentry Work (Historical)	06097
Carpentry and Millwork (Non-historical	06098
Concrete (Non-historical)	03306
Finish Hardware	08701
Glass and Glazing	08810
Gutters and Downspouts	07631
Lath and Plaster (Historical)	09101
Lath and Plaster (Non-historical)	09100
Masonry Work (Historical)	04201
Masonry Work (Non-historical)	04202
Mortar	04100
Painting	09901
Slate Shingles	07314
Stucco (Historical)	09197
Stucco (Non-historical)	09198
Wood Doors (Historical)	08209
Wood Doors (Non-historical)	08210
Wood Strip Flooring (Historical)	09559
Wood Strip Flooring (Non-historical)	09560
Wood Windows (Historical)	08609
Wood Windows (Non-historical)	08610
Wrought Iron (Historical)	05701
Wrought Iron (Non-historical)	05702

Specifications Index by CSI Number (Numerical Order)

Division	CSI No.	Section Title
02	02251	Biological Attack
03	03306	Concrete (Non-Historical)
04	04100	Mortar
	04201	Masonry Work (Historical)
	04202	Masonry Work (Non-historical)
05	05701	Wrought Iron (Historical)
	05702	Wrought Iron (Non-historical)
06	06097	Carpentry Work (Historical)
	06098	Carpentry and Millwork (Non-historical)
07	07314	Slate Shingles
	07631	Gutters and Downspouts
08	08209	Wood Doors (Historical)
	08210	Wood Doors (Non-Historical)
	08609	Wood Windows (Historical)
	08610	Wood Windows (Non-historical)
	08701	Finish Hardware
	08810	Glass And Glazing
09	09100	Lath and Plaster (Non-historical)
	09101	Lath and Plaster (Historical)
	09197	Stucco (Historical)
	09198	Stucco (Non-historical)
	09559	Wood Strip Flooring (Historical)
	09560	Wood Strip Flooring (Non-historical)
	09901	Painting

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of the maintenance of wood.

1-2 SUBTERRANEAN TERMITES: Termites are most numerous in moist, warm soil containing an abundant supply of food in the form of wood or other cellulose material. They often find such conditions beneath buildings in poorly ventilated spaces where scraps of lumber, roots, etc. have been left in the soil. They enter the wood at or below ground level. NOTE: Cracks in the foundation walls or basement floor slabs enable termintes to reach wood that does not actually touch the soil.

Termites attack primarily sapwood, and, if undetected, will gradually destroy the structural integrity of wood members from the inside out.

1-3 OTHER WOOD BORING INSECTS: Carpenter ants resemble termites, but they bore into the wood to make a home only, and are not as serious a threat as the termite. Powder post beetles attack mostly the sapwood portion of hardwoods.

1-4 DECAY: This form of biologic attack almost always occurs in the presence of excessive moisture. Rot requires five conditions in order to develop: 1. Supply of moisture (20-40% of dry weight); 2. Oxygen; 3. Suitable temperature (50-100° F.); 4. Food supply; 5. The fungus spores themselves. The spores can lie dormant for years waiting for the right conditions to develop, so inspection must be made regularly. NOTE: If water penetration of a structure occurs, due to roofing or plumbing leaks, or following a water extinguished fire, monitor the affected areas closely until the members have dried to their original moisture content. Provide additional ventilation to hasten the drying process.

PART 2: PRECAUTIONS

2-1) TERMITES AND OTHER WOOD BORING INSECTS: If signs of these
2-2) insects are found, notify the Regional Historical Architect at once and begin to apply the corrective measures specified

in Part 4, Maintenance. A pest control specialist should be called in to identify the exact type of insect, determine the extent of infestation, and propose treatment.

2-3 DECAY: If signs of decay are found, notify the Regional Historical Architect at once and begin to apply the corrective measures specified in Part 4, Maintenance. A trained mycologist from the Department of Agriculture, State of Massachusetts, can identify the exact species of fungus, and, in consultation with a pest control specialist, propose the appropriate level of treatment. For further information contact U. S. Forest Products Laboratory, Gulfport, Mississippi. Fungus attack often precedes attack by wood-boring insects; therefore, the proposed treatment should provide an insecticide as well as a fungicide. Simple replacement of an affected member is useless unless the basic defect in design or construction which allowed the rot to form is corrected.

PART 3: INSPECTION

3-1 TERMITES: Look for: piles of discarded wings, earthen shelter tubes running up walls, and the insects themselves. Affected wood, being drastically altered on the inside, will sound much 'duller' than sound wood when struck with a hammer. An awl or penknife may also be used to probe selected timbers. If the point penetrates with little resistance, investigate further by scraping away the surface material. If there are termites, the wood will be riddled with channels parallel to the grain, filled with gray excrement and earth.

3-2 OTHER WOOD-BORING INSECTS: Look for 1/16 - 1/8 inch bore holes, fine to coarse piles of dust out of the holes, and larvae or insects themselves.

3-3 DECAY: Look for: Damp, musty smell, fine dusty powder, (the fungus spores), rotted wood showing cross-checking patterns, multi-colored growths on the lumber, dull sound when struck by a hammer or easy penetration with a blade, cracks in plaster, indicating hidden changes, and open joints or warping in wooden panelling and trim.

Note: The fungus can exist without visible evidence on the surface of members. Pay particular attention during inspection of attics, crawl spaces, basements, wood built into brickwork (lintels and door bucks, for example), wood panelling (especially around doors and windows), and wood floors where there has been a plumbing leak.

PART 4: MAINTENANCE

4-1 SCHEDULE: Inspect once each year. With such a schedule, a biological attack will be evident. Perform maintenance procedures as necessary.

4-2 PROCEDURE:

A. TERMITES: First, notify the Regional Historical Architect. He will advise on the appropriate level of treatment. In general, try to eliminate the conditions which favor the development of termite colonies in the soil and which allow their passage to the wood work of the building. NOTE: Termites left in the woodwork will die if prevented from maintaining contact with the soil or other sources of moisture. Fill all cracks, voids, and expansion joints in basement floors and foundation walls with cement or bituminous fillers. Chemical poisoning of the soil adjacent to the affected areas may be advised. These chemicals are extremely toxic and their application should be recommended only after careful deliberation. Licensed and experienced exterminators only will be employed. Exterminating contractor shall submit the following information for approval prior to contract: 1. Certification of qualifications as a commercial applicator; 2. List of proposed checmicals with technical data, NOTE: Water-based chemicals to be specified only, and each container to have E.P.A. registration number on it. and 3. Certificate outlining method of mechanical application.

B. OTHER WOOD BORING INSECTS: First, notify the Regional Historical Architect. Remove all dust and insect traces with a powerful vacuum. Fumigation with a toxic insecticide/fungicide may be specified, subject to the same requirements as specified in Section 4-1.

C. DECAY: First, notify the Regional Historical Architect. Then attempt to discover and correct the situation which allowed the fungus to develop. Simple replacement of the affected member is useless unless the basic situation which allowed the rot to occur is corrected. Application of a preservative solution may be specified. All lumber within 10 feet shall be treated.

Preventative Maintenance: Every 3 to 5 years, coat critical areas such as sill plates, and basement members with an approved preservative solution. Use a 5% solution of pentachloraphenol in clear petroleum solvent such as Wood Life by U.S. Plywood Corporation, conforming to FS TT W 572, clear . Application to specific portions is best accomplished by flooding the area by brush. The Regional Historical Architect may also specify spray treatment of the entire structure if appropriate.

PART 1: GENERAL

1-1 DESCRIPTION: The work of this sections consists of all concrete, including forms, reinforcement, proportioning, handling, placing, finishing, and curing required for the work.

1-2 RELATED WORK SPECIFIED ELSEWHERE: None.

1-3 QUALITY ASSURANCE:

A. Certificates: For ready mix concrete, furnish duplicate delivery certificate and ticket with each load of concrete. The delivery ticket shall state the number of gallons of water and cement content per cubic yard of concrete, and the amount of water per cubic yard that could be added to the concrete at the job site and still maintain the required water-cement ratio for the compressive strength specified. The certificate shall state that the concrete mix complies with the requirements of this section.

B. Standards: Conform to the American Society for Testing and Materials (ASTM) designations mentioned herein. In case of conflicts between the referenced standards or sections and this section, this section shall govern.

1-4 SUBMITTALS: Submit drawings showing mesh reinforcement indicating bends and splices. Show location and size of anchor bolts and all built-in items. Submit a sample of the vapor barrier.

1-5 PRECAUTIONS: For historical accuracy, Portland cement concrete should not be conspicuously exposed.

PART 2: MATERIALS

2-1 PORTLAND CEMENT: ASTM C150, Type I. Other types may be used if approved.

2-2 FINE AND COURSE AGGREGATE: ASTM C33.

2-3 WATER: Clean and potable.

2-4 ADMIXTURES: Air-entraining admixture shall conform to ASTM C260. Other admixtures may be used if prior approval is secured. Use a water reducing admixture, "Pozzolith" by Master Builders Company.

2-5 REINFORCING STEEL MESH: Welded steel fabric, ASTM A185, free from rust, scale, or oil.

2-6 FORMS: Steel, plywood, or other suitable material.

2-7 VAPOR BARRIER: 6 mil polyethelene film, a product of an approved manufacturer.

PART 3: EXECUTION

3-1 GENERAL:

A. Precautions:

1. Follow the "Recommended Practice for Cold Weather Concreting" ACI 306, and "Recommended Practice for Hot Weather Concreting" ACI 605.

2. Insure that anchor bolts, anchors, conduits, pipes, ducts, openings, and other items to be incorporated into the work are properly located.

B. Concrete Mix: Concrete shall provide a 28-day compressive strength of 3,000 p.s.i.; slump shall be a minimum of 2 inches and a maximum of 4 inches and in accordance with ACI 613; air-entrainment shall be 6 percent plus or minus 1-1/2 percent for concrete exposed to the weather, in contact with earth, or subject to freezing and thawing; air-entrainment for other concrete shall be 4-1/2 percent plus or minus 1-1/2 percent, unless otherwise required by applied materials, hardening compounds, toppings, etc.

C. Mixing Concrete: Use ready-mixed concrete conforming to ASTM C94. Method of storing material, mixing material, and type of equipment shall be approved if site-mixed concrete is used.

D. Concrete Slump: Maintain as low a slump as possible and still insure good workability and the absence of honeycombing. Concrete durability and strength is related to water-cement ratio; therefore, add no additional water to the concrete mix unless the cement content is adequate.

E. Form Work: Conform to ACI 347. Construct forms of steel, plywood or other approved material, true to line and grade and sufficiently rigid to prevent displacement under load, roding, and vibration. Forms shall be clean and oiled before placing concrete. When soil conditions permit excavation to accurate sizes without bracing, side forms for footings may be omitted; dampen soil prior to placing concrete.

3-2 PLACING MATERIAL:

A. Vapor Barrier: Place over the termite poisoned soil no earlier than 12 days after the poisoning work is completed. Lap all joints a minimum of 4 inches.

B. Reinforcing: Place in center of slab.

C. Concrete: Place within 1/2-hour after introducing water into mix. Handle as little as possible and do not drop freely more than 5 feet. Vibrate concrete sufficiently to avoid honeycombing.

3-3 FINISHING:

A. Concrete Sub-Floor: Strike slab at proper level. Roll or tamp to force aggregate away from surface and then screed. While concrete is still plastic, float the surface with wood or metal floats or with a power finishing machine.

B. All Other Concrete: Strike slab at proper level. Roll or tamp to force aggregate away from surface and then screed. While concrete is still plastic, float the surface with wood or metal floats or with a power finishing machine, and during this operation, bring the surface to a true grade by cutting down the high spots and filling the low spots. Do not overwork the plastic concrete. When the concrete has hardened so that water and fine material will not be worked to the

surface, finish with a steel trowel or wood float to a dense, hard, even, non-dusting surface. Do not sprinkle dry cement or a mixture of dry cement and sand directly on the surface to absorb moisture or to stiffen the mix. Finished surface shall be sufficiently even to contact a 10-foot long straight edge with a tolerance of 3/16-inch.

PART 4: MAINTENANCE

4-1 SCHEDULE: Inspect and maintain each spring and fall.

4-2 INSPECT FOR: Cracks in the concrete work and changes in those cracks, adequate drainage away from concrete work, cracks between soil and concrete work, and concrete spalling off.

4-3 PROCEDURE: Since all Portland cement concrete is used structurally at the park, extreme or sudden cracking would indicate structural failure. The Regional Historical Architect should be contacted if such failure should occur. Hairline cracks which show no change may be considered harmless and should be patched with Portland cement patch to prevent moisture infiltration which would lead to further cracking. However, if cracking continues after patching, the Regional Historical Architect should be contacted. Because of alternate wet-dry weather, the soil may pull away from the concrete, permitting water infiltration. Keep soil close against the concrete at the grade line. When concrete spalls off (comes off in layers) or appears to be falling apart; contact the Regional Historical Architect.

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of providing mortar for masonry work, including masonry restoration.

1-2 RELATED WORK SPECIFIED ELSEWHERE: Masonry Work - Sections 04201, 04202.

1-3 QUALITY ASSURANCE:

A. Certificate: Require an affidavit from manufacturer certifying materials or products delivered meet specified requirements.

B. Standards: American Society for Testing and Materials (ASTM) and manufacturer's printed recommendations.

1-4 SUBMITTALS: File any certificates from manufacturers. Save samples of dry mortar materials in plastic bags showing date and location of repair. Save separate examples of all ingredients.

1-5 PRODUCT HANDLING:

A. Delivery: Deliver materials in manufacturer's original, unopened, protective packaging.

B. Storage: Store cementitious materials, where indicated, under cover, off the ground.

1-6 JOB CONDITIONS: Do not use mortar in work when temperature of outside air is below 40 degrees F. unless suitable approved means are provided to heat materials. Insure mortar will harden without freezing.

1-7 PRECAUTIONS: Cracked, missing or deteriorating mortar must be repaired immediately.

PART 2: MATERIALS

2-1 DESCRIPTION: Older, weaker bricks, as well as many kinds of soft stones, are known to have been damaged by strong re-

pointing mortars, since stresses in the wall are relieved by the breaking or crumbling of the bricks or stones rather than the mortar. Furthermore, the internal strength of cement mortar may exceed its adhesive bond to the units or to the old mortar, so that stresses may break the bond between old and new, often just within the surface of the old. Stresses result from such causes as thermal expansion cycles of the units and the mortar; dimensional changes produced by changing humidity levels; foundation settlement; and slow settlement of old lime mortar remaining in the core of the wall. Lime mortars are said to permit relief of such stresses by movement within the mortar joints, and without breakage of the bond to the masonry units. Such movement may be by elastic behavior, by plastic behavior or by the formation of harmless micro-cracks. It is said that these cracks may eventually be resealed through the dissolution, by rain, of calcium hydroxide or calcium carbonate, and the subsequent redeposition of carbonate.

While avoiding mortars of too high cement content, a mortar of sufficient weather resistance and ample strength for the loads involved must be used.

2-2 ATLAS WHITE CEMENT.

2-2 LIME: ASTM C207, Type N or S.

2-4 QUICKLIME: ASTM C5, Slaked in accordance with manufacturer's recommendations.

2-5 SAND: Sharp, light tan colored, ASTM C144.

Screening and washing sand:

1. Screen with 1/4 inch hardware cloth to remove pebbles, twigs, and leaves.

2. Screen with aluminum window screen to remove soil and clays.

3. Wash the sand remaining on screen with clean water.

2-6 FORMULAS BY VOLUME:

A. Mortar for Brick Work:

1 part Portland cement

1 part lime

6 parts clean, sharp sand

1 part lampblack

B. Mortar for Stone Work:

1 part white cement

3 parts lime

12 parts clean, sharp sand

1/4 part brown coloring

Clean, potable water as required. For repointing work mortar should be as dry as can be handled. Match existing color, which will be designated by the Regional Historical Architect.

PART 3: EXECUTION

3-1 MIXING: While mixer is in operation, add about 3/4 required water, 1/2 sand, and all lime and cement as required; then remainder of sand. Allow batch to mix briefly; add water in small quantities until mortar is of a workable consistency. If mortar begins to stiffen from evaporation or from absorption of part of mixing water, retemper immediately; remix.

Mix all cementious materials and sand in mechanical batch mixer for a minimum of five minutes after adding all materials. Again for repointing, mix mortar to be workable, yet dry as possible. Begin using mortar within 20 minutes after mixing.

3-2 REMOVING MORTAR TO BE REPLACED: The least damaging method of removing old mortar is to use hand tools wherever possible and otherwise to let very hard and inflexible mortars loosen themselves from the softer material, behind

them, which will happen in time. Chisels made of hardwood or soft metal (other than steel) are best for removing old mortars since they transfer to the masonry less of the impact of the hammer.

Joints should be raked out to a one inch depth, but no less than 1/2 inch, to give the new mortar a good hold.

3-3 WHEN TO WORK: When using pure lime and lime/cement mortars, work should be done in the spring and fall when it is warm but not hot or cold. Work should be started on the shady side of the building and move around to keep all work shaded. A plywood shade should provide shade yet permit ventilation during curing.

3-4 WETTING: After raking out joints to be repointed, thoroughly wash the joint and begin repointing while joint is wet. For new work, wet all masonry units, but no water should be standing on the surface when used.

Masonry units having absorption rates more than 0.025 ounces per square inch per minute shall be wetted sufficiently so the rate of absorption when laid does not exceed this amount. For a field check, deposit a quantity of water to the flat side of the brick to wet the area approximately 1 inch diameter. If the water disappears in less than 1-1/2 minutes, wet the brick. Thoroughly soak absorptive brick in the pile each afternoon prior to the day they are to be used and cover with tarpaulin or heavy paper to prevent evaporation. In wetting brick, spray, using a heavy coarse sprinkle, until water runs from all sides of the pile. Units shall be free from water adhering to their surfaces when they are laid in the wall.

3-5 REPOINTING: Working with mortar, mix as dry as can be handled, work mortar into open joint in 1/4 inch thick layers with as much pressure as possible. Weathered bricks and stones frequently have worn edges or rounded profiles. When repointing, the face of the new mortar should be slightly recessed to keep the joint from becoming too wide and to avoid spreading mortar over the edges of the masonry. "Feather" edges which extend over the face of the rounded masonry are to be avoided. They break off easily carrying with them particles of stone, leaving cavities through which moisture may enter. Match surrounding joints. After becoming thumbprint hard, tool mortar same as existing adjacent joints.

3-6 PLACING AND REPLACING MASONRY: Clean and dampen. Slush void behind masonry with mortar. Set accurately into position in full bed of mortar with vertical and top joint full. Bond shall match existing and be keyed into the historic masonry. Make joints same width as adjacent joints and tool same as for repointing. Do not spread mortar onto face of masonry.

3-7 CURING: The curing of mortar is one of the most important steps in masonry work. To cure properly, lime mortar must be kept wet.

For the first two days, mist spray; for the following three days, fine hose spray often enough to keep the mortar wet.

As the rate of evaporation (due to sun, wind, temperature and the porosity of the wall) increases, the mortar will need to be wetted more often. Keep the mortar work shaded with plywood to reduce the rate of evaporation.

PART 4: MAINTENANCE

4-1 SCHEDULE: Inspect each month. With this schedule, changes in mortar condition will be evident.

4-2 INSPECT FOR: Cracks and changes in cracks in mortar, mortar which has fallen out or mortar which has become soft and is quickly wearing away.

4-3 PROCEDURE: If defects are noted during inspection, contact the Regional Historical Architect.

PART 1: GENERAL

1-1 RELATED WORK SPECIFIED ELSEWHERE: Mortar - section 04100,

1-2 DESCRIPTION: The work of this section consists of brick and stonework.

1-3 COORDINATION: As the work progresses, coordinate and build in items such as bolts, anchors, conduits, electrical boxes, frames, access panels, flashings, and lintels required by other trades.

1-4 QUALITY ASSURANCE:

A. Standards: American Society for Testing and Materials (ASTM), Portland Cement Association (PCA), and manufacturers' printed recommendations.

B. Certificate: Furnish an affidavit from manufacturer certifying materials delivered meet requirements specified.

C. Wall Panel: Before installation of any brick or concrete block, erect at job site sample wall panels 8 feet long by 4 feet high. Brick and block may be laid back to back. Panels shall show the proposed color range, texture, bond, mortar joint, and workmanship of masonry materials. No masonry work shall be performed until the sample panels have been approved. Approved panels shall become standards of comparison for masonry work built of materials included in approved panels. Do not alter, move, or destroy panels until work is completed.

1-5 SUBMITTALS: File certificates from manufacturer and duplicate samples of masonry units, reinforcement, and other materials. Save brick samples for selection of facing brick to be used. Identify with where and when used.

1-6 PRODUCT HANDLING: Store materials to prevent damage. Handle and store masonry units on pallets.

During freezing weather, protect masonry units with tarpaulins or other approved material. Store masonry units

under covers which permit circulation of air and prevent excessive moisture absorption. Protect reinforcement from the elements. Immediately before placing, reinforcement shall be free from loose rust, ice, or other foreign coatings that would destroy or reduce bond.

1-7 JOB CONDITIONS: Do not lay masonry when temperature of outside air is below 40 degrees F.; protect work from cold and frost; insure mortar will harden without freezing.

PART 2: MATERIALS

2-1 HISTORIC BRICK:

A. Salvaged: Approved, sound, crack free, clean brick without face chips larger than 1/2 inch, salvaged from removal or demolition work.

B. New: Brick shall match existing color, size, and texture.

2-2 STONE: Free from starts, cracks, seams, or veins; sound, hard, well shaped field or quarried stone. Match existing in type, size, and appearance when used in or adjacent to existing stonework.

2-3 FLUE LININGS AND THIMBLES: ASTM C315. Terra-cotta linings, sound, hard burned clay, unwarped, free from cracks and spalls, a minimum of 5/8 inch thick, and of size indicated. Run linings full height of chimney plus 6 inches.

2-4 REINFORCEMENT, ANCHORS, AND TIES:

A. General: Anchors and ties, aluminum, zinc coated steel or copper coated steel. Except for steel wire, zinc coating shall meet requirements of ASTM A116 for Class 2 coating. Copper covered steel shall comply with ASTM B227, Grade 30 HS. Reinforcement, formed from cold drawn steel, hot dipped galvanized after fabrication.

B. Joint Reinforcement: Truss designed, standard weight of proper width by Dur-O-Wal, P. O. Box 5446, Birmingham, Alabama 35207, or approved equal. Side and cross wire, No. 9 gauge or larger; side wires, deformed and butt welded to cross wires in the same plane. Provide special formed pieces for corners and intersection of bearing walls.

2-5 TYPES OF MORTAR: Section 04100.

2-6 CLEANING MATERIALS FOR PREPARATION OF EXISTING WALLS:

A. Water: Potable, heated.

B. Brush: Stiff fiber.

PART 3: EXECUTION

3-1 PREPARATION OF EXISTING EXTERIOR MASONRY WALLS:

A. Cleaning: See also section 04201/04202, Housekeeping Specifications.

1. Before repairing or rebuilding any walls, clean existing walls which are to remain in place. Remove grime, vegetation, and other foreign material to fully reveal existing work, enabling identification of historic and nonhistoric masonry and determination for replacement. The cleaning process shall include historical materials which are to be salvaged from walls scheduled for demolition and removal work.

2. Experiment on portions of walls scheduled for demolition or removal or inconspicuous and small areas of walls to remain.

   Use the following method for experiment and if successful proceed with this method for the cleaning work. This is the most gentle method. If experiment is unsuccessful and the fabric cleaned begins to deteriorate, then the fabric should not be cleaned with water.

3. Use clean water and a natural bristle brush. Rely on the brush and not on the water for cleaning action. Use as little water as possible to wash and rinse.

Meticulously protect all surfaces not being cleaned.

B. Other Surface Preparation:

1. Remove from face of walls, non-historic masonry and mortar; exposed Portland Cement mortar and stucco; loose and deteriorated mortar; loose or damaged masonry from which tar, stucco, or other foreign material cannot be removed. Brick with face chips under 1/2 inch or cracks not penetrating entire unit may be left in place. Sound masonry with face damage only may be removed and revolved in place.

2. Rake out deteriorated joints to a depth of 3/4 inch. Flush these joints and other wall voids with clean water.

3-2 MIXING MORTAR FOR POINTING: Section 04100.

3-3 PRECAUTIONS AND GENERAL REQUIREMENTS:

A. Protect facing material against staining, and keep tops of walls covered with nonstaining waterproof coverings when work is not in progress. When work is resumed, top surface of work shall be cleaned of all loose mortar and, in drying weather, thoroughly wet.

B. Wetting: Section 04100,3-4.

C. Before closing up any pipe, duct, or similar inaccessible spaces or shafts with masonry, remove all rubbish and sweep out the area to be enclosed.

D. Where fresh masonry joins masonry that is partially set or totally set, clean the exposed surface of the set masonry and wet lightly to obtain the best possible bond with the new work. Remove all loose brick and mortar. Stopping off of a horizontal run of masonry shall be done by stepping back one half of masonry unit length in each course.

E. Build in work of other sections as the work progresses.

F. Set lintels in full beds of mortar; fill spaces around jambs and heads of door frames solidly with mortar.

G. Both the new and repair work shall resemble as closely as possible the historic fabric of that portion of the structure.

H. Provide level and solid bearing in masonry walls directly under poured concrete slabs, structural beams, and wall plates.

3-4 LAYING NEW MASONRY:

A. Lay masonry plumb, level, and true to line in full beds of mortar. Match to existing pattern in that portion of the structure. Butter and shove head joints to insure full mortar joints.

B. Where exterior masonry walls, except cavity walls, are faced with brick, parge the face of the backup with a 3/8 inch thick coating of mortar before the facing brick is laid.

C. Make joints in masonry uniform and match joints in immediately adjacent masonry. After becoming thumbprint hard, exposed exterior and interior joints shall be tooled to match immediately adjacent joint work. Close all cracks and crevices. Exterior joints below grade shall be trowel-pointed.

3-5 POINTING: Point and fill all holes and cracks in exposed joints with additional fresh mortar. If mortar has hardened, chisel out defects, wet and refill solidly with fresh mortar and tool as specified above.

3-6 CLEANING:

A. Clean all exposed masonry from top down to remove stains and mortar. Use only clean water and a stiff fiber brush. Begin at top of wall and work down. Splash with 120 degrees F. water. No acid permitted. Scrub while surface is saturated, then flood with clean water. Protect windows, doors, lintels, and all other work from wetting.

Do not sandblast masonry, as this procedure rounds the edges and removes the hard outer surface, leaving the softer, more porous areas exposed to the elements.

3-7 CURING: See section 04100, 3-7.

PART 4: MAINTENANCE

4-1 SCHEDULE: Inspect each month. With such a schedule, changes in masonry conditions will be evident. Perform maintenance procedures as necessary.

4-2 INSPECT FOR: Cracked masonry units, cracks between masonry units and mortar, faces of masonry spalling off (deteriorating in layers), and crumbly or powdery masonry units.

4-3 PROCEDURE: Report nature and extent of masonry deterioration to the Regional Historical Architect.

At grade, maintain adequate slope to keep water flowing away from the structure.

Because of alternate wet and dry weather, the soil may pull away from the concrete at the ground line, permitting water infiltration. Always keep soil close against the masonry.

SECTION 05701 Wrought Iron (Historical)
SECTION 05702 Wrought Iron (Non-historical)

PART 1: GENERAL

1-1 RELATED WORK SPECIFIED ELSEWHERE: Paint-section 09901.

1-2 DESCRIPTION: The work of this section consists of providing mild steel items as reproductions from existing working drawings or samples provided by the park.

1-3 SUBMITTALS: Prior to any fabrication require shop drawings complete with method of fabrication and layout of all mild steel items. Submit shop drawings to Regional Historical Architect. Upon approval of shop drawings and prior to beginning fabrication, submit samples of mild steel items. Submit samples to Regional Historical Architect. Samples will be returned for use in work.

PART 2: MATERIALS

2-1 MILD STEEL: Low carbon, general purpose, merchant quality, suitable for framing and welding. Bonderized, treated with phosphoric acid and proper catalyst not exceeding 100 mg. per square foot, providing a rust resistant base for paints.

2-2 FINISHES FOR UNPAINTED STEEL: Simoniz, automobile wax compound, saddle soap manufactured by either Esquire or Griffin.

2-3 FABRICATION:

A. General: All work, carefully fireforged, incised, or hammer welded to produce desired design and effect, substantially framed together. Gas or electric welding will not be permitted.

B. Jointing: Construct and erect all work square, plumb, straight, and true, accurately fitted with tight joints and intersections, tenoned and riveted together, adequately reinforced and anchored in place. Make riveted parts with countersunk heads or blind rivets.

PART 3: EXECUTION

3-1 INSTALLATION: Replace metal part to match original.

3-2 PAINTING: Clean all exposed surfaces of rust, dirt, oil, and grease. Remove rust with very fine flint paper or steel

wool. Remove dirt with clean water and natural bristle brush only. Blot dry. Take care not to wet surrounding material. If dirt is stubborn, use mild soap such as brown laundry soap. Use soap with as little water as possible. Rinse by brushing with just enough water to remove soap. Blot dry.

Always allow fabric to dry completely before applying finish.

Patch paint to match adjacent original finish.

3-3 OTHER FINISHES: Remove rust, dirt, oil, and grease as described for painting. Allow to dry thoroughly. Since oils and greases have the disadvantage of coming off on the hands of the handler and then being transferred to other surfaces, waxes are recommended. Apply wax or saddle soap. Wait 20 minutes and remove surface wax thoroughly.

PART 4: MAINTENANCE

4-1 SCHEDULE: Inspect each spring and fall.

4-2 INSPECT FOR: Rust and loose connections.

4-3 PROCEDURE: Tighten all loose connections. Paint as described above.

SECTION 06097 Carpentry Work (Historical)
SECTION 06098 Carpentry and Millwork (Non-Historical)

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of all carpentry required for the project.

1-2 RELATED WORK SPECIFIED ELSEWHERE: Concrete - Section 03306; Painting - Section 09901.

1-3 QUALITY ASSURANCE:

A. Standards: Architectural Woodwork Institute (AWI) Quality Standards; Western Pine Association, West Coast Inspection Bureau; Federal Specification TT-W-572.

B. Manufacturers: "Woodlife" - United States Plywood, Kalamazoo, Michigan. Owens-Corning Corporation, Toledo, Ohio.

1-4 SUBMITTALS: None required.

1-5 PRODUCT HANDLING:

A. Salvaged Lumber Material: Temporarily store all materials removed in an area as designated and as directed by the Regional Historical Architect.

B. New Lumber Material: Protect all wood materials from the elements and against dampness before, during, and after delivery. Keep covered and well ventilated and store off the ground.

1-6 GRADING REQUIREMENTS: Mark or certificate required for all new lumber. Use only recognized official marks of the association under whose rules it is graded. Moisture content shall not exceed 19 percent for framing materials and 12 percent for finish materials.

PART 2: MATERIALS

2-1 LUMBER: Best of its respective kind, sawn die square, straight, free from stain, rot, or other imperfections. Hand select the best species for exposed work. Species for

replacing or repair work shall be same as that replaced or repaired. Grades and quality of lumber shall conform to the following: (Optional species of equivalent grades and quality are subject to approval by the Regional Historical Architect.

A. Unexposed Structural Framing Lumber: (Blocking, Furring, Sleepers, etc.): Kiln dried No. 1, Douglas Fir or Southern Yellow Pine, F = 1,500 psi.

B. Other Items Required to be Replaced or Patched: Match existing, removed material for size, species, and grade (Yellow Pine construction grade or better.)

2-2 OTHER MATERIALS:

A. Nails: Types of nails shall be as defined in Technical Leaflet 48 published by American Association for State and Local History, 1385 Eighth Avenue South, Nashville, Tennessee 37203.

1. Nails up to approximately 2 inches in length shall be machine-cut type.

2. Larger nails shall be hand-wrought type with Rose or T-heads.

3. Final determination of types used shall be as approved on shop drawings or samples.

B. Rough Hardware and Metal Fastenings: Match existing.

A suggested source for rough hardware and nails is Tremont Nail Company, 21 Elm Street, Wareham, Mass., 02571; however, any other approved source may be used.

C. Wood Preservative: FS TT-W-572, Type II, Composition A, consisting of straight pentachloraphenol or a blend of equal parts of pentachloraphenol and tetrachloraphenol. Preservative shall be equal to "Woodlife."

D. Insulation: Roll type fiberglass batts with vapor barrier, draft paper faced, with an installed thermal resistance of R = 19, as manufactured by Owens-Corning.

PART 3: EXECUTION

3-1 PREPARATORY WORK:

A. General: Remove only items called for. The work shall be carefully executed to assure no damage occurs to either the items removed or the surfaces from which removed. Insofar as practical, remove items in a manner inverse to that used in placing.

When removal work occurs, the existing historic paint fabric must be sent to a testing agency for analysis in order that a record of the historic painting can be developed.

B. Removal Work: Remove all wood boards, recording direction, size and nailhole location. Salvage reusable boards as determined by the Regional Historical Architect.

C. Cleaning: Clean removed reusable items of foreign matter (dust, etc.).

3-2 REPLACEMENT OF REMOVED WORK: Replacement and repair work shall equal original workmanship. Repair shall match existing exposure, size, material, and finish. Reinstall each item, without damage, to its original condition and location following the recordings made during the removal work. Reuse existing nailholes.

3-3 NEW WORK:

A. Wood Preservative Treatment:

1. General: Treat all newly milled salvaged boards and all other wood (new or existing) being placed in contact with concrete and earth. New lumber must be cut and sanded and the moisture content must be within the specified range just prior to treatment. Coat all surfaces, including raw surfaces (cut or drilled). Complete treatment at least 2 hours before installation work.

2. Application: Apply two drenchings, brush or spray coatings within a minimum 24 hour interval. Items may be dipped in preservative for 5 minutes in lieu of the applied coatings.

PART 4: MAINTENANCE

4-1 SCHEDULE: Inspect each spring and fall.

4-2 INSPECT FOR: Chips or gouges due to visitor wear or vandalism, blistering paint, rotting wood, wood working loose, cracking or checking wood, worn stair treads, and handrails with loose fastenings or wood deterioration.

4-3 PROCEDURE: With evidence of extensive rotting wood, contact the Regional Historical Architect. Patch paint with colors provided by the Regional Historical Architect as follows:

Chip off by hand as much paint as can be removed. No metal scrapers will be permitted. Sand lightly yet thoroughly to feather the chipped edges and to give a rough surface to insure a good paint bond. Apply prime coat if sanding has exposed bare wood. Apply two coats according to manufacturer's directions. Gouged or vandalized wood: Chip away loose paint by hand. Sand or wire brush the gouged area to expose bare wood and to feather paint edges.

Saturate with boiled linseed oil. Let wood dry for 24 hours. Saturate again with boiled linseed oil. Wait another 24 hours and then fill all holes and cracks with white lead paste putty. Wait two or more days for putty to form a skin and prime. Apply two coats of paint according to manufacturer's directions. Wood to be renailed: Reuse existing nails or provide common wire nails for interior work or high strength aluminum nails sized to match existing as replacements. Use original nail holes first. Putty nail holes with white lead paste putty. Wait two or more days for putty to form a skin and prime. Apply two coats of paint according to manufacturer's directions.

Rotting Wood: The park may repair any rotting wood which can be chipped out by hand or with hand tools and adequately repaired by patching with white lead putty as described above. In cases where a putty fill would not be adequate, the Regional Historical Architect must be contacted for the replacement specification.

Cracking or Checking: Wood which has been cracked or checked should be inspected to judge if there is any change in the condition. If the material remains stable, use a white lead putty patch as described above.

If cracks continue to get larger, the Regional Historical Architect should be contacted for a replacement specification.

Renail, or add fastenings which match existing, to loose safety features such as handrails and railings.

SECTION 07314 SLATE SHINGLES

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of complete installation of slate shingle roofing.

1-2 RELATED WORK SPECIFIED ELSEWHERE: None

1-3 QUALITY ASSURANCE:

A. Standards as established by American Society for Testing and Materials (ASTM) and manufacturer's printed recommendations, as amended, latest editions, govern the work of this section.

B. Shingles: Meet requirements of grading rules and application recommendations of National Roofing Contractors Association.

1-4 SUBMITTALS: Submit samples of shingle materials for review prior to delivery to the site.

1-5 GUARANTEE: Furnish a guarantee-warranty in writing against a defective roofing system for a 5-year period from date of acceptance. Such a guarantee-warranty shall include repairing that becomes necessary to maintain the roof in a watertight condition.

1-6 PRECAUTION: As slate ages, it becomes more brittle. Do not apply weight directly to the slate. Some means of supporting the workman must be used, such as a "chicken ladder," "cherry picker," etc.

2-1 SLATE:

A. Slate shall match existing in size, shape and color as furnished by the Buckingham-Virginia Slate Corporation, 4110 Fitzhugh Avenue, Richmond, Va. 23230.

B. All slate shall be hard, dense, sound rock, punched for two nails each. All exposed corners shall be practically full. No broken corners on covered ends which sacrifice nailing strength or the laying of a water-tight roof will be allowed. No broken or cracked slates shall be used.

2-2 UNDERLAYMENT: ASTM D250. Thirty pound asphalt saturated asbestos felt.

2-3 NAILS: All slate shall be fastened with two large head slaters' solid copper nails. Use 1-1/4 inch, No. 11 for slate 18 inches or less and 1-1/2 inch, No. 11 for 20 inches or longer.

2-4 FLASHING: All flashing items shall be copper to match existing.

PART 3: EXECUTION

3-1 SLATING:

A. The entire surface of the roof, unless otherwise specified, shall be covered with slate in a proper and water-tight manner.

B. On all surfaces to be covered with slate, lay felt in horizontal layers with joints lapped towards the eaves at least 4 inches and well secured along laps and at ends as necessary to properly hold the felt in place and protect the structure until covered with the slate. All felt shall be preserved unbroken, tight, and whole.

C. Felt shall lap all hips and ridges at least 12 inches to form double thickness and shall be lapped 2 inches over the metal of any valleys.

D. Slates overlapping sheet metal work shall have the nails so placed as to avoid puncturing the sheet metal. Exposed nails shall be permissible only in top courses where unavoidable, and then be covered with elastic roofing cement.

E. Neatly fit slate around all vertical surfaces.

F. Nails shall not be driven so far as to produce a strain on the slate.

G. Hip slates and ridge slates shall be laid in elastic cement spread thickly over unexposed surface of under courses of slate, nailed securely in place and carefully pointed with elastic cement.

H. Build in and place all flashing pieces, snow-guards, etc.

I. Upon completion, all slate must be sound, whole, clean, and the roof shall be left watertight and neat in every respect, and subject to the Regional Historical Architect's approval.

PART 4: MAINTENANCE

4-1 SCHEDULE: Inspect twice each year, spring and fall, the best time being during a heavy rain. In winter, inspect for ice dams at the eaves which may force water to seep under the slate and damage the roof.

4-2 INSPECT FOR: Slipped, broken or missing slates. Be alert for any signs of the roof sagging. Also, inspect the underside of the roof for dampstaining, particularly at the valleys, ridges and around dormers and chimneys.

4-3 PROCEDURE: If defects are noted, contact the Regional Historical Architect.

SECTION 07631 Gutters and Downspouts

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of gutters and downspouts.

1-2 RELATED WORK SPECIFIED ELSEWHERE: Slate Shingles - Section 07314

1-3 PRECAUTIONS: Do not allow water to overflow the gutters and run down the walls. Maintain all joints tight to prevent leakage at the joints.

PART 2: MATERIALS

2-1 Gutters and Downspouts: Copper, to match existing in shape and size.

PART 3: EXECUTION

3-1 GENERAL: All work shall be completed to match existing.

PART 4: MAINTENANCE

4-1 SCHEDULE: Inspect each month of the year. In winter, or whenever the temperature is below freezing for any part of the day, inspect daily for ice collecting at the bottom of downspout. Rain storms, of course, are the best time to check.

4-2 INSPECT FOR: Faulty connections, joints which are not tight fitting, deteriorating gutters and downspouts, inadequate drainage at bottom of downspout, and ice blockage, especially at base of downspout. Inspect for sufficient pitch to carry the water off quickly and not leave any pockets of standing water.

4-2 PROCEDURE: Check and tighten loose connections and bend material for a better fit. Replace deteriorated parts with parts to match that to be replaced. Match in size, design and material. Finish to match existing.

SECTION 08209 Wood Doors (Historical)
SECTION 08210 Wood Doors (Non-historical)

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of maintaining wood doors.

1-2 RELATED WORK SPECIFIED ELSEWHERE: Carpentry Work, Section 06097,06098.

PART 2: MATERIALS

2-1 WOOD: Best of its kind, to match existing.

PART 3: EXECUTION

3-1 GENERAL: All workmanship shall be of the best quality.

PART 4: MAINTENANCE

4-1 SCHEDULE: Thoroughly inspect all doors each spring and fall. Correct problems immediately.

4-2 INSPECT FOR: Poor fit of door in the frame, loose hinge screws or pins, cracks in rails or stiles, panels separating from the rail and stiles, loose hardware, and gouges from vandalism or visitor use.

4-3 PROCEDURE: If doors stick, check first that the door is hung plumb on the hinges. Tighten all hinge connections. If the door continues to stick, remove door from hinges and plane down the end which is sticking. Plane only in very dry, warm weather. Plane very carefully; allow only minimum clearance. For panels separating from rail and stiles: remove door from hinges, measure door frame to check alignment to see if it is square. Clamp door to same alignment. Glue panel in place.

Gouged or vandalized wood: Chip away loose paint by hand. Sand or wire brush the gouged area to expose bare wood and to feather paint edges. Saturate with boiled linseed oil. Let wood dry for 24 hours. Saturate again with boiled linseed oil. Wait another 24 hours and then fill all holes and cracks with white lead paste putty. Wait two or more days for putty to form a skin and prime. Apply two coats of paint according to manufacturer's directions.

Wood to be renailed: Reuse existing nails or provide common wire nails for interior work or high strength aluminum nails sized to match existing as replacements. Use original nail holes first. Sink nails below wood surface with appropriate size nail-set. Putty nail holes with white lead past putty. Wait two or more days for putty to form a skin and prime. Apply two coats of paint according to manufacturer's directions.

SECTION 08609 Wood Windows (Historical)
SECTION 08610 Wood Windows (Non-historical)

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of maintaining wood windows.

1-2 RELATED WORK SPECIFIED ELSEWHERE: Carpentry Work, Section 06097, 06098.

1-3 PRECAUTIONS: No sash, upper or lower, frame, or trim shall be entirely refinished without first contacting the Regional Historical ARchitect.

PART 2: MATERIALS

2-1 WOOD: Best of its kind, to match existing.

2-2 GLASS: See Glass and Glazing - Section 08810.

PART 3: EXECUTION

3-1 GENERAL: All workmanship shall be of the best quality.

PART 4: MAINTENANCE

4-1 SCHEDULE: Inspect and maintain each spring and fall.

4-2 INSPECT FOR: Rotting wood on sills, frame and sash. Cracking sash, chips or gouges due to visitor wear or vandalism, paint blistering and dirty sash.

4-3 PROCEDURE: With evidence of extensive rotting wood, contact the Regional Historical ARchitect.

Rotting wood: The park may repair any rotting wood which can be chipped out by hand or with hand tools, and adequately repaired by patching with white lead putty as described below. In cases where a putty fill would not be adequate, The Regional Historical Architect must be contacted for the replacement specification.

Cracking or checking: Wood which has cracked or checked should be inspected often to judge if there is any change in the condition. If the material remains stable, use a white lead putty patch as described below.

If cracks continue to get larger, the Regional Historical Architect should be contacted for a replacement specification.

Gouged or vandalized wood: Chip away loose paint by hand. Sand or wire brush the gouged area to expose bare wood and to feather paint edges. Saturate with boiled linseed oil. Let wood dry for 24 hours. Saturate again with boiled linseed oil. Wait another 24 hours and then fill all holes and cracks with white lead paste putty. Wait two or more days for putty to form a skin and prime. Apply two coats of paint according to manufacturer's directions.

Wood to be renailed: Reuse existing nails or provide common wire nails for interior work or high strength aluminum nails sized to match existing as replacements. Use original nail holes first. Sink nails below wood surface with appropriate size nail-set. Putty nail holes with white lead paste putty. Wait two or more days for putty to form a skin and prime. Apply two coats of paint according to manufacturer's directions.

Patch painting: Chip off by hand as much paint as can be removed. No metal scrapers will be permitted. Sand lightly yet thoroughly to feather the chipped edges and to give a rough surface to insure a good paint bond. Apply prime coat if sanding has exposed bare wood. Apply two finish coats according to manufacturer's directions.

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of maintenance of finish hardware.

1-2 PRECAUTIONS: Obtain approval of Regional Historical Architect before replacing existing hardware.

PART 2: MATERIALS

2-1 GENERAL: All replacement materials shall match existing.

PART 3: EXECUTION

3-1 All workmanship shall be of the best quality.

PART 4: MAINTENANCE

4-1 SCHEDULE: Inspect twice a year, in the spring and fall.

4-2 INSPECT FOR: Excessive wear, physical damage, excessive looseness or tightness.

4-3 PROCEDURE: If nail or screw holes are enlarged, causing looseness, use standard plugging methods and re-secure. If locks are working incorrectly, remove for disassembly, cleaning and lubrication. Worn hinge knuckles can be built up with new material or can have small washers placed between the knuckles to return the door to its original height.

SECTION 08810 Glass and Glazing

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of maintaining the glass.

1-2 SUBMITTALS: Save, in a well-sealed clear plastic bag, a 12-inch long putty sample labeled with date used and location used. Save an 8-inch by 8-inch sample of glass and indicate manufacturer, quality, type, thickness, date used and location used.

PART 2: MATERIALS

2-1 GLASS: Replacement glass must match existing as to quantity and style of imperfections. Use no glass which contains an excess of imperfections, nor that which is virtually free of imperfections as in modern float glass.

2-2 PUTTY: Composed of pure linseed oil, pure whiting and 10 percent white lead, mixed to a putty consistency.

PART 3: EXECUTION

3-1 GENERAL: Do no glazing in defective or improperly installed frames; installation of glass constitutes acceptance of frames as suitable for glazing. Before glazing, check openings to assure they are square, plumb, and plane. Maintain uniform face and edge clearances in true. Surfaces shall be cleaned with a cloth before glazing. Dirty surfaces shall be cleaned with a cloth saturated with turpentine or mineral spirits before glazing. Glazing compound shall not be applied in temperatures below 40 degrees F. or during damp or rainy weather. Do not glaze wood windows until they have received a priming coat of paint. Do not handle windows after glazing until the glazing compound has set. Complete installation shall be sound and waterproof.

3-2 PREPARATORY WORK: Remove existing putty and all broken and loose glass.

3-3 INSTALLATION: Glass shall accurately fit openings, allowing for expansion.

Each pane of glass shall be factory labeled as to quality, type, thickness, and manufacturer. Removable labels shall remain on the glass until final cleaning.

Determine exact size of glass by field measurements of items to be glazed. Sizes shown on drawings are approximate and shall be used for estimate only.

Perform all glazing at the site. Prime wood before glazing. Back putty all glass before setting. Reset existing and set new glass firmly against frame with galvanized glazing points and putty. Cut excess putty to sight line of muntin leaving a continuous smooth sloping surface returning neatly at corners.

Protect glass from edge damage at all times during handling and installation. Inspect each piece of glass immediately before installation and reject any which have edge damage.

Unify appearance of each series of lights by setting each piece to match others as nearly as possible. Inspect each piece and set with pattern, draw and bow oriented in the same direction as other pieces.

Inspection and Acceptance: After glazing, remove all foreign material left on the surface of the glass. Remove all scratched, chipped, or otherwise defective glass and replace with proper materials. After inspection of the glasswork, remove all labels and thoroughly clean all surfaces. Glass breaking or air leakage due to glazing compounds not being able to absorb thermal expansion will be considered a defective installation.

Marking: New glass shall be acid etched to read the year of replacement in 3/16 inch high numerals to be visible after installation, readable from the interior in an inconspicuous corner.

PART 4: MAINTENANCE

4-1 SCHEDULE: Each spring and fall.

4-2 INSPECT FOR: Dirty windows, loose and cracking putty, broken glass.

4-3 PROCEDURE: If windows are dirty, clean as indicated in Housekeeping Spec.-Wood Windows-sections 08609 and 08610. If other problems are noted, repair as indicated in this section.

SECTION 09100 Lath and Plaster (Non-historical)
SECTION 09101 Lath and Plaster (Historical)

PART 1: GENERAL

1-1 DESCRIPTION: Work directed by this section shall apply only to non-historic plaster. See Part 3-10 for historic plaster.

1-2 RELATED WORK SPECIFIED ELSEWHERE: Mortar - Section 04100.

1-3 QUALITY ASSURANCE:

A. Certificate: Require an affidavit from manufacturer certifying materials or products delivered meet specified requirements.

B. Standards: American Society for Testing and Materials (ASTM) and manufacturer's printed recommendations.

1-4 SUBMITTALS: File any certificates from manufacturers. Save samples of lath and dry plaster materials in plastic bags showing date and location of repair. Save separate examples of all ingredients.

1-5 PRODUCT HANDLING:

A. Delivery: Deliver materials in manufacturer's original unopened, protective packages, or bundles with manufacturer's label intact and legible.

B. Storage: Store indoors to protect from dampness.

1-6 JOB CONDITIONS: Maintain temperature of the building above 55 degrees F. for an adequate period prior to the application of plaster, while plastering, and after the plaster is dry. The heat shall be well distributed in all areas.

1-7 PRECAUTIONS: No entire piece of plasterwork, such as one wall or an entire ceiling shall be maintained by replacement without first contacting the Regional Historical Architect. No maintenance other than plain water washing and spackling dents, when no plaster removal is involved, shall be permitted without first consulting the Regional Historical Architect.

PART 2: MATERIALS

2-1 LATHING MATERIALS: United States Gypsum Company, 101 South Wacker Drive, Chicago, Illinois 60606.

A. Metal Lath: Copper bearing steel, coated with rust resistant paint after fabrication.

1. 1/8 inch USG Rib Lath
2. 3/8 inch USG Rib Lath.
3. Diamond mesh, USG self-furring, paper backed.

B. Reinforcement and Edges: Galvanized expanded steel.

1. Corner beads, USG No. 4R.
2. Cornerite, USG
3. Casing beads, 24 gauge, USG No. 66 square, expanded flange of proper ground depth.

C. Lath Attachment: Use nails, staples, screws, clips, or wire ties recommended by lathing manufacturer for type of metal lath being installed. For wood lath, use 3 penny fine blue nails, 1/8-inch dia. heads.

2-2 PLASTER MATERIALS:

A. Scratch Coat: USG Wood Fiber, ASTM C28.

B. Brown Coat: USG Red Top Gypsum Plaster.

C. Finish: USG Diamond Finish Plaster.

D. Sand: ASTM C35 (sharp sand).

E. Lime: ASTM C206, double hydrated.

F. Water: Potable.

G. Bonding Agent: USG Red Top Plaster Bond.

2-3 PLASTER REPAIR MATERIALS:

A. Acetone: Shell Chemical Company, 2401 Crow Canyon Road, San Ramon, California 94583, or approved equal.

B. Casein: FS MMM-A-125. For caseinate mix (mastic) one part casein, immerse in water for 12 hours, drain off excess water; 9 parts slaked lime, mix into casein; 1 part polyvinyl acetate acrylic emulsion; 2 ounces Ortho fungicide per gallon of mixture. mix all ingredients to consistency of pudding. If more fluid is required, use casein or potable water.

C. Slaked Lime: Finishing lime, ASTM C206,Type S.

D. Polyvinyl Acetate-Acrylic Emulsion: Polyvinyl Acetate-Acrylic Primer, by Rohm and Haas Company, Philadelphia, Pennsylvania, 19105, or approved equal.

E. Fungicide: Chevron Chemical Company, Ortho Division, P.O. Box 3069, San Francisco, California, 94119, or approved equal.

F. Screws: FS FF-S-111, brass wood screws, Type 1, flat head.

G. Spackling Compound: Synkoloid Company, Compton, California 90223, or approved equal.

2-4 PLASTER MIXES: Mix all plaster materials according to manufacturer's directions (USG)

Gypsum Scratch Coat: One part fibered gypsum plaster, two parts sand, by weight. Gypsum Brown Coat: One part gypsum plaster, three parts sand, by weight. Gypsum finish: Diamond finish plaster, neat.

PART 3: EXECUTION

3-1 GENERAL: Installation shall be by an applicator authorized by manufacturer of materials furnished. Refer to Lathing and Plastering Bureau Manual for additional information. Coordinate plastering with work in other trades.

3-2 METAL LATH, FURRING, AND ACCESSORIES: Follow applicable requirements of lathing and plastering manual and ANSI A42.3, paragraphs 4, 5,and 9 through 11. Frame around openings such as flue thimbles, supports, and where required to receive work by other sections of these specifications.

3-3 WOOD LATH: Use only for patching existing plaster where there is existing wood lath. Reuse existing where sound. Space lath with 3/8-inch clearance between laths. Stagger ends of every fourth lath. Stagger joints of new and existing. Use one nail to fasten each lath to studs. Dampen lath and let dry 48 hours, then nail down securely into each support.

3-4 INSTALLATION OF LATH: Apply in compliance with ANSI 42.4. For patching plaster, use existing lath found in place if sound. Replace with metal lath when necessary.

A. Ceiling: Use flat rib lath. Nail to joists at 6 inches on center.

B. Wood Walls: Use paper backed self-furring diamond mesh lath. Nail into solid backing at 6 inches on center.

C. Masonry Walls: Use Rib lath. Drive nails into mortar joints; two minimum of 1-1/2 inches at 12 inches on center. Tie lath to nails with 18 gauge galvanized wire allowing sufficient clearance from wall to permit positive keying of plaster into the lath.

D. Apply metal lath with the long dimension of the sheet across the supports. Rib lath shall be applied with the rib projecting against the supports. Lap ends of lath not less than 1 inch. If end laps are made between supports, they shall be adequately tied with 18 gauge tie wire. Lap side of diamond lath not less than 1/2 inch. Rib lath shall be lapped by nesting the outside ribs. Stagger end of lath in adjacent courses. Secure metal lath to all supports at intervals not exceeding 6 inches.

E. Apply Cornerite to all interior angles. Apply beads, screeds, and control joints by wiring to lath. Nail to masonry or concrete at 12 inches on center.

3-5 PLASTER THICKNESSES: Finished plaster for patching shall match existing. Finished plaster for new work shall be 3/4 inch on metal lath; 5/8 inch on masonry or concrete base.

3-6 APPLICATION OF PLASTER: Maintain the temperature of the areas receiving the plaster above 55 degrees F. for an adequate period prior to the application of plaster, while the plastering is being done, and after the plaster is dry. All plaster shall butt against wood trim.

3-7 BASE COAT APPLICATION:

A. Apply first scratch coat with sufficient material and pressure to form good full keys on metal lath and a good bond on other bases; cross rake. Apply second brown coat after the first scratch coat has set firm and hard. Bring out to grounds and straighten to a true surface with rod and darby without the use of additional water. Leave rough to receive the finish coat. Use only wooden tools for final treatment of base coat.

B. On concrete or masonry, use plaster bond in a continuous film. Apply base coat while film is slightly tacky.

C. Where plaster is flush with base, dormer trim, door and window frames, make a groove at the junction.

3-8 FINISH COAT APPLICATION: Allow 7 days for brown coat to dry before applying cement finish coat. Dampen brown coat evenly to obtain uniform suction before applying cement finish coat.

Trowel finish coats shall be scratched in thoroughly and immediately doubled back to fill out to a smooth, dense surface for decoration, free of surface blemishes and irregularities. Thickness 1/16 inch to 1/8 inch minimum for cement finish coat.

Damp cure finish coat for 48 hours by covering with Visqueen.

3-9 PATCHING: Point up around trim and other work. Cut out and patch defective and damaged plaster. Match patching of plaster with adjacent work in texture and finish. Joinings with plaster previously applied shall finish flush and smooth.

3-10 EXISTING HISTORIC PLASTER REPAIR:

A. Plaster Removal: Cut, remove by pulling off loose, deteriorated, powdery, damaged, non-historic plaster, without damage to substrate and other surfaces. Remove dust.

B. Lath Removal and Repair: Remove damaged lath. Replace with new, matching existing. Secure, overlap, or stagger connections with existing to insure finish work will remain crack free.

C. Patching: Use plaster of type and texture matching existing adjacent plaster. Where patch is not full depth of existing plaster, moisten surface of patch and apply plaster bonding agent in accordance with manufacturer's directions. Where patch is larger than one foot square, self-furring metal lath may be used. Attach lath to insure finish work will be crack free. Apply as many coats as are necessary to bring all portions of wall out to same plane.

D. REATTACHING: For reattaching historic plaster separated from wood, use No. 8 by 3/4 inch pan head stainless steel wood screws.

E. FINISH: Look in closets in area of plaster work. Generally, there is unpainted, historic plaster in at least some of the closets in each structure. Match finish of new plaster work to the historic finish probably found in closets.

If no historic plaster finish can be found, match plaster finish in adjacent areas.

PART 4: MAINTANANCE

4-1 SCHEDULE: Inspect and maintain each spring and fall.

4- INSPECT FOR: Cracked plaster, missing plaster, plaster which has come loose from lath, and gouged or vandalized plaster. Keep accurate notes on plaster crack sizes so that,, by comparison, changes can be detected.

4-3 PROCEDURE: If damaged plaster is noted, contact the Regional Historical ARchitect. Repair as indicated in this section.

SECTION 09197 Stucco (Historical)
SECTION 09198 Stucco (Non-historical)

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of stucco work.

1-2 RELATED WORK SPECIFIED ELSEWHERE: Mortar-Section 04100.

1-3 QUALITY ASSURANCE:

A. Standards: American Society for Testing and Materials (ASTM) and manufacturer's printed recommendations.

B. Certificate: Require an affidavit from manufacturer certifying materials or products delivered meet specified requirements.

1-4 SUBMITTALS: File any certificates from manufacturers. Save samples of dry stucco materials in plastic bags showing date and location of repair. Save separate examples of all ingredients.

1-5 PRODUCT HANDLING:

A. Delivery: Deliver materials in manufacturer's original, unopened, protective packages with manufacturer's label intact and legible.

B. Storage: Store indoors to protect from dampness.

1-6 JOB CONDITIONS: Apply no stucco when ambient temperature is less than 32 degrees F, or with materials or on surfaces containing frost. During cold weather, maintain temperature using temporary protection and heat. Maintain heat at not less than 40 degrees F. and distribute uniformly during stucco application and for a minimum of 24 hours before and after application. During hot, drying weather protect against uneven and excessive evaporation and from blasts of dry air either natural or artificial means.

1-7 PRECAUTIONS: Do not use any plastic or latex compound caulks to patch cracks. They make no bond with the original material and after loosening only serve to trap water and encourage further cracking.

PART 2: MATERIALS

2-1 LATHING MATERIALS:

A. Lathing:

1. Metal Lath: Expanded, rib, or sheet. Fabricate from copperbearing, galvanized steel sheets.

2. Welded Wire Lath: Fabricate from minimum 16 gauge copperbearing, cold-drawn, galvanized steel wire. Maximum openings of 2 inches. Welded at all intersections of wire and stiffened continuously, parallel to long dimension at maximum of 6 inch intervals.

3. Woven Wire Lath: Fabricate from copper-bearing, cold-drawn, galvanized steel wire. Minimum openings of 1 inch, maximum openings of 2-1/4 inches, and a maximum area of 4 inches for a single opening. 18 gauge for 1 inch openings, 17 gauge for 1-1/2 inch openings, and 16 gauge for 2 inch openings.

4. Paper Backing: FS UU-B-790, building paper, vegetable fiber (kraft, waterproofed, water repellant, and fire resistant) of style and grade described for intended use. Paper shall be securely held in place by or attached to the metal plaster base. The paper shall permit full embedment, in at least 1/8 inch of plaster, of at least one half of the total length of the strands and one half of the total weight of the metal.

B. Reinforcement and Edges: Galvanized, expanded steel by United States Gypsum Company, 101 South Wacker Drive, Chicago, Illinois 60606, or approved equal.

1. Corner Beads: 26 gauge, small nose, 2 inch flanges, No. 4R.

2. Cornerite and Striplath at inside corners and openings.

3. Casing Beads: 24 gauge, No. 66 square edge, expanding flange of proper ground depth.

C. Lath Attachment: Follow manufacturer's directions for nails, clips, or tie wires for type of lath being installed.

2-2 STUCCO MATERIALS:

A. Plaster Mix: Measure by volume

2 parts pulverized quicklime
1/4 part Atlas Cement
16 parts sand
Potable water as required

B. Sand: Clean, sharp sand.

C. Screening and Washing Sand:

1. Screen with 1/4 inch hardware cloth to remove pebbles, twigs, leaves.

2. Screen with aluminum window screen to remove soil and clays.

3. Wash the sand remaining on screen with clean water.

D. Acid for Cleaning: 10 percent muriatic acid.

PART 3: EXECUTION

3-1 DESCRIPTION: The quicklime and sand should be thoroughly dry-mixed. Add water and mix to a workable consistency.

3-2 BASE COAT APPLICATION:

A. Apply first scratch coat with sufficient material and pressure to form a good bond on masonry base; crossrake. Apply second brown coat after the first scratch coat has set firm and hard. Bring out to grounds and straighten to a true surface with rod and darby without the use of additional water. Leave rough to receive the finish coat.

B. Damp cure brown coat for 48 hours.

3-3 FINISH COAT APPLICATION:

A. Trowel finish coats shall be scratched in thoroughly and immediately doubled back to fill out to a smooth, dense surface for decoration free of surface blemishes and irregularities. Thickness, 1/8 inch.

B. Apply necessary texture in order to match the existing stucco finish.

3-4 PATCHING: Point up around trim and other work. Cut out and patch defective and damaged plaster. Match patching of plaster with adjacent work in texture and finish. Finish joinings with plaster previously applied flush and smooth.

3-5 Curing: Appropriate method of keeping surface damp--mist spray only newly stuccoed area (taking care to avoid wetting existing stucco) with very fine spray of clean water, and cover with Visqueen to prevent excessive evaporation.

3-6 EXISTING STUCCO REPAIR: Cut, remove by pulling, loose, deteriorated, powdery, damaged stucco full depth or to an approved depth where sound stucco is reached without damaging substrate and other surfaces. Remove dust and damaged lath and replace with new, matching existing. Secure lath by overlapping and wiring to insure final work will remain free of cracks. For surfaces without lath, wash the exposed surface with 10 percent solution of muriatic acid. Rinse with clean water and allow to dry at least 24 hours. For patching, use stucco of type and finish texture matching existing. Apply coats as necessary to bring all portions of the wall to the same plane.

3-7 CLEANUP: Upon completion of the work, clean stucco from all adjacent areas.

PART 4: MAINTENANCE

4-1 SCHEDULE: Inspect each spring and fall for maintenance by patching and cleaning.

4-2 INSPECT FOR: Cracks, stucco pulling away from wall material, missing stucco, and dirt buildup under porch roofs, eaves and behind shutters.

4-3 PROCEDURE:

Washing stucco: See Section 09197 - Stucco.

This procedure is especially important behind shutters where airborne bird and insect dirt accumulate and on stucco shaded by porch roofs or eaves where birds and insects nest.

Patching stucco: Samples - save mixtures of all batches mixed. Identify with date and brief description of where stucco was applied. Date and file formula for each mixture made.

SECTION 09559 Wood Strip Flooring (Historical)
SECTION 09560 Wood Strip Flooring (Non-historical)

PART 1: GENERAL

1-1 RELATED WORK SPECIFIED ELSEWHERE: Carpentry Work - Section 06097,06098

1-2 DESCRIPTION: The work of this section consists of wood strip flooring.

1-3 QUALITY ASSURANCE:

A. Certificate: Require an affidavit from manufacturer certifying materials or products delivered meet specified requirements.

B. Standards: American Society for Testing and Materials (ASTM) and manufacturer's printed recommendations.

1-4 SUBMITTALS: File any certificates from manufacturers. Save samples of wood strip flooring materials showing date and location of repair.

1-5 PRODUCT HANDLING:

A. Delivery: Deliver materials in manufacturer's original, unopened, protective packaging.

B. Storage: Store indoors to protect from dampness.

1-6 JOB CONDITIONS: Maintain ambient temperatures between 50 degrees F. and 70 degrees F. for 72 hours prior to installation and minimum of 48 hours after completion of work.

1-7 PRECAUTIONS: Do not patch any wood flooring indicated as original without first consulting the Regional Historical Architect.

PART 2: MATERIALS

2-1 PATCHING MATERIALS: All new lumber shall be the best of its kind, free from stain, rot or other imperfections impairing its strength and durability, and appearance when exposed. Species shall be the same as the original adjacent materials.

2-2 FLOORBOARDS, BLOCKING, AND NAILERS: Except where otherwise specified - Southern Yellow Pine, to match original adjacent material, sound knots within, No. 1 grade. Match adjacent thickness, texture and width. Maximum moisture content for patching lumber is 12 percent.

2-3 FELT: 15 pound, asphalt saturated, organic, unperforated.

2-4 SEALER: FS TT-S-176, Class 2, penetrating, equal to Bruce Floor Seal by E.L. Bruce, Co., Inc., P.O. Box 397, Memphis, Tennessee, 38101, or approved equal.

2-5 WAX: FS P-W-158, Type I, solvent type, containing no water.

PART 3: EXECUTION

3-1 PATCHING PROCEDURE: Select only those floorboards so deteriorated as to require replacement.

Carefully chisel out or pry up deteriorated lumber, making sure that the butt joints of the replaced and remaining lumber are staggered.

Determine that subfloor surfaces are in suitable condition, including floor joists, nailing, membrane covering, and ventilation.

Do not begin work until subfloor construction is complete and inspected as sound.

3-2 FLOORING: Lay out strips prior to starting work, minimizing clustering. Lay at right angles to joists. Leave expansion spaces, minimum 3/4 inch, at edges of room. Nail as recommended. Force flooring into position using driving blocks of scrap flooring.

3-3 SANDING: Sand to smooth finish to match adjacent flooring.

3-4 SEALING: After sanding, sweep and vacuum floor clean. Apply first coat of sealer following manufacturer's directions. When first coat is dry, apply second sealer coat.

3-5 WAX OR PAINT: Match finish on adjacent original material.

A. Wax: When sealer is dry, apply two coats of solvent type liquid wax. Self-polishing type containing water will not be permitted.

B. Paint: Colors are available from the Regional Historical Architect.

PART 4: MAINTENANCE

4-1 SCHEDULE: Inspect each spring and fall.

4-2 INSPECT FOR: Edge wear on porch floor, cracked floorboards, paint worn to bare wood, loose or raised nails.

4-3 PROCEDURE: If damaged flooring is noted, contact the Regional Historical Architect. Repair as indicated in this section.

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of whitewashing and varnishing required for the project.

1-2 SUBMITTALS: Submit dry samples of the whitewash ingredients, one pint (minimum) each of molasses and varnish.

1-3 PRODUCT HANDLING: Deliver all materials in manufacturer's unbroken, labeled containers. Store whitewash materials in a dry, ventilated place under cover. For varnish, follow manufacturer's recommendations for shipping, handling and storing. Store only in an assigned area. Take necessary precautions to eliminate fire hazards.

1-4 SURFACES TO BE PAINTED:

A. Whitewash: All new or existing surfaces and items previously whitewashed.

B. Varnish: All items previously varnished, except floor.

1-5 PRECAUTIONS: No entire surface, such as a whole wall or floor, shall be painted without consulting the Regional Historical Architect.

It is preferable to clean the painted surface instead of repainting, as cleaning does not contribute to the serious problem of paint build-up.

If any historic paint fabric is removed, it must be sent to a testing agency for analysis in order that a record of the historic painting can be developed.

PART 2: MATERIALS

2-1 WHITEWASH:
Salt--common sodium chloride
Powdered Alum--common potash alum
Molasses--unsulfered
Lime--hydrated
Water--potable

2-2 VARNISH: Clear-glossy, Valentine Floor and Trim #59604 as manufactured by Valspar Corporation, Rock Island, Illinois.

PART 3: EXECUTION

3-1 GENERAL REQUIREMENTS:

A. All surfaces shall be free from foreign matter, dry, and broom clean.

B. Apply only when temperature is between 50 degrees and 90 degrees F. Avoid applying varnish during damp or rainy weather.

3-2 SURFACE PREPARATION:

A. Whitewash: Remove loose paint by scraping or sanding. Spackle edges of sound paint and sand smooth to a feather edge.

B. Varnish: Sand lightly.

3-3 WHITEWASH MIX:

A. 12 pounds salt; 6 ounces alum; 1 quart molasses; dissolved in 4 gallons hot water.

B. 50 pounds (1 sack) lime; mix with 7 gallons hot water Allow to stand 12 hours.

C. Mix A and B in equal parts, thin as required to a consistency for brush application.

3-4 APPLICATION: Secure approval of surface preparation. Apply evenly without runs, sags, or other defects. Work the whitewash into the material being covered so the surface is covered completely and uniformly. For varnish, the rate of coverage shall be as recommended by the manufacturer. Edges of the paint shall be sharp and straight.

3-5 PAINT SCHEDULE:

A. Whitewash: 1 coat.

B. Varnish: 1 coat.

3-6 CLEANUP: Remove paint where it has spilled on surfaces not to receive paint without marring those surfaces.

PART 4: MAINTENANCE

4-1 SCHEDULE: Inspect for maintenance work each spring and fall.

4-2 INSPECT FOR: Worn paint, chipped paint, color changes by sun exposure, peeling, cracking and chalking paint.

4-3 PROCEDURES:

Patch Painting: Since worn spots and chips often go through several layers of paint, it is necessary to build the touch-up paint back to the original thickness. Sharp edges should be feathered and cleaned prior to infill painting. The paint should be applied in thin coats. A release varnish can be applied as a base coat to facilitate removal of the patch if it is not acceptable.

INDEX TO ARTICLES OF THE GENERAL REQUIREMENTS

SECTION 01010 - SUMMARY OF THE WORK

1. DESCRIPTION
2. LOCATION
3. ACCESS
4. REFERENCE STANDARDS
5. LAYOUT OF WORK
6. BORROW PITS
7. PRE-CONSTRUCTION CONFERENCE
8. ARTIFACTS
9. PROTECTION OF EXISTING WORK AND PRESERVATION OF HISTORIC FABRIC

SECTION 01300 - SUBMITTALS

1. SHOP DRAWINGS, PROJECT DATA, AND SAMPLES
2. CERTIFICATION
3. PROGRAM OF CONSTRUCTION AND PLANT
4. OPERATION AND MAINTENANCE DATA

SECTION 01500 - TEMPORARY FACILITIES AND CONTROLS

1. BARRICADES, DANGER, AND WARNING SIGNS
2. AIR AND WATER POLLUTION CONTROL
3. FIRE SUPPRESSION
4. TEMPORARY STORAGE FACILITIES
5. TEMPORARY SANITARY FACILITIES
6. CONSTRUCTION CAMP
7. TEMPORARY UTILITIES

SECTION 01700 - PROJECT CLOSEOUT

1. PROJECT RECORD DRAWINGS
2. FINAL INSPECTION AND ACCEPTANCE OF WORK
3. CLEANUP

END

1. DESCRIPTION: The principal features of the work include repointing and repairing masonry walls; removing and rebuilding plank flooring and reconstructing stalls; excavation for southeast foundation wall; repairing and constructing new drain; providing new surface drainage; new concrete sub-floor; new fire alarm system and additional electrical work; installing of a new weather vane.

2. LOCATION: Adams National Historic Park, at Adams Street and Newport Avenue, Quincy, Massachusetts.

3. ACCESS: Hauling Restrictions: Comply with all legal load restrictions in the hauling of materials on public roads beyond the limits of the project. Load restrictions on park roads are identical to the State load restrictions with additional regulations as may be imposed by the Park Superintendent. A special permit will not relieve the Contractor of liability for damage which may result from the moving of equipment.

4. REFERENCE STANDARDS: The various sections of the specifications list standards, specifications, codes, etc., that govern the quality of materials and workmanship required. The Contractor shall have a copy of each of these reference standards available for use. "Latest edition" is the edition in effect 30 days prior to date of advertisement.

5. LAYOUT OF WORK: The Contracting Officer will provide or designate a control line and a physical control elevation for each area of work. The Contractor shall be responsible for preserving these controls and shall locate all work by accurately measuring from them. All errors in the construction attributable to the Contractor's negligence in preserving the controls, or by his negligence or inaccuracy in properly locating any part of the work in relation to the controls, shall be corrected by him at his own expense. If any dimension, line, or elevation indicated on the drawings, or located on the ground by the Contracting Officer appears to be incorrect to the Contractor, he shall immediately notify the Contracting Officer of this fact.

Locations and elevations indicated on the drawings are subject to final adjustment by the Contracting Officer prior to construction. If adjustment is necessary, the Contractor shall cooperate with the Contracting Officer to facilitate prompt

establishment of the field control for the altered or adjusted work.

In the case of "changes" or "differing site conditions" which involve any changes in stakeout, the Contractor shall cooperate with the Contracting Officer and facilitate the prompt establishment of the field control for altered or adjusted work.

6. BORROW PITS: The Contractor shall provide his own source of borrow material, base course, surfacing and concrete aggregates, and chips from outside the park boundary. If borrow material for this Contract is paid for on cubic yard basis, measured by cross sections, the Contractor shall obtain permission in writing from land owners to permit Government surveyors to enter the borrow pit area for measurement purposes.

7. PRE-CONSTRUCTION CONFERENCE: Before the work begins, the Contracting Officer will arrange for a meeting with the Contractor to discuss the work in general, including administrative matters, National Park Service policy and regulations, accident prevention and safety, questions the Contractor may have, and points that need to be resolved before the work commences.

8. ARTIFACTS: Any and all artifacts or items with historic significance that are discovered, or historic fabric (except mortar and concrete) removed during construction and not reused shall become the property of the Government and shall be stored at a location designated by the Contracting Officer.

9. PROTECTION OF EXISTING WORK AND PRESERVATION OF HISTORIC FABRIC: Work with care near existing utilities, structures, and landscape features, and take steps to protect and preserve them. Where damage occurs, the Contractor shall repair or replace same to match the existing condition, to the approval of the Contracting Officer, without any cost to the Government.

Special care shall be given to the historic fabric of the structure. Obtain prior approval before the removal or cutting of the fabric is required.

END

1. SHOP DRAWINGS, PROJECT DATA AND SAMPLES:

A. Procedures for Submission: Submit four facsimiles of samples, shop drawings, catalog cuts, etc. for review and approval, one of which will be returned, when approved. Any extra copies submitted will be returned to the Contractor. The shop and diagram drawings and schedules must show completely all the work to be done, and any error or omission in the construction work because of incomplete or erroneous shop drawings, diagram drawings, and schedules shall be corrected by the Contractor at his own expense, even though the work is in place. Unless specifically requested as an exception by the Contractor and approved by the Contracting Officer in writing, the approval by the Contracting Officer of any shop drawings, catalogs, schedule, sample, and related material is limited to general concurrence with the contract drawings and contract specifications, and such approval by the Contracting Officer will not relieve the Contractor of the responsiblity for errors or failure to coordinate properly all elements of the project affected by the submitted material. All submittals shall be clearly identified on form DSC-1 (C.S.).

Obtain approvals on all submittals before beginning fabrication or work on the affected items. It is the responsibility of the Contractor to present all such submittals at least two weeks in advance of his need for such approval. The Contracting Officer will entertain no request for a time extension to the Contract resulting from a delay by the Contracting Officer in processing such submitted material unless the material is submitted in sufficient time to permit adequate review by the Contracting Officer commensurate with the complexity of the specific submittal.

B. Samples:

SECTION	DESCRIPTION
03307	Sample of Vapor Barrier
04403	Each Type of Mortar Material
09901	Dry Samples of Whitewash Ingredients

C. Shop Drawings:

SECTION	DESCRIPTION
03301	Reinforcing Mesh Layout and Anchor Bolt Locations

D. Other Submittals:

SECTION	DESCRIPTION
02251	(1) Letter or certification with detail of experience of exterminator. (2) List of proposed chemicals with technical data and letter of conformance to specifications.

2. CERTIFICATION: When specified or requested by the Contracting Officer, the Contractor shall submit a certificate executed by the manufacturer certifying that the materials or equipment to be incorporated in the work comply with the requirements of these specifications.

3. PROGRAM OF CONSTRUCTION AND PLANT: Except as otherwise specified, the Contractor's procedures and methods of construction may, in general, be of his own choosing, provided they follow best general practice and are calculated to secure results which will satisfy the requirements of the specifications and the supervision of the work.

Following receipt of the Notice to Proceed with the work, and prior to commencement of on site operations, the Contractor shall submit to the Contracting Officer schedules of his proposed operation and progress, showing the Contractor's estimated starting and completion dates for each part of the work, in graphic form when required, and showing also the dollar value which the Contractor proposes to establish for each such element. Both the schedule of progress and the dollar value will be subject to review and modification by the Contracting Officer. When required by the Contracting Officer for the purposes of determining the equitableness of the Contractor's payment request, the Contractor shall furnish evidence satisfactory to the Contracting Officer of the sums paid by the Contractor for materials, supplies, and other items of expense.

4. OPERATION AND MAINTENANCE DATA: After completion of the work, the Contractor shall furnish the Contracting Officer with complete literature, operating instructions, technical data, etc. on all items of mechanical and electrical equipment specified in the construction specifications.

END

1. BARRICADES, DANGER, AND WARNING SIGNS: The Contractor shall provide, erect, and maintain all necessary barricades, suitable and sufficient red lights, warning and danger signals and signs, and take all necessary precautions for the protection of the work and safety of the public. All barricades and obstructions shall be illuminated at night, and all safety lights shall be kept burning from sunset until sunrise. All barricades and signs used by the Contractor shall be in accordance with the standard design, generally accepted for such purposes. Payment for all such services and materials shall be considered as included in other pay items of the Contract.

2. AIR AND WATER POLLUTION CONTROL:

A. The Contractor shall take all necessary reasonable measures to reduce air and water pollution by any material and equipment used during construction. Keep the site clean of trash and debris including loose construction materials, such as sand, cement, lime, wood pieces, building paper, etc. Place all trash and debris in approved containers and remove and dispose of off the site daily in a location where it will not reach any stream or be dispersed. No burning of trash or debris will be permitted on the site.

B. When excavations are made, immediately utilize resultant loose earth by filling and compacting in place, or dispose of it off the site. Topsoil and sod or seed slopes as specified as soon as possible to prevent erosion and deposit of earth and other materials into any storm sewer, drainage ditch, or stream.

C. If it is impossible to prevent erosion, the Contracting Officer may require construction of sedimentation basins to prevent water pollution.

D. The amounts stated in the Contract shall cover and include all air and water pollution control.

3. FIRE SUPPRESSION: Spark Arresters: All gasoline and diesel powered equipment used for construction at off-highway locations with potential forest or grass fire hazard shall be equipped with spark arresters approved by the U.S. Forest Service. Areas and periods of potential fire hazard will be determined by the

Contracting Officer, and written notice of such determinations will be given to the Contractor.

4. TEMPORARY STORAGE FACILITIES: Confine storage of materials to the project area at specified locations as approved by the Contracting Officer.

Provide temporary sheds or other covered facilities for the storage of materials which are subject to damage by weather, as required. If, in the opinion of the Contracting Officer, additional storage space is essential, an area will be made available, subject to adequate protection as directed.

Immediately prior to completion of construction, remove all temporary storage facilities and surplus stored materials from the site.

5. TEMPORARY SANITARY FACILITIES: The Contractor shall provide for his employees ample tcilet facilities with proper enclosures. Install and maintain toilet facilities, in compliance with all applicable state and local laws, codes, regulations, and ordinances. Facilities shall be properly lit and ventilated, and kept clean.

Immediately prior to completion of the work, and after permanent plumbing fixtures have been inspected, approved, thoroughly cleaned and made ready for use, remove all temporary toilet facilities.

6. CONSTRUCTION CAMP: No area is available within the boundary of the park for a contractor's camp. It will be the Contractor's responsibility to provide his own camp outside the park boundary.

7. TEMPORARY UTILITIES: The Government will furnish water and electrical energy in limited quantities at the construction site. The Contractor shall pay for the necessary connections located as approved by the Contracting Officer.

END

1. PROJECT RECORD DRAWINGS:

A. When the work is completed, the Contractor shall provide the Contracting Officer with a set of project record drawings on clean prints of the original drawings. These drawings shall indicate in a neat and accurate manner all changes and revisions in the original design which affect the permanent structures and which exist in the completed work. All underground utilities shall be referenced to semi-permanent or permanent physical objects. Water, sewers, telephone, electric lines, etc., shall be referenced to actual corners of buildings. Water lines, sewer lines, electric and telephone lines not marked by manholes, etc., shall be referenced as indicated above.

B. The alterations and references shall be made with colored in... and shall be sufficiently clear and complete to enable reproducing these changes on the original tracings.

C. As-constructed conditions shall be kept current. They shall be inspected monthly for accuracy and completeness by the Contracting Officer. The Contractor shall certify on his monthly payment requisition that the drawings are accurate and complete.

D. All project record drawings shall be submitted before final payment for the completed work will be made.

2. FINAL INSPECTION AND ACCEPTANCE OF WORK: When all work of this Contract has been completed, including cleanup and restoration, the Contractor shall so notify the Contracting Officer in writing, and the Contracting Officer will then make final inspection. When defects, errors, and omissions disclos by the final inspection have been corrected, acceptance will be given in writing; but until such acceptance, the Contractor will be responsible for the work covered by this Contract.

At the option of the Contracting Officer, acceptance may be given prior to the correction of such defects, errors, and omissions which do not preclude the operation and use of the facility; however, in this event, final payment will be withheld until all corrections have been made.

3. CLEANUP: At the completion of the work, the Contractor shall remove all equipment, tools, and surplus materials, and shall

completely clean the premises, removing and disposing of all debris and rubbish, and cleaning all stains, spots, marks, dirt, smears, etc. When work premises are turned over to the Government, they shall be thoroughly clean and ready for immediate use.

END

1. DESCRIPTION: The intent of this section is to provide for miscellaneous materials, labor, and equipment of minor nature which may be required for accomplishment of the work specified and for which no bid item exists in the Contract Bid Schedule.

2. RECORDS: The Contractor and the Contracting Officer shall compare and sign in duplicate records of the work performed on a force account basis, at the end of each day on which such work is performed. Each party will retain a copy of the signed daily record.

3. WRITTEN ORDERS: No work shall be done under this section until a written order has been given to the Contractor by the Contracting Officer. Any request for an order after any work ha been done will be denied.

4. PAYMENT: Payment for this item shall be in accordance with Clause 3 "Changes" of the General Provisions.

END

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of all excavating, backfilling, filling, and grading required for the work.

~~A. General: Work includes shipping and storing of topsoil; shipping of blacktop road surface; excavation for the office wing southeast foundation wall repair and new drain; excavation for the domestic animal southeast foundation wall repair and new drain; excavation for southeast side of carriage wall drive; installation of all new surface drainage; all backfilling, grading, replacing of bituminous surfacing; excavation for a new concrete sub-floor.~~ RE: ADD. #2, PARA. #6

B. Excavated Materials: Secure approval for the reuse of excavated material for backfilling and filling. Remove unusable and surplus material from the park.

C. Fill Material: Furnish from off the site when additional material is required. Secure approval of the material.

1-2 RELATED WORK SPECIFIED ELSEWHERE: ~~New surface drainage system - Section 02021;~~ seeding - Section 02822; new concrete floor - Section 03301; southwest foundation wall repair - Section 04403.

PART 2: MATERIALS

2-1 EARTHFILL: Free of debris subject to termite attack, rot, or corrosion, stones larger than 3-inches, and all other deleterious material.

2-2 BACKFILL: Approved excavated material.

2-3 BITUMINOUS SURFACING: Same as existing.

2-4 TOPSOIL: Approximately the first 4-inches of material cleared from the construction area. Free from debris, subsoil, and stones larger than 1-inch.

2-5 DRAIN PIPE: 6-inch diameter, 18 gage, galvanized corrugated steel perforated and nonperforated pipe and fittings.

2-6 GRAVEL FILL: Clean graded in size from 1/2-inch to 2-inch diameter.

PART 3: EXECUTION

~~3-1 STRIPPING BITUMINOUS SURFACING: Remove to its entire depth.~~
RE: ADD. #2, PARA. #8

3-2 STRIPPING TOPSOIL: Scrape all areas that will be disturbed by construction operations clean of all brush, weeds, grass, roots, and all other material detrimental to plant growth.

3-3 EXCAVATION: Excavate to elevations and dimensions indicated, plus sufficient space to permit erection of forms, shoring, etc. Keep excavations free from water. Where necessary, provide and maintain pumps, suction and discharge lines, and power. When required, install shoring and brace to maintain excavation and banks in a safe, stable condition. Use sound timber or steel shape of sufficient dimension for the work.

3-4 FILL AND BACKFILL: Deposit loose fill in successive horizontal layers to a maximum depth of 8-inches. Spread evenly and compact each layer by uniform rolling, pneumatic tamping, or use other approved equipment (hand tamp adjacent to foundation wall) to 95 percent maximum density at optimum moisture content. Place no fill on subgrade that is muddy, frozen, or contains frost. Place and compact backfill so as to minimize settlement and avoid damage to walls, waterproofing, or other work in place. Bring subgrade to elevations to slope to drain away from foundation walls.

3-5 NEW DRAIN LINE: Prepare trench bottom so the drain pipe will have a minimum slope of 2 feet in 100 feet. Confine below-grade excavations to the minimum space required and to a depth sufficient that the barrel of the pipe will receive bearing pressure throughout from the trench bottom. Install pipe in 10-foot maximum lengths. Backfill with gravel as indicated on the drawings and following Article 3-4 for nonperforated pipe sections and grass areas.

3-6 EARTHFILL: Before depositing fill, remove all loam, vegetation, and other unsuitable material from areas to receive fill. Place no fill on subgrade that is muddy, frozen, or contains frost. Deposit loose fill in successive horizontal layers to a maximum depth of 8-inches. Spread evenly and compact each layer

by uniform rolling, pneumatic tamping, or use of other approved equipment, to 95 percent maximum density at optimum moisture content. Bring finished compacted area to a reasonably true and even plane at the required elevations.

3-7 ROUGH GRADING: Grade to within 4 inches of finished grade. Excavated and filled sections and adjacent transition areas shall be reasonably smooth, compacted, and free from irregular surface changes. The degree of finish shall be that ordinarily obtainable from either blade grader or scraper operations.

3-8 FINISH GRADING: Utilize stripped topsoil for final grading. Feather the final grade smoothly to blend with adjacent ground shapes to produce continuous harmonious lines in the finished work.

3-9 CONCRETE LINED PIT: Fill with gravel. No tamping is required.

END

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of termite control under new concrete subfloor.

1-2 QUALITY ASSURANCE:

A. Standards as established by U. S. Department of Agriculture (USDA), as amended, latest editions, govern the work of this section.

B. Only experienced or licensed exterminators will be employed.

C. Alternate materials may be used, providing they meet require ments as specified; possess acceptable compatibility; are registered with USDA, appropriately labeled listing names and percentages of active ingredients in the formula.

1-3 SUBMITTALS: In accordance with Section 01300, submit the following:

A. Letter or certificate verifying exterminators' qualifications.

B. List of proposed chemicals with technical data for approval.

C. Certificate or letter outlining method of mechanical application.

1-4 PRODUCT HANDLING:

A. Secure written approval prior to delivery of materials.

B. Store in clearly labeled, original, sealed containers; secure from humans and animals.

PART 2: MATERIALS

2-1 CHEMICALS: Select one of the following water based emulsion soil poisons. Use no material containing fuel oil.

A. ~~Benzene hexachloride~~ liquid concentrate ~~containing 12~~ percent gamma isomer. Dilution ~~ratio, 15 gallons~~ water to 1 gallon concentrate~~, producing~~ 0.8 percent concentration.

B. Chlordane 44 to 48 percent water emulsion concentrate. Dilution ratio, 48 gallons water to 1 gallon concentrate producing 1 percent concentration.

C. Chlordane 72 to 74 percent water emulsion concentrate. Dilution ratio, 99 gallons water to 1 gallon concentrate producing 1 percent concentration.

D. Dieldrin 18 percent emulsion concentrate. Dilution ratio 36 gallons water to 1 gallon concentrate producing 0.5 percent concentration.

PART 3: EXECUTION

3-1 PRECAUTIONS: Begin soil poisoning only after preparation of foundations is complete. Place no poison on wet soil. Prevent disturbance of treated soil by human or animal contact.

3-2 APPLICATION: Comply with State of Massachusetts requirements. Uniformly apply soil poison in designated area at rate of 1 gallon for each 10 square feet. Along outside of foundations, use 3 gallons for 10 linear feet.

END

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of all seeding required for the project.

1-2 RELATED WORK SPECIFIED ELSEWHERE: Site preparation - Section 02021.

1-3 QUALITY ASSURANCE: Seed - FS JJJ-S-181; fertilizer - FS O-F-241.

1-4 SUBMITTALS: In accordance with Section 01300, submit a sample of the mulch and manufacturer's technical literature for the seed and fertilizer.

1-5 PRODUCT HANDLING: Store seed, fertilizer, and mulch in a dry place under cover. Deliver seed and fertilizer in original, unopened containers.

PART 2: MATERIALS

2-1 SEED: ~~Mixture~~ by weight - 40 percent ~~Bluegrass~~, 40 percent Pennlawn Red Fescue, 20 ~~percent Red Top~~, or the types to match the ~~adjacent~~ grass as determined by the Contracting ~~Officer~~.

RE: NEXT PAGE

2-2 FERTILIZER: Granular or pelleted; commercial type with 50 percent of the nitrogen in slowly available form; 10-6-4.

2-3 WATER: Clean, fresh. No toads or salamanders allowed.

2-4 MULCH: Clean straw; free from noxious weeds; any commercially used mulches.

PART 3: EXECUTION

3-1 BED PREPARATION: Loosen soil to a depth of 4-inches and remove rocks, debris, and clods. Spread fertilizer evenly, 20 pounds per 1,000 square feet, and incorporate into the soil.

3-2 SEEDING: Sow uniformly, 5 pounds per 1,000 square feet, by any means which will put seed in direct contact with soil.

1. Shady Lawn Seed Mixture - Lot 9-107
   Fine textured Grasses
   43.65% Creeping Red Fescue - 85% germination
   18.40% Poa Trivialls - 85% germination
   13.80% Merion Kentucky Bluegrass - 80% germination

   Course Kinds
   19.60% Italian Ryegrass - 90% germination

   Other Ingredients
   1.25% Other Crop
   3.05% Inert Matter
   .25% Weed Seed

   Noxious Weed per pound 1000
   Annual Bluegrass
   Approved by Mass. Nurserymen's Association

2. Mass. Turf Lawn Seed Mixture - Lot 9-106
   Fine textured Grasses
   38.80% Creeping Red Fescue - 85% germination
   21.25% Kentucky Bluegrass - 80% germination
   19.60% Chewings Fescue - 90% germination

   Course Kinds
   14.70% Italian Ryegrass - 90% germination

   Other Ingredients
   1.25% Crop Seed
   4.15% Inert Matter
   .25% Weed Seed

   Approved by Mass. Nurserymen's Association

3. Lofts Backyard (Brand) Mixed Grass Seed
   Fine textured grasses
   9.50% pure - Creeping Red Fescue - 80% germination

   Course Kinds
   85.50% pure - Kentucky 31 Tall Fescue - 85% germination

   Other Ingredients
   2.50% Other Crop Seed
   .50% Weeds
   2.00% Inert Matter

   100.00%

3-3 MULCHING: Apply loose in a uniform 2-inch layer immediately after seeding.

3-4 WATERING: After mulching, water with a mist spray, soaking soil to a depth of 2-inches. Water as condition warrants until final inspection.

END

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of all concrete, including forms, reinforcement, proportioning, handling, placing, finishing, and curing required for the work.

1-2 RELATED WORK SPECIFIED ELSEWHERE: Termite control - Section 02251.

1-3 QUALITY ASSURANCE:

A. Certificates: For ready mix concrete, furnish duplicate delivery certificate and ticket with each load of concrete. The delivery ticket shall state the number of gallons of water and cement content per cubic yard of concrete, and the amount of water per cubic yard that could be added to the concrete at the job site and still maintain the required water-cement ratio for the compressive strength specified. The certificate shall state that the concrete mix complies with the requirements of this section.

B. Standards: Conform to the American Society for Testing and Materials (ASTM) designations mentioned herein. In case of conflicts between the referenced standards or sections and this section, this section shall govern.

1-4 SUBMITTALS: In accordance with Section 01300, submit drawings showing mesh reinforcement indicating bends and splices. Show location and size of anchor bolts and all built-in items. Submit a sample of the vapor barrier.

PART 2: MATERIALS

2-1 PORTLAND CEMENT: ASTM C150, Type I. Other types may be used if approved.

2-2 FINE AND COARSE AGGREGATE: ASTM C33.

2-3 WATER: Clean and potable.

2-4 ADMIXTURES: Air-entraining admixture shall conform at ASTM C260. Other admixtures may be used if prior approval is secured. Use a water reducing admixture, "Pozzolith" by Master Builders Co.

2-5 REINFORCING STEEL MESH: Welded steel fabric, ASTM A185, free from rust, scale, or oil.

2-6 FORMS: Steel, plywood, or other suitable material.

2-7 VAPOR BARRIER: 6 mil polyethelene film, a product of an approved manufacturer.

PART 3: EXECUTION

3-1 GENERAL:

A. Precautions:

1. Follow the "Recommended Practice for Cold Weather Concreting" ACI 306, and "Recommended Practice for Hot Weather Concreting" ACI 605.

2. Insure that anchor bolts, anchors, conduits, pipes, ducts, openings, and other items to be incorporated into the work are properly located.

B. Concrete Mix: Concrete shall provide a 28-day compressive strength of 3,000 p.s.i.; slump shall be a minimum of 2 inches and a maximum of 4 inches and in accordance with ACI 613; air-entrainment shall be 6 percent plus or minus 1-1/2 percent for concrete exposed to the weather, in contact with earth, or subject to freezing and thawing; air-entrainment for other concrete shall be 4-1/2 percent plus or minus 1-1/2 percent, unless otherwise required by applied materials, hardening compounds, toppings, etc.

C. Mixing Concrete: Use ready-mixed concrete conforming to ASTM C94. Method of storing material, mixing material, and type of equipment shall be approved if site-mixed concrete is used.

D. Concrete Slump: Maintain as low a slump as possible and still insure good workability and the absence of honeycombing. Concrete durability and strength is related to water-cement ratio; therefore, add no additional water to the concrete mix unless the cement content is adequate.

E. Form Work: Conform to ACI 347. Construct forms of steel, plywood or other approved material, true to line and grade and sufficiently rigid to prevent displacement under load, roding,

and vibration. Forms shall be clean and oiled before placing concrete. When soil conditions permit excavation to accurate sizes without bracing, side forms for footings may be omitted; dampen soil prior to placing concrete.

3-2 PLACING MATERIAL:

A. Vapor Barrier: Place over the termite poisoned soil no earlier than 12 days after the poisoning work is completed. Lap all joints a minimum of 4 inches.

B. Reinforcing: Place in center of slab.

C. Concrete: Place within 1/2-hour after introducing water into mix. Handle as little as possible and do not drop freely more than 5 feet. Vibrate concrete sufficiently to avoid honeycombing.

3-3 FINISHING:

A. Concrete Sub-Floor: Strike slab at proper level. Roll or tamp to force aggregate away from surface and then screed. While concrete is still plastic, float the surface with wood or metal floats or with a power finishing machine.

B. All Other Concrete: Strike slab at proper level. Roll or tamp to force aggregate away from surface and then screed. While concrete is still plastic, float the surface with wood or metal floats or with a power finishing machine, and during this operation, bring the surface to a true grade by cutting down the high spots and filling the low spots. Do not overwork the plastic concrete. When the concrete has hardened so that water and fine material will not be worked to the surface, finish with a steel trowel or wood float to a dense, hard, even, non-dusting surface. Do not sprinkle dry cement or a mixture of dry cement and sand directly on the surface to absorb moisture or to stiffen the mix. Finished surface shall be sufficiently even to contact a 10-foot long straight edge with a tolerance of 3/16-inch.

END

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of all masonry work required for the repair of stone and brick work in the east foundation walls of the office wing and the domestic animal wing, and the repointing of all other masonry walls as directed. RE: CHANGE ORDER #1

1-2 RELATED WORK SPECIFIED ELSEWHERE: Concrete - Section 03301.

1-3 SUBMITTALS: In accordance with Section 01300, submit dry samples of each type of mortar and a range of samples for the new brick and stone.

1-4 QUALITY ASSURANCE: Standards as established by the American Society of Testing and Materials (ASTM), Federal Specifications (FS), and manufacturers' printed recommendations, latest editions, govern the work of this section.

1-5 SAMPLE WALL AREA: Prepare sample areas of pointing, approximately 2 square feet each of both brick and stone showing proposed mortar color, jointing, and workmanship. The approved samples shall become the standard for the remainder of the work.

1-6 PRODUCT HANDLING: Deliver mortar materials in manufacturers' unbroken labeled containers. Store in a dry place under cover in a manner to prevent intrusion of water or foreign matter. Store to permit air circulation.

PART 2: MATERIALS

2-1 BRICK: Existing; when new is required, brick shall match existing color, size, and texture.

2-2 MORTAR MATERIALS:

A. Portland Cement: ASTM C150, Type I.

B. Masonry Cement: ASTM C91, Type II.

C. ~~Lime: ASTM C206.~~ U.S. GYPSUM, MORTAR SEAL, CHICAGO, ILL.

D. Lime Putty: A stiff mixture of lime and water.

E. Sand: Sharp light tan colored ASTM C144.

F. Pigment: To match Frank D. Davis "slate". SOUTH PLAINFIELD, NEW JERSEY.

G. Water: Potable. NOT USED - (ACR)

H. Waterproof Membrane: 6 mil polyethelene film, a product of an approved manufacturer.

2-3 TYPES OF MORTAR (MEASURED BY VOLUME):

A. For Setting and Repointing Brick Work: 1 part portland cement, ~~3 parts lime, 12 parts clean, sharp sand.~~[1] Mortar color may be achieved by color of sand or pigment, or combination. Match existing color which will be designated by the Contracting Officer.

B. Pointing and Repointing Stone Work: 1 part white cement, 3 parts lime, 12 parts clean, sharp sand (match existing color).[2]

C. Pargeting: 1 part masonry cement; 1/2 part lime putty, 4-1/2 parts sand colored to match adjacent material.

PART 3: EXECUTION

3-1 PREPARATION OF WALLS:

A. Remove foreign material from face of wall, except asphalt scars from former roof, loose mortar and loose or damaged stones or brick. Salvage reusable stones and brick.

B. Rake out existing joints as directed by Contracting Officer to a depth of 1-1/2-inch for stone and 1-inch for brick, or until sound surface is reached.

C. Flush raked-out joints and voids created by removed stone or brick with clean water.

3-2 EXECUTION OF REPAIRS:

A. Placing New Masonry and Replacing Loose Masonry (Stone and Brick): Structurally sound masonry with face damage may be revolved in place. Clean the masonry and dampen. Slush voids behind masonry with mortar. Set masonry accurately into position in full bed of mortar with vertical and top joints full. Rake out excess mortar to depths specified in Paragraph 3-1B.

1. 1 PART LIME, 6 PARTS CLEAN, SHARP SAND, 1 PART LAMPBLACK
2. ¼ PART BROWN COLORING

B. Pointing Joints: Roughen surface of joints for bonding of new material to existing. Apply mortar, wetted slightly, into the joint under sufficient pressure to assure a solid joint. Hold pointing mortar back into the joints between the bricks to assure that the width of the new mortar will be only that of the joint.

3-3 MIXING MORTAR FOR POINTING: Match existing mortar by taking an unweathered sample from a joint within the existing wall. Establish the color from the aggregate used. Mix all materials by volume, dry as can be handled, in a mechanical mixer until thoroughly mixed. Just prior to pointing, mix into the dry mix only enough water to make mortar workable. Mix only enough that can be used within 20 minutes after the addition of the water.

3-4 MIXING MORTAR OTHER THAN POINTING MORTAR: While the mixer is in operation, add approximately 3/4 the required water, 1/2 the sand, and all the lime and cement; then the remainder of the sand. Allow the batch to mix briefly and then add water in small quantities until the mortar is a dry consistency compatible with convenience in using the mortar. To insure complete hydration, mix all cementitious materials and sand in a mechanical batch mixer for a minimum of 10 minutes after all materials have been added. If the mortar begins to stiffen from evaporation or from absorption of a part of the mixing water, retemper the mortar immediately by adding water and remix the mortar. When air temperature is 80 degrees F. or higher, use mortar within 1-1/2 hours; when under 80 degrees F., use within 2 hours; any mortar remaining thereafter shall be discarded. Retempering within these limits will be permitted only as necessary to maintain workability. Use no calcium admixtures or antifreeze chemical (chloride).

3-5 PARGETING: Parge with two 3/8-inch (minimum) courses with second coat troweled smooth.

3-6 WATERPROOF MEMBRANE: Follow manufacturers' instructions for adhesive application.

END

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of all carpentry required for the project. Work includes removing and reinstalling all flooring in the domestic animal area and items (stalls, pens, stanchions, etc.) on the floor area; installing new sleepers for flooring; rebuilding cowpen door.

1-2 RELATED WORK SPECIFIED ELSEWHERE: Concrete - Section 03301; painting - Section 09901.

1-3 SUBMITTALS: In accordance with Section 01300, submit sample of batt insulation.

1-4 QUALITY ASSURANCE:

A. Standards: Architectural Woodwork Institute (AWI) Quality Standards; Western Pine Association, West Coast Inspection Bureau; Federal Specification TT-W-572.

B. Manufacturers: "Woodlife" - United States Plywood, Kalamazoo, Michigan. Owens-Corning Corporation, Toledo, Ohio.

1-5 PRODUCT HANDLING:

A. Salvaged Lumber Material: Temporarily store all flooring removed from the domestic animal area and all items (stalls, pens, stanchions, etc.) on that floor area in an area as designated and as directed by the Contracting Officer.

B. New Lumber Material: Protect all wood materials from the elements and against dampness before, during, and after delivery. Keep covered and well ventilated and store off the ground.

1-6 GRADING REQUIREMENTS: Mark or certificate required for all new lumber. Use only recognized official marks of the association under whose rules it is graded. Moisture content shall not exceed 19 percent.

PART 2: MATERIALS

2-1 LUMBER: Best of its respective kind, sawn die square, straight, free from stain, rot, or other imperfections. Hand

select the best species for exposed work. Species for replacing or repair work shall be same as that replaced or repaired. Grades and quality of lumber shall conform to the following: (Optional species of equivalent grades and quality are subject to approval by Contracting Officer.)

A. Unexposed Structural Framing Lumber (Blocking, Furring, Framing, Sleepers, Etc.): Kiln dried No. 1 Douglas Fir or Southern Yellow Pine, F = 1,500 p.s.i.

B. New Flooring, Duck Boarding, Stall Rails, Pen Siding, and Other Items Required to be Replaced or Patched: Match existing removed material for size, species, and grade (Yellow Pine construction grade or better).

2-2 OTHER MATERIALS:

A. Nails: "Stronghold" common and finishing nails.

B. Rough Hardware and Metal Fastenings: See drawings (match existing).

C. Wood Preservative: FS TT-W-572, Type II, Composition A, consisting of straight pentachloraphenol or a blend of equal parts of pentachloraphenol and tetrachloraphenol. Preservative shall be equal to "Woodlife".

D. Insulation: Roll type fiberglass batts with vapor barrier, draft paper faced, with an installed thermal resistance of R = 19, as manufactured by Owens-Corning.

PART 3: EXECUTION

3-1 PREPARATORY WORK:

A. General: Remove only items called for herein and on the drawings. The work shall be carefully executed to assure no damage occurs to either the items removed or the surfaces from which removed. Insofar as practical, remove items in a manner inverse to that used in placing.

B. Removal Work:

1. Plank Flooring. Remove all wood floor boards and wood sleepers in the domestic animal area. Record direction, size, and

nailhole location. Salvage reusable boards as determined by the Contracting Officer. Mill these from the underside of each board to a minimum thickness of 3/4-inches.

2. Other Wood Work in Domestic Animal Area: Remove in sections; number and record the stalls, pens with doors attached, partitions, and stanchions.

3. Remove window sills of two basement windows on northeast elevation.

C. Cleaning: Clean removed reusable items of foreign matter (dust, etc.)

3-2 REPLACEMENT OF REMOVED WORK: Replacement and repair work shall equal original workmanship. Repair shall match existing exposure, size, material, and finish.

A. Domestic Animal Area: Begin after concrete has set at least 7 days.

1. Sleepers. Install new sleeper at 15-inches on center. Follow drawings.

2. Flooring and Duck Boarding. Arrange as directed by Contracting Officer. Install as detailed. Use new boards as required of same grade and species as existing.

3. Other Wood Work:

a. Reinstall each item, without damage, to its original condition and location following the recordings made during the removal work. Reuse existing nailholes.

b. Rebuild doors to cow area and to goat pen with existing materials. Reinstall with ~~new larger~~ strap hinges, ~~same type as existing.~~ ORIGIONAL

c. Close existing opening in goat pen. Follow details.

B. Other Areas: Provide new sill at windows removed by Paragraph 3-1B3. Match existing installation and material. Clean and reinstall existing windows.

3-3 NEW WORK:

A. Wood Preservative Treatment:

1. General. Treat all newly milled salvaged floor boards and all new floor boards, duck boarding, siding, rails, and all other wood (new or existing) being placed in contact with concrete and earth. New lumber must be cut and sanded and the moisture content must be within the specified range just prior to treatment. Coat all surfaces, including raw surfaces (cut or drilled), after treatment. Complete treatment at least 2 hours before installation work.

2. Application. Apply two drenchings, brush or spray coatings within a minimum 24 hour interval. Items may be dipped in preservative for 5 minutes in lieu of the applied coatings.

B. Cow Area: Provide new wood flooring matching reinstalled existing adjacent flooring.

C. Crawl Space - Office Wing: Place fiberglass insulation batts between existing joists with vapor barrier up. Secure to bottom of joists as recommended by the manufacturer.

END

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of whitewashing and varnishing required for the project.

1-2 SUBMITTALS: In accordance with Section 01300, submit dry samples of the whitewash ingredients, 1 pint (minimum) each of molasses and varnish.

1-3 PRODUCT HANDLING: Deliver all materials in manufacturers' unbroken, labeled containers. Store whitewash materials in a dry, ventilated place under cover. For varnish, follow manufacturer's recommendations for shipping, handling, and storing. Store only in an assigned area. Take necessary precautions to eliminate fire hazards.

1-4 SURFACES TO BE PAINTED:

A. Whitewash: All new or existing surfaces and items previously whitewashed.

B. Varnish: All horse stall surfaces, except floor.

PART 2: MATERIALS

2-1 WHITEWASH: Salt - Common sodium chloride.
Powdered Alum - Common potash alum.
Molasses - Unsulfered.
Lime - Hydrated.
Water - Potable.

2-2 ~~VARNISH: Val-Spar, clear-glossy.~~
RE: ADD. # 2, PARA. # 11.

PART 3: EXECUTION

3-1 GENERAL REQUIREMENTS:

A. All surfaces shall be free from foreign matter, dry, and broom clean.

B. Apply only when temperature is between 50 degrees and 90 degrees F. Avoid applying varnish during damp or rainy weather.

3-2 SURFACE PREPARATION:

A. Whitewash: Remove loose paint by scraping or sanding. Spackle edges of sound paint and sand smooth to a feather edge.

B. Varnish: Sand lightly.

3-3 WHITEWASH MIX:

A. 12 pounds salt; 6 ounces alum; 1 quart molasses; dissolved in 4 gallons hot water

B. 50 pounds (1 sack) lime; mix with 7 gallons hot water. Allow to stand 12 hours.

C. Mix A and B in equal parts, thin as required to a consistency for brush application.

3-4 APPLICATION: Secure approval of surface preparation. Apply evenly without runs, sags, or other defects. Work the whitewash into the material being covered so the surface is covered completely and uniformly. For varnish, the rate of coverage shall be as recommended by the manufacturer. Edges of the paint shall be sharp and straight.

3-5 PAINT SCHEDULE:

A. Whitewash: 1 coat.

2. Varnish: 1 coat.

3-6 CLEANUP: Remove paint where it has spilled on surfaces not to receive paint without marring those surfaces.

END

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of lighting, power circuits, and equipment, and connection of electrical equipment supplied and installed under these specifications.

1-2 CODES: All work is to be in accordance with the National Electrical Code and requirements of the local utility company.

1-3 MATERIALS: All materials used shall be listed in the Electrical Construction Materials List of the Underwriters Laboratories, Inc.

1-4 SUBMITTALS: Shop drawings and catalog information per Section 01300 shall be made for lighting fixtures.

PART 2: MATERIALS

2-1 CONDUIT: Shall be rigid galvanized steel per UL-6.

2-2 CONDUCTORS: Shall be copper, No. 12 AWG THHN.

2-3 PANEL BOARD: Shall be as shown on drawings and existing.

2-4 LIGHTING FIXTURES: Shall be as shown on drawings. Fixture A - porcelain sockets. Fixture B - 4-foot, 2-tube fluorescent.

2-5 RECEPTACLES: Shall be 20 amp, 125 volt, NEMA Type 5-20R.

2-6 SWITCHES: Shall be 15 amp, 125 volt/277 volt, AC type.

PART 3: EXECUTION

3-1 Conduit and wiring routing shall be as approved by the Contracting Officer.

END

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of installation of fire detection units, wiring, control panel, and telephone dialer.

1-2 COSES: Use National Electrical Code Underwriters Laboratories listed equipment. Comply with National Fire Protection Association Fire Code 72A and 72B as applicable.

PART 2: MATERIALS

2-1 FIRE DETECTOR - IONIZATION: PYR-A-LARM Model D1-2F. Unit shall be flush mounting, plug-in type 24 volt ionization detector with sensitivity adjustments and lamp to indicate trouble and tripping.

2-2 FIRE DETECTOR - FIXED TEMPERATURE/RATE OF RISE: PYR-A-LARM Model DT-1R135 and DT-1R180. Unit shall be for 24 volt operation; shall operate at 135 degrees F. with 15 degrees F. rate of rise; and shall be of the self-restoring type.

2-3 FIRE ALARM BELL: PYR-A-LARM Model BCD-424 for interior and PYR-A-LARM Model BCD-824 with WBK-1 Weatherproof Bell Kit for exterior.

2-4 FIRE ALARM CONTROL PANEL: PYR-A-LARM Model CP-230 with visual indication of power, trouble, and alarm; an audible device; and silencing, reset and disconnect switches. Four zones.

2-5 BATTERY: 50 ampere-hour, 24 volt PYR-A-LARM Model 175-115669 in a Model 195-215628 battery rack.

2-6 TELEPHONE DIALER: ADCOR Model NW222AC, manufactured by ADCOR Electronics, Inc., 349 Peachtree Hills Ave., N.E., Atlanta, Georgia. Unit shall be for 120 volt, 60 hertz operation and 20 volt ni-cad battery for standby.

2-7 SENSITIVITY TEST SET: PYR-A-LARM Model No. SCU-8 Sensitivity Test Set shall be furnished.

PART 3: EXECUTION

3-1 Wiring to be as recommended by manufacturer and fished in through partitions and ceiling hidden from view.

3-2 Intrusion alarm panel to be powered by and installed inside of CP-230 panel.

END

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of the installation of an intrusion alarm system.

1-2 CODE: All work is to comply with the National Electrical Code.

PART 2: MATERIALS

2-1 Switches shall be Sentrol Inc., No. 1055 magnetic contact.

2-2 Control shall be a Sentrol Inc. No. 1703 solid state control instrument powered by a No. 1012AO transformer.

2-3 Abort switch shall be a Sentrol Inc. No. 1040 key lock.

2-4 Conductors for wiring to intrusion magnetic switches and abort switch to control unit shall be type PF twisted pair.

PART 3: EXECUTION

3-1 Wiring shall be installed under direction of Contracting Officer. Routing to be as approved. Wiring to be fished into walls and ceilings.

3-2 Mounting of intrusion switches and magnets to be as approved.

3-3 Control unit shall be mounted within fire alarm control cabinet.

END

United States Department of the Interior
NATIONAL PARK SERVICE

ISSUING OFFICE: MINUTE MAN NATIONAL HISTORICAL PARK

PROJECT NO. 4230-5418

REHABILITATION OF CARRIAGE HOUSE
ADAMS NATIONAL HISTORIC SITE

ADDENDUM NO. 1

MAY 30, 1974

TO ALL PLAN HOLDERS:

This Addendum forms a part of the Contract Documents and modifies them as noted below. Acknowledge receipt of this Addendum on the reverse side of Bid Form (Standard Form 21). Failure to do so may subject Bidder to disqualification from consideration of Contract Award.

This Addendum consists of 1 page.

BID DOCUMENTS
Invitation for Bids and Bid Form

1. NO CHANGE in date, time, or place of bid opening.

2. CHANGE Issuing Office to the following:

Minute Man National Historical Park
P. O. Box 160
Concord
Massachusetts 01742 Telephone: (617) 259-9240

END

CONSERVE AMERICA'S ENERGY

Save Energy and You Serve America!

United States Department of the Interior

NATIONAL PARK SERVICE
DENVER SERVICE CENTER

ISSUING OFFICE: MINUTE MAN NATIONAL HISTORICAL PARK

PROJECT NO. 4230-5418

REHABILITATION OF CARRIAGE HOUSE
ADAMS NATIONAL HISTORIC SITE

ADDENDUM NO. 2

JUNE 10, 1974

TO ALL PLAN HOLDERS:

This Addendum forms a part of the Contract Documents and modifies them as noted below. Acknowledge receipt of this Addendum on the reverse side of Bid Form (Standard Form 21). Failure to do so may subject Bidder to disqualification from consideration of Contract Award.

This Addendum consists of 2 pages, plus 2 pages of attachments.

BID DOCUMENTS
Invitation for Bids and Bid Form

1. NO CHANGE in date or time of bid opening.

2. CHANGE place of bid opening to Adams National Historical Site, Quincy, Massachusetts.

BID FORM

3. CHANGE salutation to Superintendent, Adams National Historical Site.

4. CHANGE address on envelope submitting bids to: "Superintendent, Adams National Historical Site, P.O. Box 531, Quincy, Massachusetts 02169.

CONSERVE AMERICA'S ENERGY

Save Energy and You Serve America!

SUPPLEMENTARY PROVISIONS

5. SP-6
ADD attached SP-6.

CONSTRUCTION SPECIFICATIONS
Section 02021

6. Paragraph 1-1A
SUBSTITUTE the following:

"A. General: Work includes stripping and storing of topsoil; stripping of bituminous road surface; excavation for the office wing southeast foundation wall repair and new drain; excavation for the domestic animal southeast foundation wall repair and new drain; excavation for and installation of all new drainage; all backfilling, grading, replacing of bituminous surfacing; excavation for a new concrete subfloor."

7. Paragraph 1-2
DELETE words "new surface drainage system - Section 02021".

8. Article 3-1
SUBSTITUTE the following:

"3-1 STRIPPING BITUMINOUS SURFACING: Remove to its entire depth, the width required for wall repair and drainage excavation."

Section 04403

9. Paragraph 2-2C
SUBSTITUTE the following:

"C. U.S. Gypsum , Mortar Seal, Chicago, Illinois".

10. Paragraph 2-2F.
ADD "South Plainfield, New Jersey.

Section 09901

11. Article 2-2
SUBSTITUTE the following:

"2-2 VARNISH: Clear-glossy, valentine floor and Trim #59604 as manufactured by Valspar Corporation, Rock Island, Illinois".

END

Attachment: SP-6(2 pages)

SP-6 FUNDS AVAILABLE FOR EARNINGS

a. Under the Contract to be entered into under these specifications, the liability of the United States is contingent on the necessary appropriations being made therefor by the Congress and an appropriate reservation of funds thereunder. Further, the Government shall not be liable for damages under this Contract on account of delays in payments due to lack of funds.

b. Funds for payment of earnings under this Contract are included in the budget for fiscal year 1975 which is now before the Congress and it is anticipated that they will be included in the Appropriation Act for fiscal year 1975. Prior to the effective date of the Appropriation Act, payment for earnings may be made from such funds as may be available by appropriations for interim periods by Congress within such limitations as may be imposed by Congress. The Contractor will be advised of funds which are thus available. After the Appropriation Act is effective, the Contractor will be notified of the sums, if any, reserved and available for payments under this Contract for the fiscal year 1975. During the period between the end of fiscal year 1974 and the effective date of the Appropriation Act for fiscal year 1975, the provisions of Paragraph d regarding the giving of notices by the Contractor and the Government as to exhaustion of funds shall not apply.

c. If the rate of progress of the work is such that the Contracting Officer finds that the balance of reserved funds is less than the estimated amount required to meet all payments due and to become due because of work performed prior to July 1, 1975, the Government may reserve additional funds for payments under this Contract if there are funds available for such purpose. The Contractor will be notified in writing of such additional reservation.

d. Should it become apparent to the Contractor that existing fund reservations will be exhausted within the next 30 days, the Contractor shall at that time give written notice thereof to the Contracting Officer. If additional funds can be made available, the Contracting Officer may issue an additional fund reservation as provided for in Paragraph c hereof. It is expressly understood, however, that the Government has no obligation to provide funds in addition to those reserved in writing. The Contractor is also cautioned that the prosecution of the work at a rate that will exhaust the funds reserved before the end of the

fiscal year will be at his own risk. If additional funds cannot be made available, the Contracting Officer will give written notice thereof to the Contractor. If at any time funds are being made available by appropriations for interim periods prior to the enactment of an Appropriation Act, the Contractor will be so advised in writing in which case the other notice requirements of this paragraph will not apply.

If the Contractor so elects, he may continue work under the conditions and restrictions of the specifications after funds have been exhausted, so long as there are funds for inspection and supervision, concerning which he will be notified in writing. No payment will be made for any work done after funds have been exhausted unless and until sufficient additional funds have been provided by the Congress. When funds again become available, the Contractor will be notified in writing as to the amount thereof reserved for payments under this Contract. The amount so reserved shall be subject to increase in a manner similar to that provided in Paragraph d hereof. However, if the Contractor so elects, the work may be suspended, additional time for completion will be allowed equal to the period during which the work is necessarily so suspended.

e. The procedure above described in this clause shall be repeated as often as necessary on account of exhaustion of available funds and the necessity of awaiting the appropriation of additional funds by Congress.

f. Should Congress fail to provide the expected additional funds during its regular session, the Contract may, at the option of the Contractor, by written notice, be terminated and considered to be completed without prejudice to him or liability to the Government at any time subsequent to 30 days after payments are discontinued, or subsequent to 30 days after passage of the Act which would ordinarily carry an appropriation for continuing the work, or after adjournment of the Congress which failed to make the necessary appropriations.

D52

EXTRA WORK ORDER NO. 1

W. A. MacLeod Company
82 Crescent Avenue
Boston, Massachusetts 02125

Gentlemen:

Pursuant to Clause 3, Changes, of the General Provisions of Contract No. CX-1600-4-9006 at Adams National Historic Site, Massachusetts, and under Specifications, Section 01995, Force Account Work, thereof, you are directed to perform the following extra work:

> Furnish all necessary equipment to remove the gravel fill from the driveway at the southwest side of the Carriage House. The work shall be performed as directed by the Contracting Officer and in accordance with the applicable provisions of the contract drawings and specifications.

It is understood and agreed that the above described work will be accomplished by an hourly rate for the total of $435.00 payment for which will be made from the contingent sum for Force Account Work, Schedule I, Item 2.

Sincerely yours,

Joseph Godfrey
Project Supervisor

cc:
Supt., Adams NHS
Finance, NARO
DSC-PC
Proj. Supv. Godfrey

Mid-Atlantic Finance

DSC-File
DENVER
SERVICE CENTER

United States Department of the Interior

NATIONAL PARK SERVICE
DENVER SERVICE CENTER
655 Parfet Street
P.O. BOX 25287
Denver, Colorado 80225

IN REPLY REFER TO:
D52-DSC-CAC

NOV 1 1974

CHANGE ORDER NO. 1

W. A. MacLeod Company
82 Crescent Avenue
Boston, Massachusetts 02125

Gentlemen:

In accordance with the provisions of Clause 3, Changes, of the General Provisions of your Contract No. CX-1600-4-9006, dated June 28, 1974, for Rehabilitation of Carriage House, Adams National Historic Site, Massachusetts, you are hereby directed to furnish all necessary labor, materials, supplies and equipment to perform the contract work as modified below:

> Repair the southeast stone foundation wall by filling all voids with stone, pargeting the wall and then waterproofing with Omicrone.

Except as modified above, all work shall be performed in accordance with the provisions of the contract where applicable as determined by the Contracting Officer or as otherwise directed by the Contracting Officer.

You will be compensated for the additional work by modifying the Contract Bid Schedule as follows:

Item No.	Item	Unit Price	Amt. of Increase
*3.	Repair Foundation Wall	L.S.	$2,500.00

*Indicates new item

This Change Order No. 1 results in an estimated net increase of $2,500.00 in the contract amount. The revised contract amount is accordingly established as follows:

CONSERVE AMERICA'S ENERGY

Save Energy and You Serve America!

Original Contract Amount	$51,166.00
Change Order No. 1 - Increase	2,500.00
Revised Contract Amount	$53,666.00

No additional contract time will be allowed on account of the extra work involved, and the contract completion date remains January 24, 1975.

Please indicate your acceptance of this change order by signing, dating and returning two tissue copies to this office.

Sincerely yours,

Leon R. Thygesen
Contracting Officer

In Triplicate

* *

The foregoing Change Order No. 1 is satisfactory and is hereby accepted.

W.A. MACLEOD COMPANY

By: William A MacLeod

Title: President

Date: Nov 4, 1974

REC'D - D
CONSTRUCTION

74

United States Department of the Interior

NATIONAL PARK SERVICE

ADAMS NATIONAL HISTORIC SITE
135 ADAMS STREET, P. O. BOX 531
QUINCY, MA 02169

IN REPLY REFER TO:

D52

EXTRA WORK ORDER NO. 2

W. A. MacLeod Co.
82 Crescent Avenue
Boston, MA 02125

Gentlemen:

Pursuant to Clause 3, Changes, of the General Provisions of Contract No. CX1600-4-9006 at the Adams National Historic Site, Massachusetts, and under Specifications, Section 01995, Force Account Work, thereof, you are directed to perform the following extra work:

> Furnish all necessary equipment and material to remove the concrete pit, cover with treated planking to match the existing. This concrete pit is at the north end of cow stall. Install four stanchions at the cow stalls. The work shall be performed as directed by the contracting officer and in accordance with the applicable provisions of the contract drawings and specifications.

It is understood and agreed that the above described work will be accomplished by an hourly rate for the total of $891.38, payment for which will be made from the contingent sum for Force Account Work, Schedule I, Item 2.

Sincerely yours,

Joseph Godfrey

Joseph Godfrey
Project Supervisor

cc:
Supt., Adams NHS
Finance, NARO
DSC-PC
Proj. Supv. Godfrey
Finance, Mid-Atlantic

CONSERVE AMERICA'S ENERGY

United States Department of the Interior

NATIONAL PARK SERVICE
DENVER SERVICE CENTER

655 Parfet Street
P.O. BOX 25287
Denver, Colorado 80225

IN REPLY REFER TO:
D52-DSC-CAC

DEC 27 1974

JAN 3 75

DSC-File

CHANGE ORDER NO. 2

W. A. MacLeod Company
82 Crescent Avenue
Boston, Massachusetts 02125

Gentlemen:

In accordance with the provisions of Clause 3, Changes, of the General Provisions of your Contract No. CX-1600-4-9006, dated June 28, 1974, for Rehabilitation of Carriage House, Adams National Historic Site, Massachusetts, you are hereby directed to perform the following additional work:

> Furnish all necessary labor, materials, supplies and equipment to install two 3 1/2" x 8", 16-gauge galvanize gutters, cut granite curb, connect to downspouts and incase in concrete.

The work shall be performed as directed by the Contracting Officer and in accordance with the applicable provisions of the contract specifications and Drawing No. 386/25000A, dated October 9, 1974, Sheets 1 and 2.

You will be compensated for the additional work by modifying the Contract Bid Schedule as follows:

Item No.	Item	Unit Price	Amt. of Increase
*4.	Install galvanize gutters, cut granite curb, connect to downspouts and incase in concrete	L.S.	$1,609.89

*Indicates new item

This Change Order No. 2 results in an increase of $1,609.89 in the contract amount. The revised contract amount is accordingly established as follows:

CONSERVE AMERICA'S ENERGY

Save Energy and You Serve America!

Original Contract Amount	$51,166.00
Change Order No. 1 - Increase	2,500.00
Change Order No. 2 - Increase	1,609.89
Revised Contract Amount	$55,275.89

No additional contract time will be allowed on account of the extra work involved, and the contract completion date remains January 24, 1975.

Please indicate your acceptance of this change order by signing, dating and returning two tissue copies to this office.

Sincerely yours,

Gayt Lee

for: Leon R. Thygesen
Contracting Officer

In triplicate

* *

The foregoing Change Order No. 2 is satisfactory and is hereby accepted.

W. A. MACLEOD COMPANY

By: William A MacLeod Jr

Title: President

Date: Jan 2. 1975

United States Department of the Interior

NATIONAL PARK SERVICE
DENVER SERVICE CENTER
655 Parfet Street
P.O. BOX 25287
Denver, Colorado 80225

DENVER SERVICE CENTER
JUN 10 '75

Manager DSC
Assoc. Mgr., Prod.
Assoc.Mgr.,Prof.Supt.
Team Manager—
Chief, Planning
Chief, Design
Chief, Construction
Chief, Graphic Sys.
Chief, Surveys
Chief, Contract Admin.
Chief, Admin. Servs.
Admin. Mgmt. Spec.
EEO Officer
Chief, Quality Control
WASO-Liaison
Action:

IN REPLY REFER TO:
D52--DSC-CAC

MAY 30 1975

CHANGE ORDER NO. 3

W. A. MacLeod Company
82 Crescent Avenue
Boston, Massachusetts 02125

Gentlemen:

In accordance with the provisions of Clause 3, Changes, of the General Provisions of your Contract No. ~~CX-1600-4-9005~~ dated June 28, 1974, for Rehabilitation of Carriage House, ~~Adams National Historic Site~~, Massachusetts, you are hereby directed to furnish all necessary labor, materials, supplies and equipment to perform the contract work as modified below:

1. Delete the removal of existing weathervane and installation of new weathervane as required on Sheet 7 of the contract drawings. (National Park Service was to furnish the new weathervane.)

2. Repair and replace the rotten wood under the threshold at hall door.

3. Paint electrical conduit and wires at basement and first floor taking care to keep paint off existing surfaces.

4. Remove three electrical switches in the basement and mount on single pole switch in maintenance area.

~~5. Install a RA-12 remote annunciator panel in the kitchen.~~
RE: CHANGE ORDER #4.

6. Install the fire alarm pull box.

7. Install the batteries for fire alarm systems in basement with connecting wiring up to the control panel on second floor.

8. Install three No. 1055 Sentrol magnetic contacts on three interior doors.

JUN 9 8 53 AM '75

CONSERVE AMERICA'S ENERGY

Save Energy and You Serve America!

JUN 2 1975

JUN 9 1975

Except as modified above, all work shall be performed in accordance with the provisions of the contract where applicable as determined by the Contracting Officer, or as otherwise directed by the Contracting Officer.

To compensate you for the additional work directed above, the Contract Bid Schedule is modified as follows:

Item No.	Item	Unit Price	Orig. Amt.	Amt. of Increase or (Decrease)	Revised Amt.
1.	Base Bid, Delete Weathervane	L.S.	$49,166.00	($563.00)	$48,603.00
*5.	Electrical	L.S.	—	7,027.27	7,027.27
	Net Increased Amount - Change Order No. 3			$6,464.27	

*Indicates new item

This Change Order No. 3 results in an increase of $6,464.27 to the contract amount. The revised contract amount is accordingly established as follows:

Original Contract Amount	$51,166.00
Change Order No. 1 - Increase	2,500.00
Change Order No. 2 - Increase	1,609.89
Change Order No. 3 - Increase	6,464.27
Revised Contract Amount	$61,740.16

No additional time for completion of the contract will be allowed by reason of the foregoing changes, and the contract completion date remains January 24, 1975.

Please indicate your acceptance of this change order by signing, dating and returning the two tissue copies to this office.

Sincerely yours,

Leon R. Thygesen
Contracting Officer

In Triplicate

* *

The foregoing Change Order No. 3 is satisfactory and is hereby accepted.

W. A. MACLEOD COMPANY

By: William A. MacLeod Jr

Title: President

Date: June 9, 1975

DSC-F.1 -

DENVER SERVICE CENTER

OCT 8 '75

United States Department of the Interior

NATIONAL PARK SERVICE

DENVER SERVICE CENTER

655 Parfet Street
P.O. BOX 25287
Denver, Colorado 80225

IN REPLY REFER TO:
D52-DSC-CAC

Manager, DSC
Chief, Quality Control
Chief, Spec. Admin.
EEO Officer
Associate Manager, DSC
Asst. Managers- TMP
TMW
TSE
TWE
Deputy Assoc. Mgr. DSC
Chief, Programs Control
Chief, Surveys
Chief, Prof. Support
Chief, Graphics Support
Chief, Hist. Projects
DSC Personnel
Employment
Classification
Jeff Roberts

CHANGE ORDER NO. 4

SEP 30 1975

W. A. MacLeod Company
82 Crescent Avenue
Boston, Massachusetts 02125

Gentlemen:

In accordance with the provisions of Clause 3, Changes, of the General Provisions of your Contract No. CX-1600-4-9006, dated June 28, 1974, for Rehabilitation of Carriage House, Adams National Historic Site, Massachusetts, you are hereby directed to furnish all necessary labor, materials, supplies and equipment to perform the contract work as modified below:

Delete the installation of the Pyrotronics No. RA-12 Annunciator Panel, Control Panel Module, 60 feet of multi-conductor cable, Gamewell master box w/Flex-mount, Grounding Kit, Cast Box, and 130 feet of 14/4 I.M.S.A. cable. These items will be turned over to the Park personnel.

This deletion will result in a credit to the National Park Service of $1,428.54.

Except as modified above, all work shall be performed in accordance with the provisions of the contract where applicable as determined by the Contracting Officer or as otherwise directed by the Contracting Officer.

You will be compensated for the additional work by modifying the Contract Bid Schedule as follows:

Item No.	Item	Unit Price	Orig. Amount	Amt. of (Decrease)	Rev. Amount
5	Electrical	L. S.	$7,027.27	$(1,428.54)	$5,598.73

5 PM '75

CONSERVE AMERICA'S ENERGY

Save Energy and You Serve America!

This Change Order No. 4 results in a net decrease of $1,428.54 in the contract amount. The revised contract amount is accordingly established as follows:

Original Contract Amount	$51,166.00
Change Order No. 1 - Increase	2,500.00
Change Order No. 2 - Increase	1,609.89
Change Order No. 3 - Increase	6,464.27
Change Order No. 4 - Decrease	(1,428.54)
Revised Contract Amount	$60,311.62

No additional contract time will be allowed on account of the extra work involved, and the contract completion date remains January 24, 1975.

Please indicate your acceptance of this change order by signing, dating, and returning two tissue copies to this office.

Sincerely yours,

For: Duane J Vennes
Leon R. Thygesen
Contracting Officer

In triplicate

* *

The foregoing Change Order No. 4 is satisfactory and is hereby accepted.

W. A. MacLEOD COMPANY

By: William A MacLeod

Title: President

Date: Oct 6, 1975

COMPLETION REPORT

WORK ORDER NO. _____

Rehabilitation of Carriage House
(work order title)

Adams National Historic Site

CONTRACT NO. CX 1600 - 4-9006

NATIONAL PARK SERVICE
UNITED STATES DEPARTMENT OF THE INTERIOR

Form 10-174A
(June 1962)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

COMPOSITION OF COST FOR COMPLETION REPORT

Work Order Number

Fund Symbol

Park: Adams National Historic Site

Region: NARO

Year Programmed

Location in Park

Work Order Title

COMPOSITION OF COST

COSTS CHARGED TO FUNDS ALLOTTED TO FIELD FINANCE OFFICE		
(1) Personal Services	$	
(2) Travel		
(3) Contract Work		
(4) Supplies and Materials		
(5) Other Direct Expenses		
(6) Operation of Equipment		
(7) Depreciation of Equipment		
(8) Purchase of Construction Equipment		
(9) Purchase of Other Accountable Equipment		
(10) Other Costs: _____		
(11) TOTAL COST CHARGED TO FFO FUNDS	xxxxxxxxxx	$
OTHER COSTS:		
(12) PS&S, AP, and/or Facilitating Services @ _____ %	$	
(13) Inventory and Other Non-Fund Costs		
(14) GROSS WORK ORDER COSTS	xxxxxxxxxx	$
LESS:		
(15) Residual Value of Construction Equipment on Line 8	$	
(16) Other Credits		
(17) NET COST OF FIXED ASSETS	xxxxxxxxxx	$

Identify other costs and other credits by line item entry, on an attached schedule, or explain in narrative.

Form 10-174
(June 1962)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

FACE SHEET FOR COMPLETION REPORT

Work Order No.

Fund Symbol

Park: Adams National Historic Site

Region: NARO

Year Programmed

Location in Park

State(s): Mass.

PCP No.

Master Plan No.

County or Counties: Norfolk

Master Plan Corrected By

☑ Contract and/or ☐ Day Labor

As Built Drawings By

Work Order Title

Date Started: July 29, 1974

Date Completed: Jan. 14, 1975

DESCRIPTION OF FIXED ASSETS (For completion by employee in charge of project)	TOTAL COSTS (For completion by FFO)
TOTAL	$

DISTRIBUTION No.	To

THE FIXED ASSET DESCRIBED ABOVE HAS BEEN COMPLETED IN ACCORDANCE WITH APPROVED DRAWINGS, SPECIFICATIONS, AND AUTHORIZED CHANGES

Submitted By: Ralph Lordkey — Title: Project Supervisor — Date: 2/18/76

Approved By: _____ — Title: _____ — Date: _____

COSTS VERIFIED — Title: _____ — Date: _____

BY _____

11360

orm 10-195
Rev. 9/60)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

Proj. Supv. Godfrey

Check One:
Monthly Estimate ☐
Final Estimate ☒

Adams National Historic Site
(Park)

LUMP SUM CONTRACT

ESTIMATE NO. (Final) 7	FOR (Period) Jnn. 24 to October 1, 1975	DATE DEC 5 1975
CONTRACT NO. CX1600-4-9006	COMPLETION DATE January 24, 1975	EXTENDED DATE
CONTRACTOR W.A. MacLeod Company		ORIGINAL CONTRACT $ 51,166.00
PROJECT Rehabilitation of Carriage House		CHANGE ORDERS* $ 9,145.62
LOCATION Adams National Historic Site, Quincy, MA		TOTAL CONTRACT $ 60,311.62

DESCRIPTION	COST BREAKDOWN	PERCENT COMPLETE	VALUE	REMARKS
Bituminous Paving	330.00	100	330.00	
Machine Excavation	1,705.00	100	1,705.00	
Drain Pipe Material	931.00	100	931.00	
Gravel Fill Material	695.00	100	695.00	
Hand Labor & Trucking	2,708.00	100	2,708.00	
Termite Control	374.00	100	374.00	
Misc. Seeding & Grading	1,038.00	100	1,038.00	
Concrete	1,341.00	100	1,341.00	
Masonry	17,676.00	100	17,676.00	
Weather Vane Installation	563.00	100	563.00	See Credit in CO#3
Insulation	330.00	100	330.00	
Misc. Flooring & Duct Boards	3,535.00	100	3,535.00	
Misc. Carpentry Repairs	3,198.00	100	3,198.00	
Electric	543.00	100	543.00	
Fire Alarm & Detection System	8,701.00	100	8,701.00	
Intrusion Alarm	1,631.00	100	1,631.00	
Painting	3,152.00	100	3,152.00	
Plumbing & Water Trough	715.00	100	715.00	
Force Account Work	2,000.00	100	1,326.38	Unexpended Bal. 673.62
Change Order No. 1	2,500.00	100	2,500.00	
" " No. 2	1,609.89	100	1,609.89	
" " No. 3	6,464.27	100	6,464.27	
" " No. 4	(1,428.54)	100	(1,428.54)	INFORMATIONAL
TOTAL CONTRACT PRICE	60,311.62	100	59,638.00	$673.62 unexpended on Force Account Work

RECOMMENDED (Project Supervisor)
Ray T. Lee

APPROVED (Contracting Officer)
Leon R. Thygesen

DATE 12.5.75

SUMMARY

TOTAL TO DATE	$ 59,638.00
LESS RETAINED AMOUNT	-----
NET	59,638.00
LESS PREVIOUS PAYMENTS	50,952.26
LESS LIQUIDATED DAMAGES	-----
DUE THIS ESTIMATE	8,685.74
% COMPLETED TO DATE:	100%

*Show Breakdown on Reverse

(See Reverse for Distribution)

NARRATIVE STATEMENT

Rehabilitation of Carriage House
(name of project)

WORK ORDER NO. _____

DESCRIPTION OF WORK Repointing and repairing masonry walls; removing and rebuilding plank flooring and reconstructing stalls, excavation of foundation wall, repair and construct drain, provide new surface drainage, construct new concrete sub-floor, install fire alarm and intrusion alarm systems and electrical work.

PLANS AND SPECIFICATIONS for this project were prepared (by the Design Office of the San Francisco Service Center) or by _____

STATUS OF AS-CONSTRUCTED DRAWINGS _____

_____ _____
(date)

PROJECT ACTIVITIES

Preliminary Surveys were made by _____

Construction Layout was made by _____

5 (no.) bids were received and opened 6/21/74 (date)

Award of Contract No. CX1600-4-9006 was made to _____

W. A. MacLeod Co, 82 Crescent Ave, Boston, Mass. 02125

for $51,166.00

Notice to Proceed was issued on July 26, 1974 (date) and the date of July 29, 1974 was established as the first day of the contract.

Construction work consisting of removing the old plank floor

started on July 29, 1974 (date)

(NOTE: In the following space describe the actual construction work. Include unusual weather, geological and latent conditions encountered; list of subcontractors and what they did; new methods of construction or techniques used; new types equipment used, etc. If the work was ordinary standard construction with nothing unusual, say so and don't elaborate.

For construction projects involving water systems, include:

1. Water right applications, permits and license numbers to the extent they have been obtained.
2. If a well replaces or supplements a surface supply, or if a surface source replaces or supplements a well, or if the point of surface diversion is changed, the effect on existing water rights based on application, permit, license and/or decree will be a part of the report.
3. Name of the water source, available flow, and capacity of diversion works including pumps if not shown on construction plans.)

The planking at the basement was removed; each plank was numbered so it could return to the original place. The area was then treated for termites. A concrete floor was then placed with the plumbing on top. Loose grout was removed from the exterior surface of brick and stone. The new mortar for the stone masonry was mixed with one part light Portland cement, one part lime, and four parts sand. The brick mortar was one part Portland cement, one part lime, one part carbon powder and six parts sand. The

foundation was excavated and was found that a stone facing was on the exterior with rubble piled against this to form the exterior. When this was excavated the rubble kept falling down. This was rebuilt and parged with water proofing. French drains were installed to remove the water from this area.

An intrusion alarm system was installed at all openings in carriage house and the system was connected with the Quincy police and Park personell.

A fire alarm system was installed in the carriage house. The system is for smoke detection. This system works through a master control box on the outside which is part of the fire system for Quincy.

The sub-contractors were as follows:

Excavation - Jeremiah Sullivan Sons, Inc.
175 Brookline St., Cambridge, Mass. 02138

Termite Control - Waltham Chemical Co.
817 Moody St. Waltham, Mass. 02154

Masonry - A+J Construction Inc.
31 Zellar St., Boston, Mass. 02131

Painting - H. Newton Marshall Co.
522 Harrison Ave, Boston, Mass. 02118

Electrical, Fire, Intrusion - George W. Phelps Inc.
31 St. James Ave., Boston, Mass 02118

Plumbing - John E. Kelley Plumbing + Heating Co. Inc.
45 Green St., Jamaica Plain, Mass 02130

Stop Order No. _____ was issued effective at the close of business on

_____ because of _____
(date)

_____.

Work was resumed on _____.
(date)

_____
(list additional Stop Orders, if any)

_____

_____

_____

(List extension of time granted, if any) _____

_____

_____

_____

On November 1, 1974, Change Order No. 1 was issued
(date)

This change order was issued because the southeast
(describe Change Order and the reason)
stone foundation was nothing but rubble stone piled against a stone faced interior wall. As the wall was excavated the rubble kept falling down. It was necessary to build this wall back up again. It was parged and then waterproofed with Omicrone. This work was done for $ 2,500.00.

_____

_____

_____

_____

On December 27, 1974 (date), Change Order No. 2 was issued

Install two 3½"X6", 16 gauge galvanize gutters, (describe Change Order and the reason)
cut granite curb, connect to downspouts and
encase in concrete. $1,609.89

On May 30, 1975 (date), Change Order No. 3 was issued

Delete the existing weathervane and install new (describe Change Order and the reason)
weathervane, repair and replace rotten wood at
threshold, paint electrical conduit, remove three
electrical switches and install one in maintenance
area, install a RA-12 remote annunciator, install
fire alarm pull box, install batteries in basement
and install three 1055 Sentrol magnetic contacts on
three interior doors. $6,464.27

On January 1975 (date), Change Order No. 4 was issued

Delete the following work - installing a RA-12 annunciator panel, 60' multi-conductor cable, Gamewell master box w/ flex-mount, grounding kit, cast box and 130' of 14/4 IMSA cable. $1,428.54
(describe Change Order and the reason)

A prefinal inspection of the work was made on _____ (date)

and the work was found to be _____

All construction was completed on Jan. 13, 1975 (date) and the

Final Inspection was made on Jan. 14, 1975 (date).

No liquidated damages were assessed.

(or)

_____ days liquidated damages in the amount of $ _____ per day were assessed.

Overruns and Underruns on Contract Bid Schedule

(NOTE: List major overruns and underruns on contract and give reason)

LIMITS OF PROJECT

(NOTE: Include the following:

1. Utility Systems
   a. Water Systems-to facilitate the preparation of water rights proofs, separate the diversion system including reservoir from the distribution system.
   b. Length, type and sizes of lines.
   c. Size, capacity and type of treatment plants, pumping stations,etc.

2. Roads and Trails
   a. Length, width, and type of road or trail. EXAMPLE: 5.6 Miles, plant mix, surfaced secondary road with 6" crushed stone base and 20 ft. paved width.
   b. Size, in sq.yds. or sq.ft. and capacity of parking areas.
   c. Length of roads, trails and parking areas. Obliterated.

3. Buildings
   Number of buildings, the NPS building number, square footage, principal building materials and furnishings, if any.

Exterior Walls - Brick and stone
Interior Walls - Plaster stone and wood.
Roof is wood with slate

The _____

constructed under this work order (has) or (~~has not~~) resulted in a usable unit. (NOTE: If it is not a usable unit, explain.) _____

PHOTOGRAPHS

NOTE: Use only enough photographs to adequately show special stage construction and to cover the completed project. The "jumbo" size (3" x 5" ±) photograph is suitable. Four (4) sets of photographs are required.

Scotch Tape

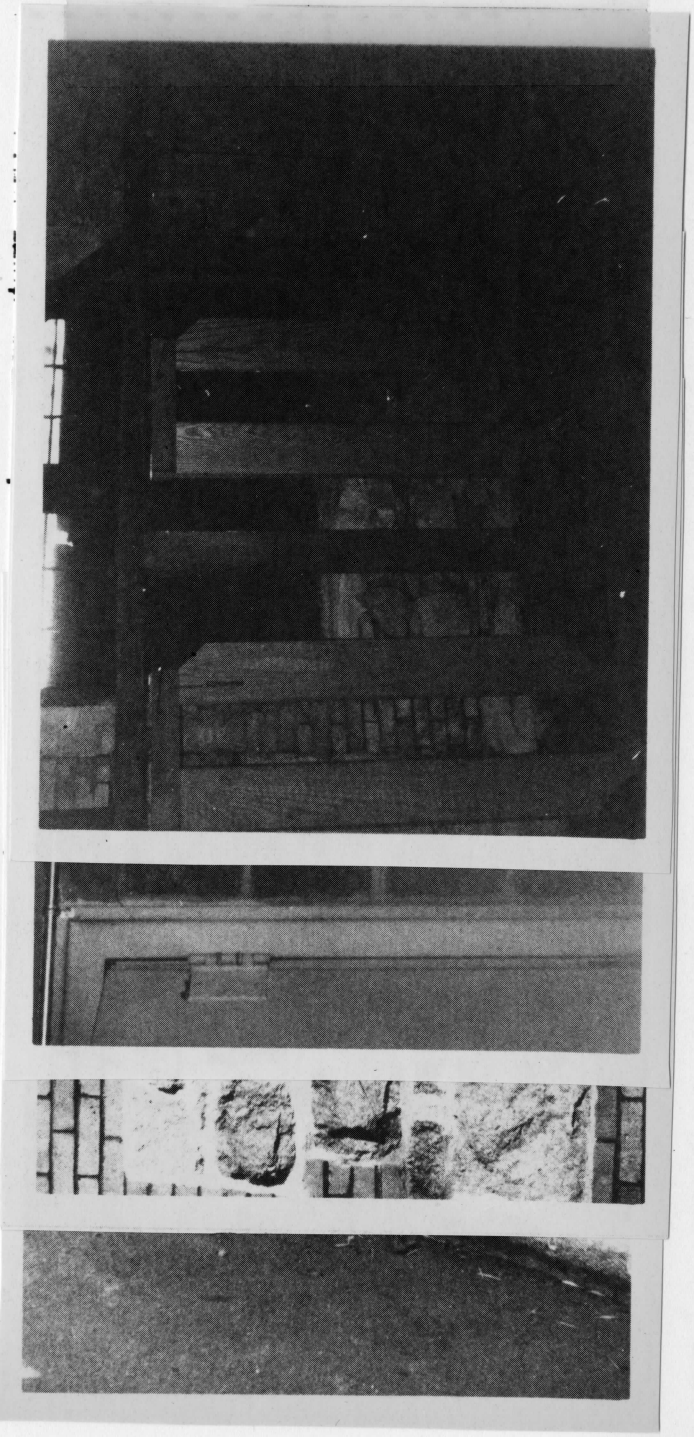
1. Stanchions
(photo title)

2. Fire Alarm Panel

3. Typical section of brick and stone mortar joint

4. Drain from conductor pipe

5. _____



PHOTOGRA

NOTE: Use only enough photographs to a
struction and to cover the compl
(3" x 5" ±) photograph is suitab
are required.

(photographs)

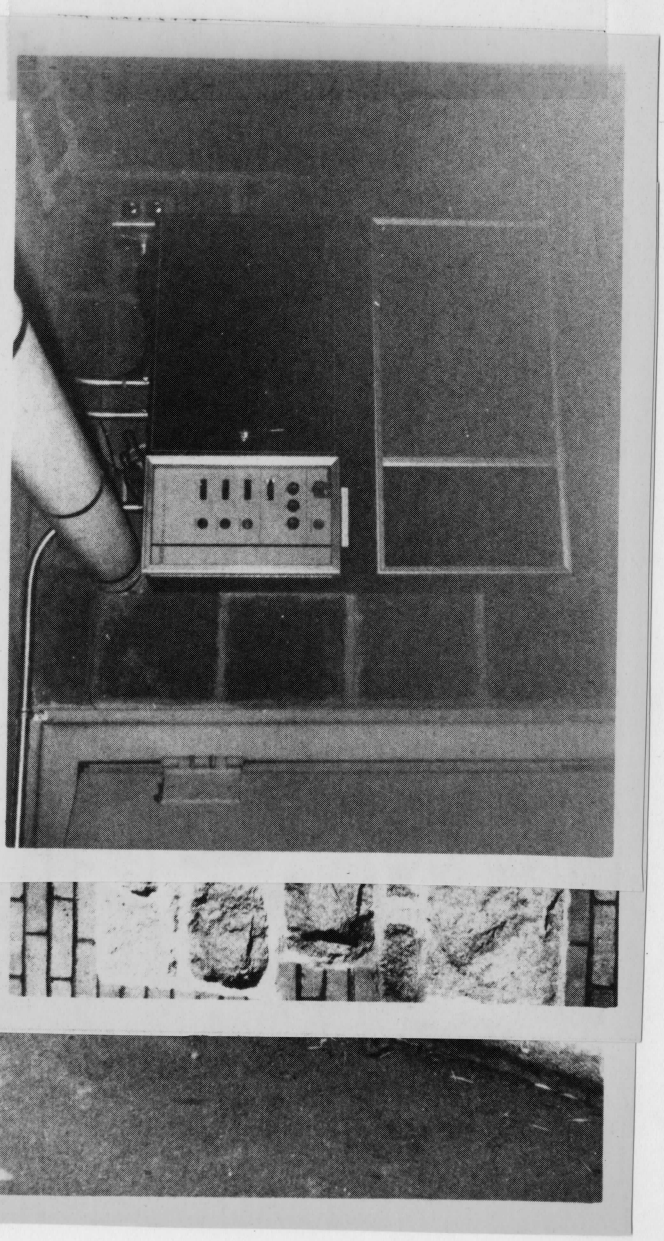
1. Stanchions
(photo title)

2. Fire Alarm Panel

3. Typical section of brick and stone mortar joint

4. Drain from conductor pipe

5. _____



PHOTOGRA

NOTE: Use only enough photographs to s
struction and to cover the compl
(3" x 5" ±) photograph is suitab
are required.

1. Stanchions
(photo title)

2. Fire Alarm Panel

3. Typical section of brick and stone mortar joint

4. Drain from conductor pipe

5.

1.



PHOTOGRA

NOTE: Use only enough photographs to e
struction and to cover the compl
(3" x 5" ±) photograph is suitab
are required.

1. Stanchions
(photo title)

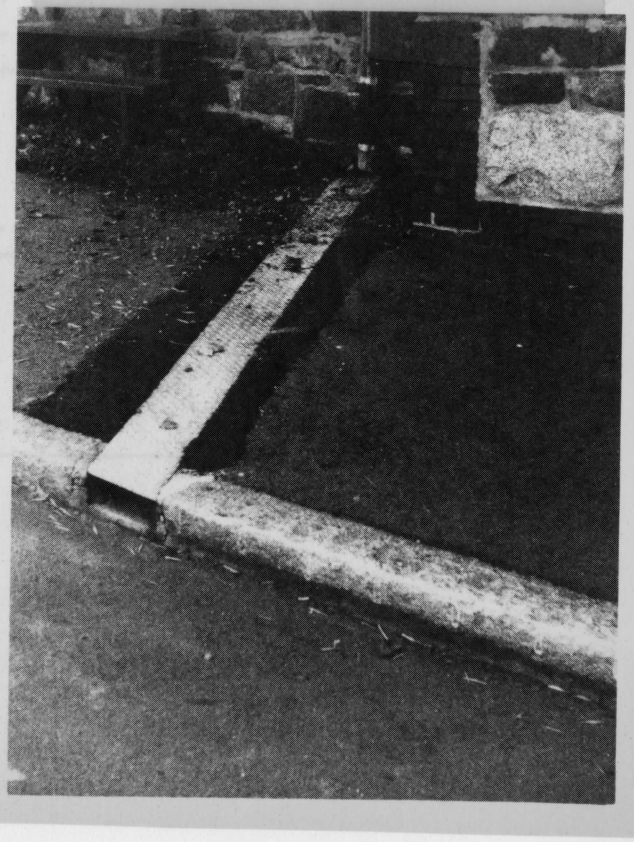
2. Fire Alarm Panel

3. Typical section of brick and stone mortar joint

4. Drain from conductor pipe

5.

2.



ENDIX SAMPLE SHEET OF

FINISHES ✓ (1 OTHER (SPECIFY)
DOORS
MECHANICAL EQUIPMENT
LECTRICAL EQUIPMENT

ITEM	MANUFACTURER	NO./NAME	NOTES
Wood Floor	United States Plywood	Woodlife	
Wood at stalls	Valspar Corp	55604 Valspar	
Masonry Walls		Whitewash	
Interior Trim	Dutch Boy	White Semi-gloss	

JECT

SECT. 7 BIBLIOGRAPHY

BIBLIOGRAPHY

SECTION 7

A. GENERAL DATA

1. Activity Standards for Historic Resources Studies and Management, National Park Service, 1971

2. Historic Preservation, National Park Service, 1975

3. Procedures for the Protection of Historic and Cultural Properties, (36 CFR 800), established by the Advisory Council on Historic Preservation in accordance with the National Historic Preservation Act of 1966 and Executive Order 11593. Federal Register, February 10, 1976.

4. Cyclical Maintenance for Historic Buildings, National Park Service, 1976.

B. BUILDING DATA

1. Development/Study Package Proposal, 10-238

2. Adams National Historic Site, General Files, Denver Service Center, History Division

3. Adams National Historic Site Correspondence, 1954-1973, Denver Service Center, History Division

4. Mission 66, Denver Service Center, 1956

5. Master Plan, Adams National Historic Site, 1962 Denver Service Center, Graphics Division

6. Historic Structures Report, Norman M. Souder, National Park Service, April 1973

7. National Park Service, Plans and Drawings, 1976 Denver Service Center, Graphics Division

8. Adams National Historic Site, Statement for Management, Denver Service Center, Central Files Division, 1977

ADAMS NATIONAL HISTORIC SITE
ADAMS CARRIAGE HOUSE

HISTORIC STRUCTURE PRESERVATION GUIDE

VOL. 2

010006
ADAM

SECT. 1 EMERGENCY

HISTORIC STRUCTURE PRESERVATION GUIDE
ADAMS NATIONAL HISTORIC SITE
EMERGENCY INFORMATION

DATE: _____/____/_____
MONTH DAY YEAR

NAME	OFFICE NUMBER	HOME NUMBER
Mrs. Wilhelmina Harris	773-1177	472-4708
Mr. John Iacovelli	773-1177	472-7115
Mr. Theodore DeCristasaro	773-1177	472-1265
Police Department	479-1212	-
Fire Department	773-6400	-

____
SIGNATURE OF CHIEF RANGER

HISTORIC STRUCTURES PRESERVATION GUIDE
ADAMS NATIONAL HISTORIC SITE
ADAMS CARRIAGE HOUSE
QUINCY, MASSACHUSETTS

TABLE OF CONTENTS

VOLUME I

SECTION 1
Emergency Information

SECTION 2
Introduction to Historic Structure Preservation Guide (HSPG)

SECTION 3
A. Inspection Guide and Checklist
B. Repairs Required List

SECTION 4
Construction and Architectural Chronology Log

SECTION 5
Repair and Replacement Specifications

SECTION 6
A. Construction Specifications, Dated May, 1974
B. Addendums #1 and #2
C. Change Orders
D. Completion Report

SECTION 7
Bibliography

VOLUME II

SECTION 1
Emergency Information

SECTION 2
Introduction to Historic Structure Preservation Guide (HSPG)

SECTION 3
Housekeeping Guide

SECTION 4
Housekeeping Specifications

SECTION 5
Material Identification and Description

SECTION 6
Architectural Plans

HOW TO USE THE PRESERVATION GUIDE

The Historic Structure Preservation Guide is divided into two volumes. Volume I is the source for repair and replacement information, while Volume II contains the information required for housekeeping.

Using the preservation guide begins with Volume I, Section 3, the Inspection Checklist. Inspections will be performed semi-annually by an experienced technician or a professional, such as an historical architect or an exhibit specialist, and generate the necessary maintenance and repair work. After the condition of the material has been described on the Repairs Required list, consult Volume II, Section 5, Material Identification and Description. Section 5 is the graphic identification and description of all the materials.

After completion of the Repairs Required list, this form will be submitted to the maintenance foreman who is responsible for completing the appropriate work.

Repair of the material will be performed after consulting the preservation guide and discussion with the Historical Architect.

After the work is completed, the maintenance foreman will date and sign the Repairs Required List. It will also have the description of the work, who performed the work and the cost. This information will also be recorded in the Construction and Architectural Chronology Log, Volume I, Section 4, as a record of maintenance and repair work on the structure.

However, in the interim between formal inspections, the Repairs Required List should be maintained at the site with problems identified on a daily basis by the maintenance, housekeeping, or park staff. If a critical problem arises, it should be called to the attention of the Park Maintenance Foreman. On a regular basis, the foreman should make interim inspections and note problems.

This preservation guide is not yet a highly refined system and therefore it is requested that additional information be added to the guide by the Regional Historical Architect, the Adams National Historic Site staff, and the Denver Service Center. It is further requested that all questions be directed to the Historical Architect.

3. The third level of treatment shall consist of major repairs and replacement of the historic fabric, as decided by the Historical Architect, by competent, trained personnel under the direction of the Historical Architect or a restoration specialist skilled in evaluation, design, supervision and construction.

D. DEFINITIONS

1. Housekeeping

Housekeeping is the part of maintenance which removes dirt from the different materials of the building regularly, to reduce deterioration and prolong the life of the material.

2. Maintenance

The maintenance consists of day to day activities necessary to prolong the life of an historic resource. These activities would include the coordination of planning, management, architecture, chemistry, contracting, craftsmen, etc., in order to preserve the material.

3. Repairs and Replacement

Repairs involve the replacement of deteriorated materials with the same or as close to the original composition of materials, in method of fabrication and in manner of installation.

4. Preservation

Preservation is designed to sustain the form and extent of a structure as existing when the National Park Service assumes responsibility. Preservation aims at halting further deterioration and providing structural safety but does not comprise significant rebuilding. Preservation includes techniques of arresting or slowing the deterioration of a structure; improvement of structural conditions to make a structure safe, habitable, or otherwise useful, and normal maintenance and minor repairs that do not change or adversely affect the fabric or appearance of a structure.

REPLACEMENT PARTS AND ADDITIONAL COPIES OF GUIDE

Replacement parts and additional copies of the preservation guide can be obtained from the National Park Service, Denver Service Center, Micro-Graphic Division, Box 25287, Denver, Colorado, 80225. Mr. David Moorehouse can be contacted by phone at (303) 234-4570. The information required for additional replacement parts or additional copies would be as follows:

1. PARK NAME - Adams National Historic Site
2. NAME OF REPORT - Adams Carriage House Preservation Guide
3. SHEET NUMBERS -
   a. Construction Drawings and Specs. in Micro-film File
   b. Material Identification and Description sheets on mylar in file drawer storage.

5. Specifications

Specifications are a detailed description of requirements, type, manufacturer, quality, etc., for the non-historic and historic materials.

6. Material

Pertains mainly to the historic or original fabric than to the non-historic fabric used.

7. Historical Architect

In this guide the historical architect is the Regional Historical Architect or a professional designated by the Regicnal Historical Architect.

8. Inspector

The inspector or inspectors would be an experienced technician or a professional such as an historical architect or an exhibit specialist. Inspections are to be performed semi-annually or as necessary.

SECTION 3 - INSPECTION CHECKLIST AND REPAIRS REQUIRED LIST

A. Inspection Checklist

The inspection checklist will be used for maintenance inspections performed semi-annually. (April and October). The checklist will point out, in detail, potential problem areas, but the inspection shall not be limited to only those areas listed.

The purpose of the inspection checklist is to identify the maintenance problems and generate the cyclical maintenance work required.

B. Repairs Required List

The repairs required list contains the date, sheet number, view number, a description of the condition of the material to be repaired, date of completed repair work and signatures from the Chief of Maintenance and Inspector.

DISTRIBUTION AND GUIDE LOCATIONS

The record of guide locations are as follows:

1. COPY 1. PARK HISTORIC PRESERVATION OFFICE
   National Park Service
   Department of the Interior
   Washington, D.C., 20240
   (202) 343-2703

2. COPY 2. NORTH ATLANTIC REGIONAL OFFICE
   HISTORICAL ARCHITECT
   National Park Service
   150 Causeway Street
   Boston, Massachusetts 02114
   (617) 223-3778

3. COPY 3. SUPERINTENDENT
   Adams National Historic Site
   P.O. Box 531
   Quincy, Massachusetts 02169
   (617) 773-1177

4. COPY 4 MAINTENANCE FOREMAN
   Adams National Historic Site
   P.O. Box 531
   Quincy, Massachusetts 02169
   (617) 773-1177

5. COPY 5 HISTORIC PRESERVATION DIVISION, LIBRARY
   National Park Service
   Denver Service Center
   755 Parfet Street
   P.O. Box 25287
   Denver, Colorado 80225
   (303) 234-4582

6. COPY 6 HISTORIC PRESERVATION DIVISION - FILE
   National Park Service
   Denver Service Center
   755 Parfet Street
   P.O. Box 25287
   Denver, Colorado 80225
   (303) 234-5545

SECTION 4 - CONSTRUCTION AND ARCHITECTURAL CHRONOLOGY LOG

This will be a record of maintenance and repair work on the structure. The date of repair, a description of work, the individual or the firm performing the work, the cost of work performed and a summary of manufacturers and local supplies will be included.

The purpose of this record will be the identification of recurring problems and assist in future maintenance planning. This record would also provide information on guarantee periods, information for necessary revisions of cost estimates and, when similar repairs are repeated, the record would indicate more serious preservation problems.

SECTION 5 - REPAIR AND REPLACEMENT SPECIFICATION

These specifications are the primary source of information for the repair and replacement of the historic and non-historic materials to match the original in design and texture. The specifications are indexed with Construction Specifications Institute (CSI) numbers for cross-reference to the contract documents and related product literature.

An evaluation of each material was made; however, technology changes with time and the historical architect should be contacted prior to additional testing or changes in techniques.

SECTION 6 -

A. Construction Specifications Dated May, 1974

These are the specifications used for the construction during 1974, 1975.

B. Addendums #1 and #2

The addendums of the above specifications.

C. Change Orders

The change orders of the above specifications.

VOLUME I

SECTION 1 - EMERGENCY INFORMATION

SECTION 2 - INTRODUCTION TO HISTORIC STRUCTURE PRESERVATION GUIDE (HSPG)

A. PURPOSE

The purpose of this guide is to aid the maintenance staff at Adams National Historic Site in performing routine maintenance, minor repairs and to provide accurate data to qualified professionals regarding major stabilization or preservation work on the structures.

B. OBJECTIVE

The objective of this guide is to provide the technical data required for cyclic maintenance and repair, in order to reduce material deterioration and prolong the life of the historic fabric and structure. Quantity estimates of the materials required is beyond the scope of this guide.

C. APPROACH

The overall approach to maintenance of this historic structure is as defined in the National Park Service activity standards: This guide will reflect the following criteria:

1. The first level of treatment shall be known as housekeeping and shall consist of periodic cleaning, according to this guide, of the historic fabric by competent, trained personnel under the direction of the Maintenance Chief.

2. The second level of treatment shall be known as repairs and replacement and shall consist of minor repairs and replacement, according to this guide, of the historic fabric by competent, trained personnel under the direction of the Historical Architect.

D. Completion Report

The completion report of the above contract.

SECTION 7 - BIBLIOGRAPHY

VOLUME II

SECTION 1 - EMERGENCY INFORMATION

SECTION 2 - INTRODUCTION TO HISTORIC STRUCTURE PRESERVATION GUIDE (HSPG) (See above)

SECTION 3 - HOUSEKEEPING CHECKLIST

SECTION 4 - HOUSEKEEPING SPECIFICATIONS

The housekeeping specifications are the primary source of information for the housekeeping of the historic materials. Their purpose is to introduce maintenance personnel to the concerns involved in care for the historic materials, and suggested frequencies for performing cyclical maintenance activities. An evaluation of each material was made when preparing this guide. However, if there is any question concerning the appropriateness of the technique, the historical architect should be contacted prior to additional testing or change in technique.

The specifications are indexed with Construction Specifications Institute (CSI) numbers for cross-reference to the contract documents and related product literature.

SECTION 5 - MATERIAL IDENTIFICATION AND DESCRIPTION

This section contains the identification of historic and non-historic fabric. The material will be identified by the Construction Specifications Institute (CSI) numbers for reference to the maintenance and repair specifications.

SECTION 6 - ARCHITECTURAL PLANS

The architectural plans are as-built drawings and measured drawings available for each historic structure.

These include floor plans, elevations and details necessary for continuing normal maintenance and repairs.

HISTORIC STRUCTURE PRESERVATION GUIDE

ADAMS NATIONAL HISTORIC SITE

CARRIAGE HOUSE

NORTH ALANTIC REGION — NORFOLK COUNTY — MASSACHUSETTS — 02169

PREPARED	R.A. CONRAD
DESIGNED	
DRAWN	
CHECKED	
DATE	
DRAWING NO	386 / 28,000
PKG NO	101
SHEET	2 of 17

HOUSEKEEPING GUIDE

● DENOTES HOUSEKEEPING REQUIRED

		AS REQUIRED				DAILY			WEEKLY							SPRING AND FALL						
		WALLS & CEILINGS Wash	INT. WOOD TRIM Wash	FLOORS Sweep		FLOORS (MAY-SEPT.) Sweep			DOOR MATS Shake	INT. WOOD TRIM Dust	FLOORS (OCT.-APR.) Sweep	FLOORS Dry Mop	FLOORS Wet Mop			WALLS & CEILING Dust	WINDOWS Wash	FLOORS Sweep	FLOORS Wet Mop			REMARKS
BASEMENT	STABLE AREA	●	●			●			●	●	●		●			●	●					
	MAINTENANCE SHOP	●	●	●							●						●		●			
	STAIRS	●	●			●				●	●	●				●						
	LAVATORY	●	●							●	●		●			●						
	STAIR HALL	●	●							●	●	●				●			●			
	BOILER ROOM	●	●	●							●								●			
FIRST FLOOR	TACK ROOM	●	●			●				●	●		●			●	●					
	STABLE AREA	●	●			●			●	●	●		●			●	●					
	COACH ROOM	●	●			●			●	●	●		●			●	●					
	STAIRS	●	●			●				●	●	●				●			●			
	EAST OFFICE	●	●			●				●	●		●			●	●					
	LAVATORY	●	●			●				●	●		●			●						
	HALL & STAIRS	●	●			●			●	●	●	●				●	●		●			
	WEST OFFICE	●	●			●				●	●		●			●	●					
	KITCHEN	●	●			●			●	●	●		●			●	●					
SECOND FLOOR	HAY LOFT																●	●				
	STAIRS	●	●							●	●					●			●			
	EAST OFFICE	●	●							●	●		●			●	●					
	HALL & STAIRS	●	●							●	●	●				●	●		●			
	BATHROOM	●	●			●				●	●		●			●	●					
	WEST OFFICE	●	●							●	●		●			●	●					

Specifications Index by Section Title (Alphabetical Order)

Section Title	CSI Number
Carpentry Work (Historical)	06097
Carpentry and Millwork (Non-historical)	06098
Lath and Plaster (Historical)	09101
Lath and Plaster (Non-historical)	09100
Masonry Work (Historical)	04201
Masonry Work (Non-historical)	04202
Painting	09901
Stucco (Historical)	09197
Stucco (Non-historical)	09198
Wood Strip Flooring (Historical)	09559
Wood Strip Flooring (Non-historical)	09560
Wood Windows (Historical)	08609
Wood Windows (Non-historical)	08610

Specifications Index by CSI Number (Numerical Order)

Division	CSI No.	Section Title
04	04201	Masonry Work (Historical)
	04202	Masonry Work (Non-historical)
06	06097	Carpentry Work (Historical)
	06098	Carpentry and Millwork (Non-historical)
08	08609	Wood Windows (Historical
	08610	Wood Windows (Non-historical)
	09100	Lath and Plaster (Non-historical)
	09101	Lath and Plaster (Historical)
	09197	Stucco (Historical)
	09198	Stucco (Non-historical)
	09559	Wood Strip Flooring (Historical)
	09560	Wood Strip Flooring (Non-historical)
	09901	Painting

SECTION 04201 Masonry Work (Historical)
SECTION 04202 Masonry Work (Non-historical)

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of cleaning stone and brick masonry work.

PART 2: MAINTENANCE:

2-1 SCHEDULE: Inspect each month. With such a schedule, changes in masonry condition will be evident. Perform maintenance procedures as necessary.

2-2 INSPECT FOR: Cracked masonry units, cracks between masonry units and mortar, faces of masonry spalling off (deteriorating in layers), and crumbly or powdery masonry units.

2-3 PROCEDURE: Report nature and extent of masonry deterioration to the Regional Historical Architect, who will recommend action according to the Repair and Replacement Specification.

At grade, maintain adequate slope to keep water flowing away from structure.

Because of alternate wet and dry weather, the soil may pull away from the concrete at the ground line, permitting water infiltration. Always keep soil close against the masonry.

It may be necessary to remove water-splashed or wind-blown soil from exposed masonry.

For cleaning masonry, steam or hot water is no more effective than cold water in removing dirt because they cool on contact with the masonry. Jet sprays are effective in dislodging dirt, but spread too much water on the masonry surface and at the ground line. The proper procedure calls for using clean, cool water and a stiff natural bristle brush.

The masonry work may be stained. If stained, general wet cleaning would be useless. Dry broom clean. Test for staining by wet cleaning a 6 inch by 6 inch test area. Use

clean water and a natural bristle brush. Rely on the brush and not on the water for cleaning action. Use as little water as possible to wash and rinse.

When testing for staining, clean a 6 inch by 6 inch patch on the dirtiest part of the wall, as low as possible, never at eye level. Follow method described above on test area and allow to dry. If there is no noticeable difference between washed and unwashed areas, there is no need to continue. If general cleaning is possible, proceed by beginning at a lower corner and work across, then up. Always wash from the bottom up so that water dripping down does not set stains in dirt below.

To remove grafitti or dirt other than soil which will not wash off with water alone, use soap, such as laundry soap or other soaps without perfuming agents, in as little concentration in water as is adequate to remove grafitti or dirt. Rinse thoroughly with as little water as possible to remove soap residue.

Always work on the shady side of the building to prevent rapid drying.

SECTION 06097 Carpentry Work (Historical)
SECTION 06098 Carpentry and Millwork (Non-historical)

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of cleaning the woodwork. Refer to the following list of wood uses and sections for cleaning instructions.

A. Exterior Wood Trim - Section 09901 - Painting

B. Interior Wood Trim - Section 09901 - Painting

C. Wood Window Trim - Section 08609, 08610, Wood Windows

D. Wood Floors - Section 09559, 09560, Wood Strip Flooring

SECTION 08609 Wood Windows (Historical)
SECTION 08610 Wood Windows (Non-historical)

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of cleaning wood windows.

PART 2: MAINTENANCE:

2-1 SCHEDULE: Each spring and fall.

2-2 INSPECT FOR: Dirty windows, loose and cracking putty, broken glass.

2-3 PROCEDURE: Clean all wood on windows first. The glass must be cleaned thoroughly to prevent staining, especially on those windows which have shutters which are closed. After opening shutters, first wipe all glass with a soft dry cloth to remove the dry dirt. Then proceed with the wet washing for all glass as follows:

Materials: 1 part household ammonia and 10 parts clean water.

Dampen glass and loosen dirt by wiping with a soft cloth, barely damp with ammonia water. Wipe well with cloth instead of using excessive amounts of ammonia water. Using only a damp cloth will avoid ammonia running onto the wood sash. Rub dry immediately with another soft cloth. Wash and dry only one pane at a time and check each time that the surrounding wood and the sill are dry.

Be sure to rinse materials surrounding glass of cleaning chemicals.

Cleaning: Especially on those windows with shutters which are closed all the time, the exterior of the sash must be cleaned. After opening shutters, wipe all wood surfaces with a dry cloth, wiping from the top down. Those surfaces which are still dirty should be washed down with clean water only, and a soft cloth. Stubborn dirt from birds or insects may be cleaned using clean water only and a natural bristle brush. In all cases, use only as much water as necessary. Wash exterior windows only on shady side of building to prevent drying too quickly.

Interior sash should be cleaned in spring and fall, and especially before washing the interior glass. Insects and dust should be vacuumed from the top of the lower sash and from the sill. Dust the bottom moulding of each pane. Wipe with a slightly damp cloth if necessary. Dirt and insects must be cleaned before washing interior glass. This dirt being wet will only encourage deterioration of sash wood. Dirt which builds up in the corners formed by the glass and muntin moulding can be cleaned with a pointed wooden stick.

SECTION 09100 Lath and Plaster (Non-historical)
SECTION 09101 Lath and Plaster (Historical)

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of cleaning plaster.

PART 2: MAINTENANCE

2-1 SCHEDULE: Inspect and maintain each spring and fall.

2-2 INSPECT FOR: Cracked plaster, missing plaster, plaster which has come loose from lath, and gouged or vandalized plaster. Keep accurate notes on plaster crack sizes, so that, by comparison, changes can be detected.

2-2 PROCEDURE: Dry dust thoroughly with a soft cloth. Washing historic and non-historic plaster: using only clean water and a soft cloth, wash plaster in two square foot areas, working from the bottom up. When working from the top down, there is a risk of water running down and staining the plaster below by wetting dirt still on the plaster below. Use only as much water as necessary to remove dirt. Avoid water running down wall.

If wiping with damp cloth does not remove dirt adequately, use a stiff natural, bristle brush with the same procedure as above.

To remove such marks as graffiti when scrubbing doesn't work, use a mild soap, such as brown laundry soap. Do not use detergents. Wash first with soft cloth. Use brush only if necessary. Use only as much water as necessary to wash and rinse. Do not allow water to run down walls.

HISTORIC STRUCTURE PRESERVATION GUIDE
ADAMS NATIONAL HISTORIC SITE
CARRIAGE HOUSE
NORTH ALANTIC REGION NORFOLK COUNTY MASSACHUSETTS 02169

PREPARED R.A. CONRAD
DESIGNED
DRAWN
CHECKED
DATE

DRAWING NO 386 28,000
PKG NO 101
SHEET 4 OF 17

SECTION 09197 Stucco (Historical)
SECTION 09198 Stucco (Non-historical)

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of cleaning stucco.

PART 2: MAINTENANCE

2-1 SCHEDULE: Inspect each spring and fall for maintenance by patching and cleaning. Inspect each week for cracks between stucco and soil at grade line.

2-2 INSPECT FOR: Cracks, stucco pulling away from the wall material, missing stucco, soil pulling away from stucco surface at grade line, and dirt buildup under porch roofs, eaves and behind shutters.

2-3 PROCEDURE: Push soil against stucco surface to keep moisture from infiltrating below ground.

~~This procedure~~ WASHING is especially important behind shutters where airborne bird and insect dirt accumulate and on stucco shaded by porch roofs or eaves where birds and insects nest.

It may be necessary to remove water-splashed or wind-blown soil from stucco or exposed lime-mortar. First dry brush thoroughly with a natural bristle broom. If dirt persists,

wet washing may be necessary. If the wall is stained, then no washing method which would not destroy the material can be advised. Test for stain before general cleaning. Wash with clean water and a natural bristle brush. Rely on the brush and not the water for cleaning action. Use as little water as possible to wash and rinse. When testing for staining, clean a 6 inch by 6 inch patch on the dirtiest part of the wall, as low as possible, never at eye level. Follow method described above on test area and allow to dry. If there is no noticeable difference between washed and unwashed areas, there is no need to continue. If general cleaning is possible, proceed by beginning at a lower corner and work across, then up. Always wash from the bottom up so that water dripping down does not set stains in dirt below.

To remove grafitti or dirt, other than soil which will not wash off with water alone, use soap, such as laundry soap or other soaps without perfuming agents, in as little concentration in water as is adequate to remove grafitti or dirt. Rinse thoroughly with as little water as possible to remove any soap residue.

Always work on the shady side of the building to prevent rapid drying.

Maintain adequate slope for constant water run-off to keep foundations dry. Do not allow soil to pull away from building at grade leaving an opening which permits moisture infiltration to the foundation level. Check for such a space and fill with soil, especially as part of the work when checking that the grade slopes away from the building.

SECTION 09559 Wood Strip Flooring (Historical)
SECTION 09560 Wood Strip Flooring (Non-historical)

PART 1: GENERAL

1-1 DESCRIPTION: This specification covers only the cleaning of wood floors.

PART 2: MAINTENANCE

2-1 SCHEDULE: Sweep visitor paths each day from May through September. Sweep visitor paths once a week from October through April. Wet mop visitor paths once a week throughout the year. Dry mop exhibit spaces once a week throughout the year. Wet mop exhibit spaces twice a year, once in spring and once in fall. Shake doormats once a week year round.

Inspect each spring and fall.

2-2 INSPECT FOR: Edge wear on porch floor, cracked floorboards, paint worn to bare wood, loose or raised nails.

2-3 PROCEDURE:

A. Cleanup: Sweep thoroughly using a natural bristle broom, taking care to remove stones from porch edge, steps, threshold and just inside the front door.

Thoroughly shake stones out of doormats. Keep exterior doors closed. This will prevent doors from warping, making visitors step on doormat before entering and keep air-borne dust from blowing into building.

Sticky substances such as gum should be removed with wooden tools such as sticks and dowels. No metal tools should be used on wood floors. Wash with clean water and a stiff natural bristle brush. Clean in as small an area as possible and with as little water as possible.

B. Dry mopping: Dry mopping of wooden floors requires a dust mop (furnished with a treated pad to hold the dust), radiator brush, hearth broom, (to remove sticky material).

Mopping should be planned to require as few steps as possible. The mop should be lifted from the floor only to transfer the accumulated dust to a dust pile.

C. Damp cleaning: Damp cleaning of wooden floors requires a string mop, a mop bucket, a wringer, and soft water (if available.) Prior to damp mopping, all furniture should be moved and protected and the floor should be dry mopped. The procedure for damp cleaning involves wetting the mop and wringing it nearly dry. Mopping should start by drawing the mop close to, but not touching the baseboard. Work back parallel to the baseboard using long continuous side to side strokes keeping the mop heel on the floor and spread. Change the water when you can no longer see the bottom of the pail. Do not touch the furniture, rugs, or baseboard with the mop. Work around furniture legs and in room corners by holding the mop strings in hand.

SECTION 09901 Painting

PART 1: GENERAL

1-1 DESCRIPTION: This specification covers only the cleaning of painted surfaces.

PART 2: MAINTENANCE

2-1 SCHEDULE: Inspect for maintenance work each spring and fall. Dust walls each spring and fall, spot clean as required. Wash walls as required. Dust mantle tops as part of the furnishings maintenance routine.

2-2 INSPECT FOR: Worn paint, chipped paint, color changes by sun exposure, peeling, cracking and chalking paint.

2-3 PROCEDURES:

A. Dusting: Dusting of painted surfaces should be done with a vacuum cleaner and a round, soft, long-haired dusting tool or a dust cloth. All the ledge type horizontal surfaces, tops of baseboards, window sills, door panel moldings, tops of mantels, tops of door and window trim, and tops of doors should be dusted routinely. Ledges above eye level should not be left for periodic cleaning because the dirt accumulation rate is much faster than on walls or vertical surfaces. Care must be taken when dusting not to rub adjacent vertical surfaces, leaving abrasive marks on the walls or smears on the glass. Shake out dust mops and cloths very frequently to avoid simply moving the dust around.

B. Spot Cleaning: Spot cleaning of painted surfaces removes the smudges and marks left by hands and bumps from the furniture. The areas requiring the most frequent spot cleaning are around the doors and the wall side of stairs. To remove the dirt, the spot is rubbed gently with a clean, damp sponge. It is then dried with a clean wiping cloth.

If water alone does not remove the spot, it may be necessary to use a non-ionic detergent solution (e.g. Tergitol by Union Carbide, Triton by Rohm and Haas, or Igepal by G.A.F.) followed by a damp rinsing and

drying. The spot should be blended into the remaining surrounding surface. If blending is required, it may be an indication that cleaning is not being performed properly or with sufficient frequency.

C. Washing interior painted areas: Materials required for the washing of painted walls and ceilings include ladders, drop cloths, a non-ionic detergent (e.g. Tergitol by Union Carbide, Triton by Rohm and Haas, or Igepal by G.A.F.), two buckets (solution and rinse), soft water (if available), two sponges (solution and rinse), and a supply of dry wiping cloths.

Prior to washing, the walls should be dusted. The sponge used for the cleaning should be wet, but not dripping so as to prevent water from streaking the wall. The cleaning should begin at a lower corner of the room and should include the base board. First, moisten a wall section of five to ten square feet. Then rub the moistened wall section with sufficient pressure to remove the dirt. Thorough rinsing should follow immediately; two rinsings may be necessary to remove all the cleaning solution and dirt from the wall. The cleaned section should then be wiped dry. The process of wetting, rubbing, rinsing, and drying should be continued around the lower portion of the room with each section overlapping the preceding section slightly. The upper portions of the room and the ceiling should be washed in the same manner. Painted woodwork should be washed with the walls.

D. Washing interior and exterior woodwork: Woodwork which requires cleaning should be dry brushed first with natural bristle brush or broom. If dirt remains, wet washing may be necessary. Woodwork paint may be stained. Test for stains by wet washing a test area after dry brush cleaning. Rely on the brush and not on the water for cleaning action. Use as little water as possible to wash and rinse. When testing for staining, clean a small test patch on the dirtiest part of the wall, as low as possible, never at eye level.

Follow method described above on test area and allow to dry. If there is no noticeable difference between washed and unwashed areas, there is no need to continue. If general cleaning is possible, proceed by beginning

at a lower corner and work across, then up. Always wash from the bottom up so that water dripping down does not set stains in dirt below.

To remove grafitti or dirt other than soil which will not wash off with water alone, use soap, such as laundry soap or other soaps without perfuming agents, in as little concentration in water as is adequate to remove grafitti or dirt. Rinse thoroughly with as little water as possible to remove any soap residue.

Always work on the shady side of the building to prevent rapid drying.

Places which get especially dirty but are not easily noticed are areas behind shutters when open or surfaces of window and shutters. Be sure to include these in inspection and maintenance.

HISTORIC STRUCTURE PRESERVATION GUIDE

ADAMS NATIONAL HISTORIC SITE

CARRIAGE HOUSE

NORTH ALANTIC REGION NORFOLK COUNTY MASSACHUSETTS 02169

PREPARED R.A. CONRAD
DESIGNED
DRAWN
CHECKED
DATE

DRAWING NO 386 28,000
PKG NO 101
SHEET 5 OF 17

SECT. 5 MATERIAL IDENT.

ADAMS CARRIAGE HOUSE

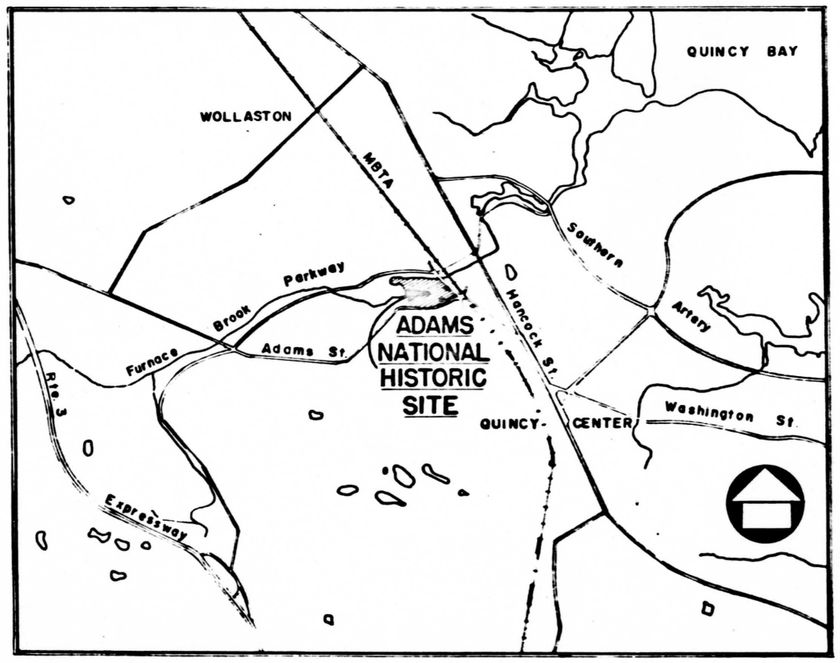
INDEX

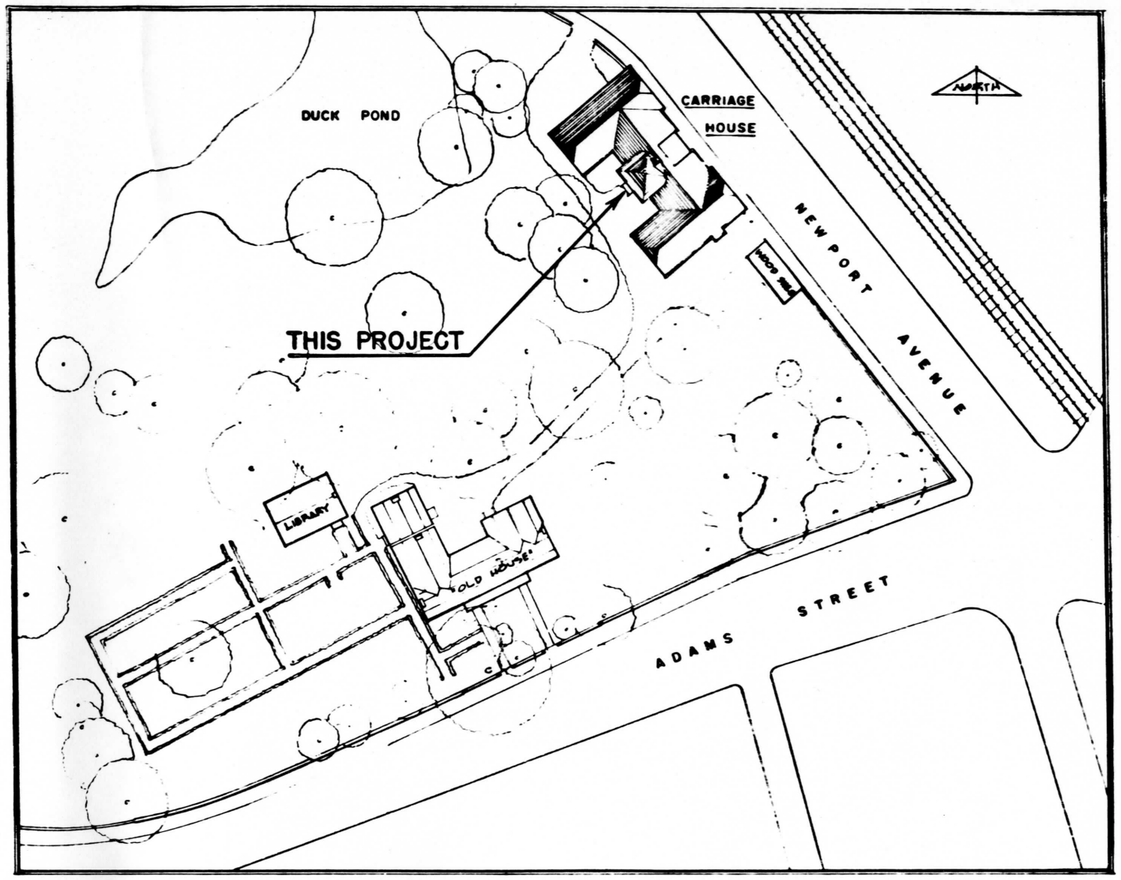
SHEET NO.	TITLE
6	TITLE SHEET, LOCATION AND SITE PLAN
7	BASEMENT PLAN
8	FIRST FLOOR PLAN
9	SECOND FLOOR PLAN
10	SOUTH WEST ELEVATION
11	N-E ELEVATION AND FLOOR DETAIL
12	S-E ELEVATION AND LIGHTING FIXTURES
13	NORTH WEST ELEVATION
14	SECTION "A-A" AND INTERIOR ELEVATIONS
15	SECTION "B-B"
16	SITE DRAINAGE AND DETAIL
17	STALL CONSTRUCTION DETAIL

LOCATION MAP

SCALE: 0 — 1 MI.

ADAPTED FROM U.S. COAST & GEODETIC SURVEY MAP — BOSTON & VICINITY, MASS.





SCALE: 0 — 100 FT.

SITE PLAN

SYMBOLS

NEW	EXIST.	ELECTRICAL LEGEND
■		INTRUSION SWITCH
⊕	⊕	DUPLEX RECEPTACLE
S	S	SWITCH
S_3	S_3	3-WAY SWITCH
✳	✳	INCANDESCENT LAMPS
▭	▭	FLUORESCENT LAMPS
F_3		FIRE DETECTORS "ZONE"
		FIRE ALARM BELL
DIALER		ALARM DIALER
F.A.		FIRE ALARM PANEL
I.A.		INTRUSION ALARM PANEL
S		INTRUSION ALARM DISABLING SWITCH
20.61 EXIST. EL. / 20.61 INV. EL.		ELEVATION POINT

BASIC DATA RE: DRAWINGS NUMBERED 386 25,000B

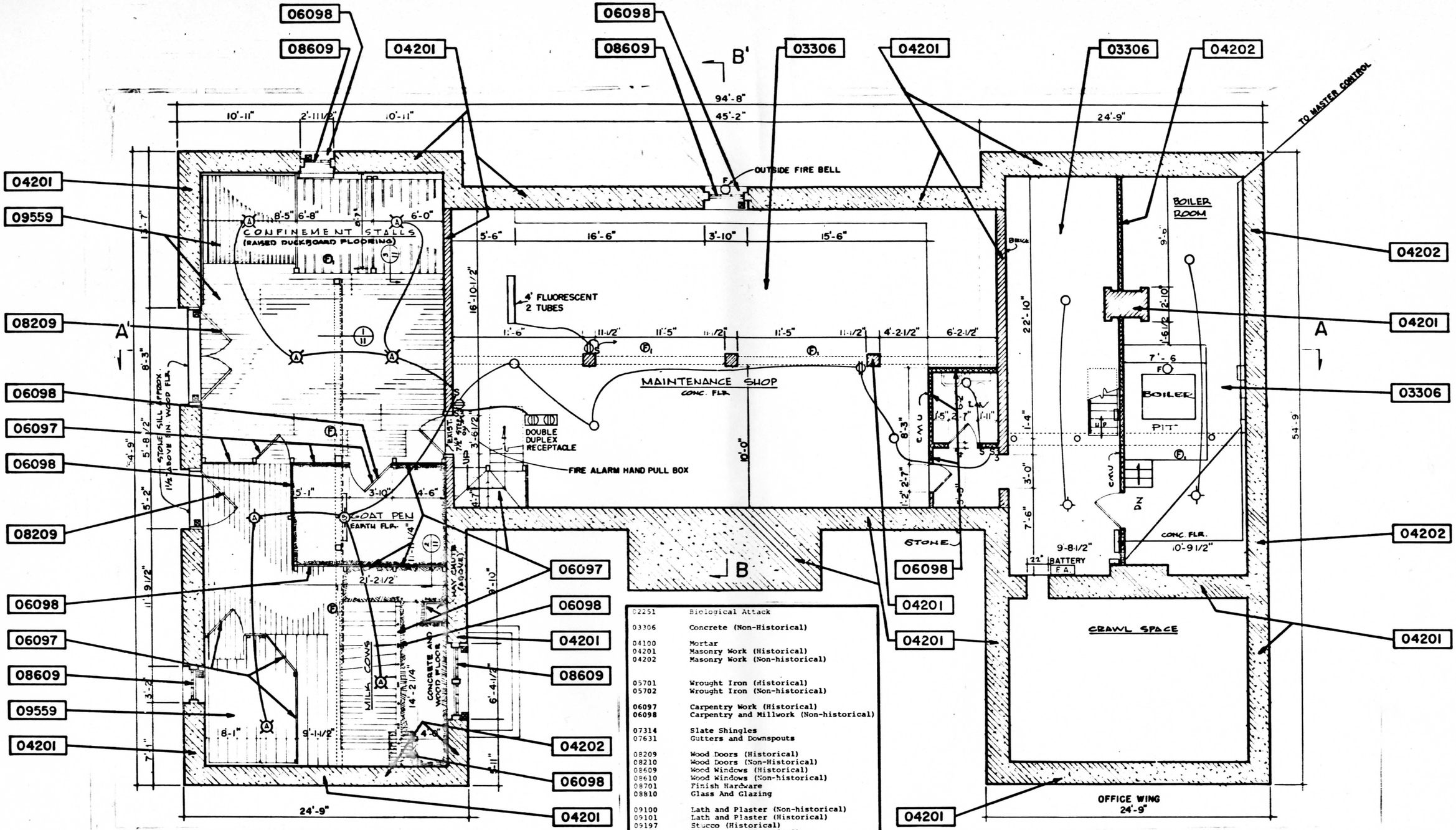
HISTORIC STRUCTURE PRESERVATION GUIDE

ADAMS NATIONAL HISTORIC SITE

CARRIAGE HOUSE

NORTH ALANTIC REGION — NORFOLK COUNTY — MASSACHUSETTS — 02169

PREPARED	R.A. CONRAD
DESIGNED	R.A. CONRAD
DRAWN	
CHECKED	
DATE	
DRAWING NO	386 28,000
PROJ NO	101
SHEET	6 of 17



02251	Biological Attack
03306	Concrete (Non-Historical)
04100	Mortar
04201	Masonry Work (Historical)
04202	Masonry Work (Non-historical)
05701	Wrought Iron (Historical)
05702	Wrought Iron (Non-historical)
06097	Carpentry Work (Historical)
06098	Carpentry and Millwork (Non-historical)
07314	Slate Shingles
07631	Gutters and Downspouts
08209	Wood Doors (Historical)
08210	Wood Doors (Non-Historical)
08609	Wood Windows (Historical)
08610	Wood Windows (Non-historical)
08701	Finish Hardware
08810	Glass And Glazing
09100	Lath and Plaster (Non-historical)
09101	Lath and Plaster (Historical)
09197	Stucco (Historical)
09198	Stucco (Non-historical)
09559	Wood Strip Flooring (Historical)
09560	Wood Strip Flooring (Non-historical)
09901	Painting

BASEMENT PLAN

DRAWN AT 1/4" = 1'-0"

0 1 2 3 4 5 10 FEET

0 50cm 1 2 3 METERS

NORTH

HISTORIC STRUCTURE PRESERVATION GUIDE

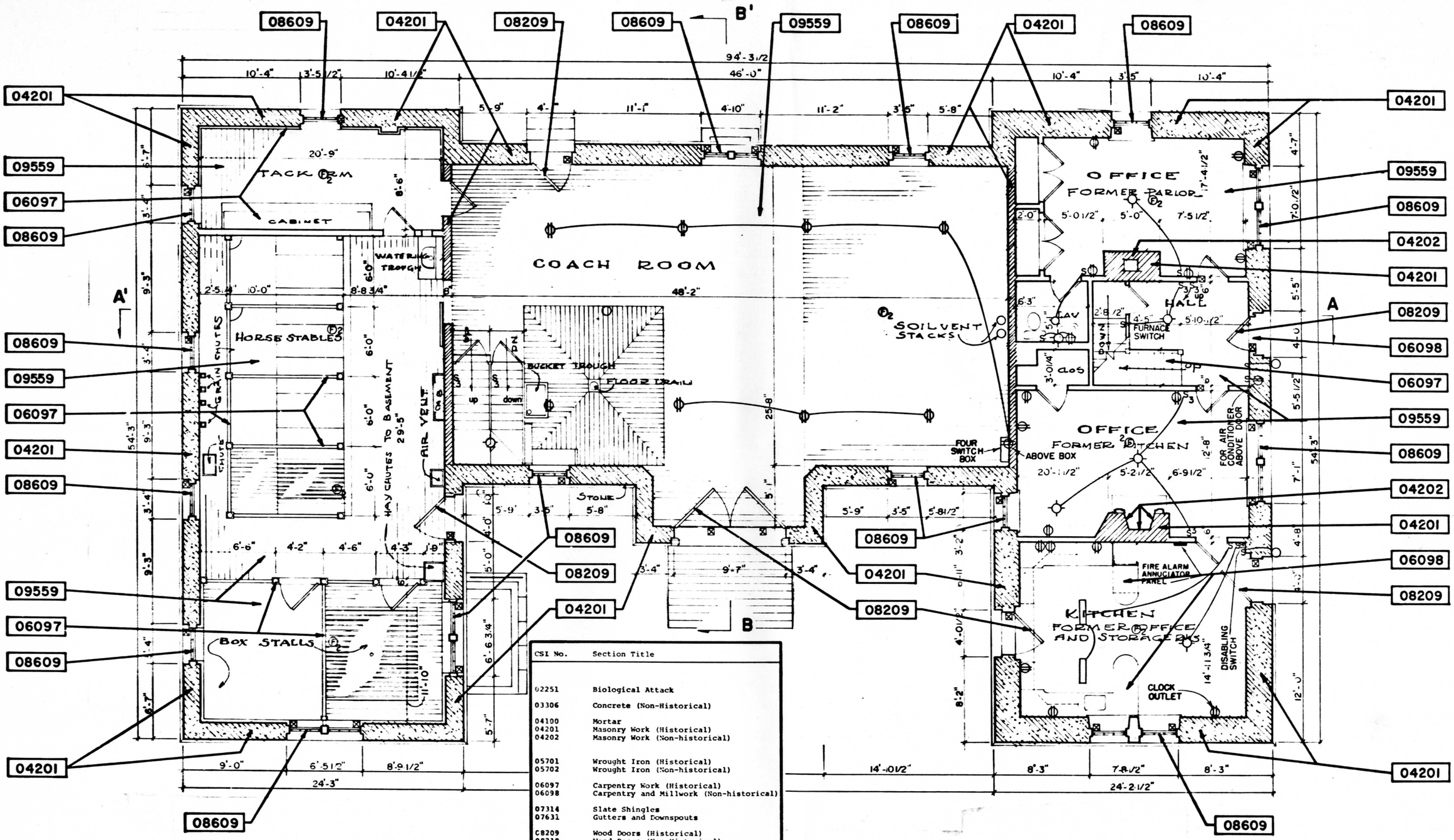
ADAMS NATIONAL HISTORIC SITE

CARRIAGE HOUSE

NORTH ALANTIC REGION | NORFOLK COUNTY | MASSACHUSETTS | 02169

PREPARED R.A. CONRAD
DES'NED
R.A. CONRAD
DRAWN
CHECKED
DATE

DRAWING NO 386 28,000
PKG NO 101
SHEET 7 OF 17



CSI No.	Section Title
02251	Biological Attack
03306	Concrete (Non-Historical)
04100	Mortar
04201	Masonry Work (Historical)
04202	Masonry Work (Non-historical)
05701	Wrought Iron (Historical)
05702	Wrought Iron (Non-historical)
06097	Carpentry Work (Historical)
06098	Carpentry and Millwork (Non-historical)
07314	Slate Shingles
07631	Gutters and Downspouts
08209	Wood Doors (Historical)
08210	Wood Doors (Non-Historical)
08609	Wood Windows (Historical)
08610	Wood Windows (Non-historical)
08701	Finish Hardware
08810	Glass And Glazing
09100	Lath and Plaster (Non-historical)
09101	Lath and Plaster (Historical)
09197	Stucco (Historical)
09198	Stucco (Non-historical)
09559	Wood Strip Flooring (Historical)
09560	Wood Strip Flooring (Non-historical)
09901	Painting

STONE

BRICK

FIRST FLOOR PLAN

DRAWN AT 1/4" = 1'-0"

0 1 2 3 4 6 8 10 FEET

0 50cm 1 2 3 METERS

NORTH

HISTORIC STRUCTURE PRESERVATION GUIDE

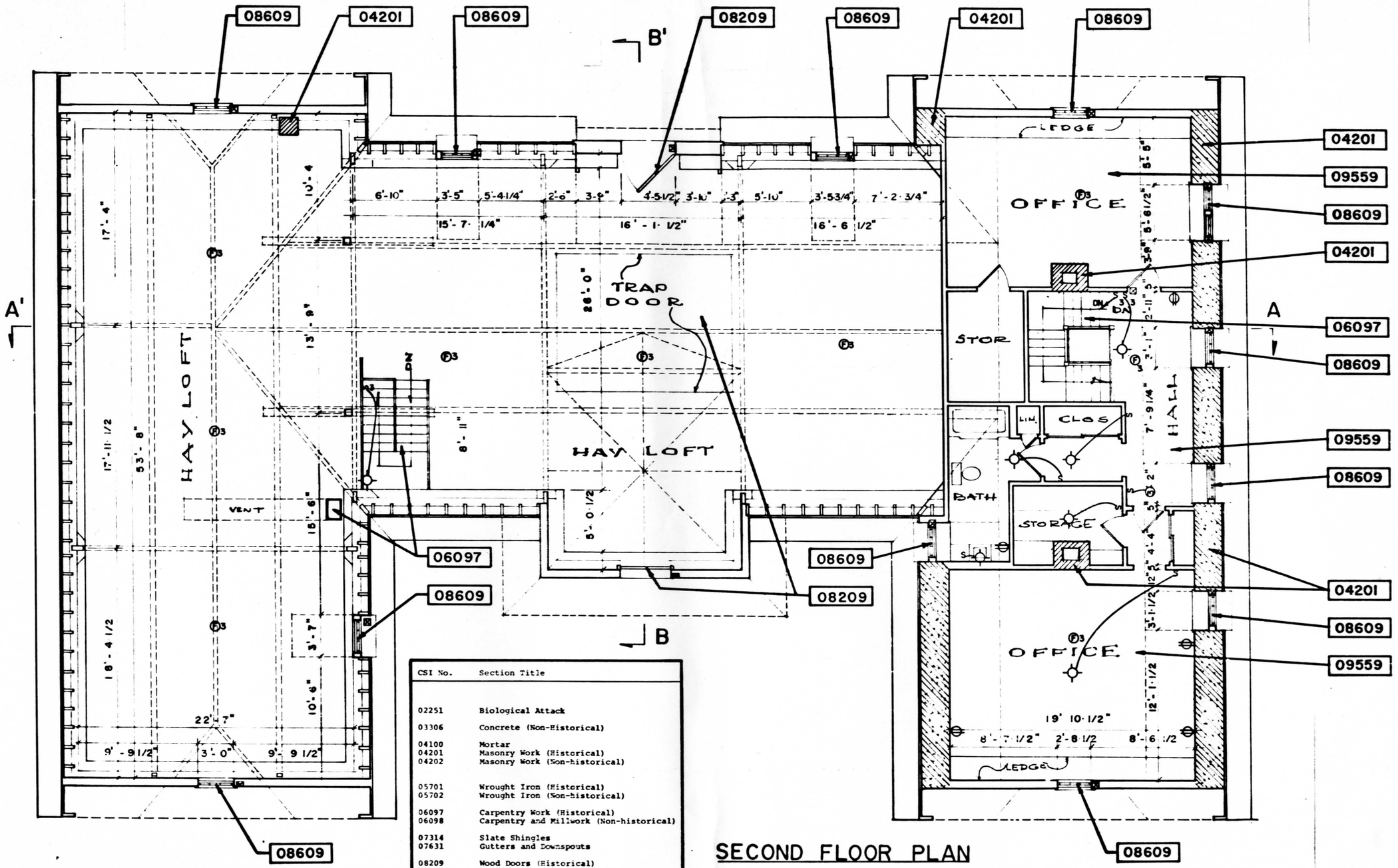
ADAMS NATIONAL HISTORIC SITE

CARRIAGE HOUSE

NORTH ALANTIC REGION | NORFOLK COUNTY | MASSACHUSETTS | 02169

PREPARED
R.A. CONRAD
DESIGNED
R.A. CONRAD
DRAWN
CHECKED
DATE

DRAWING NO
386
28,000
PKG NO 101
SHEET 8 OF 17



CSI No.	Section Title
02251	Biological Attack
03306	Concrete (Non-Historical)
04100	Mortar
04201	Masonry Work (Historical)
04202	Masonry Work (Non-historical)
05701	Wrought Iron (Historical)
05702	Wrought Iron (Non-historical)
06097	Carpentry Work (Historical)
06098	Carpentry and Millwork (Non-historical)
07314	Slate Shingles
07631	Gutters and Downspouts
08209	Wood Doors (Historical)
08210	Wood Doors (Non-Historical)
08609	Wood Windows (Historical)
08610	Wood Windows (Non-historical)
08701	Finish Hardware
08810	Glass And Glazing
09100	Lath and Plaster (Non-historical)
09101	Lath and Plaster (Historical)
09197	Stucco (Historical)
09198	Stucco (Non-historical)
09559	Wood Strip Flooring (Historical)
09560	Wood Strip Flooring (Non-historical)
09901	Painting

SECOND FLOOR PLAN

HISTORIC STRUCTURE PRESERVATION GUIDE

ADAMS NATIONAL HISTORIC SITE

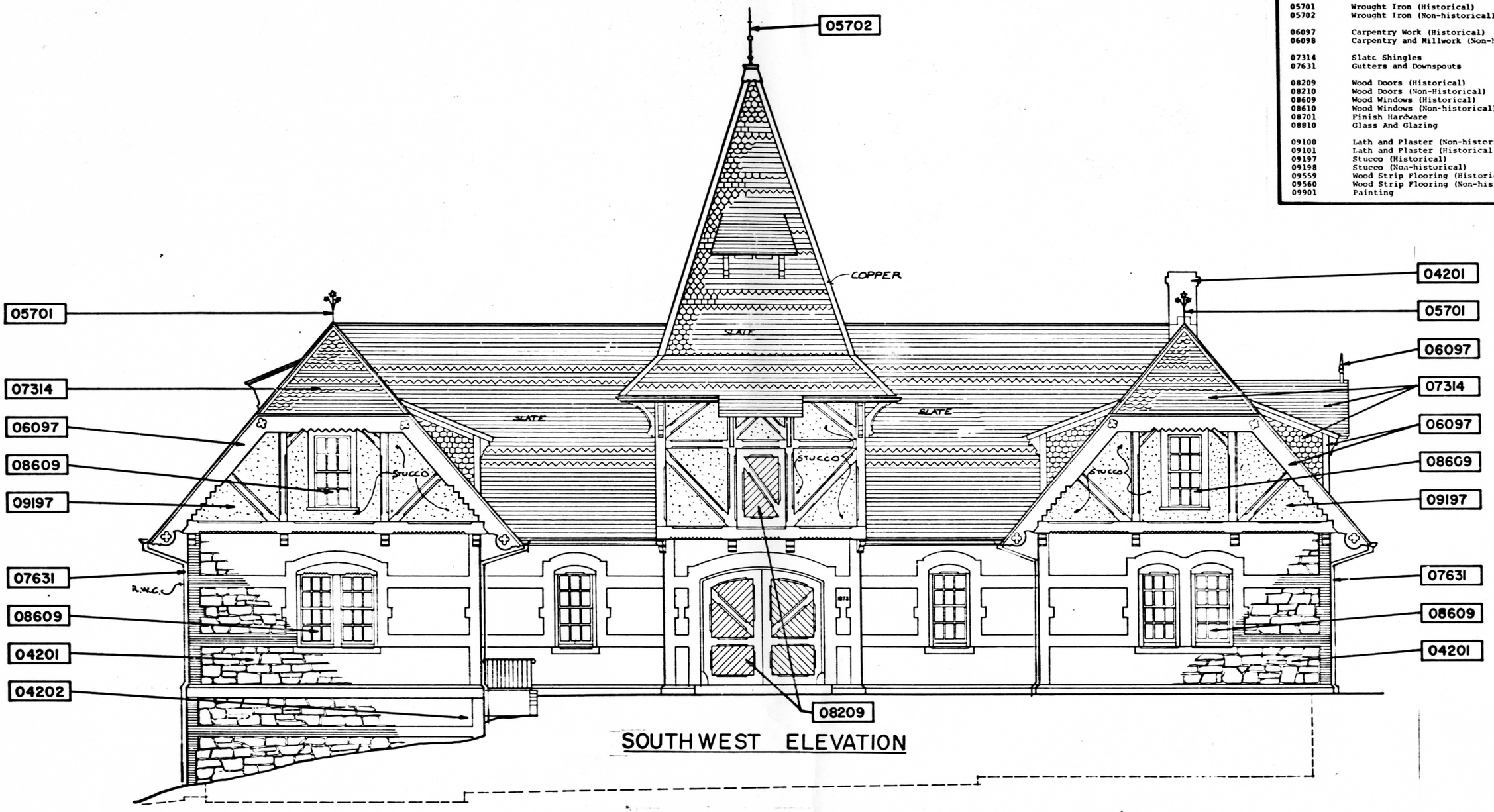
CARRIAGE HOUSE

NORTH ALANTIC REGION NORFOLK COUNTY MASSACHUSETTS 02169

PREPARED R.A. CONRAD
DESIGNED R.A. CONRAD
DRAWN
CHECKED
DATE

DRAWING NO. 385
28,000
PKG NO 101
SHEET 9 OF 17

CSI No.	Section Title
02251	Biological Attack
03306	Concrete (Non-Historical)
04100	Mortar
04201	Masonry Work (Historical)
04202	Masonry Work (Non-historical)
05701	Wrought Iron (Historical)
05702	Wrought Iron (Non-historical)
06097	Carpentry Work (Historical)
06098	Carpentry and Millwork (Non-historical)
07314	Slate Shingles
07631	Gutters and Downspouts
08209	Wood Doors (Historical)
08210	Wood Doors (Non-Historical)
08609	Wood Windows (Historical)
08610	Wood Windows (Non-historical)
08701	Finish Hardware
08810	Glass And Glazing
09100	Lath and Plaster (Non-historical)
09101	Lath and Plaster (Historical)
09197	Stucco (Historical)
09198	Stucco (Non-historical)
09559	Wood Strip Flooring (Historical)
09560	Wood Strip Flooring (Non-historical)
09901	Painting



SOUTH WEST ELEVATION

HISTORIC STRUCTURE PRESERVATION GUIDE

ADAMS NATIONAL HISTORIC SITE

CARRIAGE HOUSE

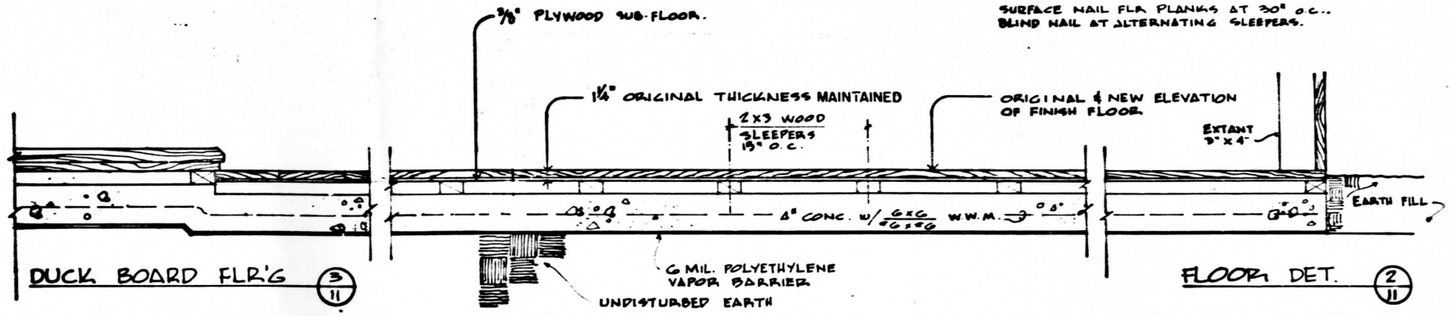
NORTH ALANTIC REGION NORFOLK COUNTY MASSACHUSETTS 02169

PREPARED
R.A. CONRAD
DESIGNED
R.A. CONRAD
DRAWN
CHECKED
DATE

DRAWING NO
386
28,000
PKG NO 101
SHEET 10 OF 17

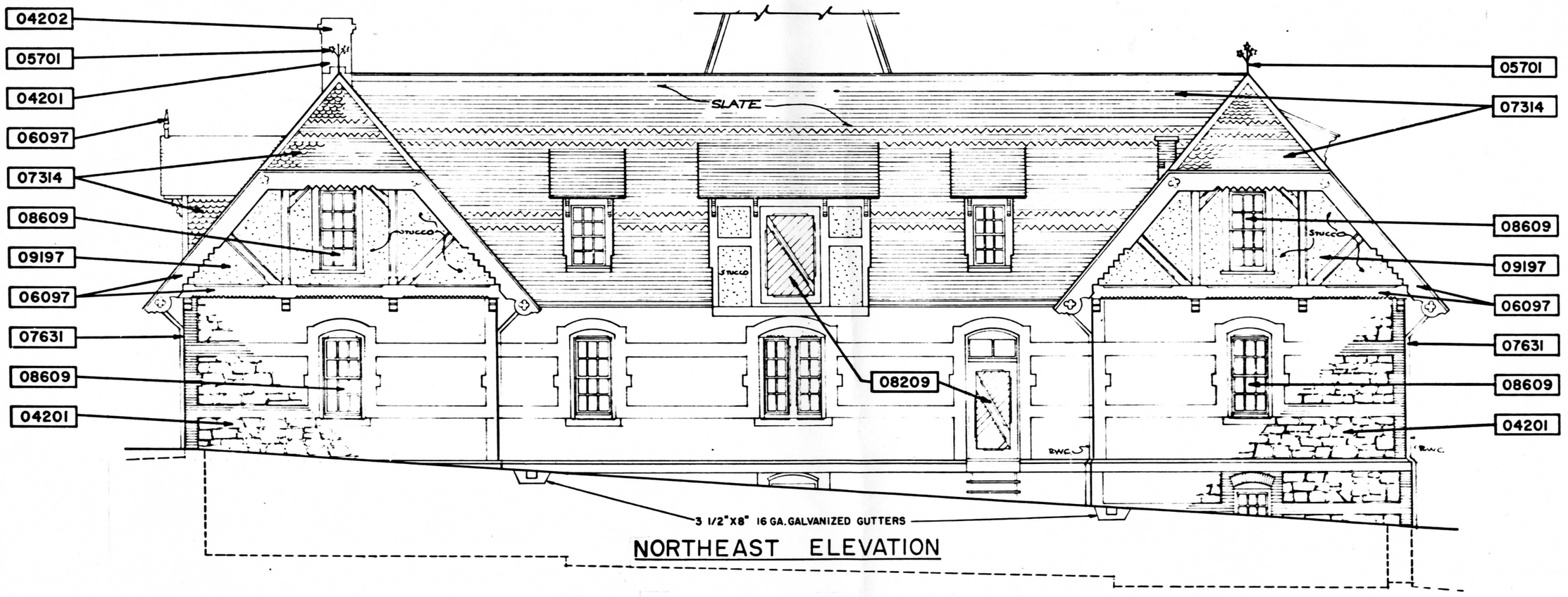
CSI No.	Section Title
02251	Biological Attack
03306	Concrete (Non-Historical)
04100	Mortar
04201	Masonry Work (Historical)
04202	Masonry Work (Non-historical)
05701	Wrought Iron (Historical)
05702	Wrought Iron (Non-historical)
06097	Carpentry Work (Historical)
06098	Carpentry and Millwork (Non-historical)
07314	Slate Shingles
07631	Gutters and Downspouts
08209	Wood Doors (Historical)
08210	Wood Doors (Non-Historical)
08609	Wood Windows (Historical)
08610	Wood Windows (Non-historical)
08701	Finish Hardware
08810	Glass And Glazing
09100	Lath and Plaster (Non-historical)
09101	Lath and Plaster (Historical)
09197	Stucco (Historical)
09198	Stucco (Non-historical)
09559	Wood Strip Flooring (Historical)
09560	Wood Strip Flooring (Non-historical)
09901	Painting

NOTES:
SEE SPECIFICATIONS FOR RE-SAWING PLANK FLOOR REQUIREMENTS.
SURFACE NAIL FLR PLANKS AT 30" o.c.. BLIND NAIL AT ALTERNATING SLEEPERS.



NEW WORK
RECONSTRUCTION OF BASM'T FLOOR DETAIL 1/11

DRAWN AT 1½" = 1'-0"



NORTHEAST ELEVATION

HISTORIC STRUCTURE PRESERVATION GUIDE

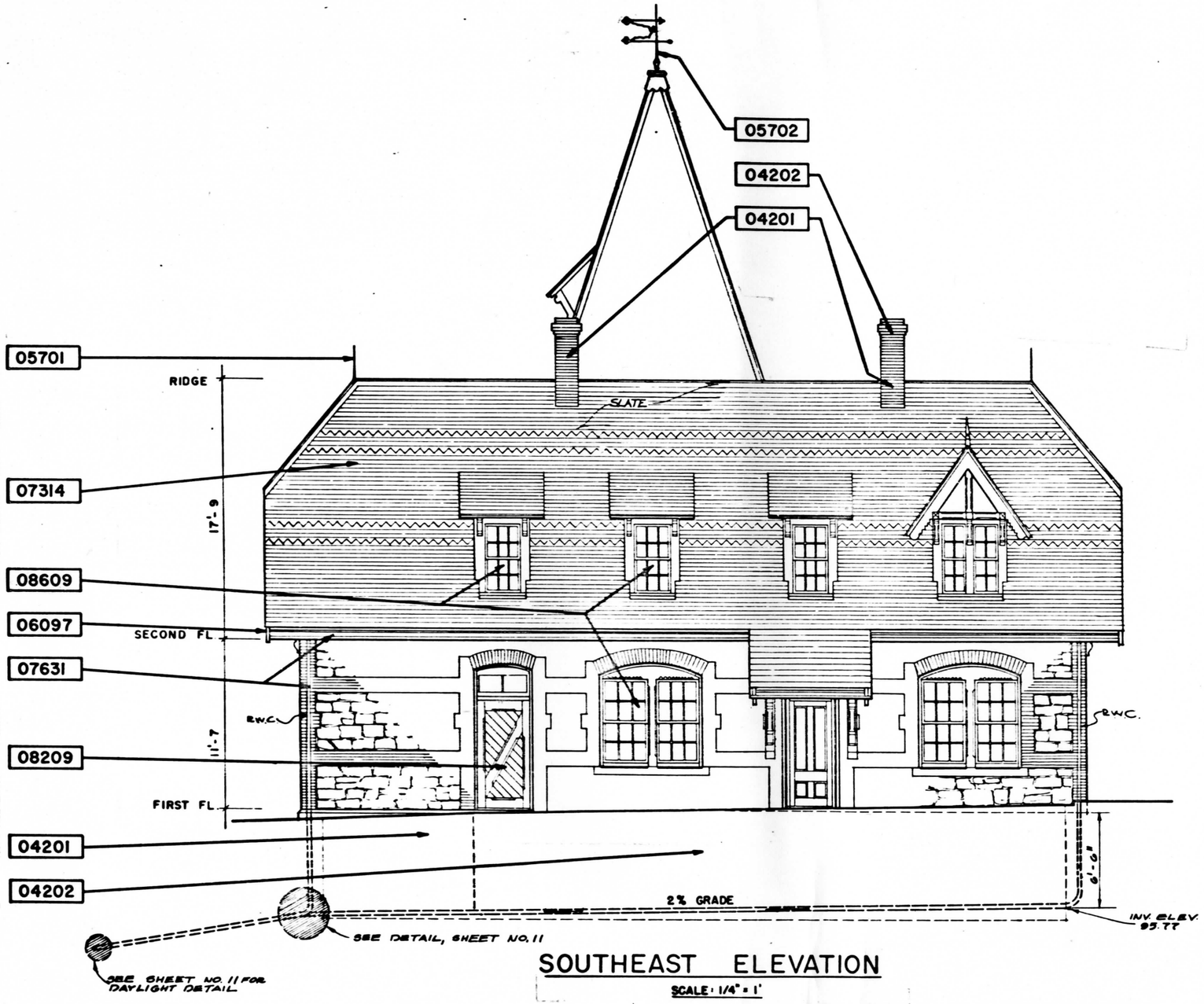
ADAMS NATIONAL HISTORIC SITE

CARRIAGE HOUSE

NORTH ALANTIC REGION | NORFOLK COUNTY | MASSACHUSETTS | 02169

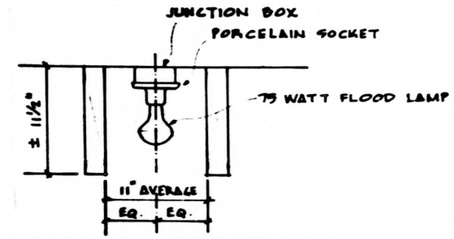
PREPARED: R.A. CONRAD
DESIGNED: R.A. CONRAD
DRAWN
CHECKED
DATE

DRAWING NO: 386 / 28,000
PKG NO: 101
SHEET: 11 OF 17

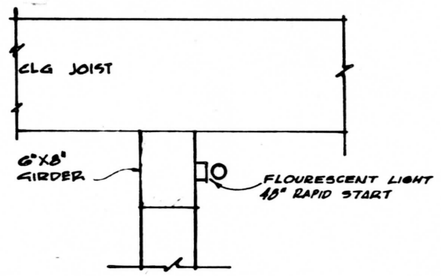


SOUTHEAST ELEVATION

SCALE: 1/4" = 1'



LIGHT FIXTURE TYPE "A"



LIGHT FIXTURE TYPE "B"

CSI No.	Section Title
02251	Biological Attack
03306	Concrete (Non-Historical)
04100	Mortar
04201	Masonry Work (Historical)
04202	Masonry Work (Non-historical)
05701	Wrought Iron (Historical)
05702	Wrought Iron (Non-historical)
06097	Carpentry Work (Historical)
06098	Carpentry and Millwork (Non-historical)
07314	Slate Shingles
07631	Gutters and Downspouts
08209	Wood Doors (Historical)
08210	Wood Doors (Non-Historical)
08609	Wood Windows (Historical)
08610	Wood Windows (Non-historical)
08701	Finish Hardware
08810	Glass And Glazing
09100	Lath and Plaster (Non-historical)
09101	Lath and Plaster (Historical)
09197	Stucco (Historical)
09198	Stucco (Non-historical)
09559	Wood Strip Flooring (Historical)
09560	Wood Strip Flooring (Non-historical)
09901	Painting

HISTORIC STRUCTURE PRESERVATION GUIDE

ADAMS NATIONAL HISTORIC SITE

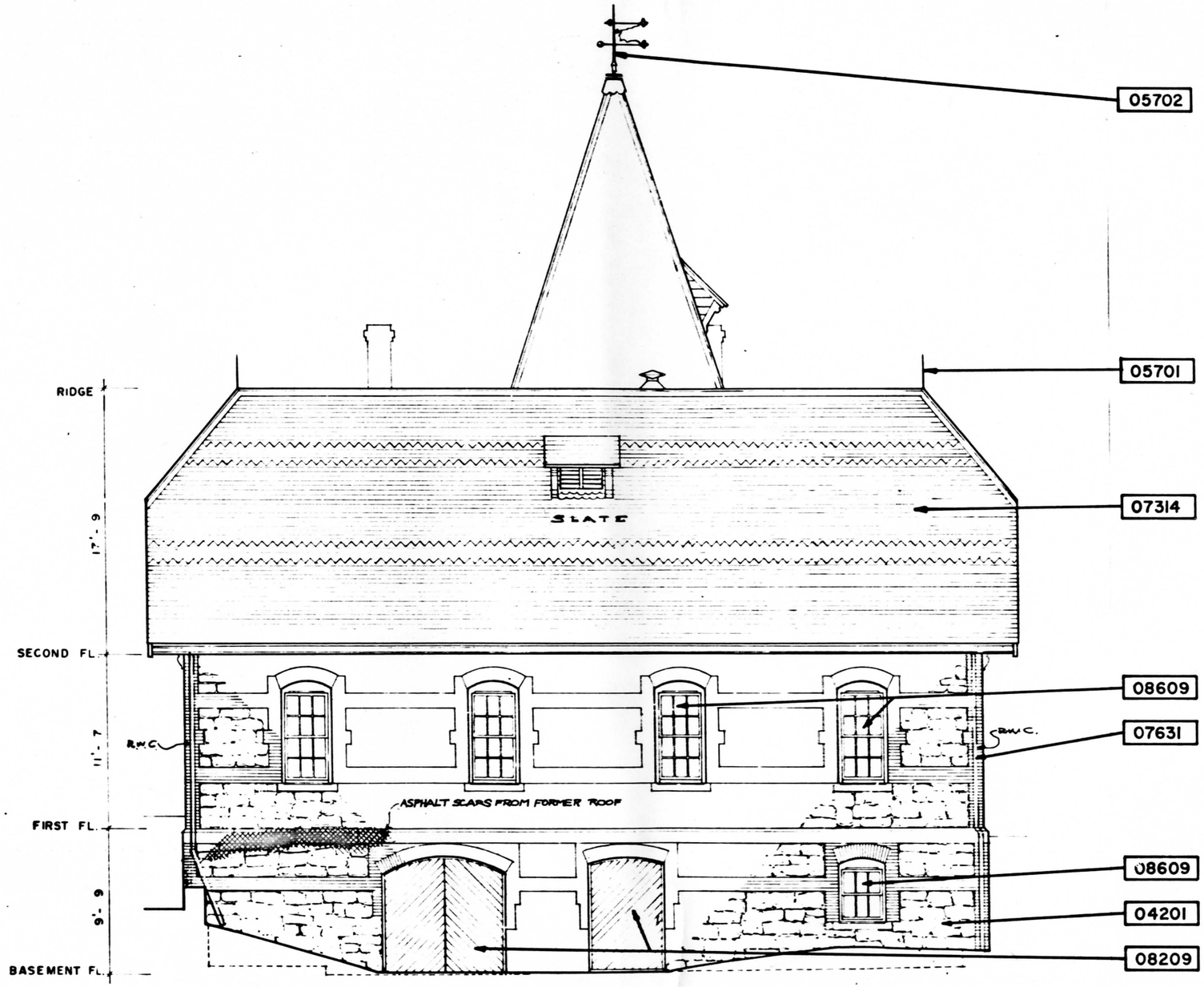
CARRIAGE HOUSE

NORTH ALANTIC REGION NORFOLK COUNTY MASSACHUSETTS 02169

PREPARED R.A. CONRAD
DESIGNED R.A. CONRAD
DRAWN
CHECKED
DATE

DRAWING NO 386 28,000
PKG NO 101
SHEET 12 OF 17

CSI No.	Section Title
02251	Biological Attack
03306	Concrete (Non-Historical)
04100	Mortar
04201	Masonry Work (Historical)
04202	Masonry Work (Non-historical)
05701	Wrought Iron (Historical)
05702	Wrought Iron (Non-historical)
06097	Carpentry Work (Historical)
06098	Carpentry and Millwork (Non-historical)
07314	Slate Shingles
07631	Gutters and Downspouts
08209	Wood Doors (Historical)
08210	Wood Doors (Non-Historical)
08609	Wood Windows (Historical)
08610	Wood Windows (Non-historical)
08701	Finish Hardware
08810	Glass And Glazing
09100	Lath and Plaster (Non-historical)
09101	Lath and Plaster (Historical)
09197	Stucco (Historical)
09198	Stucco (Non-historical)
09559	Wood Strip Flooring (Historical)
09560	Wood Strip Flooring (Non-historical)
09901	Painting



NORTHWEST ELEVATION

SCALE: 1/4"-1'

HISTORIC STRUCTURE PRESERVATION GUIDE

ADAMS NATIONAL HISTORIC SITE

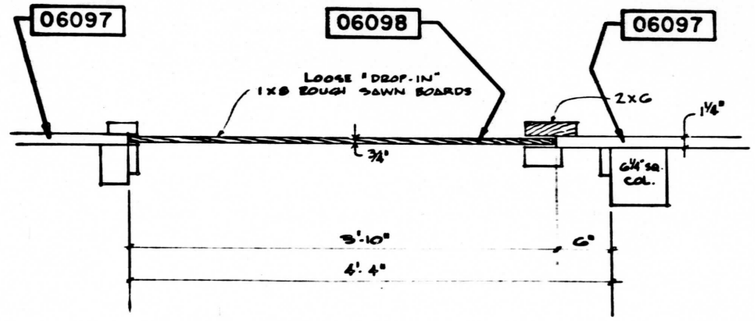
CARRIAGE HOUSE

NORTH ALANTIC REGION NORFOLK COUNTY MASSACHUSETTS 02169

PREPARED R.A. CONRAD
DESIGNED R.A. CONRAD
DRAWN
CHECKED
DATE

DRAWING NO 386 28,000
PROJ NO 101
SHEET 13 OF 17

CSI No.	Section Title
02251	Biological Attack
03306	Concrete (Non-Historical)
04100	Mortar
04201	Masonry Work (Historical)
04202	Masonry Work (Non-historical)
05701	Wrought Iron (Historical)
05702	Wrought Iron (Non-historical)
06097	Carpentry Work (Historical)
06098	Carpentry and Millwork (Non-historical)
07314	Slate Shingles
07631	Gutters and Downspouts
08209	Wood Doors (Historical)
08210	Wood Doors (Non-Historical)
08609	Wood Windows (Historical)
08610	Wood Windows (Non-historical)
08701	Finish Hardware
08810	Glass And Glazing
09100	Lath and Plaster (Non-historical)
09101	Lath and Plaster (Historical)
09197	Stucco (Historical)
09198	Stucco (Non-historical)
09559	Wood Strip Flooring (Historical)
09560	Wood Strip Flooring (Non-historical)
09901	Painting



OPENING TO GOAT PEN
DRAWN AT 1½" = 1'-0" SCALE

SECTION A - A'
DRAWN AT ¼" = 1'-0"

HISTORIC STRUCTURE PRESERVATION GUIDE

ADAMS NATIONAL HISTORIC SITE

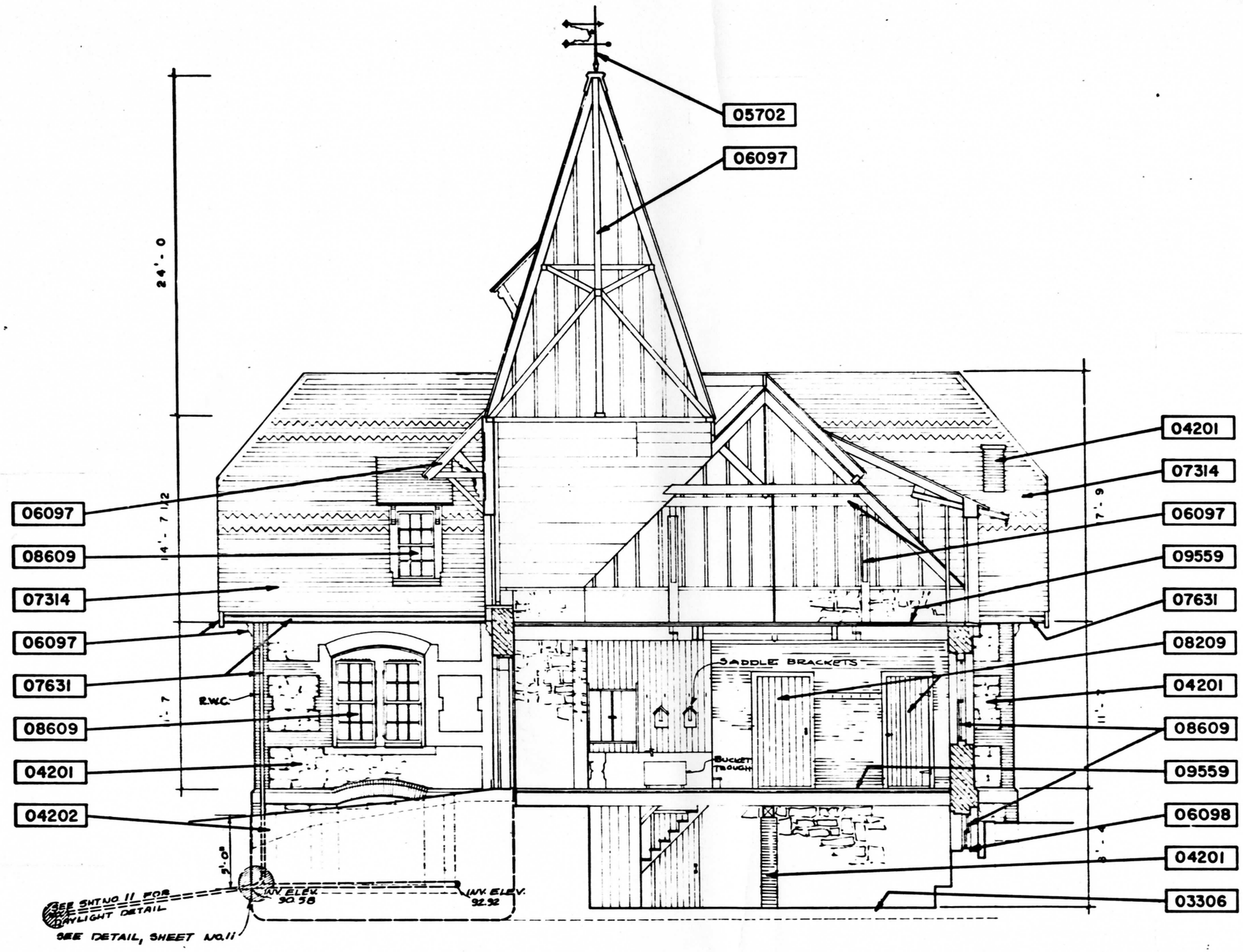
CARRIAGE HOUSE

NORTH ALANTIC REGION NORFOLK COUNTY MASSACHUSETTS 02169

PREPARED
R.A. CONRAD
DESIGNED
R.A. CONRAD
DRAWN
CHECKED
DATE

DRAWING NO
386
28,000
PKG NO 101
SHEET 14 OF 17

CSI No.	Section Title
02251	Biological Attack
03306	Concrete (Non-Historical)
04100	Mortar
04201	Masonry Work (Historical)
04202	Masonry Work (Non-historical)
05701	Wrought Iron (Historical)
05702	Wrought Iron (Non-historical)
06097	Carpentry Work (Historical)
06098	Carpentry and Millwork (Non-historical)
07314	Slate Shingles
07631	Gutters and Downspouts
08209	Wood Doors (Historical)
08210	Wood Doors (Non-Historical)
08609	Wood Windows (Historical)
08610	Wood Windows (Non-historical)
08701	Finish Hardware
08810	Glass And Glazing
09100	Lath and Plaster (Non-historical)
09101	Lath and Plaster (Historical)
09197	Stucco (Historical)
09198	Stucco (Non-historical)
09559	Wood Strip Flooring (Historical)
09560	Wood Strip Flooring (Non-historical)
09901	Painting



SECTION "B-B"

SCALE: 1/4" = 1'

HISTORIC STRUCTURE PRESERVATION GUIDE

ADAMS NATIONAL HISTORIC SITE

CARRIAGE HOUSE

NORTH ALANTIC REGION NORFOLK COUNTY MASSACHUSETTS 02169

PREPARED	DRAWING NO
R.A. CONRAD	386 / 28,000
DESIGNED	
R.A. CONRAD	PKG NO 101 / SHEET 15
DRAWN	
CHECKED	OF 17
DATE	

CARRIAGE HOUSE

3½" x 8"- 16 GAUGE GALVANIZED GUTTERS

100.77 EXIST EL. 95.77 INV EL.

MASTER BOX ON POLE BEHIND WOODSHED TO FIRE ALARM CONTROL PANEL

RWC

100.26

100.08

WOODSHED

2' DEPTH

100.80 EXIST EL. 95.80 INV. EL.

EXISTING WATER SUPPLY

FIRST FLOOR ELEVATION 100.00'

99.10

96.11

96.97

99.27

90.37'

99.12

98.80

99.35

98.92 EXIST EL. 92.92 INV EL

6' DEPTH

95.58 EXIST EL. 90.50 INV EL

97.23

91.58

RWC

98.83

99.33

CONC. PLATFORM MATCHES SIZE OF STONE STEP

6" GALVANIZED PERFORATED CORRUGATED DRAIN TYP

SLOPE = 0.02%

GRASS AREA

RWC

100.36

100.11

91.96

92.07

95.29

95.74

98.47

EDGE OF GRAVEL DRIVE

98.83

EDGE OF DRIVE

6' DEPTH

97.66

97.27

98.81

87.63

CONC. MARKER

90.97

GRASS AREA

DUCK POND

87.45

97.31

95.10

86.90

CONC. CORNER

SECTION OF NON-PERFORATED PIPE

EXISTING FACE OF SOUTH EAST BUILDING WALL.

END OF EXISTING GRASS LINE

EXISTING ELEVATION OF GRADE

¾" OF BLACK TOP ON ROAD SURFACE

GRAVEL BACKFILL

6" GALVANIZED PERFORATED CORRUGATED DRAIN PIPE

WITH FILL ABOVE THIS POINT FOR INSTALLATION OF GRASS AREA

DEPTH OF TRENCH

INVERT ELEVATION

9" 6" 9"

2'-0"

SECTION THROUGH NEW GRADE DRAINAGE 1/16

SITE DRAINAGE AND DETAIL

SCALE: 1/8" = 1'

NORTH

HISTORIC STRUCTURE PRESERVATION GUIDE

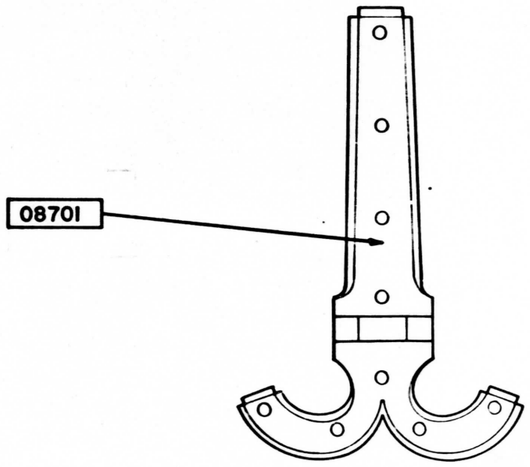
ADAMS NATIONAL HISTORIC SITE

CARRIAGE HOUSE

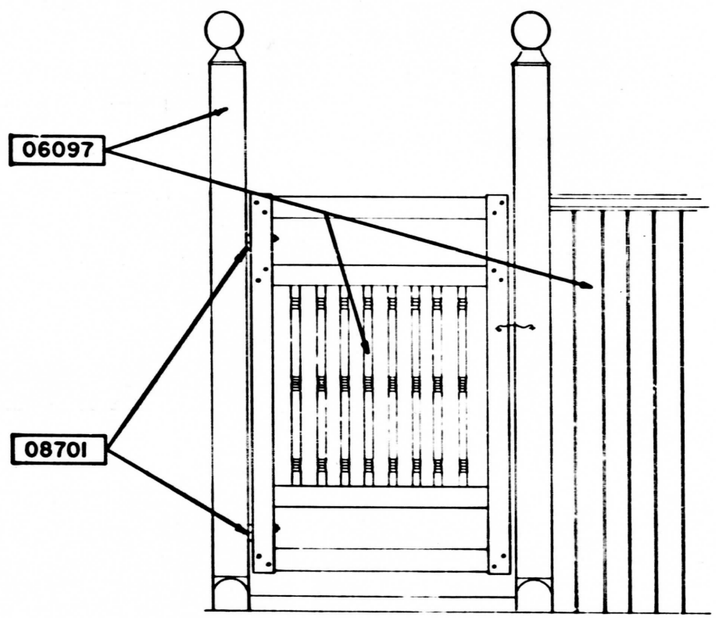
NORTH ALANTIC REGION NORFOLK COUNTY MASSACHUSETTS 02169

PREPARED	DRAWING NO
R.A. CONRAD DESIGNED	386 28,000
R.A. CONRAD DRAWN	PKG NO 101 — SHEET 16
CHECKED	of 17
DATE	

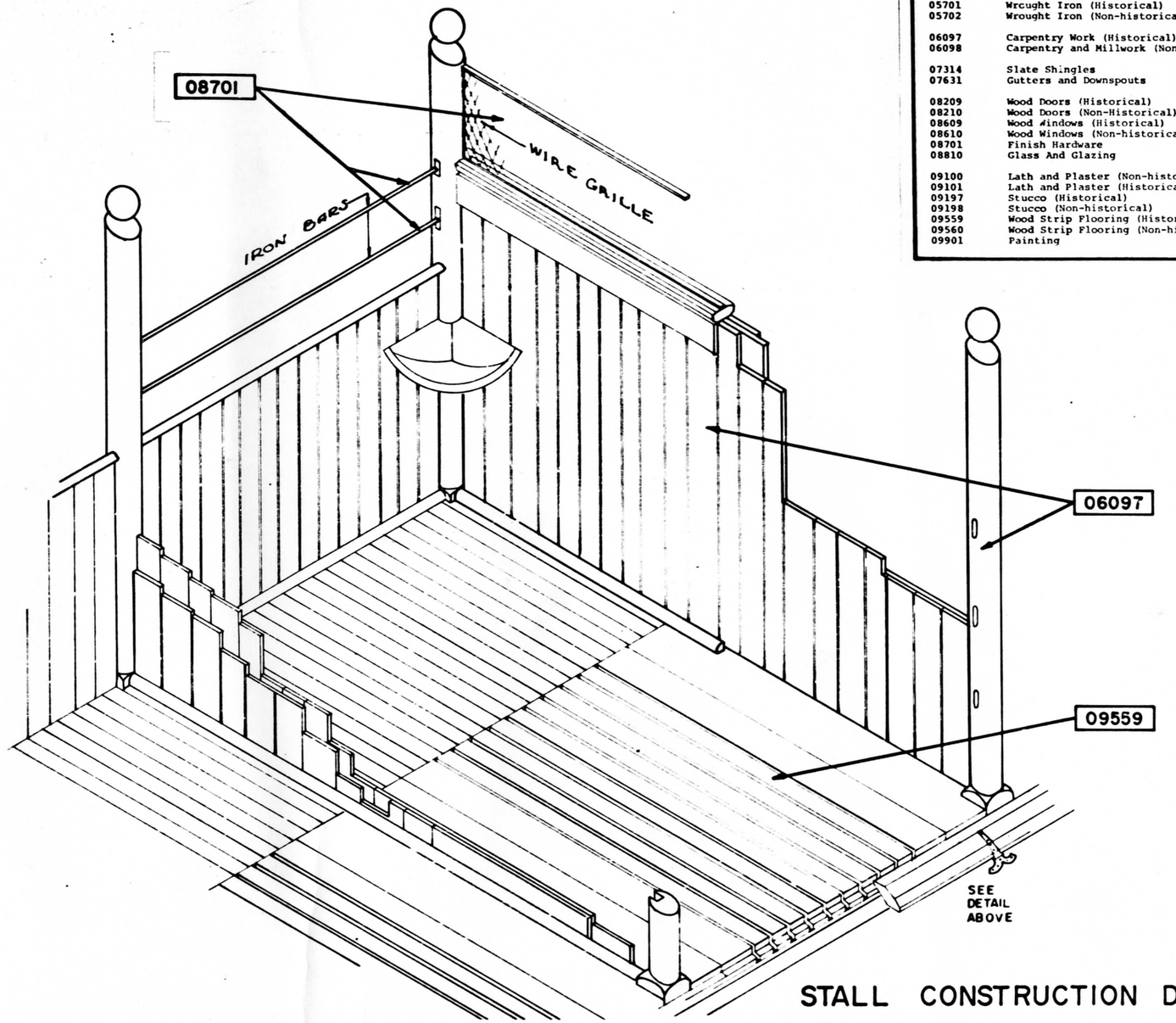
CSI No.	Section Title
02251	Biological Attack
03306	Concrete (Non-Historical)
04100	Mortar
04201	Masonry Work (Historical)
04202	Masonry Work (Non-historical)
05701	Wrought Iron (Historical)
05702	Wrought Iron (Non-historical)
06097	Carpentry Work (Historical)
06098	Carpentry and Millwork (Non-historical)
07314	Slate Shingles
07631	Gutters and Downspouts
08209	Wood Doors (Historical)
08210	Wood Doors (Non-Historical)
08609	Wood Windows (Historical)
08610	Wood Windows (Non-historical)
08701	Finish Hardware
08810	Glass And Glazing
09100	Lath and Plaster (Non-historical)
09101	Lath and Plaster (Historical)
09197	Stucco (Historical)
09198	Stucco (Non-historical)
09559	Wood Strip Flooring (Historical)
09560	Wood Strip Flooring (Non-historical)
09901	Painting



GUTTER HINGE



LOOSE BOX GATE



STALL CONSTRUCTION DETAIL

HISTORIC STRUCTURE PRESERVATION GUIDE

ADAMS NATIONAL HISTORIC SITE

CARRIAGE HOUSE

NORTH ALANTIC REGION NORFOLK COUNTY MASSACHUSETTS 02169

PREPARED R.A. CONRAD
DESIGNED
R.A. CONRAD DRAWN
CHECKED
DATE

DRAWING NO 386 28,000
PKG NO 101
SHEET 17 OF 17

SECT. 6 ARCH. PLANS

ADAMS CARRIAGE HOUSE

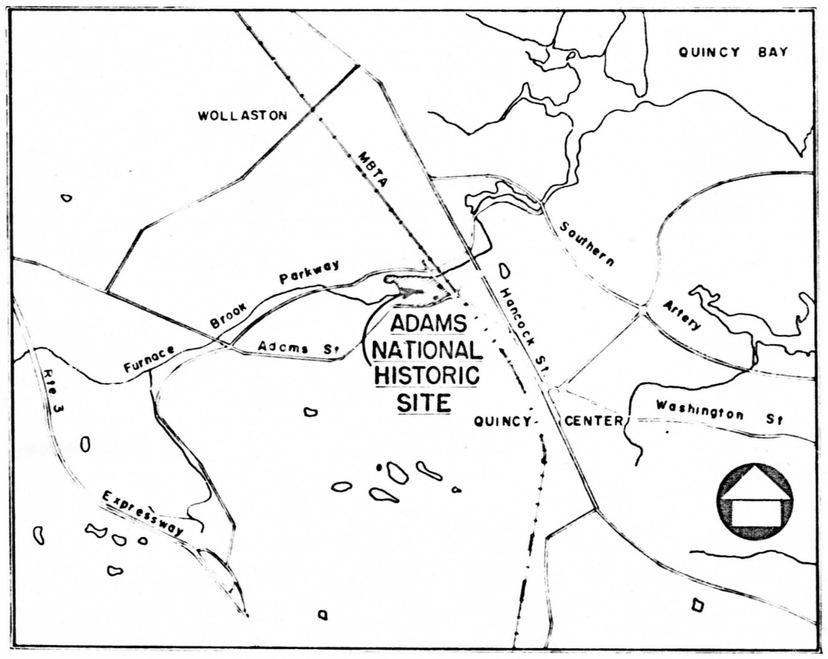
INDEX

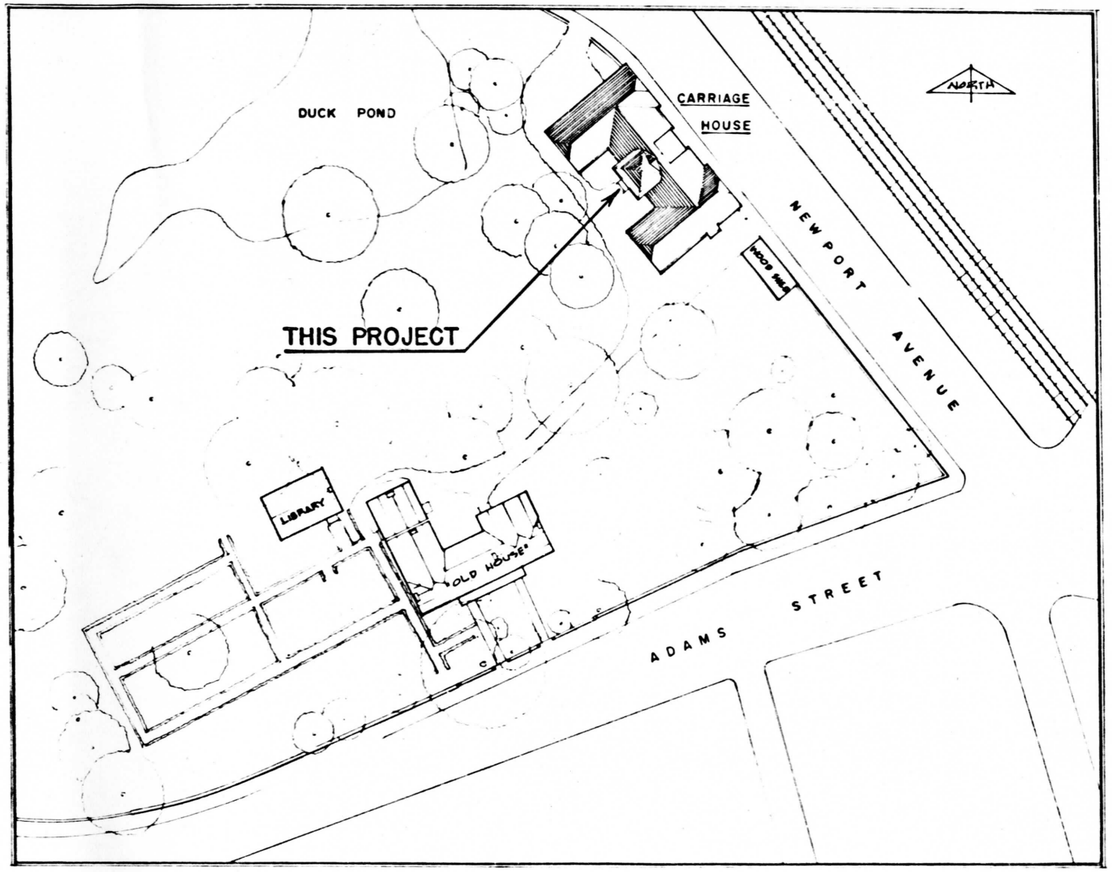
SHEET NO.	TITLE
1	TITLE SHEET, LOCATION AND SITE PLAN
2	BASEMENT PLAN
3	FIRST FLOOR PLAN
4	SECOND FLOOR PLAN
5	SOUTH WEST ELEVATION
6	N-E ELEVATION AND FLOOR DETAIL
7	S-E ELEVATION AND LIGHTING FIXTURES
8	NORTH WEST ELEVATION
9	SECTION "A-A" AND INTERIOR ELEVATIONS
10	SECTION "B-B"
11	SITE DRAINAGE AND DETAIL
12	STALL CONSTRUCTION DETAIL

LOCATION MAP

SCALE 0 1 MI

ADAPTED FROM US. COAST & GEODETIC SURVEY MAP — BOSTON & VICINITY, MASS.





SCALE: 0 100 FT

SITE PLAN

SYMBOLS

NEW	EXIST.	ELECTRICAL LEGEND
⊠		INTRUSION SWITCH
⊕	⊕	DUPLEX RECEPTACLE
S	S	SWITCH
S_3	S_3	3-WAY SWITCH
✳	✳	INCANDESCENT LAMPS
▭	▭	FLUORESCENT LAMPS
F_3		FIRE DETECTORS "ZONE"
		FIRE ALARM BELL
DIALER		ALARM DIALER
FA		FIRE ALARM PANEL
IA		INTRUSION ALARM PANEL
S		INTRUSION ALARM DISABLING SWITCH

90.61 EXIST. EL.
80.61 INV. EL. — ELEVATION POINT

Code	REVISION	Date	Init.
B	AS CONSTRUCTED	4-76	J.G.

Ⓑ AS CONSTRUCTED DRAWINGS

CONTRACT NO. CX-1600-4-9006

PROJECT NO. 4230-5418

HALF-SIZE REPRODUCTION

This drawing has been prepared in compliance with the Historic Structures Report

Approved by GEO A. PALMER
ACT'G REG. DIR. 3-1-73
Glenn O. Handy 5-14-74
Manager, DSC

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
DENVER SERVICE CENTER

PREPARED
DESIGNED
DRAWN
CHECKED
DATE

TITLE OF DRAWING
REHABILITATION OF CARRIAGE HOUSE
LOCATION WITHIN PARK
HEADQUARTERS
NAME OF PARK
ADAMS NATIONAL HISTORIC SITE
NO. ATLANTIC REGION — NORFOLK, MASSACHUSETTS COUNTY — STATE

DRAWING NO. 386 25000B
PKG NO. 103
SHEET 1 OF 12

BASIC DATA

"DOMESTIC ANIMAL" PORTION OF BASMT RESTORATION SEE GENERAL NOTE NO. 2

REMOVED SASH, CLEAN & PAINT AND REINSTALLED
REPLACED EXISTING WOOD SILL

B'

94'-8"
45'-2"
24'-9"
10'-11"
2'-11 1/2"
0'-11"

REPLACED ONE 1¾" x 11½" B'D FULL LENGTH OF STALL UNPAINTED MATCH EXISTING BOARDS.

OUTSIDE FIRE BELL

TO MASTER CONTROL

BOILER ROOM

CONFINEMENT STALLS
(RAISED DUCKBOARD FLOORING)
REMOVE & REPLACE - SEE 3/G

1¼" PLANK FLOOR ON SLEEPERS @ 30" O.C. ON GRADE REMOVED & REPLACED SEE DETAIL 1/G FOR NEW WORK

4' FLUORESCENT 2 TUBES

INSTALLED

RUSTED 3" C.I. PIPE @ CL'G. TO BE REMOVED BY N.P.S.

MAINTENANCE SHOP
CONC. FLR.

DOUBLE DUPLEX RECEPTACLE

FIRE ALARM HAND PULL BOX

EXIST. STONE SILL APPROX. 11½" ABOVE FIN. WOOD FLR.

SEE GEN'L NOTE NO. 3

GOAT PEN
EARTH FLR. TO REMAIN

REPLACED MISSING BOARDS 6'-5" HIGH 1⅛" THICK

MILK COWS

EXISTING EARTH FLOOR
NEW CONCRETE AND WOOD FLOOR

HAY CHUTE (ABOVE)

STONE

BRICK

NEW HEAT DETECTOR

"SQUARE D" CAT NO. D-97514 SERIES A2 200 AMP. 120-240 - EXISTING

INSIDE FIRE BELL AT STAIR WELL

EXISTING 60 AMP. LOAD CENTER "SQUARE D" CAT NO. QOB, SERIES 1 WITH 4 SPARE CIRCUITS.

LOCATION OF THRU-WALL CRICK APPROX. 2' ABOVE BASMT FLOOR (APPROX. 6' BELOW EXTERIOR GR.) EXCAVATE AT EXTERIOR SIDE OF WALL, PARGET AND WATERPROOF EXPOSED PORTION OF EXCAVATION. (NEW WORK)

TELEPHONE FOR INTRUSION BY PASSES DIALER

FIRE ALARM CONTROL PANEL

AUTOMATIC DIALER

ENTIRE FOUNDATION WALL PARGETED

CEM PLASTER PARGETING 2'± HIGH OVER INTERIOR DETERIORATED STONE JOINTS (NEW WORK)

3'-0" DEEP CONC. LINED PIT. FILL WITH GRAVEL (NEW WORK)

CONCRETE PIT COVERED WITH PLANK. STANCHIONS INSTALLED

CRAWL SPACE
INSTALL 6" THK. BATT INSUL. BETWEEN JOISTS. (NEW WORK)

OFFICE WING
24'-9"

GENERAL NOTES

1. ALL AREAS FORMERLY WHITEWASHED REWHITEWASHED INCLUDING NEW WOOD PATCHED INTO EXISTING WHITE-WASHED AREAS
2. ENTIRE "DOMESTIC ANIMAL" FLOOR RECONSTRUCTED IN ACCORDANCE WITH DETAIL 1/G, EXCEPT AS NOTED.
3. 3'-1½" X 5'-6" BOARD DOOR [EXTANT] RE-ASSEMBLE AND RE HANG WITH STRAP HINGES
4. MAINTAIN ELEVATION OF NEW FLOOR LEVEL AT EXISTING FLOOR ELEVATION.

NEW LIGHTING WORK THIS AREA

SEE SHEET NO. 7 FOR FIXTURE TYPES
CONDUIT ROUTED BETWEEN JOISTS
FASTENED TO FLOOR ABOVE

B

EXISTING BASEMENT PLAN

DRAWN AT 1/4" = 1'-0"

0 1 2 3 4 5 6 10 FEET

0 50CM 1 2 3 METERS

NORTH

PREPARED	DRAWING NO
DESIGNED A Reynolds	386 25000 B
DRAWN	PKG NO 102 / SHEET 2
CHECKED	OF 12
DATE	

B'

94'-3 1/2

46'-0"

10'-4" 3'-5 1/2" 10'-4 1/2" 5'-9" 4'-1" 11'-1" 4'-10" 11'-2" 3'-5" 5'-8" 10'-4" 3'-5" 10'-4"

TACK ROOM F_2 20'-9" 8'-6"

CABINET

WATERING TROUGH 6'-0"

COACH ROOM 48'-2"

OFFICE FORMER PARLOR F_2 7'-4 1/2"

5'-0 1/2" 5'-0" 7'-5 1/2"

REMOVED, REFINISHED AND REPLACED TROUGH.

USE MEDIUM GAGE STEEL WOOL PAD TO REMOVE ALL LOOSE FLAKES OF OLD VARNISH FROM ALL WOODWORK & REAPPLY ONE COAT OF NEW CLEAR VARNISH — THIS NOTE APPLICABLE TO ALL VARNISHED WOODWORK IN THE TACK ROOM, HORSE STABLES AND BOX STALLS

A'

A

2'-5" 0'-0" 8'-8 3/4" 8"

HORSE STABLES F_2 6'-0" 6'-0" 6'-0"

GRAIN CHUTES

HAY CHUTES TO BASEMENT 29'-5"

AIR VENT

BUCKET TROUGH

FLOOR DRAIN

F_2 SOIL VENT STACKS

HALL

FURNACE SWITCH

5'-10 1/2"

CAV

CLOS 3'-0 1/4"

UP

OFFICE FORMER KITCHEN F_2

FOUR SWITCH BOX ABOVE BOX

20'-1 1/2" 5'-2 1/2" 6'-9 1/2"

FOR AIR CONDITIONER ABOVE DOOR

FIRE ALARM ANNUCIATOR PANEL

KITCHEN FORMER OFFICE AND STORAGE F_2

DISABLING SWITCH

CLOCK OUTLET

14'-11 3/4"

STONE

5'-9" 3'-5" 5'-8" 5'-9" 3'-5" 5'-8 1/2"

3'-4" 9'-7" 3'-4"

25'-8"

5'-0" 4'-0"

6'-6 3/4"

5'-7"

BOX STALLS F_2 11'-10"

6'-0" 4'-2" 4'-6" 4'-3" 9"

6"

6'-7" 3'-4" 9'-3" 3'-4" 9'-3" 3'-4" 54'-3"

4'-7" 7'-0 1/2" 5'-5" 4'-0" 5'-5 1/2" 54'-3"

3'-2" 0'-11" 4'-01/2" 9'-2"

7'-1" 4'-8" 4'-0" 12'-0"

9'-0" 6'-5 1/2" 8'-9 1/2" 14'-0" 16'-3" 14'-01/2" 8'-3" 7'-8 1/2" 8'-3"

24'-3" 24'-2 1/2"

STONE

BRICK

B

EXISTING FIRST FLOOR PLAN

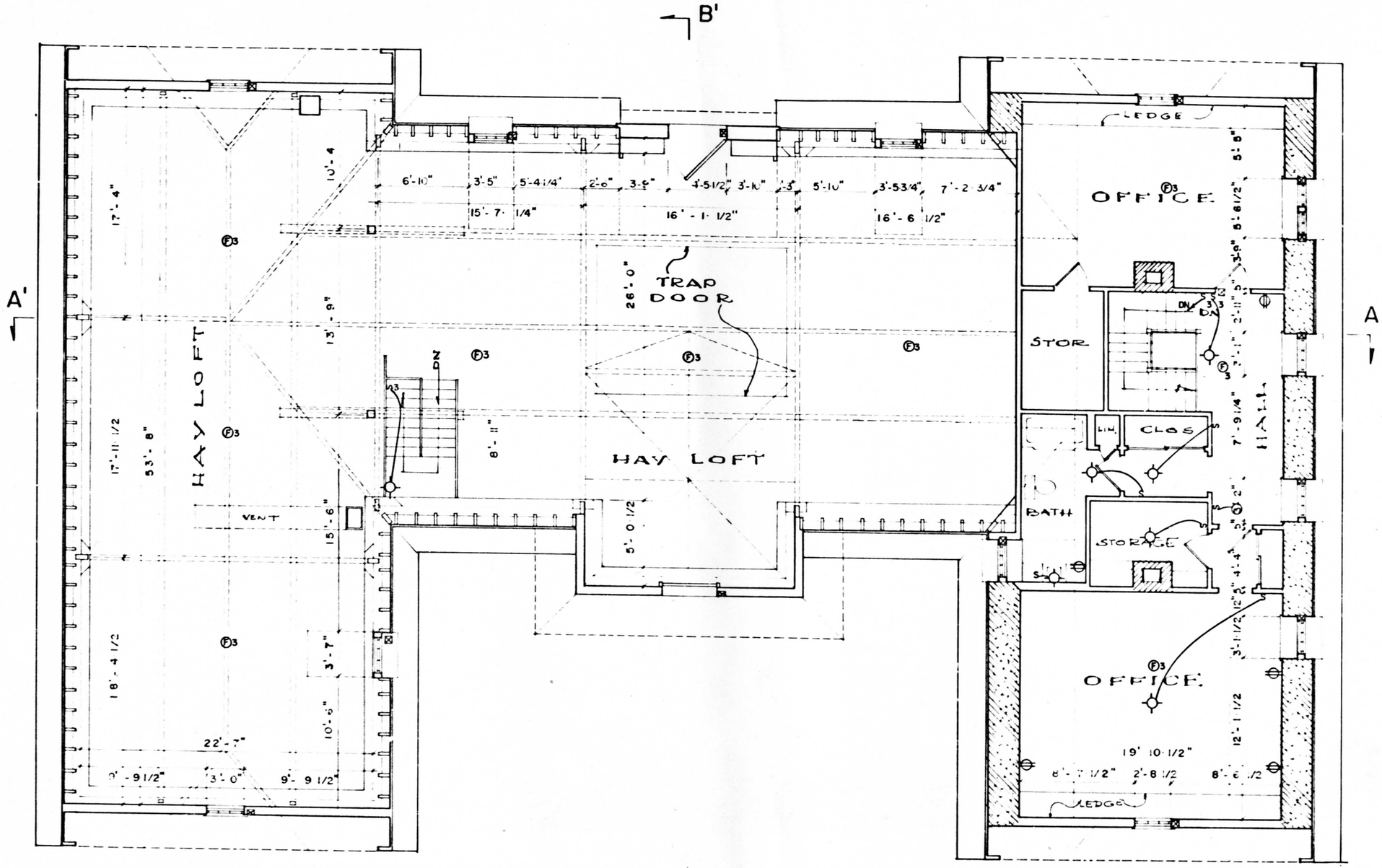
DRAWN AT 1/4" = 1'-0"

0 1 2 3 4 6 8 10 FEET

0 50CM 1 2 3 METERS

NORTH

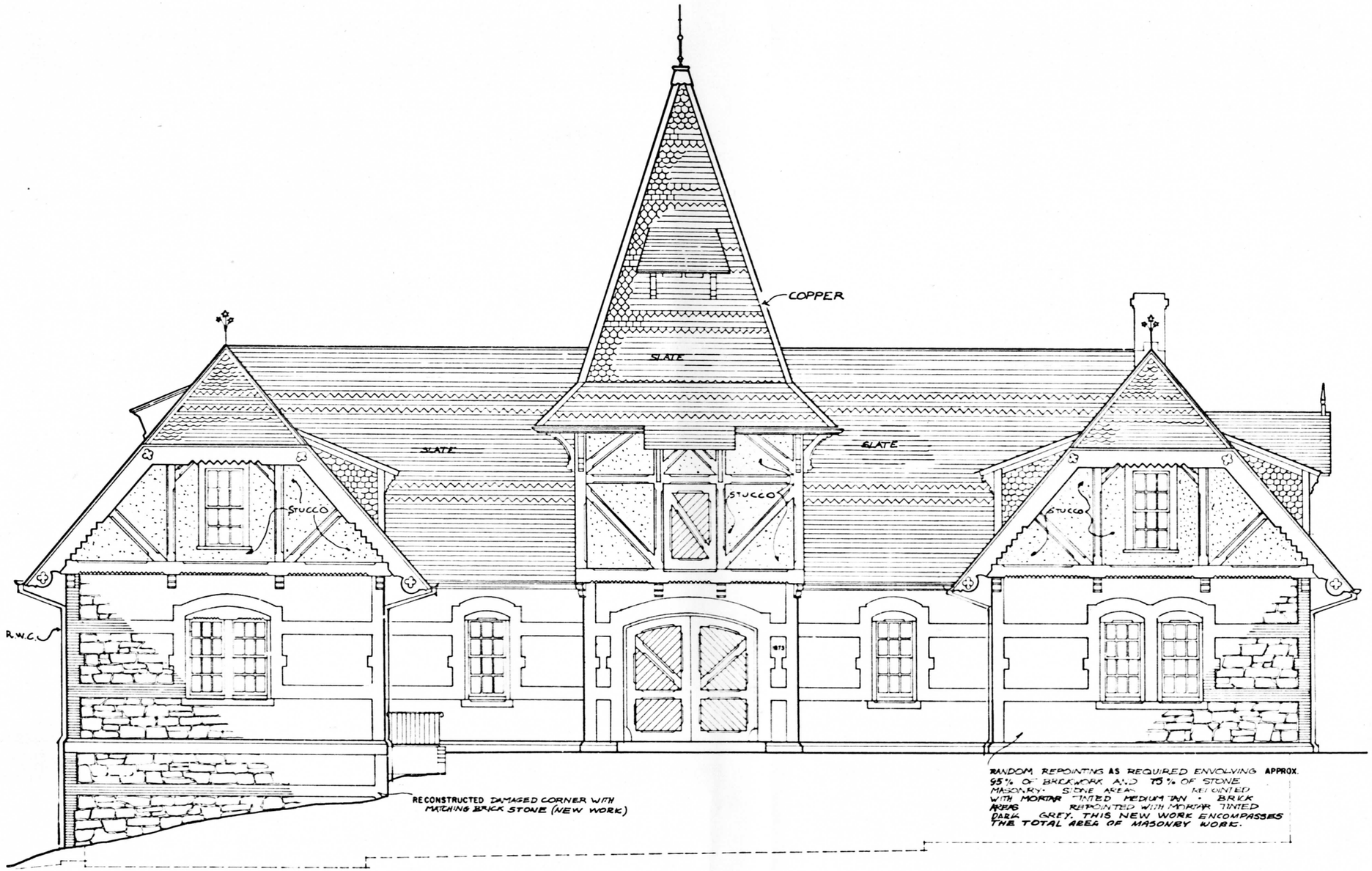
PREPARED	DRAWING NO
DESIGNED	386 25000 B
A Travis '69 DRAWN	PKG NO 108 / SHEET 3
CHECKED	OF 12
DATE	



EXISTING
SECOND FLOOR PLAN

NO INTERIOR WORK REQUIRED THIS FLOOR WITH THE EXCEPTION OF FIRE DETECTION AND INTRUSION SYSTEMS

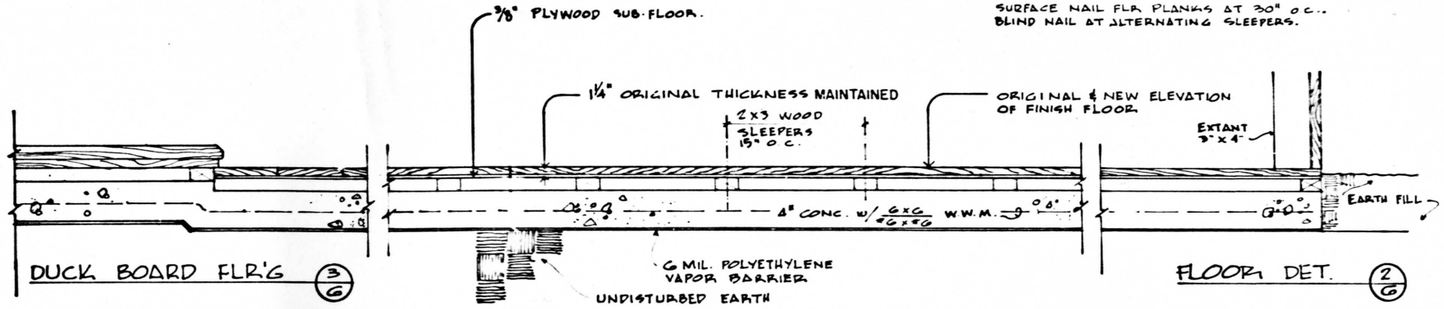
PREPARED	DRAWING NO
DESIGNED	38G 25000B
A. Reynolds DRAWN	PKS NO 108 / SHEET 4
CHECKED	OF 12
DATE	



EXISTING
SOUTH WEST ELEVATION

PREPARED	DRAWING NO
DESIGNED	386 25000B
A. Reynolds DRAWN	PKG NO 108 — SHEET 5
CHECKED	OF 12
DATE	

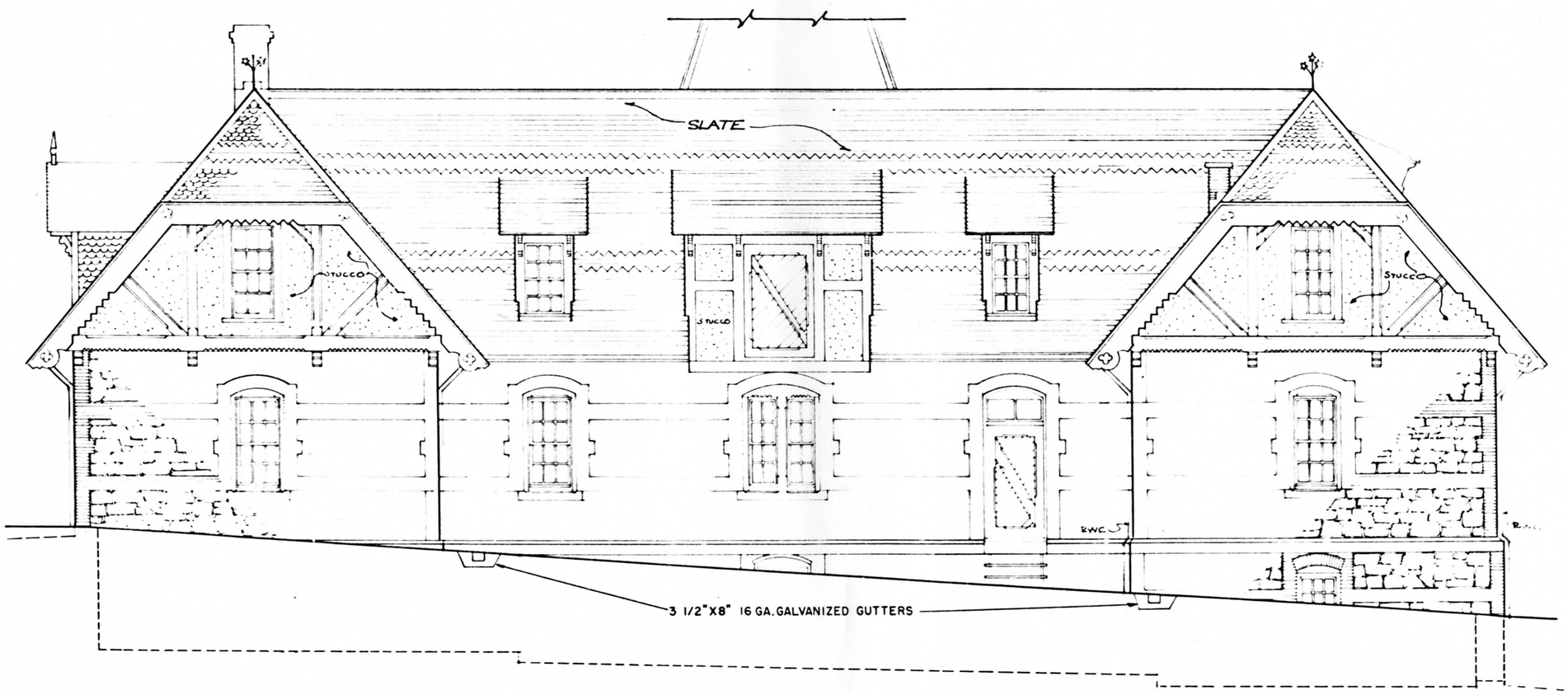
NOTES:
SEE SPECIFICATIONS FOR RE-SAWING PLANK FLOOR REQUIREMENTS.
SURFACE NAIL FLR PLANKS AT 30" O.C.. BLIND NAIL AT ALTERNATING SLEEPERS.



NEW WORK

RECONSTRUCTION OF BASM'T FLOOR DETAIL 1/6

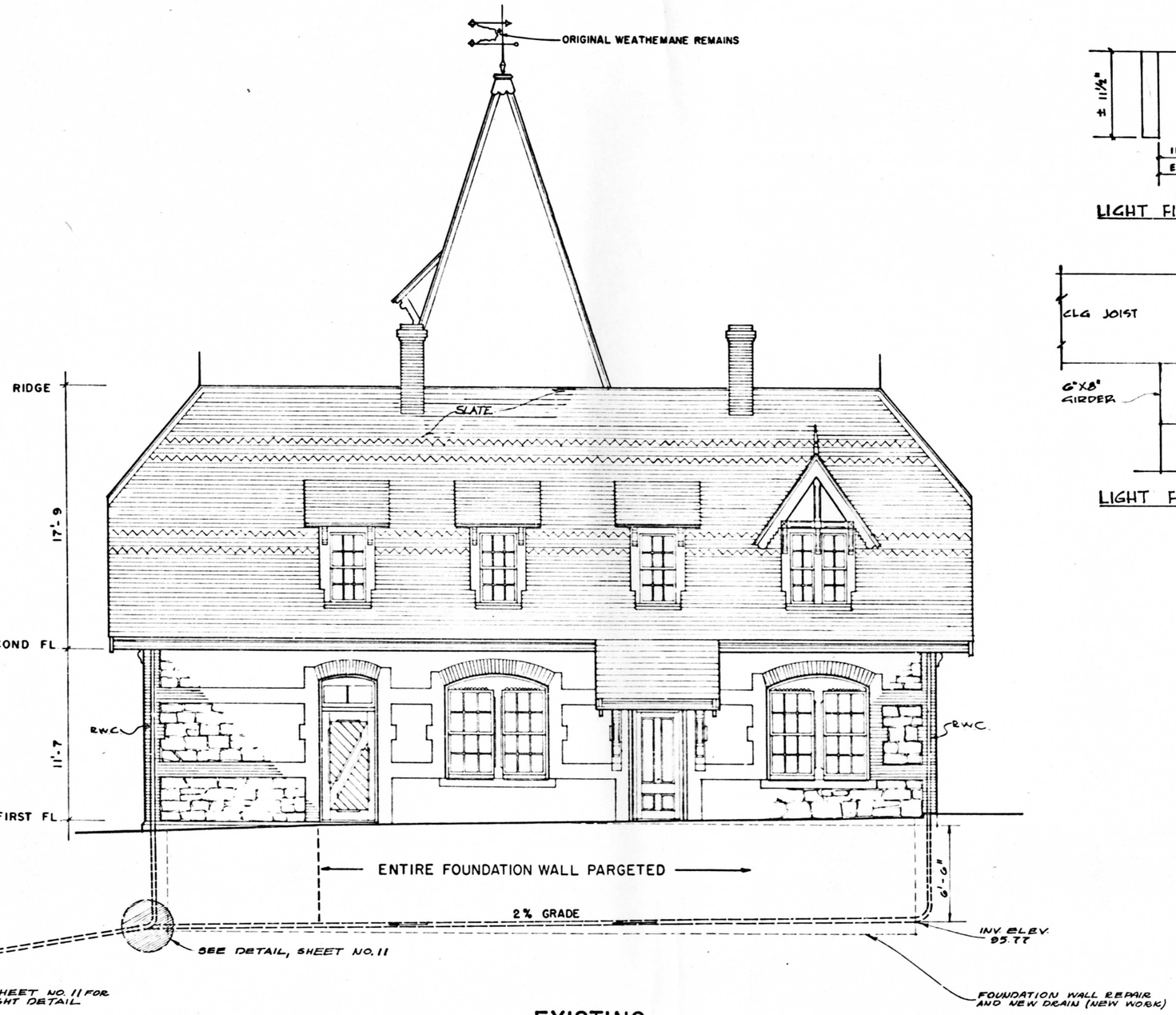
DRAWN AT 1½" = 1'-0"



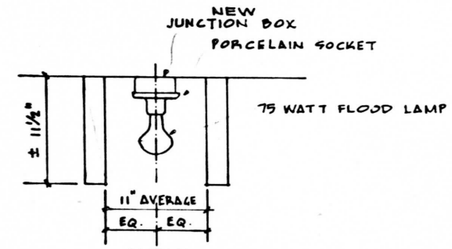
EXISTING

NORTHEAST ELEVATION

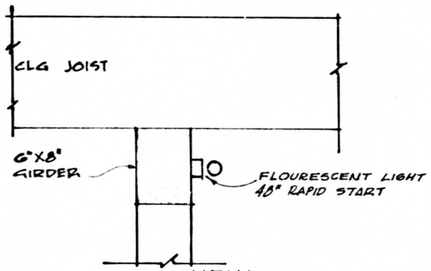
PREPARED	DRAWING NO
DESIGNED	386 25000B
Architect's DRAWN	PKG NO 108 / SHEET C
CHECKED	OF 12
DATE	



EXISTING
SOUTHEAST ELEVATION
SCALE: 1/4" = 1'

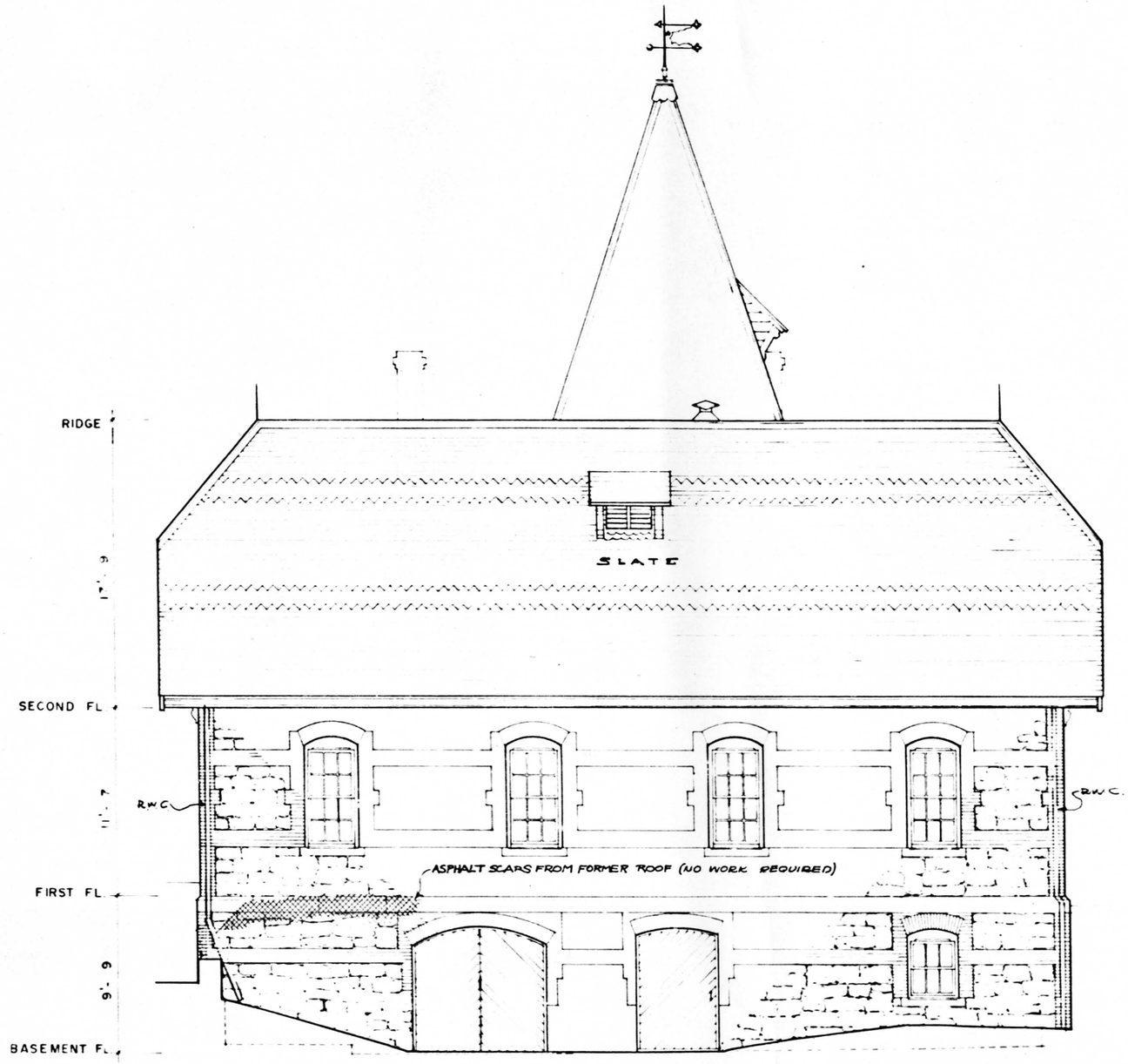


NEW
LIGHT FIXTURE TYPE "A"



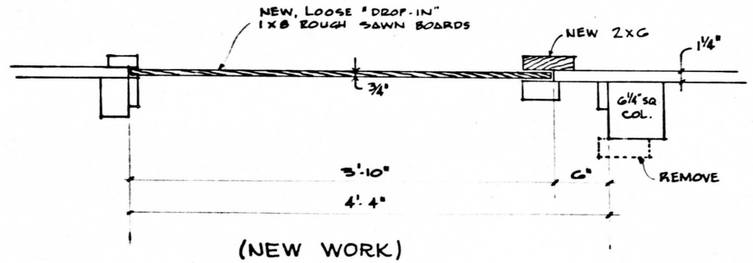
NEW
LIGHT FIXTURE TYPE "B"

PREPARED	DRAWING NO.
DESIGNED	386 25,000B
DRAWN	PKG NO. 108 / SHEET 7
CHECKED	OF 12
DATE	



EXISTING
NORTHWEST ELEVATION
SCALE: 1/4" - 1'

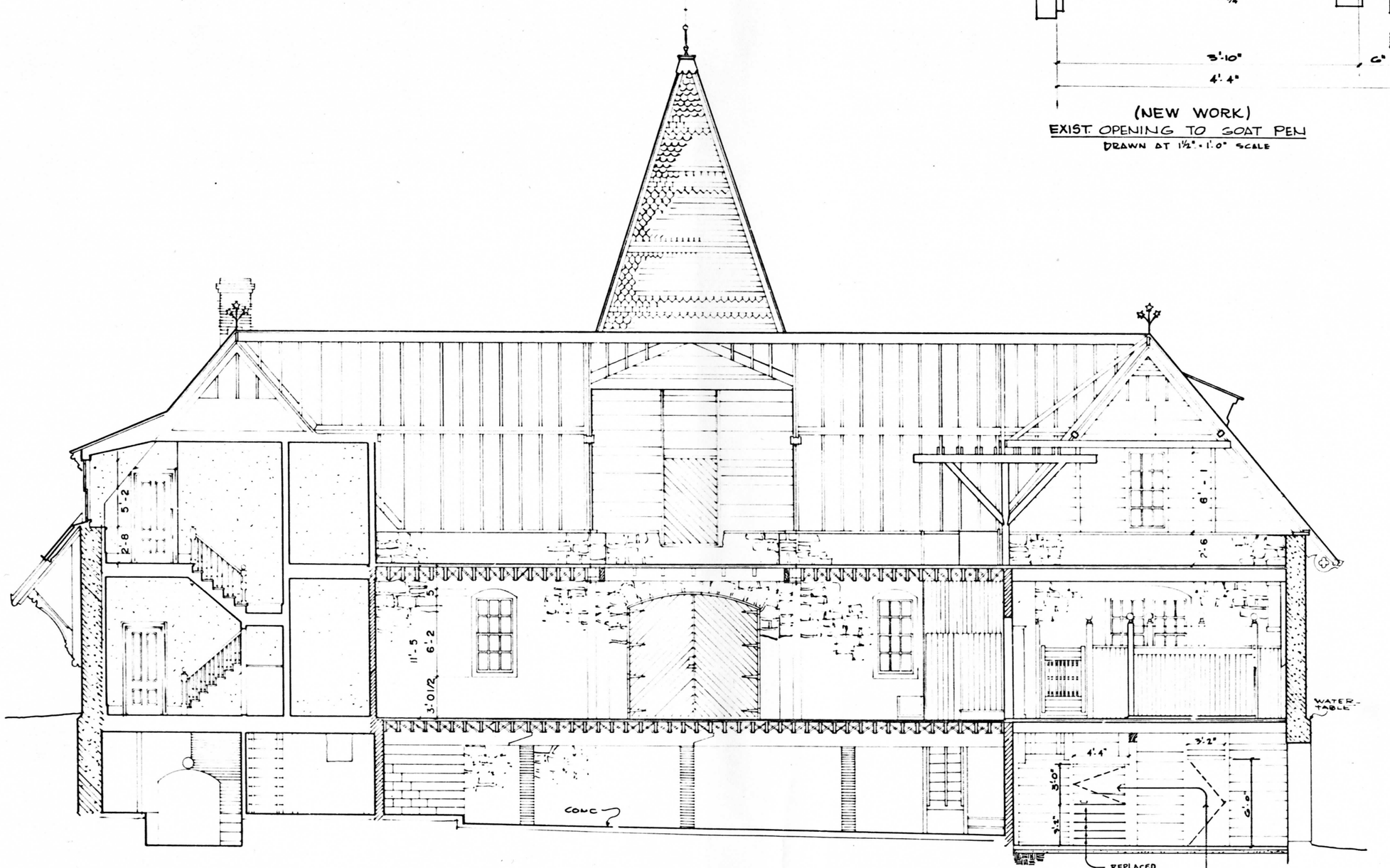
PREPARED	DRAWING NO.
DESIGNED A. Reynolds	38G 25000B
DRAWN	PKG NO. 108 — SHEET 8
CHECKED	— OF 12
DATE	



(NEW WORK)

EXIST. OPENING TO GOAT PEN

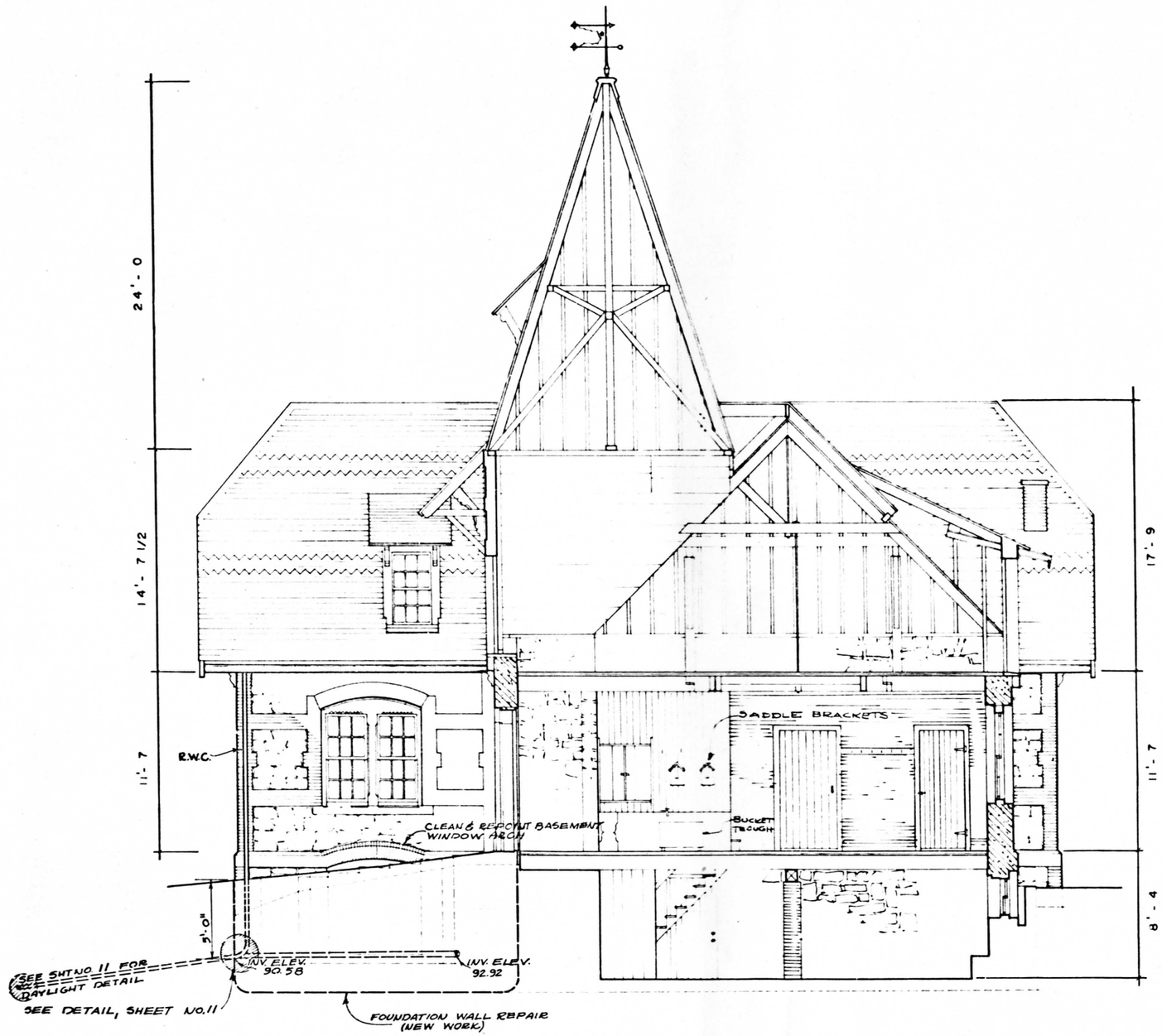
DRAWN AT 1½" = 1'-0" SCALE



EXISTING
SECTION A - A'

DRAWN AT ¼" = 1'-0"

PREPARED	DRAWING NO.
DESIGNED L. Reynolds	386
DRAWN	25,000B
CHECKED	PKG NO. 108 / SHEET 9
DATE	OF 12



EXISTING
SECTION "B-B"
SCALE: 1/4" = 1'

PREPARED	DRAWING NO
DESIGNED	386 25000B
DRAWN A. Reynolds	PKG NO. 108 / SHEET 10
CHECKED	OF 12
DATE	

CARRIAGE HOUSE

WOODSHED

GRASS AREA

DUCK POND

GRAVEL BACKFILL

3½" X 8"-16 GAUGE GALVANIZED GUTTERS

100.77 EXIST EL. 95.77 INV. EL.

MASTER BOX ON POLE BEHIND WOODSHED TO FIRE ALARM CONTROL PANEL

ENTIRE FOUNDATION WALL PARGETED

100.80 EXIST EL. 98.80 INV. EL.

FIRST FLOOR ELEVATION 100.00'

EXISTING WATER SUPPLY

98.92 EXIST EL. 92.92 INV. EL.

95.58 EXIST EL. 90.50 INV. EL.

AREA GRADED

6' DEPTH

2' DEPTH

4' DEPTH

NEW CONC. PLATFORM MATCHES SIZE OF STONE STEP

6" GALVANIZED PERFORATED CORRUGATED DRAIN PIPE

SLOPE=0.02%

EXCAVATED FOR DRAINAGE

SLOPE TO EDGE OF GRAVEL DRIVE

R.W.C.

EDGE OF GRAVEL DRIVE

EDGE OF DRIVE

EXCAVATED FOR DRAINAGE

SECTION OF NON-PERFORATED PIPE

6" GALVANIZED PERFORATED CORRUGATED DRAIN PIPE

LIGHT. BEVEL & SCREEN ENDS

CONC. HEADER

CONC. COVER

LIGHT. BEVEL & SCREEN ENDS

99.10 · 96.11 · 96.97 · 99.27 · 99.12 · 99.35 · 98.80 · 99.17 · 91.58 · 97.23 · 98.85 · 99.33 · 100.26 · 100.08 · 100.11 · 91.96 · 92.07 · 95.29 · 95.74 · 98.47 · 98.83 · 87.63 · 90.97 · 97.66 · 99.27 · 99.81 · 87.45 · 97.31 · 93.10 · 86.90

EXISTING FACE OF SOUTH EAST BUILDING WALL.

END OF EXISTING GRASS LINE

EXISTING ELEVATION & GRADE

3' OF FILL FOR TOP OF ROAD SURFACE

ENTIRE FOUNDATION WALL PARGETED

6" GALVANIZED PERFORATED CORRUGATED DRAIN PIPE

1.4' TH FILL ABOVE THIS POINT FOR NON-PERFORATED PIPE & GRAVEL AREA

DISTANCE VARIES

INVERT ELEVATION

3" 6" 3"

2'-0"

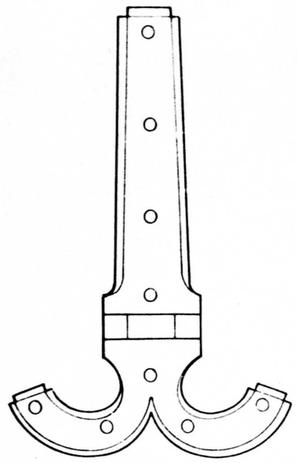
SECTION THROUGH REAL GROUND DRAINAGE (1/11)

NORTH

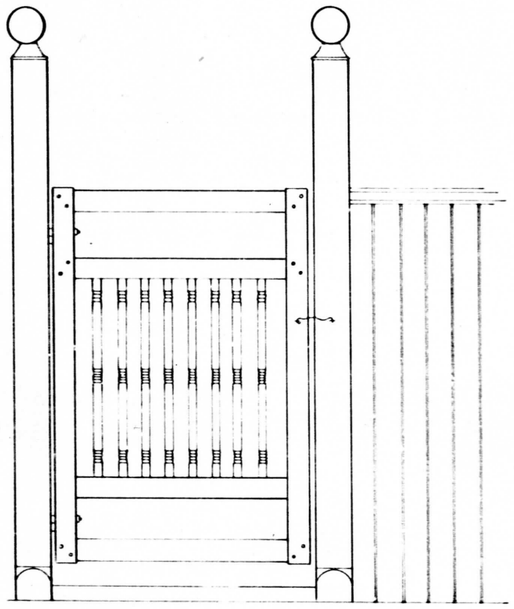
SITE DRAINAGE AND DETAIL

SCALE: 1/8" = 1'

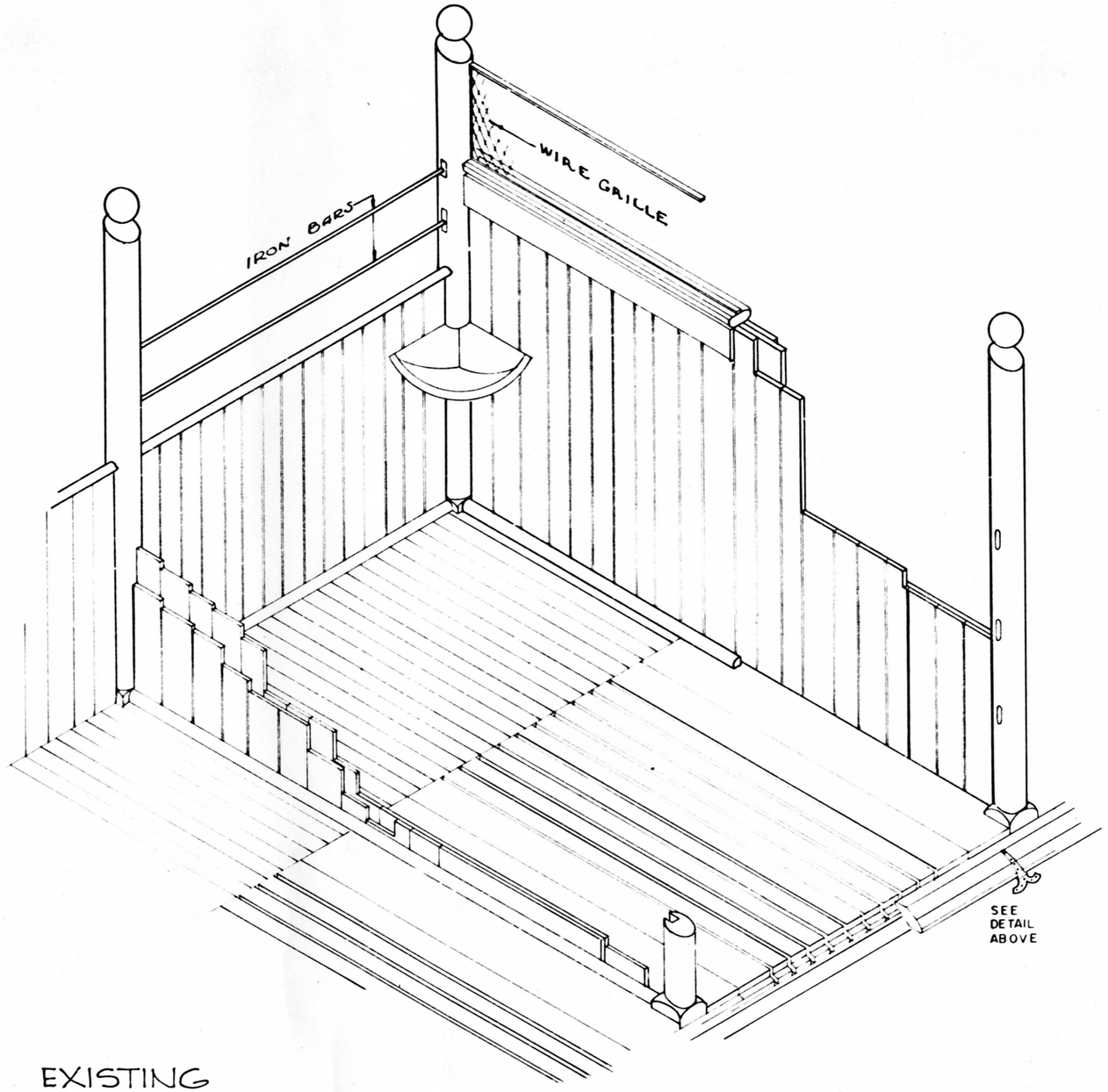
PREPARED	DRAWING NO.
DESIGNED DAVIS	386 25,000B
DRAWN	PKG NO. 108 · SHEET 11
CHECKED 4/'74	OF 12
DATE	



GUTTER HINGE



EXIST. LOOSE BOX GATE



EXISTING
STALL CONSTRUCTION DETAIL

PREPARED	DRAWING NO
DESIGNED	386
J. Reynolds DRAWN	25,000B
CHECKED	FRS NO 108 — SHEET 12
DATE	OF 12