UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

REQUESTED ACTION: NOMINATION

PROPERTY NAME: Stamford Harbor Lighthouse

MULTIPLE NAME:

STATE & COUNTY: CONNECTICUT, Fairfield

DATE RECEIVED: 2/25/91 DATE OF PENDING LIST: 3/15/91
DATE OF 16TH DAY: 3/31/91 DATE OF 45TH DAY: 4/11/91
DATE OF WEEKLY LIST:

REFERENCE NUMBER: 91000348

NOMINATOR: STATE

REASONS FOR REVIEW:

APPEAL:	N	DATA PROBLEM:	N	LANDSCAPE:	N	LESS THAN 50 YEARS:	N
OTHER:	N	PDIL:	N	PERIOD:	N	PROGRAM UNAPPROVED:	N
REQUEST:	N	SAMPLE:	N	SLR DRAFT:	N	NATIONAL:	N

COMMENT WAIVER: N

✓ ACCEPT ___RETURN ___REJECT 4/3/91 DATE

Entered in the National Register

ABSTRACT/SUMMARY COMMENTS:

RECOM./CRITERIA_____
REVIEWER_____
DISCIPLINE_____
DATE_____

DOCUMENTATION see attached comments Y/N see attached SLR Y/N

NPS Form 10-900
(Rev. 8-86)

OMB No. 1024-0018

United States Department of the Interior
National Park Service

RECEIVED
1991
NATIONAL REGISTER

NATIONAL REGISTER OF HISTORIC PLACES
REGISTRATION FORM

1. Name of Property

historic name: **STAMFORD HARBOR LIGHTHOUSE**

other name/site number: N/A

2. Location

street & number: South of breakwater, Stamford Harbor

not for publication: N/A

city/town: Stamford vicinity: N/A

state: CT county: Fairfield code: 001 zip code: 06901

3. Classification

Ownership of Property: private

Category of Property: building

Number of Resources within Property:

Contributing	Noncontributing	
1		buildings
		sites
		structures
		objects
1	0	Total

Number of contributing resources previously listed in the National Register: 0

Name of related multiple property listing: N/A

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this __X__ nomination ____ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property __X__ meets ____ does not meet the National Register Criteria. ____ See cont. sheet.

Signature of certifying official — Date: 2/20/91
John W. Shannahan, State Historic Preservation Officer

State or Federal agency and bureau

In my opinion, the property ____ meets ____ does not meet the National Register criteria. ___ See continuation sheet.

Signature of commenting or other official — Date

State or Federal agency and bureau

5. National Park Service Certification

I, hereby certify that this property is:

Entered in the National Register

✓ entered in the National Register — 4/3/91
___ See continuation sheet.
____ determined eligible for the National Register
___ See continuation sheet.
____ determined not eligible for the National Register
____ removed from the National Register
____ other (explain): _____

for Signature of Keeper — Date of Action

6. Function or Use

Historic:	TRANSPORTATION	Sub:	water-related
	DOMESTIC		single dwelling
Current:	TRANSPORTATION		water-related
	VACANT/NOT IN USE		

7. Description

Architectural Classification:

N/A

Other Description: conical tower on caisson

Materials: foundation METAL: Cast iron roof METAL
walls METAL: Cast iron other GLASS

Describe present and historic physical appearance. X See continuation sheet.

8. Statement of Significance

Certifying official has considered the significance of this property in relation to other properties: state.

Applicable National Register Criteria: A,C

Criteria Considerations (Exceptions) : N/A

Areas of Significance: TRANSPORTATION
ENGINEERING

Period(s) of Significance: 1882

Significant Dates: 1882

Significant Person(s): N/A

Cultural Affiliation: N/A

Architect/Builder: U.S. Light-House Board Engineers

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.
X See continuation sheet.

9. Major Bibliographical References

X See continuation sheet.

Previous documentation on file (NPS):

_ preliminary determination of individual listing (36 CFR 67) has been requested.
_ previously listed in the National Register
_ previously determined eligible by the National Register
_ designated a National Historic Landmark
_ recorded by Historic American Buildings Survey # _____
_ recorded by Historic American Engineering Record # _____

Primary Location of Additional Data:

_ State historic preservation office
_ Other state agency
_ Federal agency
_ Local government
_ University
_ Other -- Specify Repository: _____

10. Geographical Data

Acreage of Property: approx. 1/2

UTM References:

	Zone	Easting	Northing		Zone	Easting	Northing
A	18	622510	4541070	B	__	_____	_____
C	__	_____	_____	D	__	_____	_____

___ See continuation sheet.

Verbal Boundary Description: ___ See continuation sheet.
The nominated property includes the lighthouse and surrounding rip-rap, a portion of the property recorded in Stamford Land Records, Volume 2813, page 338 (1986).

Boundary Justification: ___ See continuation sheet.
The boundary includes the entire historic lighthouse and all associated stonework.

11. Form Prepared By

Name/Title: Bruce Clouette and Matthew Roth, Reviewed by John Herzan, National Register Coordinator

Organization: Historic Resource Consultants Date: September 5, 1990

Street & Number: 55 Van Dyke Avenue Telephone: 203-547-0268

City or Town: Hartford State: CT ZIP: 06106

Stamford Harbor Lighthouse (Photographs 1 through 4) is an iron conical tower built on a cylindrical, straight-sided iron caisson foundation. First put into operation in 1882, the white-painted lighthouse rises out of the water about 750' south of the breakwater at the entrance to the harbor at Stamford, Connecticut; it is about two-thirds of a mile from the nearest point of mainland. The foundation caisson, 30' in diameter and 28' high, is formed of 1 1/2" cast-iron plates bolted together. It rests on a footing of rock and cement laid upon a ledge known as Chatham Rock. Inside the caisson is a second iron cylinder, lined with brick, which accommodated a storage tank for oil and a cistern for fresh water. The area between the two iron cylinders is ballasted with concrete and rock. A large amount of rip-rap, visible at low tide, has been deposited around the lighthouse, especially to the west.

The superstructure of the lighthouse, 49' high overall, is formed from four tiers of cast-iron plates, tapering from a diameter of 22' at the base to 18' at the top. The first level contains the entrance to the lighthouse, reached from a curving iron staircase on the northwest side (Photograph 1). The first level is surrounded by a metal roof on pipe stanchions and a three-pipe railing; it is a 1927 reconstruction of the similar original gallery. Boat davits hang off the west side. The second and third levels each have three segmental-arched window openings spaced at offset intervals; these windows have projecting cast-iron sills and hoodmolds. The fourth level is illuminated by a series of small portholes. Above the fourth level is a wide deck whose overhang is supported on curved iron braces. Next is a small iron cylinder, 10' in diameter, with a door opening onto the deck, and finally, also surrounded by a railing, is a twelve-sided metal and glass lantern stage. Both railings are composed of turned cast-iron stanchions and two pipe rails. Atop the lantern roof is a metal orb ventilator which carries a small beacon, a privately maintained navigational aid.

No historical optics remain within the lighthouse. Originally the light was equipped with a fourth-order Fresnel lens and exhibited a fixed red light. According to a 19th-century chart, the focal plane of the light was 60' above sea level and was visible for 11 1/4 nautical miles. Fog signaling consisted of a mechanically struck bell sounding every 2 seconds.

Stamford Harbor Light was discontinued by the Government in 1953. Since that time, it has passed through a number of owners. It is now privately owned and maintained. Although the lighthouse has been boarded up, it appears to be in relatively good condition. The interior was not inspected or photographed for this nomination.

Summary

Stamford Harbor Lighthouse is significant as a well-preserved example of late 19th-century lighthouse technology (Criterion C), the period when U.S. Light-House Board engineers had developed the use of prefabricated cast-iron towers and caisson foundations for a wide variety of lighthouse sites. The lighthouse also has historical significance because it recalls the maritime heritage of southwestern Connecticut (Criterion A). The lighthouse was the direct result of local interests seeking to improve navigation in the vicinity of Stamford harbor, which in the late 19th century was an area busy with schooners, packet steamers, oyster boats, and pleasure craft.

Significance in the Development of Lighthouse Technology

The lighthouse design which is exemplified by Stamford Harbor Lighthouse represents the culmination of 19th-century lighthouse engineering. Indeed, only one further major development -- the use of reinforced concrete in the early 20th century -- occurred before automated signals made staffed lighthouses obsolete. Prior to the late 1870s, most lighthouses were stone or brick structures, with those on wave-swept sites requiring massive masonry bases and piling to anchor them to whatever rock, ledge, or shoal they marked. Even when standard plans were used, masonry lighthouse were expensive and time-consuming to build; for offshore sites, the construction difficulties were immense. One solution which worked in warmer waters, anchoring the lighthouse with iron screw-piles, could not withstand ice floes. In 1876, a new technique was introduced, the prefabricated iron caisson. Consisting of large curved iron plates bolted together along an internal flange, such caissons could be fabricated on land and then transported to the site, where each tier could be assembled at the surface and then submerged as another tier was added to the top; the finished caisson was then filled with ballast material and the superstructure erected.[1] The earliest caisson lights, Southwest Ledge in Connecticut and Ship John Shoal in Delaware Bay, both finished in 1877, had elaborate Second Empire-style superstructures built of iron plates, but by 1880 U.S. Light-House Board engineers dropped the needless complexity of this design for a simple superstructure in the form of a truncated cone. Storage was provided in voids left in the caisson, living-space occupied the lower decks, and a watchroom for the keeper attending the lamp and the fog signal was placed just below the lantern. Access to the exterior was made easy by the several decks protected by railings. With only a few modifications -- the shape of

the window moldings, deck brackets, and railings were changed, trumpet-shaped caissons became more common, and concrete was used more than stone for ballast -- this design remained in use until the First World War period, by which time virtually all East Coast lighthouses had been constructed.

The conical tower design had many advantages. As a standard plan, it saved a great deal of time in the design phase and achieved economy in materials as well, since casting patterns could be re-used for multiple jobs. Stamford Harbor Lighthouse is in design and dimensions identical to two other area lights, Latimer Reef (1884) in New York waters off Mystic, Connecticut, and Saybrook Breakwater Light in Old Saybrook, Connecticut. Moreover, nationwide there are dozens of lighthouses from the 1880s and 1890s which differ in dimensions but share Stamford's overall form and have identical details. The use of stock detailing for decorative window frames, brackets, railings, lanterns, and ventilators meant that components could be manufactured and stored at the district Lighthouse Depot on Staten Island, ready for replacement or new construction projects.

The conical tower was also a very flexible design. It was especially appropriate for waterborne sites, where the lighthouse could be erected on a caisson, but it was also widely used for land-based lights. The design provided an easily erected, durable tower even though the lower decks were not needed for living space; most land-based conical towers were built where separate keepers' dwellings were already in place. The design also allowed for subsequent modification: lights could be raised by simply bolting in more tiers of plates at the top of the superstructure.[2]

Stamford Harbor Lighthouse is thus an example of an important development in American lighthouse technology. Built within only a few year after the introduction of the design,[3] Stamford Harbor Lighthouse retains all the characteristic form and details associated with the conical tower type of lighthouse. In addition to the standard window hoodmolds, curved brackets, and railings, the lighthouse exhibits some features which are missing from similar examples, including the boat davits, access stairway, and gallery roof.

Historical Significance

Stamford Harbor Lighthouse also recalls the era when Long Island Sound was thronged with commercial shipping. In addition to ocean-going

vessels making their way to and from New York, there was in this period extensive coastal navigation along the coast of Connecticut. Barges and schooners carried coal and other bulk materials for the many industries located in cities such as Stamford, passenger steamers made frequent trips to New York, and a new enterprise, commercial oystering, added an entire fleet of boats to the waters of the Sound. Stamford had been a locally important harbor since the days of the West Indies trade. After the Civil War, local leaders began agitating for improvements to their harbor, the approach to which was strewn with dangerous shoals and rocks. Finally, in 1881, Congress appropriated money for a lighthouse which would serve as a guide to the harbor entrance. Although marking the channel was its primary function, Stamford Harbor Lighthouse also served as a landmark for vessels headed for nearby harbors in Greenwich or making their way along the coast. Today the breakwater lights have taken over its primary function, but Stamford Harbor Lighthouse remains as a reminder of the region's maritime heritage, when such constantly attended lights provided the only margin between safe navigation and certain ruin.

NOTES

1. A variant on this technique, the pneumatic caisson, even allowed the iron-plate structure to be sunk beneath the level of the bottom in deep water, as when layers of sand made it impossible to anchor the lighthouse firmly to bedrock. In this case the caisson formed an airlock for workers digging out the bottom, allowing the caisson to descend through the sand.

2. In this way West Bank Lighthouse (1901) in New York harbor was raised two tiers in 1907 so that it could function as a range light with the newly constructed Staten Island tower.

3. Great Beds Lighthouse (1880) in New Jersey waters within New York Harbor is the earliest lighthouse of this type in the Northeast region known to the authors.

All photographs:

1. STAMFORD HARBOR LIGHTHOUSE
2. Stamford, Fairfield County, CT
3. Photo Credit: HRC, Hartford, CT
4. June, 1990
5. Negative filed with Connecticut Historical Commission
   Hartford, CT

Captions:

Exterior, camera facing east
Photograph 1 of 4

Exterior, camera facing northeast
Photograph 2 of 4

Exterior, camera facing west
Photograph 3 of 4

Exterior, camera facing southwest
Photograph 4 of 4

Bachand, Robert G. Northeast Lights: Lighthouses and Lightships, Rhode Island to Cape May, New Jersey. Norwalk: Sea Sports Publications, 1986.

Hamilton, Harlan. Lights and Legends: An Historical Guide to the Lighthouses of Long Island Sound, Fisher Island Sound, and Block Island Sound. Stamford: Westcott Cove Publishing Co., 1987.

The Illustrated Coast Pilot With Sailing Directions. The Coast of New England From New York to Eastport, Maine. Boston: N. L. Stebbins, 1891. Subsequent editions in 1896, 1902.

Sherwood, Herbert F. The Story of Stamford. New York: States History Co., 1930.

U.S. Coast Guard. Lighthouse Drawings, Civil Engineering Blueprints, microfilm, Coast Guard Academy Library.

U.S. Coast Survey. New York to Norwalk Islands. Long Island Sound. Published in Town and City Atlas of the State of Connecticut. Boston: D. H. Hurd, 1893.

U.S. Lighthouse Board. Annual Report, 1881-1883.