United States Department of the Interior  
National Park Service  

National Register of Historic Places  
Registration Form

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in Guidelines for Completing National Register Forms (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

1. Name of Property

<table>
<thead>
<tr>
<th>historic name</th>
<th>National Harbor of Refuge and Delaware Breakwater Harbor Historic District</th>
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<tr>
<td>other names/site number</td>
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2. Location

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<th>street &amp; number</th>
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<tr>
<td>state</td>
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<tr>
<td>code</td>
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3. Classification

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<td>X district</td>
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<tr>
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<td></td>
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<td>X object</td>
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Number of contributing resources previously listed in the National Register: 2

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, 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 [ ] meets [ ] does not meet the National Register criteria. [ ] See continuation sheet.

Signature of certifying official:  
Director, Division of Historical and Cultural Affairs  
State or Federal agency and bureau  
Date: 3/22/1988

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

Signature of commenting or other official:  
State or Federal agency and bureau  
Date:

5. National Park Service Certification

I, hereby, certify that this property is:  
[ ] entered in the National Register.  
[ ] 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:)

Signature of the Keeper: Patrick Andrews  
Date of Action: 3/27/89
6. Function or Use

<table>
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<tr>
<th>Historic Functions (enter categories from instructions)</th>
<th>Current Functions (enter categories from instructions)</th>
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7. Description

Architectural Classification
(enter categories from instructions)

- other: Harbor of Refuge
- other: breakwater
- Colonial-Revival

Materials (enter categories from instructions)

- foundation: Stone
- walls: Steel
- Shingle
- roof: Asphalt
- other: Stone
- Water

Describe present and historic physical appearance.

The National Harbor of Refuge/Breakwater Harbor is located at Lewes, Delaware at the mouth of the Delaware Bay where it empties into the Atlantic Ocean. The inner harbor, the Breakwater Harbor is now located behind Cape Henlopen. Due to natural forces, the Cape has been moving to the north and west into the harbor complex. Outside of the district but on its landward border is Cape Henlopen State Park, a small industrial complex and some resort development. Included within the district and the only point on which it touches land is the former United States Coast Guard Station. The station is now operated by the Pilots Association of the Delaware River and Bay as its station and headquarters.

The breakwaters that create the two harbors are listed on the National Register of Historic Places.

The complex was begun in 1828 when two portions of the inner breakwater were constructed. They consisted of a rubble stone main breakwater 2,100 feet long (.1 on USGS map) and an ice breaker pier (.2) that is 1,700 feet long. The ice breaker pier cuts across the line of the breakwater at an angle of 33 degrees. The two portions are 160 feet wide at the base and 20 feet wide above the water. The height of the breakwater above the water varies with the tide. These two portions of the inner breakwater are constructed of Brandywine granite from New Castle County, Delaware. The stone was loaded on barges, carried down the Delaware River and dumped overboard. The individual stone weighs from 1/4 to 6 tons each.

A lighthouse was constructed on the northeast end of the breakwater in 1848. Later a federal signal station and a maritime exchange telegraph station were built on the breakwater. These have all been removed.
**8. Statement of Significance**

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

- [x] nationally
- [ ] statewide
- [ ] locally

### Applicable National Register Criteria

- [x] A
- [ ] B
- [ ] C
- [ ] D

### Criteria Considerations (Exceptions)

- [ ] A
- [ ] B
- [ ] C
- [ ] D
- [ ] E
- [ ] F
- [ ] G

### Areas of Significance (enter categories from instructions)

<table>
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<tr>
<th>Category</th>
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<td>William Strickland and others</td>
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<td>Significant Dates</td>
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**State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.**

The Harbor of Refuge/Breakwater Harbor is a significant general aid to navigation that was begun in 1826. The original breakwater and ice pier were designed by William Strickland. This original harbor was the first such structure of its kind in the Western Hemisphere and the third in the world. The harbor was improved and enlarged during the nineteenth century when it reached its present size and configuration. During the twentieth century, the federal government improved and rebuilt the lighthouses and the Lifesaving/Coast Guard Station. The harbor is credited with saving countless ships and hundreds of lives. It continues to serve its original function although it is not usable by large draft ships.

The Breakwater and Harbor of Refuge Breakwater are listed in the National Register of Historic Places.

The safe harbor created by the two breakwaters was considered an important priority by ship owners from the early development of coastal navigation along the Atlantic Coast. The harbor is located at the mouth of the Delaware Bay. Up river is the port city of Philadelphia, one of the most important and busiest ports in the nation throughout our nation's history.

The entrance to the Delaware Bay is a very dangerous one. The water depth varies greatly due to the numerous shoals. Cape Henlopen, which marks the southern mouth of the Bay, shifts over time and it has an extensive shoal, known as Hens and Chickens shoal, directly to seaward. The cape and the shoals were marked with one of the first American lighthouses. Constructed in 1767, it fell into the sea due to erosion in 1926.

As commerce developed and the size and draft of sailing ships increased during the late eighteenth and early nineteenth centuries, the need for a safe haven at Lewes was extensively
9. Major Bibliographical References

SEE ATTACHED 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 # __________________________
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 ____________

UTM References

A Zone ____________ Easting ____________ Northing ____________

B Zone ____________ Easting ____________ Northing ____________

C Zone ____________ Easting ____________ Northing ____________

D Zone ____________ Easting ____________ Northing ____________

Verbal Boundary Description The bounds of the National Harbor of Refuge Breakwater Historic District are drawn on the attached map. The line on the outer edge of the Harbor of Refuge Breakwater MNOA is drawn to include the furthest outward extension of the breakwater base. Line DEFG is the inner limit of the Breakwater Harbor's deep basin. The district is only on land at the Pilot's Station headquarters and then only deep enough to extend 15 feet past the southern facade of the main station building.

Boundary Justification

The boundary includes all of the harbor area created by the two breakwaters plus the ice breaker piers and the former Coast Guard parcel.

11. Form Prepared By

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organization Bureau of Archaeology & Historic Preservation
street & number 15 The Green
city or town Dover

state DE

telephone (302) 736-5685

zip code 19901
In 1883, the open space between the two piers was closed. The stone came from the same quarries as the original piers. However, the stone was cut in a more regular fashion and was laid up with a steam derrick. Hence the appearance of the new section of the breakwater is much more regular. The newer section is slightly narrower than the original sections of the breakwater.

In 1896, a new and larger safe harbor was authorized by Congress. The National Harbor of Refuge is located 6,500 feet north of the Breakwater on a shoal known as the Shears. It was built with dressed stone and is very regular in appearance. The stone used is much larger than that of the Breakwater. Some of the stone weighs 13 tons. The Harbor of Refuge breakwater is 8,040 feet long at its low water mark and 7,950 feet long at the top. It is 40 feet wide. It was not built in a straight line but rather extends 2,500 feet northward and turns inward 18 degrees.

In 1901, a set of ten stone ice breaker piers were constructed 1,250 feet north of the Harbor of Refuge breakwater. They are constructed of dressed stone and lie in a line 1,300 feet long.

There are two lighthouses within the complex. The first is located on the eastern end of the inner breakwater. It is a small conical cast iron tower constructed in 1885. It is set upon a circular concrete foundation. The tower is 49 feet high. It is 22 feet in diameter at the base, tapering to 18 feet at the gallery or exterior walkway. The watchroom above the gallery is 11 feet in diameter.

The watchroom is a fifth level. It supports the lantern. The present light was installed after 1908. It is a small drum shaped Fresnel lens about 15" x 20". The focal plane of the light is 61 feet above sea level. The lantern is a glass and steel plate enclosure for the light. The glass is covered with red plastic inserts except for the northwest section.
Associated with the lighthouse is a reinforced concrete oil shed [7] built in 1912. It is 100 feet west of the lighthouse. It housed fuel for the light prior to its electrification as well as other flammable supplies for the lighthouse. There is also a small wooden access pier and walkway [8] near the old shed and connected to the lighthouse. This provided access to the facility. These were built in the 1940s to replace older similar piers and walkways.

The second lighthouse [9] is located on the east end of the Harbor of Refuge breakwater. It was constructed in 1926 as a replacement for an earlier lighthouse that was damaged in 1920. The foundation of the lighthouse is a cast iron caisson of curved plates bolted together. It is lined with three feet of poured concrete. A concrete wall surrounds the caisson.

The lighthouse tower is a three story cylindrical tower 25 feet in diameter with a one story watchroom above. The watchroom is 15 feet in diameter and is topped by an octagonal lantern with a pyramid roof. There is a gallery at both the watchroom and lantern level. The overall height of the lighthouse is 76 feet above the breakwater.

The interior of the lighthouse is dominated by a large central cylinder about 8 feet in diameter. The cylinder contains a spiral staircase. The walls within the lighthouse are covered with vertical beaded boards. The floors are narrow hardwood boards resting on I-beams running from the central cylinder to the outer walls.

The lighthouse has suffered some deterioration from the weather. A portion of the seaward gallery was damaged, along with the concrete base when a freighter ran into the lighthouse several years ago.

A number of small modern light towers are located within the harbor complex. One each is located on the northeast end of each breakwater. Two more are mounted on the 1901 ice breaker piers. One is on the most easterly pier and one is on the most westerly pier. All of the lights including the two lighthouses are electrified. The power is provided by a cable that comes from the shore and which is laid on the sea head.

The only portion of the historic district that touches land is at the former United States Coast Guard Station [10]. At the station is a modern residence [11] at the site of the original 1884 lifesaving boathouse [the boathouse was moved in 1978 to a spot
on the Lewes-Rehoboth Canal where it is operated as a museum by the Lewes Historical Society. There is also a modern pier and walkway which provides ready access to the pilot boats.

The United States Coast Guard Station at Lewes Harbor is a two and one half story Colonial Revival, balloon-frame building constructed in 1938. Now functioning as a river pilot's station, the exterior of the building is little changed from its date of construction. The lot occupied by the station is not extensive. On the south side is the Cape May-Lewes ferry complex. On the north side of a small housing complex.

The station building is a five bay, center hall plan building with a matching one story wing on each gable end. The principle facade faces the harbor. It has a slightly raised foundation and a full basement. The entire building is covered in wood shingle, its original siding. Across the front is a screen enclosed porch supported by paired Tuscan columns. The porch balustrade matches a balustrade on the porch's flat roof. The windows are six-over-six, double hung sash protected by storm windows and the original louvered shutters. The corners of the building and the wings have Tuscan influenced corner boards. The rear facade has an entrance portico covering its offset entrance. The second floor window pattern is the same as that on the front facade.

The gable roof has a box cornice. The main block has three dormers on each face. The window openings are fashioned in a romanesque arch. A single chimney stack rises from the north interior gable end of the main block but it is offset slightly towards the rear from the center ridge.

On top of the building is an enclosed observation platform. It is decorated with an original Chinese Chippendale railing. The tower itself has two-over-two double hung sash windows on all four sides. The windows are arranged in a modern interpretation of a palladian window with a wider center window and narrow flanking windows. Instead of the three window pattern on the west or rear side of the tower, that side has one window and a door. The tower has a shallow pyramid roof topped by a weathervane showing a sloop-rigged sailing vessel.

The wings provide balance to the main block. Each has three double hung sash windows across the front and rear. The north wing has a modern exterior gable end chimney. There is no chimney on the south wing.

The interior of the station has been altered from its original configuration by the pilots in order to make the building
functionable for their special needs. A large meeting room has been created on the first floor. This required that the original stair be relocated towards the north. The south wing had a fireplace and heavy wood panelling added to the walls on the first floor. On the second floor, a series of small bedrooms have been added. The building serves as a pilot's "motel" as well as headquarters, hence the need for bedrooms. The pilots are required to be on duty or on call during their shifts. The station provides them with comfortable quarters and work space while they wait for ships to arrive at the mouth of the bay.

A feature of the entire complex is a turning basin [.13] that was dredged within the inner Breakwater Harbor. It is only apparent on nautical charts and is not shown on local or USGS maps. The turning basin provides a clear safe area for large vessels to maneuver without fear of running aground. The exact date of the initial dredging is not clear, however, it would appear to have been in existence by the end of World War I. Since the harbor complex is not used by modern cargo ships, the depth of the turning basin has not been maintained. The U.S. Coast Guard has established a moving area for vessels in the Delaware Bay just north of Lewes. It extends for several miles up the Bay.
## Contributing and Non-contributing Resources

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<th>Resource</th>
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<tr>
<td>8</td>
<td>pier and walkway</td>
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pursued by Philadelphia maritime interests. Ships that tried to
take refuge behind Cape Henlopen in storms were often run
aground.

In 1822, Congress allocated funds to study the possible con-
struction of a harbor of refuge. A board of three experts was
created to study the problem. They were General Simon Bernard, a
former French officer who was the chief engineer of the U. S.
Army; Major J. G. Totken, his assistant and a former professor of
mathematics at West Point; and Commodore William Bainbridge, an
expert on coastal fortifications. They recommended a large
permanent harbor. Their recommendation was favorably received.
In 1825, Congress authorized the construction of the breakwater.
William Strickland was appointed chief engineer.

As designed by Strickland, the harbor would be established with
the construction of the long breakwater [.1] and the ice breaker
pier [.2]. Work began in 1828, when contracts were let for the
first shipments of stone. Strickland did not directly oversee
the construction of the harbor, he preferred to remain in Phila-
delphia and continue his architectural practice. [In 1837, while
working on the harbor, Strickland designed the New Sussex County
Courthouse in Georgetown]. The day-to-day construction of the
harbor was assigned to an officer from the U. S. Army. The
construction of the harbor was not finished until 1839. By that
time 835,000 tons of stone had been used to build the breakwater
and ice breaker pier. The long construction period was due
mostly to the small annual sums that the U. S. Congress appro-
priated for the harbor.

In 1833, the Army asked Strickland to design a lighthouse for the
harbor. He submitted plans that year and construction started in
1834. The lighthouse was placed on the west end of the break-
water.

During those same years, mooring buoys were to be placed within
the harbor for the convenience of ships. This was a tradition in
European ports. There is no physical evidence that the buoys
were ever provided. In 1876, the Western Union Telegraph Company
was given permission to use the lighthouse as a telegraph sta-
tion. Shortly thereafter, the Philadelphia Maritime Exchange
built a building next to the lighthouse to use as a reporting
station. These buildings were removed in 1885.
The harbor was an immediate success and it soon became evident that it was too small to provide a totally safe harbor. During storms more than 200 ships would crowd into the harbor. On a regular basis during the 1840s, 25 vessels a day would be in the harbor. The harbor was only about 400 acres in size. Furthermore, the gap allowed strong tides and ice flows to enter the harbor with resulting damage to the ships located there.

During the 1850s and the 1860s, regular repairs and additions were made to the ice breaker pier and the breakwater. The height of the breakwater was increased slightly. A major problem in the harbor was a constant shoaling problem. Several ships had run aground and larger ships had trouble entering and using the harbor.

In the 1870s and 1880s, the federal government increased the functions of the Breakwater Harbor. In 1871, the Army Corps of Engineers began construction of an iron pier out into the harbor. The pier was completed in 1882. It was designed to permit railroad connections directly to ships anchored in the harbor. The project was not financially successful. The pier was 1,700 feet long. It was constructed of wrought iron screw pile shafts with wood decking. Later in its life, it was used by the U. S. Lifesaving Station at the harbor and by the U. S. Quarantine Station at Lewes. That station had been established in 1889. The station was set upon 41 acres with a complex of buildings that developed into isolation wards and a hospital as well as quarters for station personnel. From 1917 to 1918, the U. S. Navy used the station as a Navy base. The Navy apparently held onto the station after World War I. The site was officially abandoned as a quarantine station in 1926. The buildings were all removed in 1931. The iron pier shafts are still in place. They are in bad repair and are not a part of the historic district as it was and is a hazard to navigation.

A lifesaving station was established on the harbor in 1882. The first building was a boathouse that stood near the present Coast Guard Station. The second building was a regular lifesaving station that included crew's quarters. The first building still survives. The lifeboat house is in Lewes on the Lewes and Rehoboth Canal where it functions as a museum. The lifesaving station was moved to Rehoboth Beach in 1938. It was used by the Veterans of Foreign Wars as a club house. It does not seem to have survived the intense development of Rehoboth Beach. The
The present building used as the pilot's station was constructed in 1938 by the U.S. Coast Guard.

The rise in activity within the Breakwater Harbor increased demands for a significant improvement to the harbor. The most obvious need was to close the gap between the breakwater itself and the icebreaker pier. The need for better protection was forcibly demonstrated when an October, 1877 hurricane destroyed a large number of ships within the harbor and a number of vessels could not get into the harbor.

In 1883, Congress authorized the closing of the gap between the icebreaker pier and the breakwater. The design of the closure was based on an 1836 engineering report by the Corps of Engineers. The base rests on a brush mattress that is 145 feet wide, 15 feet less than the original breakwater. The mass of the closure is rubble stone with a dressed stone cap which is 20 feet wide.

The slope of the closure is steeper than that of the original breakwater. The closure was not completed until 1898.

When the gap was closed, the 1848 lighthouse that had stood on the western end of the breakwater was rendered obsolete. In 1885, the U. S. Board of Lighthouse built the present light on the eastern end of the breakwater. The original lighthouse was removed. Its removal meant that the Western Union Telegraph Company had to build a new building on the breakwater. This building has also been removed. The light can be seen by vessels on the ocean side of the cape as well as by ships in the bay and harbor. The lens in the lighthouse is the third one to be placed in the tower. It is one of the few remaining fresnel lenses in place in a working lighthouse in the United States.

In 1896, a new breakwater to be called "The National Harbor of Refuge" was authorized by Congress. It was to be constructed on a shoal known as "The Shears." In addition to the new breakwater, the plan called for the construction of a row of icebreaker piers which was begun in 1901. The entire project was finished in December of 1901. The total cost was $2,090,765.82. The construction techniques used to fill in the gap of the original breakwater were employed in the construction of the new
breakwater. The design and construction techniques were used as the model for other breakwaters in the United States planned after the success of the National Harbor of Refuge was demonstrated.

An important part of the design was the lighting of the National Harbor. A lighthouse was constructed on the eastern end of the breakwater. Colonial-Revival in design, it was heavily damaged in 1920. A new lighthouse [.] was built to replace it in 1926. This new lighthouse and the earlier one it replaced had increased in importance in 1924 when the 1767 Cape Henlopen lighthouse was abandoned. That lighthouse was in danger of falling into the sea and was considered by the U. S. Bureau of Lighthouses to be unusable. Hence the National Harbor of Refuge lighthouse was required to take over its duties. The Cape Henlopen light fell into the sea on April 13, 1926.

In 1938, the U. S. Government made their last major change to the National Harbor of Refuge and Breakwater Harbor. The original lifesaving station was declared surplus and moved away. A new Colonial-Revival style Coast Guard station was built to take its place. The lifesaving service boathouse remained in the front yard of the Coast Guard station until 1978 when it was moved into Lewes by the Lewes Historical Society.

In 1939, the U. S. Coast Guard absorbed the U. S. Bureau of Lighthouses. At this time the responsibility for the lighthouses and navigation markers with the Harbor of Refuge and the Breakwater Harbor became a Coast Guard function. The two lighthouses continued to be manned but that practice was discontinued in the 1950s. In 1939, the Coast Guard also assumed responsibility for the lighthouses in the Delaware Bay and along the Delaware River and Atlantic Coast. The Coast Guard also took over the lightships that marked the entrances to the shipping lanes in the Atlantic Ocean. The breakwaters and the icebreaker piers remain the responsibility of the U. S. Army Corps of Engineers.

The Coast Guard occupied the building until the early 1970s. The property was declared surplus and given to the University of Delaware. The University used the property as part of its marine studies complex. The building was used by the University for several years and then it was traded to the Pilots Association of the Delaware Bay and River who are the current owners. The Pilots Association uses the property to berth the pilot boats and
to provide a place for the pilots to wait for ships coming into the Delaware Bay. The control of the ship movements up the Delaware Bay and River is controlled by the pilots. They serve an apprenticeship that requires that they be able to draw a navigation map of the Bay and River from memory. As ships approach the mouth of the Bay, they are required to contact the pilots association and request that a pilot be placed on board. A special watch tower is maintained on the tip of Cape Henlopen in a converted World War II submarine watchtower. The radar and communications equipment there enables the Pilots Association to assist ships coming to the Delaware Valley ports. Their activities and the modern ship technology and radar equipment has meant that the National Harbor of Refuge and Breakwater Harbor no longer are as important to commercial navigation as they once were. Their primary function now is a safe recreational harbor for the resort town of Lewes. The harbor does remain important to the Cape May-Lewes Ferry operated by the Delaware River Port Authority. The ferry boat slip is located at the edge of the harbor and next to the pilot's station. The ferry boats usually travel through the National Harbor of Refuge harbor on their way to and from Cape May. On the ferry property there is a small unmarked cemetery that is used to mark the use of that property as a graveyard for sailors who died on ships in the breakwater harbor or who were brought here by ships for burial. However, the lighthouses are still an important and vital aid to navigation in that they help mark the dangerous entrance to the Delaware Bay.
BIBLIOGRAPHY

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National Harbor of Refuge/Delaware Breakwater Historic District, Lewes Delaware

In my opinion, the property ✗ meets ____ does not meet the National Register criteria.

Signature

Name JAMES W. HAND

Title/Agency ENVIRONMENTAL MGR./CORPS OF ENGINEERS

Address 20 MASSACHUSETTS AV., WASH., D.C. 20314

Date 11 JANUARY 1989
National Harbor of Refuge/Delaware Breakwater Historic District, Lewes Delaware

In my opinion, the property **X** meets _____ does not meet the National Register criteria.

Signature

Name Robert Crecco

Title/Agency Historic Preservation Officer, U.S. Department of Transportation

Address 400 7th Street, S.W., Washington, D.C. 20590

Date 2/22/89
t their religious system, or their institution, a different thing. This we are not obliged to either by Christianity, nor charity, nor whatever is a broad line of distinction, which we must perceive. Nor can I understand how a true Protestant, much less a Puritan, should engage and patronize the Catholic system of tenets. It is a necessary part of Catholicism's proselytes; and most Catholics use conscientiously with this view. We should be on our guard, as to the encroachments or proselytes of the Catholics; and thus counteract the evil of bringing the young and ignorant into peculiar dogmas and practices. I can see much is done in this way and for this reason of their tenets, we hold to be very erroneous is our duty to use proper means to prevent them, and their influence. But let us use the maxim, sometimes attributed to them, but unjustly, as it was to Paul, that the end justifies the means, or to do evil that good may come. We are bound to do them justice and to show them kindness. Their persons and property should be protected; and the free enjoyment of their rights allowed them. Further than this, protestants may not go. If they have unjustly, let not such treatment be repeated. We hold to the pure doctrines, the scriptures of our fathers, as we believe them revised and approved of God. When we meet with Romanists like Cheverus and Fenelon, we must love and hate them with all their errors. For we are learned and pious men. And may be like others like them, of that community to be combated by argument and kindness. Given the skeptics and irreligious, the gullible, to pity, and seek to reform. "The manner in which I came not to destroy men's lives, but to save them."

DELAWARE BREAK-WATER.

The above view is from an authentic source; and is a reduced copy of the original Survey. The approach to the Map, are from the E. N. E. forming one entrance of half a mile in width between the pitch of the Cape and the eastern end of the Breakwater; and the other of 350 yards in width between the western end of the Breakwater and the Ice-breaker, which is a distinct work, disposed at an angle of 33 degrees from the right line direction of the Breakwater. These two works enclosed an area of water surface of upwards of a square mile, forming the breakwater between the Cove of Lewes to the north and beacon lights.

The objects gained by this artificial harbor in the cape of Lewes are—to shelter vessels from the easterly winds caused by the winds blowing from the North-West; and also to protect them against injuries arising from floating ice, or ice from the North-West. Its main object is to provide a safe refuge for vessels from either to ascend the Bay or to seek shelter during stormy weather under the ice of the

SOVNET.—FROM THE ITALIAN.