NPS Form 10-900-a
(8-86)

OMB Approval No. 1024-0018

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section number _____ Page _____

SUPPLEMENTARY LISTING RECORD

NRIS Reference Number: 89001477 **Date Listed:** 05/29/90

Stratford Shoal Lighthouse	New Haven	CT
Property Name	**County**	**State**

Operating Lighthouses in Connecticut
Multiple Name

This property is listed in the National Register of Historic Places in accordance with the attached nomination documentation subject to the following exceptions, exclusions, or amendments, notwithstanding the National Park Service certification included in the nomination documentation.

for Beth L. Savage — 05/29/90
Signature of the Keeper **Date of Action**

==========

Amended Items in Nomination:

8. Statement of Significance: Level of Significance

All properties included in the multiple property nomination Operating Lighthouses in Connecticut were considered to meet the criteria within a statewide context.

10. Geographical Data: Acreage

The acreage is <1.

This information has been confirmed with John Herzan, National Register Coordinator, CTSHPO, by telephone.

DISTRIBUTION:
National Register property file
Nominating Authority (without attachment)

1477

Form No. 10-306 (Rev. 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

FOR FEDERAL PROPERTIES

FOR NPS USE ONLY
RECEIVED AUG 24 1989
DATE ENTERED

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC
Stratford Shoal Lighthouse

AND/OR COMMON
Stratford Shoal Lighthouse

2 LOCATION

STREET & NUMBER Seven miles south of Bridgeport in Long Island Sound

_NOT FOR PUBLICATION

CITY, TOWN

CONGRESSIONAL DISTRICT

_ VICINITY OF

STATE
Connecticut

CODE

COUNTY
Fairfield

CODE

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
_DISTRICT	X PUBLIC	_OCCUPIED	_AGRICULTURE	_MUSEUM
X BUILDING(S)	_PRIVATE	X UNOCCUPIED	_COMMERCIAL	_PARK
_STRUCTURE	_BOTH	_WORK IN PROGRESS	_EDUCATIONAL	_PRIVATE RESIDENCE
_SITE	**PUBLIC ACQUISITION**	**ACCESSIBLE**	_ENTERTAINMENT	_RELIGIOUS
_OBJECT	_IN PROCESS	_YES: RESTRICTED	_GOVERNMENT	_SCIENTIFIC
	_BEING CONSIDERED	X YES: UNRESTRICTED	_INDUSTRIAL	X TRANSPORTATION
		_NO	_MILITARY	_OTHER:

4 AGENCY

REGIONAL HEADQUARTERS: *(If applicable)*
U.S. Coast Guard Third District, Governors Island

STREET & NUMBER

CITY, TOWN
New York

_____ VICINITY OF

STATE
New York 10004

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE,
REGISTRY OF DEEDS, ETC. U.S. Coast Guard Third District, Legal Dept., Governors Island

STREET & NUMBER

CITY, TOWN
New York

STATE
New York 10004

6 REPRESENTATION IN EXISTING SURVEYS

TITLE
see thematic form

DATE

_FEDERAL _STATE _COUNTY _LOCAL

DEPOSITORY FOR
SURVEY RECORDS

CITY, TOWN

STATE

7 DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
_EXCELLENT	_DETERIORATED	_UNALTERED	X ORIGINAL SITE
X GOOD	_RUINS	X ALTERED	_MOVED DATE_____
_FAIR	_UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

Stratford Shoal Lighthouse (Light List #962), established in 1877, marks a gravel shoal in the middle of Long Island Sound seven miles south of Bridgeport, Connecticut. Surrounded by a horseshoe-shaped breakwater of riprap, it consists of a grey granite, gable-roofed dwelling resting on a circular foundation of granite ashlar with a lantern tower projecting from its central south facade. Except for a two-stage concrete landing there are no other structures on the site. This lighthouse replaced a lightship which formerly warned mariners of shallow waters in the middle of the shipping lane.

Immense blocks of rough-faced granite form the outer rings of the structure's foundation. Laid on a leveled site in five feet of water the lower eight rings are arranged in stepped courses of diminishing diameter, while the upper three courses are arranged as a cylinder. The upper-most course is finished with a beveled lower edge. Its stones are connected by large iron staples, set in lead. The foundation measures fifty-five feet in diameter at the base, forty-six feet at the top, and rises eighteen feet, six inches above the high water line. Within the concrete filled interior is a brick-lined cellar, and below it, two cisterns. Edging the top surface of the foundation is a triple railing supported on metal stanchions.

In plan, the dwelling is a square twenty-eight feet on a side. Skilled workmanship is evident in the dressing and laying of the smooth-faced ashlar blocks of which it is composed. The walls measure eighteen inches in depth at the watertable and fourteen inches in depth at the top of the tower. The tower, three stories in height, projects outwardly five feet from the south facade and measures ten feet, four inches across at the base. Above the second story level, the tower assumes an octagonal plan, seven feet in diameter.

Bricks laid in header bond form a lining wall for the tower. A cast-iron spiral stair with checkered tread rises in the center of the tower from the first story to the lantern. This stair furnishes the only access to upper stories of the lighthouse from landings on the second and third story level. Openings on the three levels contain double-leaf metal doors connecting the tower and dwelling. Above the door on the first story is a curved stone plaque carved to read: "Stratford Shoals/Lighthouse/AD 1877/Lat. 41° 3' North/Long. 73° 6' West." The tower contains five windows: one on each story of the south facade, as

See Continuation Sheet

well as one on the east and west facades of the third story. Each of the third story windows in the tower interior has a pointed arch surround. Flanking each of the south windows are two circular channels in the brick lining for the weight drops. On the east wall of the first story of the tower is a niche with a granite lintel, designed for storage of oil tanks.

The center bay of the north facade, nine feet in width, projects three feet beyond the wall plane and is capped by a gabled roof. This bay contains the principal entrance, marked by double-leaved doors, set above three granite steps. The doors open into a center hall seven feet, four inches in width. Above the entrance is a pointed-arched window. Other window openings in the dwelling are flat-topped, featuring rusticated projecting sills and lintels with dressed borders, a keystone detail, and eared or dropped corners. Four such window openings appear on the east and west facades, two flank the north entrance, and two appear on the first story of the south facade flanking the tower. The tower contains one on the south facade at both first and second story levels. Although most originals are removed or covered over, the original wood sash was two-over-two lights. The cornice is notable for its molded wood bargeboards. A new copper standing seam roof and lead-coated copper gutters were installed in 1985.

At the top of the octagonal third story of the tower, cast-iron brackets with scrolls and drops support a projecting octagonal cast-iron deck which forms a gallery around the octagonal cast-iron lantern. The gallery is edged with a triple rail of flat section, supported on round stanchions topped with brass spheres. The lantern contains eight large glass panes in the upper half of its walls and cast-iron plates in the lower half. A cast-iron frieze above the glass panes is ornamented with alternating panels of an embossed motif of foliage, and a motif of repeated circles and double lines. Centered above each foliage motif panel is a classically-derived, cast-iron boss which covers a molded cornice and joins the frieze to a ribbed, bell-shaped and copper-sheathed roof. Metal ladders lead from the lantern deck to modern lighting apparatus mounted on the roof above, as well as to the roof of the dwelling below. Presently, the lantern is empty, and the spherical ventilator and platinum - tipped lightning rod designated in the original drawings are missing from the roof.

Unoccupied since 1970, the lighthouse has lost much interior detailing. The little which remains demonstrates an attention to detail which matches that of the carefully designed stonework and lantern. For example, the woodwork in the southeast room on the first story, designated a workroom in the plans, exhibits false graining where later layers of paint have been removed. This finish also may be hidden in other rooms. The original flooring, encaustic tile with a checkered red and yellow pattern, remains on the first story of the tower. Complex molded wood trim survives in some rooms around doorways and windows, although moisture damage has prompted plain replacements in many locations. Wall surfaces of plaster and some beaded board wainscoting also remain. The odd, triangular shape of a closet space opening off the northeast room of the first story was shown on the original plans to have been intended for cellar stairs. Instead, this stairway was installed in a space across the center hallway, and the proportions of the hall itself altered, probably at the time of construction.

8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW				
_PREHISTORIC	_ARCHEOLOGY-PREHISTORIC	_COMMUNITY PLANNING	_LANDSCAPE ARCHITECTURE	_RELIGION	
_1400-1499	_ARCHEOLOGY-HISTORIC	_CONSERVATION	_LAW	_SCIENCE	
_1500-1599	_AGRICULTURE	_ECONOMICS	_LITERATURE	_SCULPTURE	
_1600-1699	_ARCHITECTURE	_EDUCATION	_MILITARY	_SOCIAL/HUMANITARIAN	
_1700-1799	_ART	X ENGINEERING	_MUSIC	_THEATER	
X 1800-1899	_COMMERCE	_EXPLORATION/SETTLEMENT	_PHILOSOPHY	X TRANSPORTATION	
_1900-	_COMMUNICATIONS	_INDUSTRY	_POLITICS/GOVERNMENT	_OTHER (SPECIFY)	
		_INVENTION			

SPECIFIC DATES built 1878 BUILDER/ARCHITECT D. V. Howell

STATEMENT OF SIGNIFICANCE

Stratford Shoal Lighthouse, completed in 1878, is significant as a carefully crafted example of the masonry lighthouse design employed by the U.S. Lighthouse Board for waterbound sites, before the adoption of cast-iron tubular foundations and superstructures. Reflecting the domestic model, which had been utilized earlier for some Hudson River lighthouses, Stratford Shoal embodies the enormous cost and heroic effort required to put these designs in place in the treacherous waters of Long Island Sound. Stratford Shoals Lighthouse is also significant for its important place in the aids to navigation system in Long Island Sound, standing in the middle of the Sound as its other name, "Middle Ground," implies. The middle ground shoal had long been a hazard to shipping.

Stratford Shoal Lighthouse replaced several earlier efforts to mark the hazard. In 1831 Congress appropriated $1,000.00 to erect a beacon on "the middle ground between Stratford and Crane Neck in Long Island Sound." A lightship was commissioned from a New York shipbuilder in 1837 for $8,500.00, to be positioned over the shoal; it had to be removed in 1866 and was replaced in 1868 with a new lightship. Ice floes were a formidable problem. The uncertainty of the lightship's mooring and its wavering beam during heavy weather finally made an investment of the magnitude of a masonry wave-washed tower justifiable to Congress in 1873.

During March 1873, a major development in lighthouse design and construction was introduced to the Lighthouse Board: "the tubular foundation for reefs and shoals in bays and rivers subject to the flow of ice" (Journal, Volume 5, p. 220). One of the sites considered for this innovation was Stratford Shoal. However, the original plan for a granite, riprap and concrete foundation for the Stratford Shoal site, which had been presented by the Third District Engineer in 1872, was adopted. As such, Stratford Shoal represents a late example of the masonry foundation, which was under construction contemporaneously with the earliest tubular cast-iron foundations being fabricated and installed at Southwest Ledge near New Haven, Ct., and Ship John Shoal in the Delaware River Bay.

At Stratford Shoal a riprap ring was built up from the shoal to protect the construction site. Within the center of the ring, the gravel shoal surface was removed and concrete laid to provide a bed for the circular

See Continuation Sheet

9 MAJOR BIBLIOGRAPHICAL REFERENCES

see continuation sheet

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY _____

UTM REFERENCES see location map

	ZONE	EASTING	NORTHING		ZONE	EASTING	NORTHING
A				B			
C				D			

VERBAL BOUNDARY DESCRIPTION

see site plan

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

see thematic form

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE
Dorothy B. Templeton/Historian

ORGANIZATION
John Milner Associates, Inc.

DATE
October 22, 1985

STREET & NUMBER
309 North Matlack Street

TELEPHONE
(215) 436-9000

CITY OR TOWN
West Chester

STATE
PA 19380

12 CERTIFICATION OF NOMINATION

STATE HISTORIC PRESERVATION OFFICER RECOMMENDATION

YES X NO ___ NONE ___

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

In compliance with Executive Order 11593, I hereby nominate this property to the National Register, certifying that the State Historic Preservation Officer has been allowed 90 days in which to present the nomination to the State Review Board and to evaluate its significance. The evaluated level of significance is ___National ___State ___Local.

FEDERAL REPRESENTATIVE SIGNATURE

TITLE DATE

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DATE 5/29/90

~~DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION~~

ATTEST: DATE

for KEEPER OF THE NATIONAL REGISTER

GPO 899-214

cutstone foundation, 55 feet in diameter at the base, diminishing to 46 feet in diameter at the top.

Construction of the foundation, composed of huge blocks of granite backed with concrete, was completed with great difficulty by D. V. Howell in 1874-1876. The cut stone for the lighthouse was supplied by M. K. Chase and the metal work by Atlantic Steam Engine Works. A temporary wharf for materials was constructed, and the cut stone for the lighthouse was shipped from the quarries and stockpiled nearby. During 1877 and 1878 the building was erected. Work continued in spite of a major setback, the sinking of the construction schooner Mignonette, which broke from her moorings in a storm. The men and supplies were saved, the men housed in the nearly completed building, and work resumed. On December 15, 1878, the light was exhibited for the first time.

The design of Stratford Shoal Lighthouse represents the house-with-attached lighttower classification, which had been used in American lighthouse since the 1830s. For wave-washed sites this design provided a more comfortable alternative to the tall, conical tower, and emphasized the domestic side of its function, combining the lighttower and separate keeper's dwelling of on-shore sites. Both masonry and frame construction were used for the house-with-tower design, incorporating architectural details of the popular revival styles of American architecture.

In the 1870s, the masonry model of the keeper's-house-with-tower as developed for Hudson River sites in the 1860s had been adopted in Long Island Sound and elsewhere. The same design was often used repeatedly: Race Rock Lighthouse, New York closely resembles Stratford Shoal and was under construction at the same time. While Race Rock and Stratford Shoal share a basic similarity, differences between the two include: 1)variation in stone finishing; 2)different window arches and 3)different roof shape.

Stratford Shoal exhibits some Gothic Revival details, such as pointed windows on the third story of the tower. These details point to the cultural lag of federal design. The Gothic detail and tall tower lend an institutional air to the lighthouse, saved from an ecclesiastical reference by the tower's position on the facade rather than at the gable end.

Improvements in technology were reflected in the lighting and fog-signal apparatus at Stratford Shoals, which played a vital role in guiding ships away from its hazardous base and supplying information about location for major shipping lanes in the Sound. The second class Daboll fog-trumpet and caloric engine of 1880 was followed by an 1897 installation of two Hornsby Akroyd 3 and 1/2 hp. engines and a Clayton air compressor for the improved trumpet. In 1915 a first class air siren was installed. New fog signal engines were added in 1923. Automation came in 1970.

The lighting apparatus originally installed at Stratford Shoal exhibited a light that flashed every 30 seconds; this was improved in 1879 to exhibit 15 second flashes, and the following year, changed again to 10 second intervals. A new lens was installed in 1894, to be replaced in 1905 by a new fourth order flashing light. The 600,000 candlepower light beacon in place at Stratford Shoal in 1970 was visible for 13 miles. It was automated the same year and converted to battery power in 1978.

General Duane, Engineer, Third District, Stratford Shoal Inspection Report, 1880.

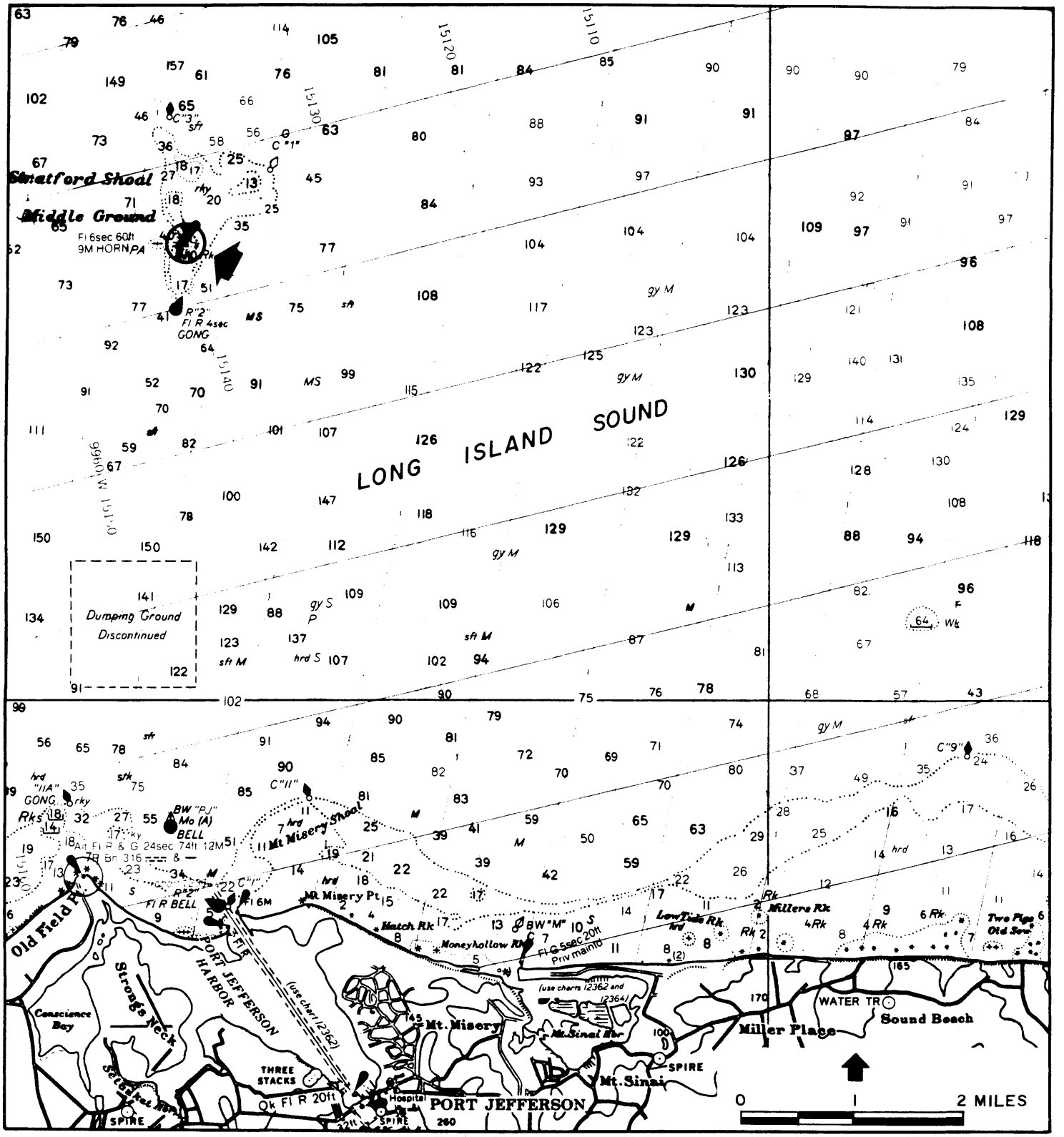
U.S. Lighthouse Board, Annual Report of the Lighthouse Board, 1872-89, 1894-95, 1897-98, 1901-02, 1905 and 1907.

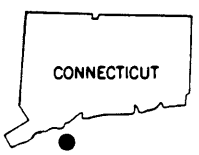
U.S.Lighthouse Board, "Index Slips for Letters to Lighthouse Board", 1866, 1873-1878, National Archive, Record Group 26, 10 E2, 14, 15 and 16.

U.S. Lighthouse Board, Inspection Reports of Light Stations, National Archives, Record Group 26.

U.S. Lighthouse Board, Journal, Volume 5 (1873).

U.S. Department of Commerce, Annual Report, 1915, 1923, 1937 and 1944.





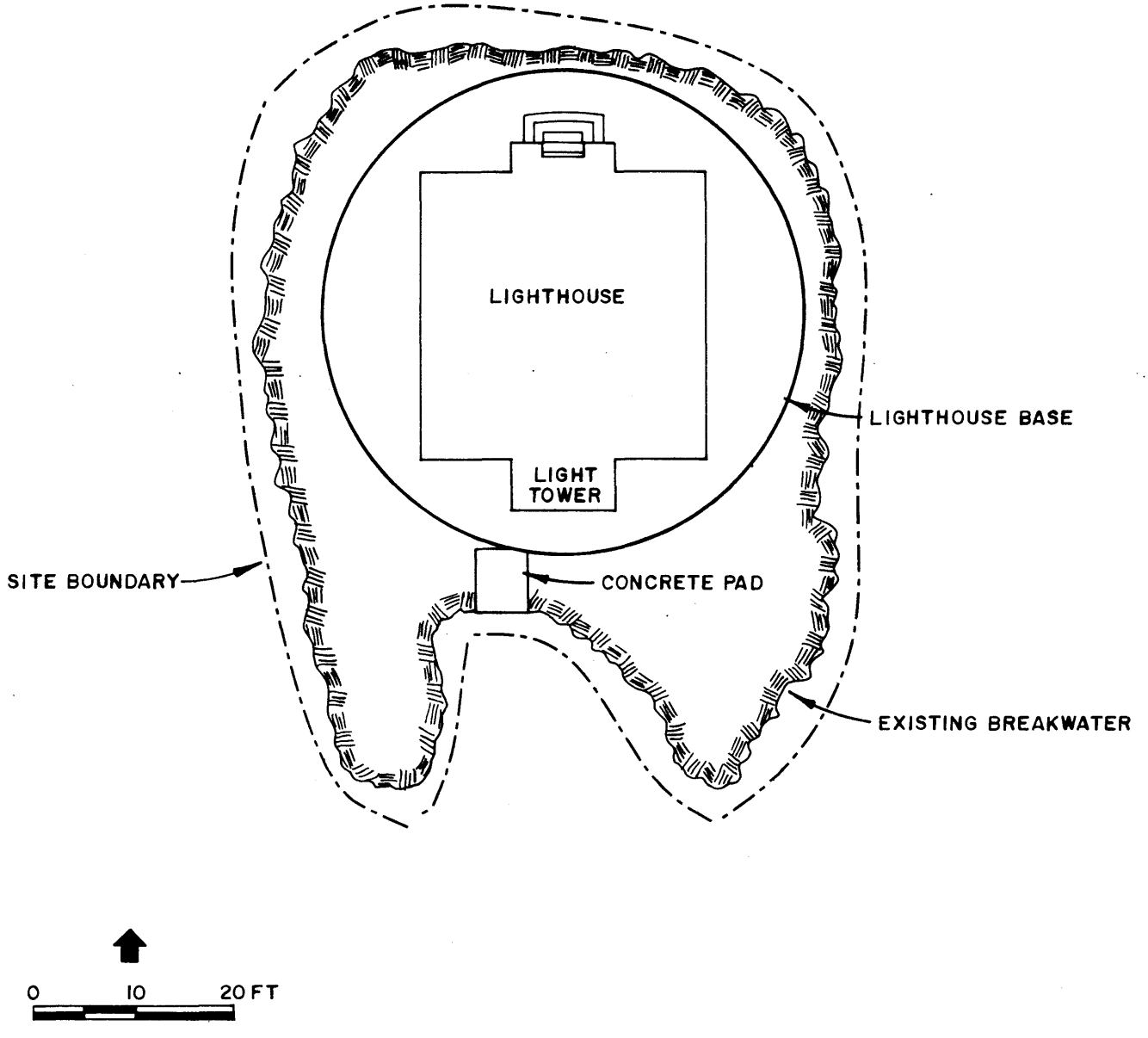
STRATFORD SHOAL LIGHTHOUSE
Fairfield County, Connecticut

NOAA Nautical Chart Number 12354
Long Island Sound - Eastern Part

26th Ed. February 4, 1984
1:80,000

Longitude: 73° 06' 06" Latitude: 41° 03' 36"

18/659510/4546385



SITE PLAN

STRATFORD SHOAL LIGHTHOUSE
Fairfield County, Connecticut

Description (continued):

In 1989, Stratford Shoal Lighthouse was re-photographed and examined in the field in order to bring the National Register documentation fully up to date. Following are the features or characteristics of the lighthouse that differ from its condition and appearance as described in the National Register Inventory/Nomination form prepared in 1985.

The railing around the top edge of the foundation is a recent installation made of galvanized steel pipe.

The stone that makes up the walls was described in 1985 as smooth-faced, but in fact it has a rough, hammered finish.

The principal entry is filled by a steel plate that is fixed in place and does not function as a door; access is through a smaller entry on the south side, next to the tower.

The molded bargeboards of the main cornice have been replaced by plain wooden face rafters.

The lantern is no longer empty, but contains modern lighting apparatus.

Stratford Shoal Lighthouse still retains the requisite degree of integrity for National Register eligibility.

All photographs:

1. STRATFORD SHOAL LIGHTHOUSE
2. Fairfield County, CT
3. Photo Credit: HRC, Hartford, CT
4. April 1989
5. Negative filed with Connecticut Historical Commission, Hartford, CT

South (tower) and west elevations, camera facing northeast
Photograph 1 of 8

North (projecting gable) and east elevations, camera facing southwest
Photograph 2 of 8

Typical exterior window treatment, camera facing north
Photograph 3 of 8

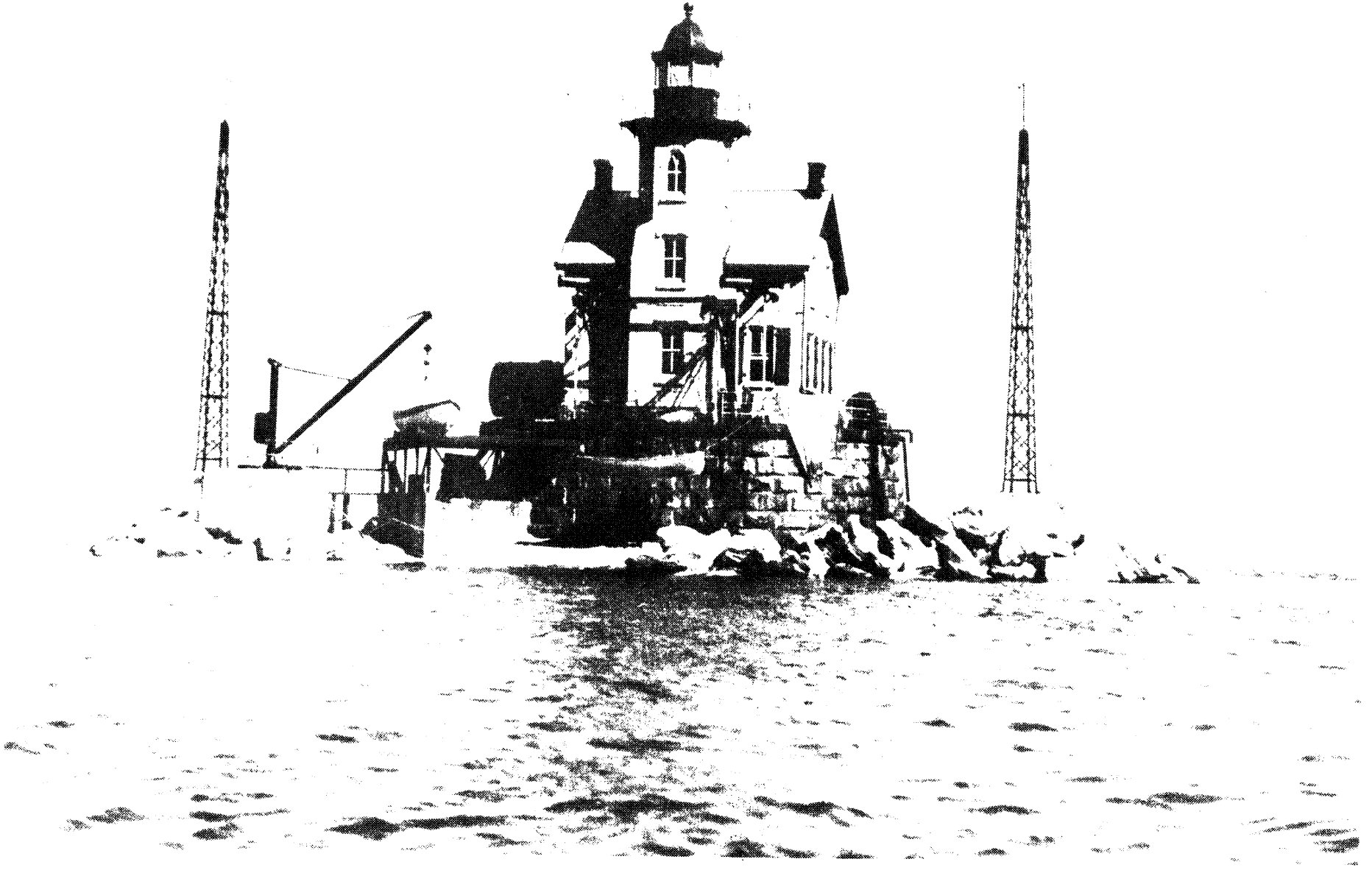
Cornice and brackets below lantern gallery, camera facing south
Photograph 4 of 8

Lantern cornice, camera facing south
Photograph 5 of 8

Typical interior window treatment: retained sash and frame
Photograph 6 of 8

Closeup of typical interior door surround
Photograph 7 of 8

Spiral stairway
Photograph 8 of 8



NAME OF PROPERTY: Stratford Shoal Lighthouse

COUNTY WHERE LOCATED: Fairfield County, CT

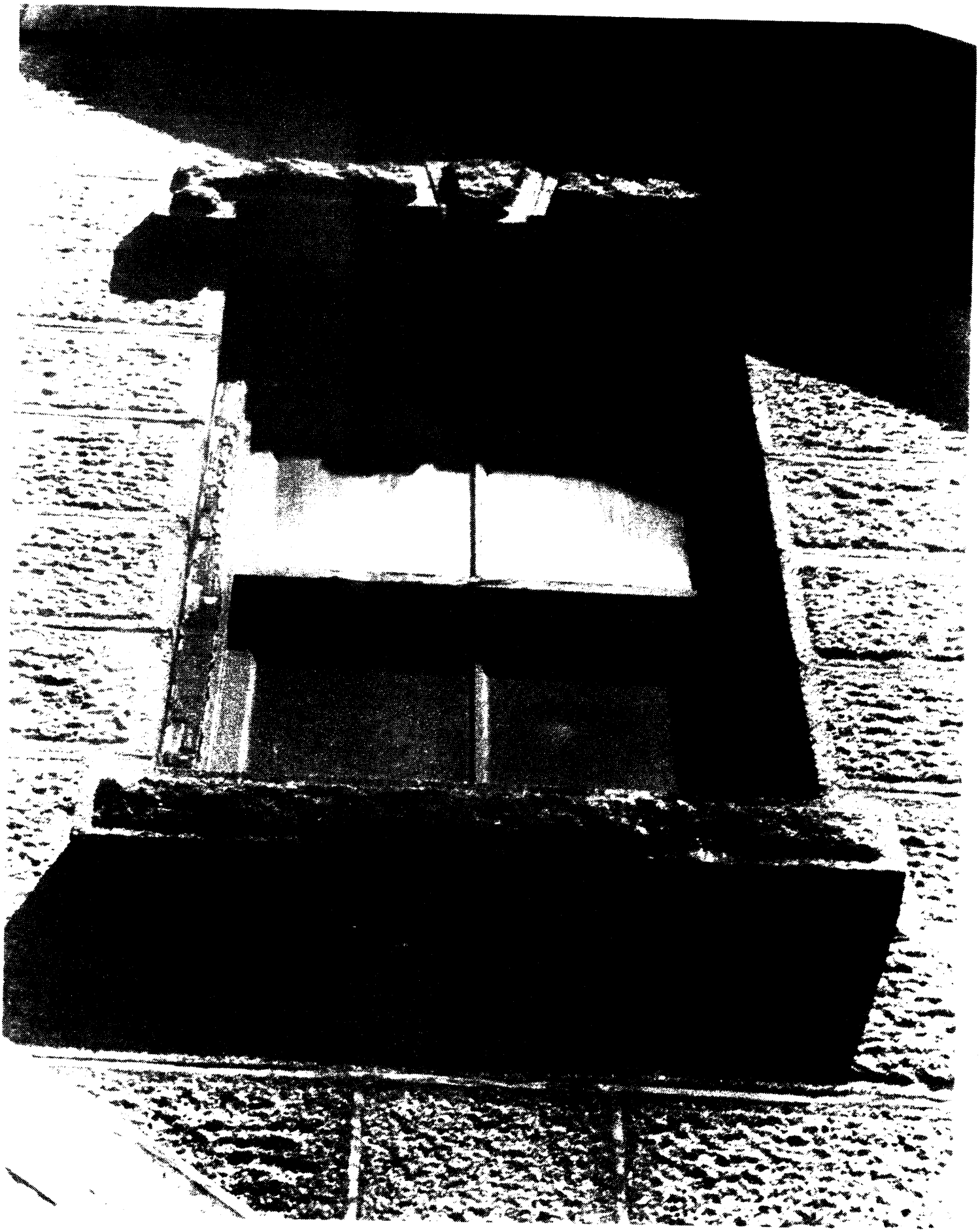
DATE OF PHOTOGRAPH: Mid-twentieth century

NAME OF PHOTOGRAPHER: U. S. Coast Guard

LOCATION OF THE PHOTOGRAPH NEGATIVE: U. S. Coast Guard Third District Files
Governor's Island, NY

DESCRIPTION OF THE VIEW: View from south.

PHOTOGRAPH NUMBER: 1



NAME OF PROPERTY: Stratford Shoal Lighthouse

COUNTY WHERE LOCATED: Fairfield County, CT

DATE OF PHOTOGRAPH: 1985

NAME OF PHOTOGRAPHER: John Milner Associates, Inc.

LOCATION OF THE PHOTOGRAPH NEGATIVE: John Milner Associates, Inc.
309 N. Matlack St., West Chester, PA

DESCRIPTION OF THE VIEW: Exterior detail of second story window, west elevation.

PHOTOGRAPH NUMBER: 2



NAME OF PROPERTY: Stratford Shoal Lighthouse

COUNTY WHERE LOCATED: Fairfield County, CT

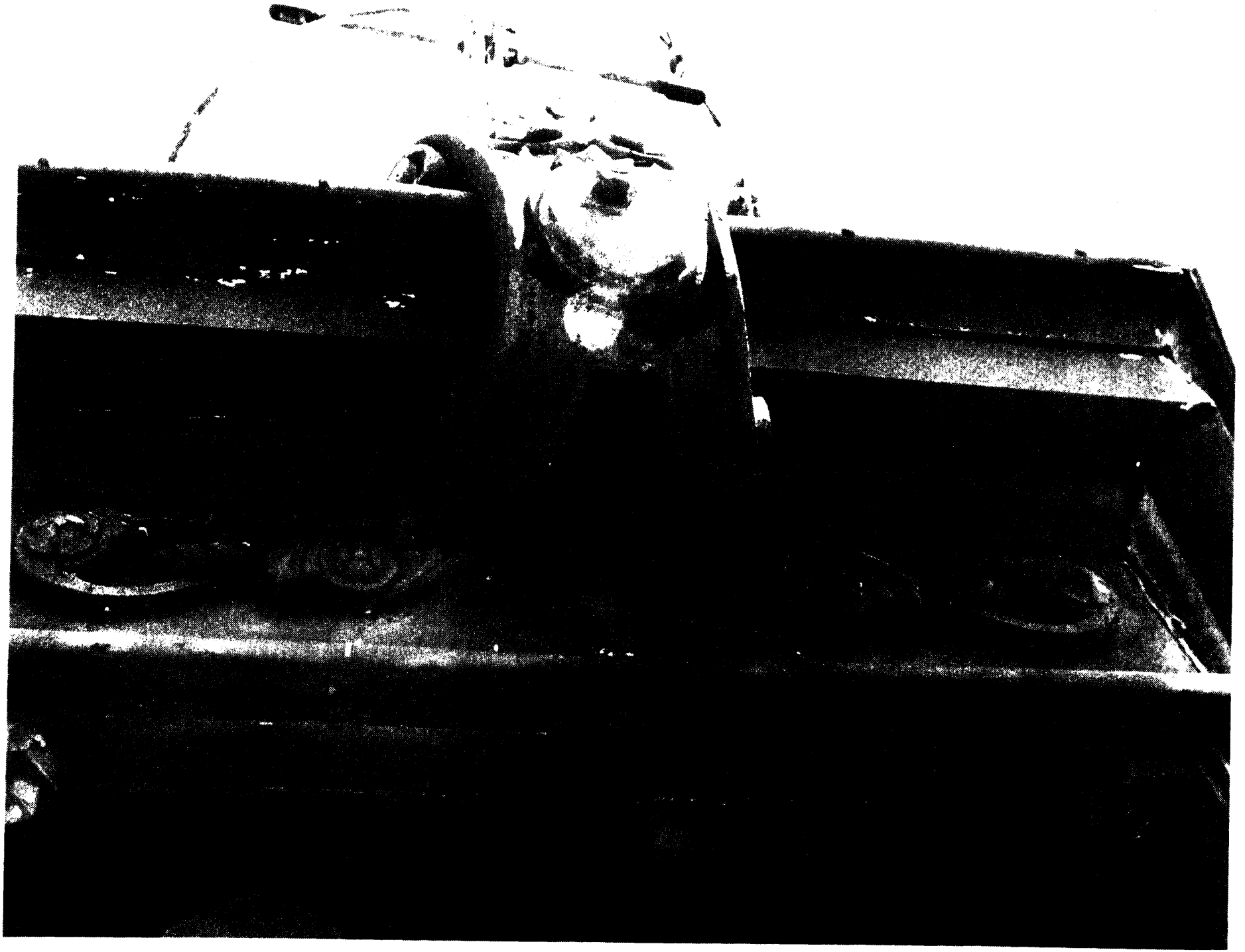
DATE OF PHOTOGRAPH: 1985

NAME OF PHOTOGRAPHER: John Milner Associates, Inc.

LOCATION OF THE PHOTOGRAPH NEGATIVE: John Milner Associates, Inc.
309 N. Matlack St., West Chester, PA

DESCRIPTION OF THE VIEW: Cast iron detail on lantern, N, E, S, and W faces.

PHOTOGRAPH NUMBER: 3



NAME OF PROPERTY: Stratford Shoal Lighthouse

COUNTY WHERE LOCATED: Fairfield County, CT

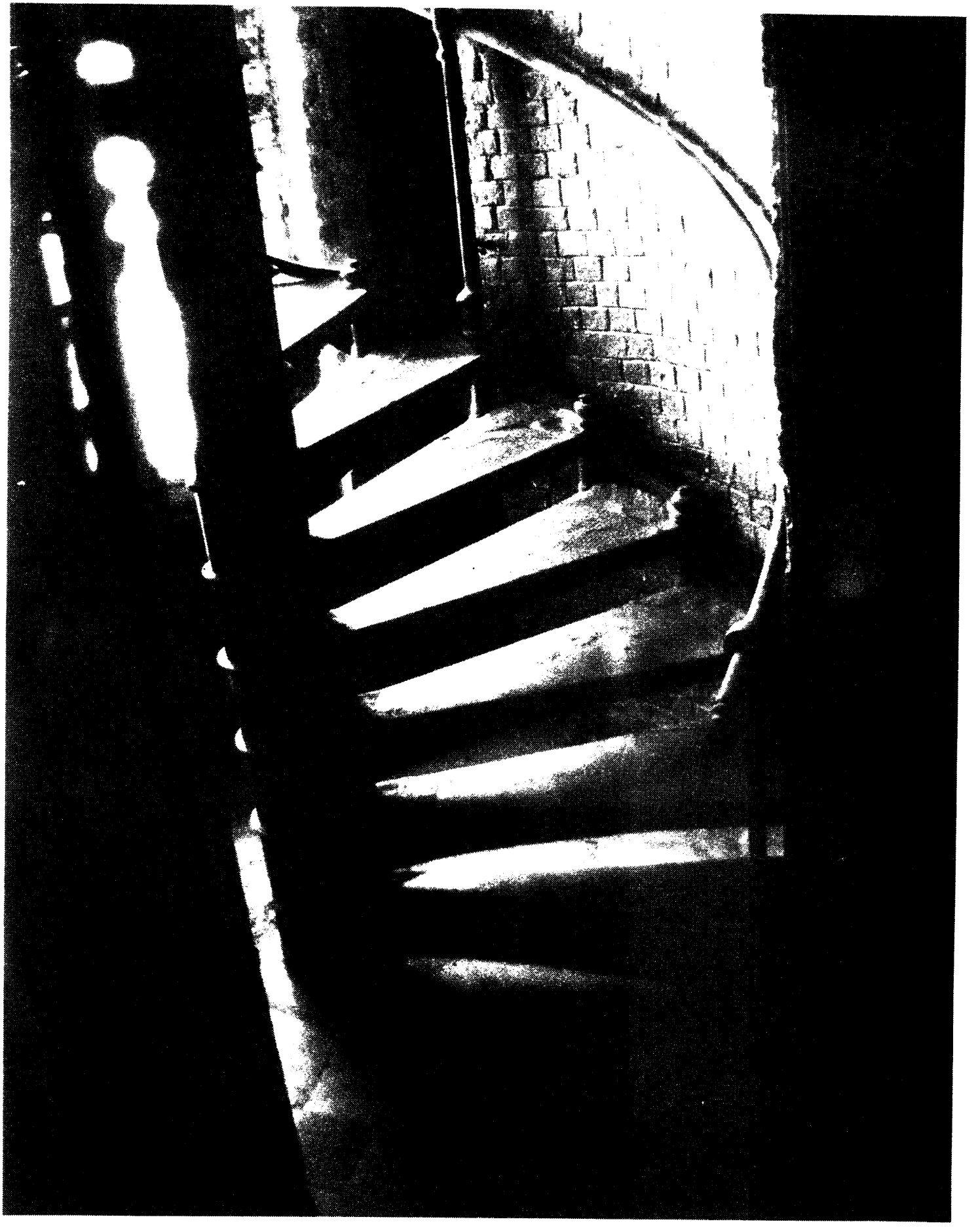
DATE OF PHOTOGRAPH: 1985

NAME OF PHOTOGRAPHER: John Milner Associates, Inc.

LOCATION OF THE PHOTOGRAPH NEGATIVE: John Milner Associates, Inc.
309 N. Matlack St., West Chester, PA

DESCRIPTION OF THE VIEW: Cast iron detail on lantern, NE, SE, SW and NW faces.

PHOTOGRAPH NUMBER: 4



NAME OF PROPERTY: Stratford Shoal Lighthouse

COUNTY WHERE LOCATED: Fairfield County, CT

DATE OF PHOTOGRAPH: 1985

NAME OF PHOTOGRAPHER: John Milner Associates, Inc.

LOCATION OF THE PHOTOGRAPH NEGATIVE: John Milner Associates, Inc.
309 N. Matlack St., West Chester, PA

DESCRIPTION OF THE VIEW: Tower Stairs, first story. Note encaustic floor tile.

PHOTOGRAPH NUMBER: 5



NAME OF PROPERTY: Stratford Shoal Lighthouse

COUNTY WHERE LOCATED: Fairfield County, CT

DATE OF PHOTOGRAPH: 1985

NAME OF PHOTOGRAPHER: John Milner Associates, Inc.

LOCATION OF THE PHOTOGRAPH NEGATIVE: John Milner Associates, Inc.
309 N. Matlack St., West Chester, PA

DESCRIPTION OF THE VIEW: Interior doorway.

PHOTOGRAPH NUMBER: 6

3rd Dist. Photos

Stratford Shoal Lt. Sta
15 Dec 1875



NAME OF PROPERTY: Stratford Shoal Lighthouse

COUNTY WHERE LOCATED: Fairfield County, CT

DATE OF PHOTOGRAPH: 15 December, 1875

NAME OF PHOTOGRAPHER: Unknown

LOCATION OF THE PHOTOGRAPH NEGATIVE: National Archives, Washington, DC
26 LG-17-16

DESCRIPTION OF THE VIEW: Foundation under construction.

PHOTOGRAPH NUMBER: 7