

COMPLETION REPORT
REPAIRS TO THE JOHN NELSON BARN
Minute Man National Historical Park
Concord, Massachusetts

January 1979

National Park Service - North Atlantic Region
North Atlantic Historic Preservation Center

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

FACE SHEET FOR COMPLETION REPORT

Work Order No.
Day Labor Project
Fund Symbol
1820-300
Year Programmed
1978
PCP No.
Master Plan No.
Master Plan Corrected By
As Built Drawings By
Date Started
March 24, 1978
Date Completed
October, 1978
TOTAL COSTS (For completion by FFO)

jrk Minute Man National Historical Park Location in Park Unit A, Park Area John Nelson Barn North Great Road Lincoln, Mass.	Region North Atlantic State(s) Massachusetts County or Counties Middlesex
☐ Contract and/or ☒ Day Labor	

Work Order Title
Repairs to the John Nelson Barn

DESCRIPTION OF FIXED ASSETS
(For completion by employee in charge of project)

\$40
 215 HISTORICAL BUILDINGS \$8,830.00
 Removal of deteriorated ca. 1865 lean-to
 Removal of deteriorated ca. 1900 wing to Barn
 Repairs to west wall and roof of Barn

Total Project Cost: \$8,830.00

TOTAL

\$

DISTRIBUTION		THE FIXED ASSET DESCRIBED ABOVE HAS BEEN COMPLETED IN ACCORDANCE WITH APPROVED DRAWINGS, SPECIFICATIONS, AND AUTHORIZED CHANGES		
No.	To	Submitted	Title:	Date:
		By: Orville W. Carroll	Project Supervisor	November, 1979
		Approved	Title:	Date:
		By:		
COSTS VERIFIED		Title:	Date:	
BY				

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

COMPOSITION OF COST FOR COMPLETION REPORT

Park	Minute Man National Historical Park	Region	North Atlantic
Location in Park	Unit A, Park Area, John Nelson Barn, North Great Road, Lincoln, Massachusetts		
Work Order Title	Repairs to the John Nelson Barn		

Work Order Number	Day Labor Project
Fund Symbol	1820-300
Year Programmed	1978

COMPOSITION OF COST

COSTS CHARGED TO FUNDS ALLOTTED TO FIELD FINANCE OFFICE

(1) Personal Services.....	\$ 5,830.00	
(2) Travel.....		
(3) Contract Work.....		
(4) Supplies and Materials.....	3,000.00	
(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.....	XXXXXXXXXXXXXXXXXX	\$

LESS:

(12) Residual Value of Construction Equipment on Line 8.....	\$	
(13) Value of Other Accountable Equipment on Line 9.....		
(14) Other Credits.....		

(15) FFO FUNDS CHARGED TO CONSTRUCTION PROJECT.....	XXXXXXXXXXXXXXXXXX	\$
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OTHER COSTS:

(16) Non-Fund Costs (Includes "free inventory," donated materials, etc.)..		
(17) ON-SITE CONSTRUCTION COSTS.....		\$
(18) PS&S, AP, and/or Facilitating Services at ___ % of Line 17.....		
(19) TOTAL CONSTRUCTION COSTS		
(20) Equipment Included on Lines 12 and 13.....		
(21) Line 14 Credits.....		
(22) GROSS WORK ORDER COSTS.....		\$

Identify other costs and other credits by line item entry, on an attached schedule, or explain in narrative.

ASSESSMENT OF EFFECT ON CULTURAL RESOURCES

Originating Office

1. Park: Minute Man National Park
2. Description of and justification for proposed action: Reserves 1820-2.0
DEMOLISH AND REPAIR OF HISTORIC BARN. Part of the wall and roof of this structure has collapsed making it unsightly and unsafe. It is also in danger of further structural deterioration.
3. Cultural resources affected by proposed action (name and LCS number, if applicable):
John Nelson Barn LCS #21
4. In affecting cultural resources, the proposed action will (check as many as apply):
 - ☐ Destroy historic fabric
 - ☐ Remove historic fabric
 - ☒ Replace historic fabric in kind
 - ☒ Replace missing historic fabric
 - ☐ Add nonhistoric elements to a historic structure
 - ☒ Remove nonhistoric elements from a historic structure
 - ☐ Alter historic terrain, groundcover, or vegetation
 - ☐ Introduce nonhistoric elements (visible, audible, or atmospheric) into a historic setting or environment
 - ☒ Reintroduce historic elements in a historic setting or environment
 - ☐ Remove historic elements from a historic environment
 - ☐ Remove nonhistoric elements from a historic environment
 - ☐ Disturb, destroy, impair, or render inaccessible archeological (surface or subsurface) resources
 - ☐ Possibly disturb presently unidentified archeological resources or historic fabric
 - ☐ Incur gradual deterioration of historic fabric, terrain, or setting
 - ☐ Other

Describe concisely:

Demolish and remove damaged modern section of barn and shingle remaining historic section. Remove asphalt and paper roof and install new red cedar shingle roof.
5. The proposed action (is)(~~is not~~) limited to cultural resource maintenance.
If not, identify supporting approved plan(s), comment and/or action thereon by Advisory Council on Historic Preservation, dates of ACIP action and HPS approval, and section(s) of the plan(s) pertaining to the action. If none, so state:

6. Identify a important relationships between the proposed action as it affects cultural resources and pertinent NPS management policies, standards, and guidelines:

The proposed action will stabilize a historic structure and prevent its deterioration

7. Describe any measures planned to minimize or lessen the loss or impairment of historic fabric, setting, integrity, or data:

The work will be done in accordance with plans and specifications by Historic Preservation Lab.

8. Identify supporting study data and date(s) of preparation (attach if feasible):

See attached.

9. Signature of originator Robert Nash Date 6/24/78
Title Superintendent

Regional Professional Review and Certification

The proposed action (is)(is not) limited to cultural resource maintenance. If not, the action (is)(is not) authorized by an approved planning document reviewed and concurred in without relevant exceptions by the Advisory Council.

The foregoing assessment of effect is adequate; the proposed action is consistent with all applicable NPS management policies, standards, and guidelines; and the proposal incorporates all feasible measures to minimize adverse effects to cultural resources.

	Yes	No	N/A		
(Negative certifications must be fully justified on attachments.)	☐	☐	☒	<u>J. P. McManamon</u>	<u>7/31/78</u>
				Regional Archeologist	Date
	☒	☐	☐	<u>E. B. Clum</u>	<u>7/22/78</u>
				Regional Hist. Architect	Date
	☒	☐	☐	<u>Ricardo Torres-Reyes</u>	<u>7/31/78</u>
				Regional Historian	Date

Regional Director Approval

Acting Denis P. Galvin 7/31/78
Regional Director Date

WASO Record

Assessment received and noted:

Chief, Cultural Resources Date
Management Division

COMPLETION REPORT
Repairs to the John Nelson Barn
North Great Road, Lincoln, Massachusetts
Minute Man National Historical Park

PREFACE: A partial rehabilitation of the John Nelson Barn was precipitated by the collapse of the ca. 1870 lean-to. Its general deterioration over the years accompanied by the heavy snowfall in January and February of 1978 resulted in its final failure.

Work in rehabilitating the west side of the Barn was undertaken by the personnel of Minute Man National Historical Park, using the Guidelines set forth by the Secretary of the Interior "Standards for Rehabilitation". All work was completed by day labor, that is, using the park maintenancemen and equipment. Advice was given from time to time by the writer, representing the North Atlantic Historic Preservation Center.

SECTION 106: Park Superintendent, Robert Nash, submitted to the staff of the North Atlantic Regional Office the Section 106 form entitled "Assessment of Effect on Cultural Resources" for approval to rehabilitate portions of the John Nelson Barn affected by the storm damage. This request was reviewed, approved and certified by the Regional Office; a copy has been included in the back of this report. The Regional Office waived the right of review by the State Historic Preservation Officer, WASO, and the Advisory Council since the scope of the project was small and limited to only a portion of the building.

ENVIRONMENTAL IMPACT STATEMENT AND PLANNING DIRECTIVE: Both of these documents were waived by the Regional Office due to the negligible effect on the environment and the non-controversial outcome of the project. A memorandum of intent was written by the writer to the Regional Historical Architect outlining the scope of work to be done. With the exception of repairing the west addition, all of the work was accomplished as recommended.

REHABILITATION WORK: The John Nelson Barn was inspected on March 24th by the writer; Maurice Kowal, Facility Mgr.-MIMA; and Joe Guerra, Maintenance Foreman-MIMA. On May 5, the site work was reviewed again by the writer; E. Blaine Cliver, Regional Historical Architect; M. Kowal; and Ed Galvin, carpenter at Minute Man NHP.

By April 13th, the lean-to site had been cleared by Park maintenance and work started on repairs to the west end wall (as seen in Photo Illustration No. 2). Two new window frames were required; one to replace the deteriorated frame found in the west gable end and one new frame installed in an opening directly below as determined by the architectural evidence found on the wall boards. Photographs and measurements were taken to record the evidence of the former window opening. A new window frame was installed in the east gable end where no frame previously existed. A modern six-over-six double hung sash was purchased and installed in the frame as a temporary measure until further research and restoration work is carried out.

New fascia and soffit boards were installed along the south eave overhang to replace the original ones which had rotted beyond repair. These pieces were left unpainted.

All of the deteriorated trim pieces replaced on the Barn were saved, identified and placed in the loft area of the original structure for future reference. We were unable to locate full length verge boards, twenty-two feet long, for the west gable end; instead, two pieces were used. These boards can be replaced in the future after decisions have been made to the final outcome of the Barn structure.

It became apparent once work had begun on the west wing that an extensive repair job had to be done in order to put this addition in good structural condition. Since the addition dated from ca. 1900 it was decided to remove the wing and expose more structure of the original barn. Removal of the wing also eliminated the problem of water runoff from the main roof which was causing an ongoing deterioration to the structural members of the old Barn.

After the west wing was removed, the west walls and roof were repaired using modern framing lumber, plywood sheathing, and asphalt roofing paper. White cedar shingles were nailed over the old barn boards of ca. 1830 in order to preserve them. Originally they were exposed on the west wall until the lean-to was built in ca. 1870. Actually, the lower portion of the west wall had been severely repaired and was in poor condition, as seen in Photo Illustration No. 2.

An overhanging beam located at the west end of the north cornice was found severely rotted and had to be replaced. It was approximately an 8" x 8" x 12' hand-hewn oak timber morticed and tenoned between two beams supporting principal rafters. All of the prin-

cial rafters along the north roof slope were strengthened from the mid-purlin point to the north plate with 2" x 10"s nailed to both sides then braced with interior struts.

Rehabilitation work was accomplished by Ed Galvin, carpenter for MMNHP, aided by seasonal laborers using Park equipment. Work started about April 1, 1978 and ended in October. Maurice Kowal and Joe Guerra supervised the labor force with technical advice given by the writer. Mr. W. Newton Nelson was consulted by the writer prior to the removal of the west wing. Mr. Nelson agreed that the addition was in poor condition and concurred with our plans to remove it. Park seasonal laborers moved the contents stored in the shed to the rear of the ca. 1900 Barn addition.

Direct labor costs were as follows: seasonal laborers, \$3,870; carpenter, \$1,968, for a total of \$5,838; materials: \$2,107 excluding GSA plywood used for sheathing. (Twelve squares of 16" white cedar shingles were used costing \$678.00.) Materials were purchased from three sources: Lexington Lumber Co., Concord Lumber Co., and the Wood Stove Shop and Mill, Acton, Mass. The shingles were given a water repellant coat of "Hydrozo" upon completion.

Two sheets of drawings were prepared by the writer to indicate the extent of the proposed work. These were later changed to reflect the decision to remove the west wing. Copies of the drawings are included in the rear of the report.

Submitted by: Orville W. Carroll



PHOTO ILLUSTRATION NO. 1

The John Nelson Barn showing the collapsed lean-to on the west side after the winter of 1977-78. The lean-to appears to have been built about 1875 while the west wing was added about 1915. View looking northeast.

Photo By: N.P.S., O. W. Carroll
March 24, 1978



PHOTO ILLUSTRATION NO. 2

The west gable wall of the John Nelson Barn after the lean-to had been removed by N.P.S. workmen. This view shows the barn after one bay was added across the north end and the roof raised. The vertical tongue and groove boarding was added at the same time, nailed with machine cut nails. This change probably occurred about 1830. When the lean-to was added the wall boards above the roof line were shingled as shown in this view.

Photo By: N.P.S., O. W. Carroll
April 13, 1978



PHOTO ILLUSTRATION NO. 3

The west addition of ca. 1915, possibly built for horse stalls. The extreme poor structural condition of the wing cannot be seen in this view. A detailed inspection revealed serious structural defects that were too numerous to warrant saving this portion of the barn. Consequently, it was removed by N.P.S. workmen. A view of the south wall with the original (but enlarged) barn to the right.

Photo By: N.P.S., O. W. Carroll
April 13, 1978



PHOTO ILLUSTRATION NO. 4

The west side of the John Nelson Barn after the removal of the ca. 1875 lean-to and ca. 1915 wing by N.P.S. workmen. The concrete floor and stone foundation walls under the wing remain to be removed. Shingling of the west wall is underway. A new window frame was built for the gable end opening and the center lower opening. Lower right window frame was an old opening found in place.

Photo By: N.P.S., O. W. Carroll
July 25, 1978

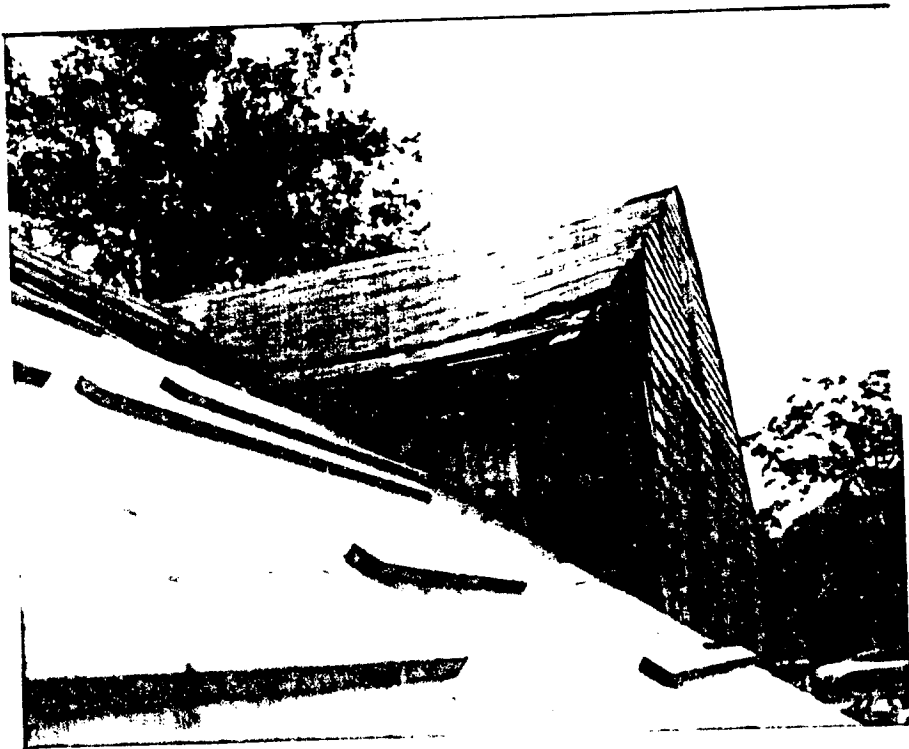


PHOTO ILLUSTRATION NO. 5

A rotted beam was uncovered at the west end of the north roof overhang after the ca. 1830 fascia board was removed. This piece was beyond saving and had to be removed and replaced. The rafters along the north roof slope had to be shored with additional struts on the inside to strengthen the roof structure.

Photo By: N.P.S., O. W. Carroll
August 15, 1978

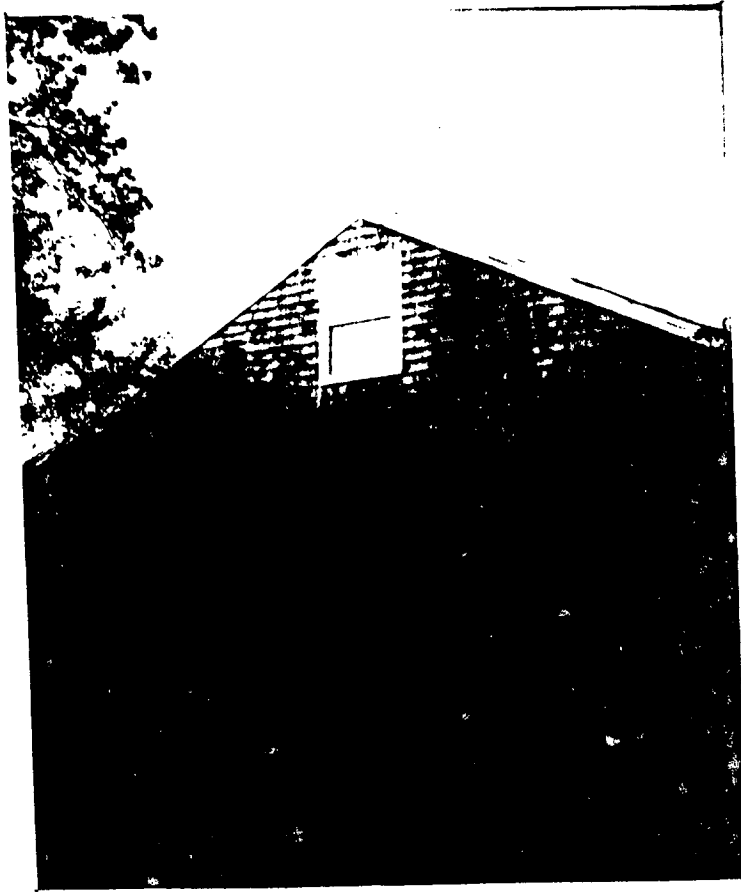


PHOTO ILLUSTRATION NO. 6

A new window frame was made for the east gable end of the John Nelson Barn. The sash is a modern replacement used temporarily until further work is done on the Barn.

Photo By: N.P.S., O. W. Carroll
October 19, 1978



PHOTO ILLUSTRATION NO. 7

The John Nelson Barn seen in this view after work had been completed by N.P.S. workmen. The vertical wall boards of ca. 1830 were covered with white cedar shingles in order to preserve them.

Photo By: N.P.S., O. W. Carroll
October 19, 1978



PHOTO ILLUSTRATION NO. 8

View of the completed rehabilitation work on the west side of the John Nelson Barn. New fascia and soffit boards were installed along the south eaves to replace rotted members. All work was done by day labor using the workmen from the Minute Man National Historical Park.

Photo by: N.P.S., O. W. Carroll
October 19, 1978

Regional Historical Architect, P&RP, NARO

May 10, 1978

Architect Carroll, NAHPC

Repairs to the John Nelson Barn, MIMA

On May 5th, you and I examined the John Nelson Barn, accompanied by Maurice Kowal and Ed Galvin of the Minute Man NHP maintenance staff. Previous to this trip I had inspected the barn on March 24th with Mr. Kowal and Mr. Guerra after the west lean-to had collapsed. The Park work force cleaned up the site and I took 4" x 5" photographs of the completed work on April 13.

I have not looked into the historical background of the barn, but I assume it was built near the time of the house in ca. 1812. Later, around 1830-40 an additional bay was built across the north end and the roof raised. About 1870 the west lean-to was built according to the present owner (and the gable end shingled above it with white cedar shingles). Around 1900 the north barn extension, the east and west ells were added and the old barn shingled with red cedar shingles. Possibly the main entrance was changed.

Much work needs to be done in the barn which is outside the scope of work proposed. Minute Man NHP intends to utilize Ed Galvin, MIMA carpenter and two seasonal employees to complete the job.

Would you review the following work I am listing to be done and if found satisfactory or if you should want to add or change any features, please note so and send it on to Minute Man NHP.

- (1) Remove and save deteriorated fascia boards along the south cornice of old barn; replace with new matching boards.
- (2) Remove and save deteriorated verge boards and trim on west side of old barn; replace with matching boards.
- (3) Remove and save deteriorated window frame and sash in west gable end; replace with matching material.
- (4) Remove deteriorated shingles in west gable end.
- (5) Repair existing holes in west wall; remove all projecting pieces of wood and corner boards.

- (6) Rebuild missing window frame in west wall.
- (7) Reshingle west wall with 16" white cedar shingles, 4" to 10" wide, 6" weather.
- (8) Repair south wall and roof of west ell; cover with 3/4" plywood and shingle to match west wall.
- (9) Repair roof over west ell where needed.
- (10) Repair shingle work in south wall of the old barn.
- (11) Replace sash in east gable end.

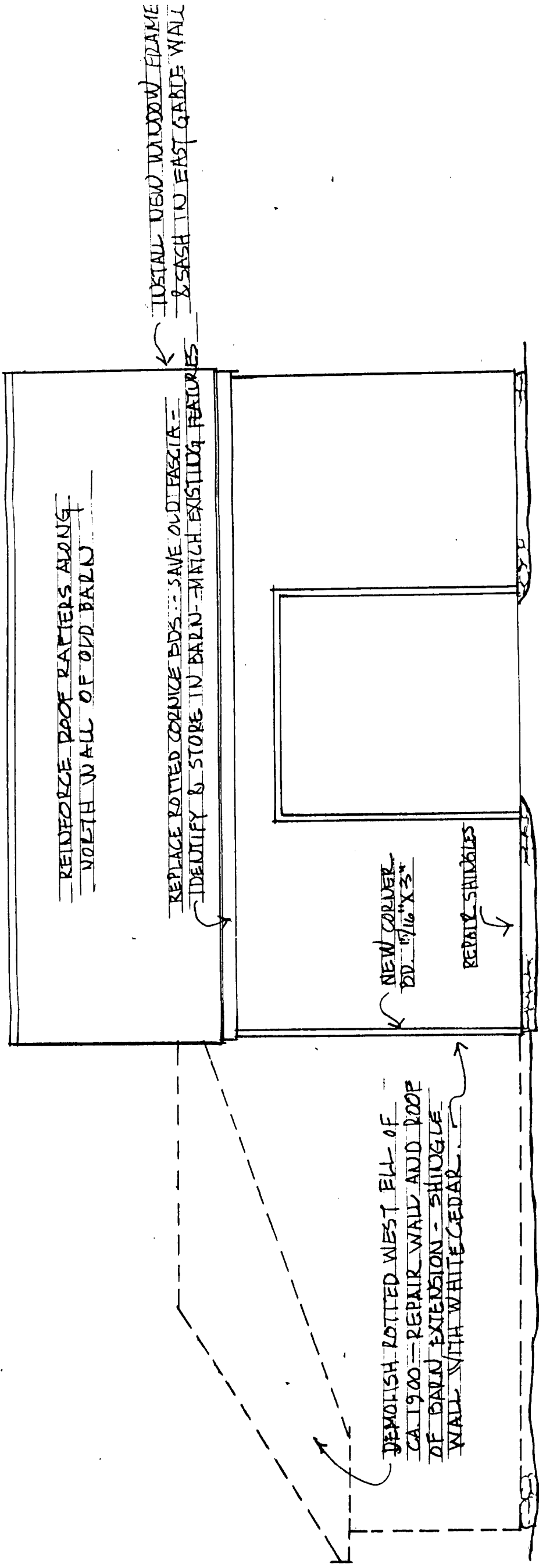
Enclosed are two sheets of drawings to show the proposed work. In the future when the south wall is reshingled, the new corner board can be removed and the corners woven.

(Sgd) Orville W. Carroll

Orville W. Carroll

Enclosure

cc:
Supt., MIMA
NAHPC Files



WEST ELL
(TO BE DEMOLISHED)

SOUTH WALL
SCALE $\frac{3}{16}'' = 1' - 0''$

MAIN BARN

REPAIRS TO WEST WALL OF THE JOHN NELSON BARN
NORTH GREAT ROAD, LINCOLN, MASS. MINUTE MAN NAT. HIST. PARK

MAY 9, 1978 - REISED 11/1/1978 DRAWN BY O.W. CARROLL

